



Focus on Energy

Calendar Year 2015 Evaluation Report

Appendices

May 20, 2016

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Appendix A.

Key Achievements and Figures for State of Wisconsin and Focus on Energy

Program Participants

2015 Residential: 57,430

- **2015 Upstream Lighting Participants:** 856,664

2015 Non-Residential: 6,374

2015 Total Participants: 63,802

Total Electric and Natural Gas Energy Usage (2014)

Electric Sales to Wisconsin Retail Customers megawatt hours (MWh): 69,494,755

Wisconsin Aggregated Electric Utilities Noncoincident Peak Demand megawatts (MW): 17,165

Natural Gas Consumption (Therms): 4,118,433

Total Verified Gross Lifecycle Savings

2015 Energy Savings (MWh): 8,806,768

2015 Demand Reduction (MW): 92

2015 Natural Gas Savings (Therms): 469,246,674

Total Verified Net Annual Savings

2015 Energy Savings (MWh): 558,238

2015 Demand Reduction (MW): 73

2015 Natural Gas Savings (Therms): 28,924,820

Population Numbers (2014)

Statewide Census Population: 5,753,324

Wisconsin Residential Electric Accounts: 2,631,430

Wisconsin Residential Gas Accounts: 1,705,907

Wisconsin Nonresidential Electric Accounts: 351,372

Wisconsin Nonresidential Gas Accounts: 174,901

	Residential	Nonresidential	Total
Administrative Costs	\$4,421,952	\$4,070,977	\$8,492,929
Delivery Costs	\$10,084,023	\$16,623,494	\$26,707,516
Incremental Measure Costs	\$39,756,677	\$162,338,959	\$202,095,636
Total Non-Incentive Costs	\$54,262,652	\$183,033,430	\$237,296,082
Electric Benefits	\$114,250,435	\$340,422,234	\$454,672,669
Gas Benefits	\$29,894,236	\$238,838,527	\$268,732,764
Emissions Benefits	\$25,236,521	\$85,344,610	\$110,581,131
Total TRC Benefits	\$169,381,193	\$664,605,371	\$833,986,564
TRC Benefits Minus Costs	\$115,118,540	\$481,571,942	\$596,690,482
TRC Ratio¹	3.12	3.63	3.51

¹The TRC ratio equals total TRC benefits divided by non-incentive costs.

Appendix B. Glossary of Terms and List of Acronyms

Glossary of Terms

Term	Definition
Attribution	The establishment of a causal relationship between action(s) taken by a group or program and an outcome. Being attributable to a program means the savings can be viewed as a result from the influence of the program, and the savings would not have been achieved in the program's absence.
Avoided Costs	Costs to the utility avoided by the implementation of an energy efficiency measure, program, or practice.
Administrative Cost	Administrative costs include all costs related to the portfolio-wide management of Focus on Energy programs, including contract management, financial management, application and incentive processing, quality assurance, data collection and reporting, and utility coordination.
Baseline	Conditions (including energy consumption) that would have occurred without implementation of the subject measure or project.
Benefit/Cost Ratio	Mathematical relationship between the benefits and costs associated with the implementation of energy efficiency measures, programs, practices, or emissions reductions.
Claimed Savings	Energy savings the Program Administrator or Implementer reports before verification by the Evaluation Team (also called <i>ex ante</i> savings, reported savings, or tracked savings).
Cost-Effectiveness	Indicator of the relative performance or economic attractiveness associated with implementation of energy efficiency measures, programs, practices, or emissions reductions.
Custom Savings	Savings for nonprescriptive measures that do not meet criteria for deemed savings, calculated by a Program Implementer or Administrator at the time of the project's completion. The result reflects savings for the specific project, based on pre-installation and post installation energy use.
Deemed Savings	An estimate of energy, demand, or gas savings for a single unit of an installed energy-efficient measure. Deemed savings are typically developed from data sources and analytical methods: (1) widely considered acceptable for the measure; and (2) applicable to the situation.
Ex Ante Savings	Energy savings the Program Administrator or Implementer reports before verification by the Evaluation Team (also called <i>ex ante</i> savings, reported savings, or tracked savings).

Term	Definition
Ex Post Evaluation	An assessment of an activity's impact(s) after completion.
Estimated Savings	Savings estimates an evaluator reports after a completed energy-impact evaluation.
Freeriders	Participants who would have adopted the energy-efficient measure in the program's absence.
Gross Savings	The unadjusted program-reported change in energy consumption and/or demand resulting from program-related actions taken by participants in an efficiency program.
Interactive Effects	The influence in energy use between one technology application and the energy required to operate another application.
Locational Marginal Price	The marginal cost to serve a unit of energy at a specific location at the time of delivery.
Lifecycle Savings	Energy savings—expressed as verified gross or verified net—generated in the current program cycle over each measure's effective useful life.
Lifetime Savings	Energy savings—expressed as verified gross or verified net—produced as a result of measures installed in the current program cycle and in the previous program cycle(s), provided the reporting period falls within the measure's useful life. Savings incorporate annual savings and each measure's effective useful life.
Market Effects	Changes in marketplace practices, services, and promotional efforts that induce businesses and consumers to buy energy-saving products and services without direct program assistance. Evaluators generally consider these effects resulting from program impacts on the market.
Measure Life	The life of an energy-consuming measure, including its equipment life and savings persistence.
Net Savings	Savings "net" of what would have occurred in the program's absence (observed impacts attributable to the program). This is typically calculated by applying the net-to-gross ratio to the gross verified savings.
Net-to-Gross Ratio	The ratio of verified net savings (attributed to the program after evaluation) to the verified gross savings.
Non-Energy Benefits	An array of valued attributes derived from energy-efficient measures in addition to energy savings, such as increased property values or reduced water usage.
Nonparticipant Spillover	General customers (or nonparticipants) adopting more energy-saving products or practices due to program influence without program assistance.
Participant Spillover	Participants, after an initial program experience, adopting more energy-saving products or practices without program assistance.

Term	Definition
Precision	The degree that repeated measurements under unchanged conditions produce the same results.
Realization Rate	The ratio of gross savings to verified gross savings.
Reported Savings	Energy savings the Program Administrator or Implementer reports before verification by the Evaluation Team (also called tracked savings, <i>ex ante</i> savings, or claimed savings).
Standard Error	A measure of a data sample's variability (i.e., the distance of a typical data point from the sample's mean).
Tracked Savings	Energy savings the Program Administrator or Implementer reports before verification by the Evaluation Team (also called reported savings, <i>ex ante</i> savings, or claimed savings).
Unclaimed Rewards	Incentives set aside for customers that fail to submit paperwork to claim program incentives.
Verified Gross Savings	Energy savings verified by an independent Evaluation Team, based on inspections and reviews of the number and types of implemented energy efficiency measures and the engineering calculations used to estimate the energy saved. Verified gross savings reflect total calculated savings of changes in energy consumption and/or demand resulting from program-related actions taken by participants in an efficiency program without considering the influence of freeriders or spillover.
Verified Net Savings	Energy savings that evaluators can confidently attribute to program efforts. For verified net savings, the Evaluation Team makes adjustments for outside influences, such as freeridership and spillover.

List of Acronyms

Acronym	Term
CB&I	Chicago Bridge & Iron Company
CFL	Compact Fluorescent Lamp
CY	Calendar Year
EIA	Energy Information Administration
EM&V	Evaluation, Measurement, and Verification
EUL	Effective Useful Life
HVAC	Heating, Ventilation, and Air Conditioning
KBtu/h	Thousand British Thermal Units per Hour
kW	Kilowatt
kWh	Kilowatt Hour
LED	Light-Emitting Diode
LMP	Locational Marginal Pricing
MISO	Midcontinent Independent Transmission System Operator, Inc.
MMBtu	Million British Thermal Units
MThm	Megatherm
MWh	Megawatt Hour
NEBs	Non-Energy Benefits
NPSO	Nonparticipant Spillover
NTG	Net-to-Gross
PSC	Public Service Commission of Wisconsin
QA/QC	Quality Assurance/Quality Control
SEERA	Statewide Energy Efficiency and Renewable Administration
SMP	Standard Market Practice
SPECTRUM	Statewide Program for Energy Customer Tracking, Resource Utilization, and Data Management
TRC	Total Resource Cost (test)
TRM	Technical Reference Manual
UAT	Utility Administrator Test
VFD	Variable-Frequency Drive (also known as Variable-Speed Drive)

Appendix C. CY 2015 Program Descriptions

This section provides detailed descriptions of Focus on Energy residential and nonresidential programs included in the CY 2015 evaluation.

Descriptions of Residential Programs

During the CY 2015 evaluation, the Evaluation Team assessed the seven residential programs described below.

Multifamily Energy Savings Program and Multifamily Direct Install Program

Program Dates: These programs launched in 2001 as the Apartment and Condominium Efficiency Services Program. In 2012, the programs were revised and renamed to their current titles and offerings.

Program Purpose: The Focus on Energy Multifamily Energy Savings Program and Multifamily Direct Install Program (collectively called the Multifamily Programs) provide education and energy-saving opportunities to multifamily buildings and condominiums of four or more units. The Programs offer incentives for energy-efficient upgrades and no-cost, direct-install measures.

Target Audience: The Program targets condominium and apartment associations, universities, and multifamily building owners and managers.

Program Implementer: Franklin Energy Services, LLC, serves as the Implementer for both Programs.

Process and Associated Measures: The Multifamily Energy Savings Program offers two types of rewards: prescriptive rebates for eligible measures, including a deep discount on common area lighting, and custom incentives for performance-based projects. The Multifamily Direct Install Program offers free, direct installation of CFLs, LEDs, pipe insulation, faucet aerators, and showerheads as well as water heater temperature setback services. The Program also offers no-cost vending misers and LED retrofits for exit signs in common areas to multifamily customers.

The Programs' Implementer markets both Programs to building owners and managers as well as to Trade Allies and contractors working with these customers, through regionally based Energy Advisors. The Programs' Implementer also processes customer applications, manages Program data, and educates Trade Allies to help cost-effectively promote the Programs.

Appliance Recycling Program

Program Dates: Launched March 1, 2012, and suspended November 23, 2015.

Program Purpose: The Appliance Recycling Program encouraged households and multifamily building owners to turn in working refrigerators and freezers for recycling. By offering free pick-up services and providing financial incentives, the Program's design sought to encourage customers to discontinue using secondary refrigerators and freezers, to relinquish refrigerators and freezers previously used as primary units upon appliance replacements, and to prevent the continued use of old refrigerators and freezers

through precluding resales or giving units away. The Program was suspended because the Program Implementer ceased operations.

Target Audience: The Program targeted Wisconsin residential electric customers, allowing participation by residential customers in multifamily residences or by multifamily building owners and managers upgrading multiple units. Participation, however, skewed strongly to single-family residential customers.

Program Implementer: JACO Environmental served as the Program Implementer.

Process and Associated Measures: Participants received a \$40 rebate for recycling working refrigerators or freezers in CY 2015. Program eligibility depended on customers' refrigerators or freezers meeting the following requirements: (1) in working condition; (2) between 10 and 30 cubic feet in size; (3) clean and empty on the day of pick-up; and (4) accessible via a clear, safe path for removal.

Customers interested in the Program could call a designated toll-free number, operated by the Implementer, or visit the Focus on Energy website to schedule a time for having their old, working refrigerator or freezer picked up from their home. Implementer representatives verified customer eligibility and arranged a pick-up time, typically within two weeks of the request. Program eligibility requirements allowed a maximum of two pieces of equipment per customer address, per year (an \$80 maximum incentive per customer). This maximum did not apply to participating multifamily buildings.

After appliance pick-up, the Program delivered the units to a recycling facility. Focus on Energy staff could conduct unannounced site visits at the recycling center and ride along to collection sites to ensure the Implementer followed Program rules and specifications.

Residential Lighting Program

Program Dates: Launched January 1, 2006.

Program Purpose: The Residential Lighting Program is a retail-based promotion that provides upstream incentives, price markdowns, and coupon promotions for efficient lighting. As an upstream program, the Program directly pays the distributor or manufacturer for the measure's higher cost, meaning customers receive an instant discount at the point of sale.

Focus on Energy has offered an upstream residential lighting program since 2006. In CY 2013, the Program added high-efficiency clothes washers. In CY 2014, the Program discontinued incentives for efficient showerheads and high-efficiency clothes washers. In CY 2015, the Program offered LEDs to roughly one-third of participating stores. While the Program offered LEDs in CY 2013, a limited supply could serve only a small number of stores. The LED offering expanded significantly in CY 2015, available to about 200 of roughly 600 participating stores, as of November 2015, and will continue into CY 2016.

Target Audience: The Program targets residential customers. As an upstream program, however, limiting participation to any single sector or population proves difficult, as does requiring participants to be customers of participating Focus on Energy utilities.

Program Implementer: In CY 2015, CB&I served as the Program Administrator and CLEAResult served as the Program Implementer. In CY 2016, ICF International became the Program Implementer.

Process and Associated Measures: The Program partners with nation, regional, and local retail stores to discount products, including ENERGY STAR®-qualified lighting technologies. Markdowns vary by products and stores, and they change throughout the year. The Program increases brand awareness through Focus on Energy signage on marked-down products and through events at participating stores.

Home Performance with ENERGY STAR Program

Program Dates: Launched January 1, 2006.

Program Purpose: The Home Performance with ENERGY STAR Program provides homeowners with an opportunity to increase their home's energy efficiency through installations of energy efficiency measures (e.g., air sealing and insulation). The Program provides participants with incentives for installing eligible measures and for direct installation of free, energy-saving measures during home energy assessments.

Target Audience: Since CY 2015, the Program has operated as a single program, offering two incentive levels: Reward Level I and Reward Level II. Reward Level I incentives target homeowners with household incomes of 80% or more of the state median income (SMI). The higher Reward Level II incentives target customers with household incomes at or below 80% of the SMI. In previous years Reward Level II was marketed as a separate program named the Assisted Home Performance with ENERGY STAR Program.

Program Implementer: CLEAResult serves as the Home Performance with ENERGY STAR Program Implementer.

Process and Associated Measures: The contractor-oriented Program can work in two ways: one company performs all work; or one company acts as the general contractor, but it subcontracts certain portions, such as the energy assessment and/or the retrofit work. Through both scenarios, a company (called the Trade Ally) takes responsibility for managing the customer relationship, completing the full project, communicating with the Program Implementer, and ensuring achievement of all Program requirements. Table C-1 outlines incentives for Reward Level I and Reward Level II customers.

Table C-1. Home Performance with ENERGY STAR CY 2015 Measures and Incentives

Program Features	Reward Level I	Reward Level II
Income Qualification	Household income of more than 80% of the SMI	Household income of 80% or less of the SMI
Assessment Type	Comprehensive (must include blower door)	Modified (blower door optional; necessary if measures installed)
Direct-Install Measures	<p>Measures provided to customer free of cost; Trade Allies can invoice the Program and be reimbursed for the measure cost</p> <p>Electricity from participating utility: CFLs (max 11) LEDs (max one)</p> <p>Hot water fuel from participating utility: Showerheads Faucet Aerator (one kitchen, one bath) Water heater pipe wrap</p> <p>Water heater temperature turndown</p>	<p>Measures provided to customer free of cost; Trade Allies can invoice the Program and be reimbursed for the measure cost</p> <p>Electricity from participating utility: CFLs (max 11) LEDs (max one)</p> <p>Hot water fuel from participating utility: Showerheads Faucet Aerator (one kitchen, one bath) Water heater pipe wrap</p> <p>Water heater temperature turndown</p>
Assessment Cost	Market Rate (average cost \$200–\$400)	Free (Trade Allies reimbursed \$100 by Program)
Eligible Major Measures	<p>Air sealing</p> <p>Attic Insulation</p> <p>Exterior Wall Insulation</p> <p>Sill Box Insulation</p> <p>Interior Foundation Insulation</p>	<p>Air sealing</p> <p>Attic Insulation</p> <p>Exterior Wall Insulation</p> <p>Sill Box Insulation</p> <p>Interior Foundation Insulation</p>
Incentives	<p>Instant discount of 33% off improvement cost, up to \$1,250¹</p> <p>Bonus: \$250 for 25% energy savings</p>	<p>Instant discount of 75% off improvement cost, up to \$2,000²</p> <p>[No bonus]</p>

¹Xcel Energy offered bonus incentives: Level I customers were eligible for an additional 33%, up to \$1,250 (total incentives up to \$2,500, not including the bonus); Level II customers were eligible for additional \$2,000, with combined incentives not to exceed 90% of the project cost.

²We Energies offered an additional \$150 to complete a full assessment for Level II customers and paid the remainder of the Level II project cost after application of Focus on Energy rebates. Only select Trade Allies, identified by We Energies, could provide this offer.

New Homes Program

Program Dates: The New Homes Program originated in 2000 and continued until 2011 under the name Wisconsin Energy Star Homes. For 2011/2012, Focus on Energy modified the Program’s design, launching the current version as the New Homes Program in 2012.

Program Purpose: The Program provides information, implementation assistance, and incentives for builders of new, single-family (one- to three-unit) homes in Wisconsin that meet energy efficiency requirements.

Target Audience: The Program targets builders of new, single-family homes.

Program Implementer: The Wisconsin Energy Conservation Corporation (WECC) serves as the New Homes Program Implementer.

Process and Associated Measures: The Program provides education and motivation for builders to construct new homes at least 10% more efficient than homes built to the Wisconsin Uniform Dwelling Code (UDC). The motivation includes incentives at four levels for homes exceeding the UDC's efficiency standards. For CY 2016, Focus on Energy updated eligibility for homes at least 15% more efficient than code and raised incentives at all levels.

Higher tiers of efficiency require technology packages, which are home efficiency measures that are not covered in the building codes. These technology packages include ENERGY STAR-qualified light bulbs, ENERGY STAR-qualified light fixtures, energy efficient windows, R5+ exterior insulation, rim and band joist insulation, residential water heaters, residential HVAC, and renewable energy systems (solar photovoltaic [PV] and geothermal). In CY 2015, the Program added three technology packages: ENERGY STAR ventilation products; air-source heat pumps; and above-grade wall cavity insulation.

Residential and Enhanced Rewards Program

Program Dates: Launched January 1, 2012, with the Residential Rewards renewable component launched July 1, 2012.

Program Purpose: The Residential and Enhanced Rewards Program offers two paths for residential customers' participation. The residential rewards path offers a range of prescriptive incentives (also known as rewards) to all residential customers for eligible energy-efficient equipment (e.g., heating, ventilation, and air conditioning equipment), home improvements, and renewable energy technologies (or otherwise known as renewable rewards). The enhanced rewards path offers income-qualified customers (earning less than 80% of the SMI) higher rewards for measures eligible through the Program. In August 2015, the Program launched a pilot path providing incentives for smart thermostats in two utility territories.

Target Audience: The Residential Rewards Program targets residential customers in one- to three-unit homes. The Enhanced Rewards Program targets income-eligible owner-occupants of existing, single-family, residential buildings. A household becomes eligible for enhanced rewards if its gross income falls below 80% of the SMI. The eligible-income level targets customers unlikely to be able to participate in the Residential Rewards Program and not qualifying for Home Energy Plus, Wisconsin's weatherization program.

Program Implementer: CLEAResult implements the Residential and Enhanced Rewards Program.

Process and Associated Measures: The Program provides incentives for the purchase of high-efficiency or renewable space heating equipment. Customers must select this equipment from a prequalified list. Though Residential Rewards, the Implementer markets the Program directly to homeowners, primary outreach methods occur through Trade Allies marketing the Program to their customers.

Qualifying measures include high-efficiency furnaces and boilers; and renewables, such as solar electric (PV) and ground source heat pumps. The pilot program offers incentives for qualified smart thermostats in two utility territories.

Express Energy Efficiency Program

Program Dates: Launched April 1, 2012. Ended December 31, 2015.

Program Purpose: The Express Energy Efficiency Program provided direct installation of free energy-saving measures to participating customers and helped promote other Focus on Energy programs. For a limited time, the Program was offered to a selection of targeted communities before moving to new locations. Over its four-year lifespan, the Program was offered in most metropolitan areas. The Program ended in 2015, and was replaced by the Simple Energy Efficiency Program. The new program delivers energy efficiency packs by mail and launched on January 1, 2016.

Target Audience: The Program targeted owners and renters of residential dwellings with one to three units.

Program Implementer: CLEAResult implemented the Program.

Process and Associated Measures: The Program offered direct installation of energy efficiency measures, including CFLs and LEDs (limit 12–10 CFLs and two LEDs), faucet aerators, low-flow showerheads, water heater pipe wrap insulation (up to 6 feet), and temperature turn-downs on water heaters at no cost to the customer. Installers also provided literature and information on other Focus on Energy programs.

Manufactured Homes Pilot

Program Dates: Launched September 1, 2015. Ended October 31, 2015.

Program Purpose: The Manufactured Homes Pilot targeted manufactured homes in La Crosse County. The Pilot focused on air sealing and direct install measures for manufactured homes to evaluate the cost-effectiveness and market potential for a larger, ongoing program exclusively for manufactured homes.

Target Audience: The Pilot targeted owners of manufactured homes.

Program Implementer: WECC implemented the Pilot.

Process and Associated Measures: The Pilot provided these energy-efficient products and services:

- Test for duct leakages and seal leaks
- Test of combustion safety for atmospherically vented water heaters
- Thermally isolate water heaters
- Seal exterior leaks in the furnace closet
- Air sealing
- Duct sealing
- CFLs, LEDs, high-efficiency showerheads, high-efficiency faucet aerators for direct install
- Maximization of air flow through the closet door and furnace
- Replacement of poorly performing clothes dryer ductwork
- Disabling and rerouting of systems that use the belly cavity as the return air system
- Replacement water heater
- Replacement carbon monoxide detector
- Replacement thermostat
- Instructions to residents regarding proper maintenance
- Other low-cost measures such as shell air-leakage, excessive water temperature, unattended heat tape, and other items as needed

Descriptions of Nonresidential Programs

The Evaluation Team assessed seven nonresidential programs during the CY 2015 evaluation.

Agriculture, Schools, and Government Program

Program Dates: Launched January 1, 2015.

Program Purpose: The Agriculture, School, and Government Program offers prescriptive and custom incentives to customers with average peak monthly demand under 1,000 kW.

Target Audience: The Program targets the following:

- Agriculture producers (e.g., producers of grain, livestock, milk, poultry, fruits, vegetables, bees, and honey; fish; shellfish; includes green houses, grain elevators, and feed mills).
- Educational entities (e.g., K-12 schools, two-year University of Wisconsin colleges, and private colleges).
- Government entities (e.g., counties, cities, towns, villages, tribes, state and federal agencies).
- Municipal wastewater treatment facilities.

Program Implementer: CESA 10 implements the Program.

Process and Associated Measures: Currently, the Program uses the same measures and incentives offered through other Focus on Energy nonresidential programs as well as specialized incentives targeting agricultural producers, educational facilities, and public buildings. To promote the specialized offerings and to encourage new customers, the Program offered several bonuses in CY 2015 to speed its ramp up. The Program relies on dedicated Energy Advisors, assigned to various regions of the state to work with customers and Trade Allies.

Business Incentive Program

Program Dates: Launched April 1, 2012.

Program Purpose: The Business Incentive Program encourages energy efficiency by offering incentives for prescriptive and custom measures to nonresidential customers with electric demand of less 1,000 kW.

Target Audience: The Program targets nonresidential segments, including commercial spaces (e.g., hotels and independent retailers, food sales, and food service establishments) and small- to medium-sized industrial facilities. In general, it includes customers who are not eligible for the Agriculture, Schools, and Government Program, Chain Stores and Franchises Program, or Large Energy Users Program.

Program Implementer: Franklin Energy Services, LLC, implements the Program.

Process and Associated Measures: The Program relies on Trade Allies to drive energy-savings. Implementer staff encourage Trade Allies to recruit eligible customers, identify energy-saving opportunities, and lead customers through the incentive application process. Many technologies qualify for prescriptive incentives, including lighting, HVAC, commercial refrigeration, variable frequency drives, renewable energy systems, and food service equipment. Customers also may receive custom incentives for more complex energy efficiency projects.

Chain Stores and Franchises Program

Program Dates: Launched April 1, 2012.

Program Purpose: The Chain Stores and Franchises Program seeks to motivate decision makers at local, regional, and national chain stores, along with franchise operations, to make energy efficiency upgrades at multiple locations.

Target Audience: The Program targets chain stores and franchise operations in retail, food service (restaurants), and food sales (grocery and convenience stores). To qualify for the Program, customers must have a minimum of five locations in Wisconsin.

Program Implementer: Franklin Energy Services, LLC, implements the Program.

Process and Associated Measures: Program Implementer staff assign a dedicated Account Manager for specific chains and franchise companies. The Account Manager (or Energy Advisor) works with the

customer to identify opportunities for improving energy efficiency. The Energy Advisor provides customer service and technical knowledge, helps develop business cases to support projects, and may assist with marketing and messaging related to energy efficiency actions.

The Program offers all Focus on Energy nonresidential measures. Customers also may propose additional energy efficiency projects through the custom incentive option. Customers may bundle up to 10 sites into one application. Other services include a direct-install option, with Implementer staff installing a limited set of measures at no cost to the customer.

Design Assistance Program

Program Dates: Launched January 1, 2013.

Program Purpose: The Design Assistance Program helps building owners and design teams analyze the benefits and costs of incorporating various energy-saving technologies into the design of their new construction or substantial renovation projects.

Target Audience: The Program targets building owners and design teams engaged in the design and completion of new buildings or substantial remodeling projects (5,000 square feet or greater). The Program offers building analysis support and incentives for building owners and design teams as they implement building renovations or new construction.

Program Implementer: Weidt Group, Inc., implements the Program.

Process and Associated Measures: While customers can independently request participation in the Program, the Program Implementer also develops relationships with key design firms to drive customer interest. The Program Implementer provides customers with modeling and analysis of how various energy-saving technologies can be incorporated into a building's design. Further, the Program provides custom incentives for whole-building design efficiency measures, based on an incremental decrease in energy use over a code-based design.

Large Energy Users Program

Program Dates: Launched April 1, 2012.

Program Purpose: The Large Energy Users Program encourages the installation of energy-efficient technologies by offering incentives and services for large industrial, commercial, and institutional customers. These offerings include the following: financial incentives for prescriptive and custom energy-efficient technologies; no-cost access to energy experts; training and tools to identify and evaluate energy efficiency opportunities; resources to develop and benchmark energy management practices; and engineering reviews of proposed projects. Many technologies may qualify for prescriptive incentives, including lighting, HVAC, commercial refrigeration, variable frequency drives, and food service equipment.

Target Audience: The Program targets large industrial, commercial, and institutional business customers of participating Wisconsin electric and natural gas utilities; participants must have had a system wide energy utility bill of at least \$60,000 in one month of the preceding year and energy use at one contiguous facility meeting the following criteria:

- Over 1,000 kW of electric demand in a single month in the past year; or
- Over 100,000 therms of natural gas consumption in a single month in the past year.

Program Implementer: Leidos Engineering, LLC, implements the Program.

Process and Associated Measures: Program Energy Advisors work directly with large industrial, commercial, and institutional business customers to identify and analyze opportunities for improving energy efficiency in their facilities and processes. They provide technical expertise as well as ongoing education about large-scale, energy efficiency measures and best practices. In addition, they help customers develop energy teams and energy management plans, establish energy baselines and key performance indicators for facilities and end uses, and design custom incentive projects or hybrid projects with custom and prescriptive incentives.

The Program offers the same measures and incentives offered through other Focus on Energy nonresidential programs. Customers also may propose additional energy efficiency projects through the custom incentive option.

The Strategic Energy Management (SEM) Program is a sub-program of the Large Energy Users Program. The SEM Program targets large industrial companies demonstrating a commitment to improving energy performance. It offers each customer an SEM advisor, financial incentives, technical training and professional development opportunities

Renewable Energy Competitive Incentive Program

Program Dates: Launched April 1, 2012.

Program Purpose: Through a competitive bid process, the Renewable Energy Competitive Incentive Program offers financial assistance for eligible, cost-effective, renewable-energy projects, conducted by Wisconsin business customers.

Target Audience: The Program targets all Wisconsin businesses.

Program Implementer: As the Program crosses multiple sectors and applies to all nonresidential customers, the Program Administrator (CB&I) issues Requests for Proposals (RFPs) and awards funding to customers. Savings can be attributed to the Business Incentive Program, the Large Energy Users Program, or the Agriculture, Schools, and Government Program.

Process and Associated Measures: Through the Program, Focus on Energy solicits proposals from eligible business customers for six renewable energy technologies: solar photovoltaic, solar thermal, wind, geothermal, biogas, and biomass. After issuing RFPs in 2015, the Program awarded 52 projects.

The Program offers incentive amounts up to \$0.50 per kWh produced or up to \$1.00 per therm, not to exceed 50% of total project costs. In addition, Focus on Energy maximum total incentives per customer (including energy efficiency and renewable energy incentives) cap at \$500,000.

Small Business Program

Program Dates: Launched July 1, 2012.

Program Purpose: The Small Business Program encourages small business owners to install easy and affordable energy efficiency upgrades through free, on-site, lighting assessments. The Program includes an energy efficiency package of free, direct-install measures, and offers a package of additional measures at a discounted price.

Target Audience: The Program targets independently owned and operated, for-profit business customers as well as not-for-profit organizations with average monthly electric demand below 100 kW. Typical customers include independent grocers, convenience stores, gas stations, retail shops, locally owned restaurants, small hotels and motels, day care centers, doctors' offices, churches, and community action agencies.

Program Implementer: Staples Energy implements the Program.

Process and Associated Measures: Any small business owner can schedule an assessment; alternatively, Trade Allies with Program-specific training may recruit participants in their local communities. Trade Allies must be registered with the Program to submit applications. The Program Implementer and qualified Trade Allies conduct 30- to 45-minute energy assessments at customer facilities to identify energy efficiency opportunities. After discussing the findings, owners can choose from a variety of stand-alone measures or measure packages, shown in Table C-2.

Table C-2. Small Business Program Measure Packages

Package	Customer Copay	Products
Silver	Starts at \$75	LEDs, CFLs, aerators, showerheads, pipe wrap, open signs, and vending machine controllers
Gold	Starts at \$175	All products from the Silver package, plus exit signs, occupancy sensors, and T8 fixtures
Platinum	Starts at \$295	All products from the Silver package, plus greater quantities of exit signs, occupancy sensors, and LED fixtures
A La Carte ¹	Discounted rates	LEDs, T8s, T12s, exit signs, occupancy sensors, porchlights, and curtains

¹Upon completing installations of products from any of these packages, customers can purchase additional, individual products at discounted rates.

On Demand Savings Pilot

Program Dates: Launched August 1, 2015.

Program Purpose: The On Demand Savings Program strives to help nonresidential customers understand how their summer on-peak demand impacts their utility costs and provides financial resources, technical assistance and software tools to help them mitigate their monthly on-peak demand charges.

Target Audience: Eligible participants are business customers in Madison Gas and Electric (MG&E) service territory with demand use of 20 kW or greater. These customers must be willing to install a pulse meter to provide instantaneous energy data and have a programmable energy management system (EMS) that can control multiple pieces of equipment.

Program Implementer: Franklin Energy Services, LLC implements the Program.

Process and Associated Measures: The Program strives to help customers to reduce demand during defined periods by:

- Recruiting customers in cooperation with MGE Account Managers and Focus on Energy Representatives
- Identifying demand reduction strategies for peak demand reductions
- Managing Trade Allies throughout the Program
- Achieving high customer satisfaction scores through monthly meetings with customers

Table C-3 provides the available incentives for the Program.

Table C-3. Incentives Available Through On Demand Savings Program

Measure	Incentive
Peak kW Reduction	\$10/kW (per month)
Pulse Meter Reimbursement	\$500/meter
EMS Meter Connection Co-Pay	Up to \$1,500/site
Trade Ally Performance Incentive	\$100/kW Implemented (average over 4-month summer period)
Efficiency Bonus for Business Program Participation	10% bonus on total incentive with kW savings

Appendix D. CY 2015 Statewide Total Energy Efficiency Savings and Participation

Table D-1 presents the CY 2015 program savings and participation for Focus on Energy, Northern States Power, We Energies, and Wisconsin Power and Light. These utilities ran voluntary programs, with authorization from the PSC, using additional funds to the funding they contribute to Focus on Energy.

Northern States Power and We Energies complemented Focus on Energy programs in CY 2015 by adding bonus incentives. Therefore, these programs’ kW, kWh, and therm savings do not represent additive savings but instead are represented as Focus on Energy portfolio savings achieved by each program.

For Wisconsin Power and Light, some savings are included in Focus on Energy’s portfolio savings while the rest of the savings are tied to the behavioral components of the program.

Table D-1. CY 2015 Wisconsin Total Energy Efficiency Verified Gross Annual Savings and Participation

Program	Participation	kW	kWh	Therms
Focus on Energy ¹	920,468	91,504	683,207,749	37,483,613
Northern States Power ²	2,273	TBD	TBD	TBD
We Energies ³	240	0	0	66,807
Wisconsin Power and Light ⁴	3,417	0	525,301	32,508

¹ Includes estimated Residential Lighting Program participation.

² See Docket 4220-GF-123 for additional details. Savings for the Community Conservation Program designed to complement Focus on Energy programs by adding bonus incentives for both residential and business customers throughout the service territory are forthcoming. Gross annual savings have not yet been calculated for the CY 2015 Program.

³ We Energies’ Residential Assistance Natural Gas Program. See Docket 6630-GF-136 for additional details.

⁴ Wisconsin Power and Light’s Alliant Energy Advisor Program. See Docket 6680-GF-133 for additional details. These savings reflect the time period of June 2014 through April 2015. Cadmus will conduct evaluation activities to determine savings for the remainder of 2015 and early 2016.

Appendix E. Detailed Findings

This section contains detailed first-year annual gross savings and lifecycle savings for the nonresidential and residential segments as well as savings organized by program and measure category.

Overview of Savings

Table E-1 annual gross claimed basis prior to verification, Focus on Energy achieved a total of 5,894,703 MMBtu savings, 717,021,630 kWh savings, 97,452 kW savings and 34,482,256 therms savings.

Table E-1. CY 2015 First-Year Annual Savings by Segment¹

Savings Type	Unit	Residential	Nonresidential	Total
Gross	MMBtu	1,235,451	4,659,252	5,894,703
	kWh	253,487,751	463,533,879	717,021,630
	kW	31,976	65,476	97,452
	therms	3,705,511	30,776,744	34,482,256
Verified Gross	MMBtu	1,165,785	4,913,681	6,079,466
	kWh	234,338,787	448,868,962	683,207,749
	kW	28,896	62,608	91,504
	therms	3,662,211	33,821,402	37,483,613
Verified Net	MMBtu	927,346	3,869,846	4,797,192
	kWh	206,530,139	351,708,289	558,238,428
	kW	24,312	48,869	73,180
	therms	2,226,649	26,698,171	28,924,820

¹ Totals may not match the sum of nonresidential and residential savings due to rounding.

Table E-2 lists the first-year annual gross claimed savings for pilots and new programs achieved in CY 2015. Because these programs were launched after the beginning of the evaluation year, the Evaluation Team did not conduct evaluation activities; however, the Team plans to verify ex ante savings in future evaluation years. For this reason, the gross savings for these programs are reported separately and excluded from all portfolio summaries of savings and cost-effectiveness.

Table E-2. CY 2015 Pilots and New Programs First-Year Annual Savings by Segment¹

Savings Type	Unit	Residential	Nonresidential	Total
Gross	MMBtu	27,465	0	27,465
	kWh	351,577	0	351,577
	kW	375	429	804
	therms	262,656	0	262,656

¹ Totals may not match the sum of nonresidential and residential savings due to rounding.

Table E-3 gross lifecycle savings achieved by Focus on Energy in CY 2015. Lifecycle savings represent the savings the program can realize through measures over their effective useful life (EUL).

Table E-3. CY 2015 Verified Gross Lifecycle Savings by Segment¹

Savings Type	Unit	Residential	Nonresidential	Total
Gross	MMBtu	16,964,127	59,866,111	76,830,238
	kWh	2,524,516,510	6,716,006,058	9,240,522,568
	kW	31,976	65,476	97,452
	Therms	83,504,768	369,510,980	453,015,748
Verified Gross	MMBtu	15,832,924	61,140,436	76,973,360
	kWh	2,223,095,841	6,583,672,339	8,806,768,180
	kW	28,896	62,608	91,504
	Therms	82,477,213	386,769,461	469,246,674
Verified Net	MMBtu	10,728,630	48,272,968	59,001,599
	kWh	1,867,449,267	5,175,466,915	7,042,916,182
	kW	24,312	48,869	73,180
	Therms	43,568,934	306,142,753	349,711,687

¹ Totals may not match the sum of nonresidential and residential savings due to rounding.

Table E-4 presents the gross lifecycle savings achieved by pilots and new programs in CY 2015.

Table E-4. CY 2015 Pilots and New Programs Lifecycle Savings by Segment

Savings Type	Unit	Residential	Nonresidential	Total
Gross	MMBtu	286,614	0	286,614
	kWh	3,986,725	0	3,986,725
	kW	375	429	804
	therms	2,730,111	0	2,730,111

¹ Totals may not match the sum of nonresidential and residential savings due to rounding.

Summary of Savings by Program

Table E-5 summarizes the first-year annual savings by program.

Table E-5. Summary of First-Year Annual Savings by Program, CY 2015

Program Name	Gross			Verified Gross			Verified Net		
	kWh	kW	therms	kWh	kW	therms	kWh	kW	therms
Residential Programs									
Multifamily Direct Install	3,225,455	202	122,345	3,119,305	200	114,398	3,119,305	200	114,398
Multifamily Energy Savings	14,560,901	1,559	390,868	11,566,686	1,132	383,668	9,484,683	928	314,608
Appliance Recycling	20,219,640	2,361	0	17,611,536	2,057	0	6,743,824	790	0
Residential Lighting	188,978,548	22,488	0	175,772,732	20,169	0	167,418,765	19,207	0
Home Performance with ENERGY STAR	1,757,746	72	623,121	1,757,746	72	623,121	2,241,092	91	326,918
New Homes	3,717,456	1,122	988,027	3,717,456	1,122	988,027	0	0	72,885
Residential and Enhanced Rewards	11,064,026	3,102	879,496	11,064,026	3,102	879,467	8,888,518	2,178	822,818
Express Energy Efficiency	6,529,754	679	396,181	6,306,339	653	365,693	6,306,339	653	365,693
Design Assistance - Residential	3,434,225	390	305,473	3,422,961	390	307,836	2,327,614	265	209,328
Residential Total	253,487,751	31,976	3,705,511	234,338,787	28,896	3,662,211	206,530,139	24,312	2,226,649
Nonresidential Programs									
Agriculture, Schools and Government	63,332,492	8,076	8,497,581	64,306,126	7,983	9,150,027	56,589,391	7,025	8,052,023
Business Incentive	96,449,489	14,358	4,825,140	102,486,854	15,432	8,150,255	65,591,587	9,876	5,216,163
Chain Stores and Franchises	47,018,291	6,021	627,820	47,535,492	5,750	595,893	36,602,329	4,428	458,838
Design Assistance	28,719,999	4,376	935,616	28,625,802	4,376	942,853	19,465,545	2,976	641,140
Large Energy Users	181,918,265	24,667	15,626,996	159,969,234	21,122	14,718,783	131,174,772	17,320	12,069,402
Small Business	28,381,570	5,216	23,893	28,231,680	5,184	23,893	24,702,720	4,536	20,907
Renewable Energy Competitive Incentive	17,357,479	2,618	239,698	17,357,479	2,618	239,698	17,357,479	2,618	239,698
Renewable Rewards – Business	356,294	143	0	356,294	143	0	224,465	90	0
Nonresidential Total	463,533,879	65,476	30,776,744	448,868,962	62,608	33,821,402	351,708,289	48,869	26,698,171
Total All Programs	717,021,630	97,452	34,482,256	683,207,749	91,504	37,483,613	558,238,428	73,180	28,924,820

Table E-6 summarizes the first-year annual savings by pilots and new programs.

Table E-6. Summary of First-Year Annual Savings by Pilots and New Programs, CY 2015

Program Name	Gross		
	kWh	kW	Therms
Residential Programs			
Smart Thermostat Pilot	207,725	331	253,164
Manufactured Homes	143,852	44	9,492
Nonresidential Programs			
Strategic Energy Management	0	0	0
On Demand Savings	0	429	0

Summary of Savings by Measure

Table E-7 summarizes CY 2015 residential savings by measure category.

Table E-7. Summary of First-Year Annual Savings by Measure Category, Residential Sector

Measure Category	Verified Gross						Incentive Dollars	Incentive Dollars %
	kWh	kWh %	kW	kW %	Therms	Therms %		
Aeration	1,508,993	0.65%	224	0.77%	212,408	5.81%	\$60,335.63	0.28%
Air Sealing	0	0.00%	0	0.00%	0	0.00%	\$0.00	0.00%
Boiler	0	0.00%	0	0.00%	267,496	7.32%	\$376,944.60	1.73%
Bonus	0	0.00%	0	0.00%	0	0.00%	\$90,500.00	0.42%
Chiller	3,083	0.00%	1	0.00%	0	0.00%	\$416.58	0.00%
Clothes Washer	106,409	0.05%	1	0.00%	3,821	0.10%	\$17,975.00	0.08%
Controls	477,725	0.20%	7	0.02%	70,584	1.93%	\$48,896.78	0.22%
Delamping	13,529	0.01%	2	0.01%	0	0.00%	\$126.00	0.00%
Design	3,434,225	1.47%	389	1.34%	307,836	8.42%	\$460,017.46	2.11%
Dishwasher, Residential	73,791	0.03%	17	0.06%	1,886	0.05%	\$45,050.00	0.21%
Energy Recovery	6,432	0.00%	7	0.02%	5,532	0.15%	\$2,400.00	0.01%

Measure Category	Verified Gross						Incentive Dollars	Incentive Dollars %
	kWh	kWh %	kW	kW %	Therms	Therms %		
Fan	0	0.00%	0	0.00%	0	0.00%	\$0.00	0.00%
Fluorescent, Compact (CFL)	165,157,681	70.78%	18,831	64.96%	0	0.00%	\$7,150,630.13	32.83%
Fluorescent, Linear	555,157	0.24%	71	0.25%	0	0.00%	\$101,462.35	0.47%
Furnace	7,170,210	3.07%	1,452	5.01%	727,157	19.89%	\$3,445,550.00	15.82%
Geothermal	725,343	0.31%	101	0.35%	193	0.01%	\$81,250.00	0.37%
Insulation	434,114	0.19%	36	0.13%	50,676	1.39%	\$76,213.80	0.35%
Light Emitting Diode (LED)	25,616,312	10.98%	2,970	10.24%	0	0.00%	\$3,319,446.60	15.24%
Motor	74,540	0.03%	15	0.05%	0	0.00%	\$22,375.00	0.10%
Other	20,221,240	8.67%	2,707	9.34%	727,112	19.89%	\$3,924,887.63	18.02%
Photovoltaics	2,273,844	0.97%	922	3.18%	0	0.00%	\$772,398.26	3.55%
Pre-Rinse Sprayer	0	0.00%	0	0.00%	39	0.00%	\$26.23	0.00%
Refrigerator / Freezer - Residential	116,008	0.05%	16	0.05%	0	0.00%	\$36,250.00	0.17%
Rooftop Unit / Split System AC	8,841	0.00%	29	0.10%	0	0.00%	\$23,200.00	0.11%
Showerhead	1,682,159	0.72%	99	0.34%	227,135	6.21%	\$87,381.28	0.40%
Steam Trap	0	0.00%	0	0.00%	27,042	0.74%	\$2,900.00	0.01%
Variable Speed Drive	194,512	0.08%	7	0.03%	0	0.00%	\$6,544.80	0.03%
Water Heater	-457	0.00%	0	0.00%	11,476	0.31%	\$13,200.00	0.06%
Whole Building	3,355,127	1.44%	1,084	3.74%	987,466	27.02%	\$1,571,500.00	7.22%
Window	138,034	0.06%	0	0.00%	27,342	0.75%	\$41,244.07	0.19%

Table E-8 lists CY 2015 nonresidential savings by measure category.

Table E-8. Summary of First-Year Annual Savings by Measure Category, Nonresidential Sector

Measure Category	Verified Gross						Incentive Dollars	Incentive Dollars %
	kWh	kWh %	kW	kW %	Therms	Therms %		
Aeration	3,825,988	0.87%	534	0.84%	15,813	0.05%	\$149,898.76	0.37%
Air Sealing	4,717	0.00%	0	0.00%	152,711	0.45%	\$55,091.95	0.14%
Biogas	12,731,141	2.89%	1,260	1.98%	181,918	0.54%	\$2,142,200.00	5.32%
Biomass Combustion	1,020,217	0.23%	65	0.10%	57,780	0.17%	\$207,780.00	0.52%
Boiler	1,153,829	0.26%	103	0.16%	2,611,989	7.77%	\$2,065,213.33	5.13%
Bonus	0	0.00%	0	0.00%	0	0.00%	\$486,265.25	1.21%
Burner	0	0.00%	0	0.00%	19,742	0.06%	\$3,200.00	0.01%
Chiller	11,621,657	2.64%	2,450	3.86%	0	0.00%	\$1,591,751.42	3.95%
Clothes Washer	60,173	0.01%	2	0.00%	18,569	0.06%	\$10,543.25	0.03%
Compressor	7,607,231	1.73%	1,288	2.03%	0	0.00%	\$695,075.00	1.73%
Controls	19,983,739	4.53%	1,536	2.42%	1,051,748	3.13%	\$1,441,545.61	3.58%
Delamping	4,666,452	1.06%	956	1.50%	0	0.00%	\$131,594.80	0.33%
Design	28,038,754	6.36%	4,362	6.87%	942,853	2.81%	\$2,704,684.55	6.72%
Dishwasher, Commercial	420,337	0.10%	5	0.01%	18,388	0.05%	\$37,270.00	0.09%
Door	28,666	0.01%	4	0.01%	17,432	0.05%	\$15,327.41	0.04%
Dryer	730,429	0.17%	116	0.18%	78,665	0.23%	\$90,791.62	0.23%
Economizer	105,729	0.02%	0	0.00%	559	0.00%	\$16,935.99	0.04%
Energy Recovery	2,833,037	0.64%	811	1.28%	4,854,982	14.45%	\$2,038,033.43	5.06%
Fan	1,308,560	0.30%	410	0.65%	63,860	0.19%	\$243,733.39	0.61%
Filtration	695,683	0.16%	137	0.22%	677,599	2.02%	\$341,990.00	0.85%
Fluorescent, Compact (CFL)	1,061,271	0.24%	316	0.50%	0	0.00%	\$21,963.84	0.05%
Fluorescent, Linear	44,106,867	10.00%	8,486	13.36%	0	0.00%	\$3,034,319.61	7.54%
Fryer	5,633	0.00%	1	0.00%	33,000	0.10%	\$22,800.00	0.06%
Fuel Switching	8,486	0.00%	1	0.00%	532	0.00%	\$750.00	0.00%

Measure Category	Verified Gross						Incentive Dollars	Incentive Dollars %
	kWh	kWh %	kW	kW %	Therms	Therms %		
Furnace	300,963	0.07%	6	0.01%	409,525	1.22%	\$338,462.54	0.84%
Heat Exchanger	1,299,153	0.29%	105	0.16%	318,359	0.95%	\$198,726.11	0.49%
High Intensity Discharge (HID)	1,248,563	0.28%	111	0.17%	0	0.00%	\$87,921.59	0.22%
Hot Holding Cabinet	178,476	0.04%	34	0.05%	0	0.00%	\$6,980.00	0.02%
Ice Machine	15,468	0.00%	2	0.00%	0	0.00%	\$1,000.00	0.00%
Infrared Heater	0	0.00%	0	0.00%	164,530	0.49%	\$42,692.50	0.11%
Insulation	618,821	0.14%	23	0.04%	197,136	0.59%	\$174,242.96	0.43%
Irrigation	12,697	0.00%	47	0.07%	0	0.00%	\$4,647.50	0.01%
Light Emitting Diode (LED)	112,879,179	25.60%	15,859	24.96%	0	0.00%	\$8,705,998.35	21.62%
Livestock Waterer	1,322,965	0.30%	0	0.00%	0	0.00%	\$22,740.00	0.06%
Motor	6,428,575	1.46%	790	1.24%	0	0.00%	\$200,088.97	0.50%
Nozzle	124,186	0.03%	46	0.07%	0	0.00%	\$240.00	0.00%
Other	85,399,616	19.37%	11,513	18.12%	7,290,552	21.69%	\$7,304,668.92	18.14%
Oven	69,992	0.02%	16	0.03%	50,857	0.15%	\$44,750.00	0.11%
Packaged Terminal Unit (PTAC, PTHP)	1,232,246	0.28%	0	0.00%	0	0.00%	\$77,300.00	0.19%
Photovoltaics	3,962,415	0.90%	1,437	2.26%	0	0.00%	\$1,809,025.89	4.49%
Pre-Rinse Sprayer	5,560	0.00%	1	0.00%	650	0.00%	\$631.86	0.00%
Pump	297,108	0.07%	41	0.07%	0	0.00%	\$20,291.00	0.05%
Reconfigure Equipment	3,628,360	0.82%	375	0.59%	0	0.00%	\$207,355.90	0.52%
Refrigerated Case Door	3,252,260	0.74%	389	0.61%	125,655	0.37%	\$273,584.00	0.68%
Refrigerator / Freezer - Commercial	382,275	0.09%	45	0.07%	0	0.00%	\$26,015.00	0.06%
Rooftop Unit / Split System AC	1,745,697	0.40%	1,188	1.87%	106,195	0.32%	\$511,595.25	1.27%
Scheduling	1,868,876	0.42%	38	0.06%	125,618	0.37%	\$124,712.30	0.31%
Scholarship	0	0.00%	0	0.00%	0	0.00%	\$1,000.00	0.00%
Showerhead	53,628	0.01%	0	0.00%	6,997	0.02%	\$3,360.00	0.01%
Specialty Pulp & Paper	365,774	0.08%	43	0.07%	0	0.00%	\$33,500.00	0.08%
Steam Trap	0	0.00%	0	0.00%	13,813,064	41.10%	\$175,994.92	0.44%

Measure Category	Verified Gross						Incentive Dollars	Incentive Dollars %
	kWh	kWh %	kW	kW %	Therms	Therms %		
Steamer	219,939	0.05%	38	0.06%	4,488	0.01%	\$15,360.00	0.04%
Strip Curtain	39,930	0.01%	3	0.00%	0	0.00%	\$3,142.08	0.01%
Supporting Equipment	327,813	0.07%	31	0.05%	0	0.00%	\$20,187.76	0.05%
Tune-up / Repair / Commissioning	12,653,386	2.87%	1,040	1.64%	0	0.00%	\$272,406.37	0.68%
Ultraviolet	75,918	0.02%	2	0.00%	0	0.00%	\$2,583.25	0.01%
Unit Heater	0	0.00%	0	0.00%	88,664	0.26%	\$37,107.60	0.09%
Variable Speed Drive	58,134,746	13.18%	7,308	11.50%	7,194	0.02%	\$1,872,800.07	4.65%
Water Heater	293,587	0.07%	115	0.18%	86,568	0.26%	\$54,905.26	0.14%
Welder	20,090	0.00%	30	0.05%	0	0.00%	\$4,259.19	0.01%
Well / Pump	410,611	0.09%	0	0.00%	0	0.00%	\$16,617.16	0.04%
Window	53,079	0.01%	16	0.03%	12,973	0.04%	\$14,797.58	0.04%

Appendix F. Cost-Effectiveness and Emissions Methodology and Analysis

For the current quadrennial cycle (2015–2018), the Focus on Energy Program Administrator developed a specific calculator for its use and use by implementers in assessing the cost-effectiveness of program designs prior to their implementation each year. The cost-effectiveness calculator was developed with the oversight of, and in collaboration with, the Public Service Commission (PSC) and the Evaluation Team.

To maintain consistency between planning and evaluation approaches—critical for an understanding of program performance compared to expectations—the Evaluation Team used the same calculator to evaluate the cost-effectiveness of the Focus on Energy programs in CY 2015. Its findings are presented in this section.

As directed by the PSC,¹ the modified Total Resource Cost (TRC) test is considered the primary test in assessing the cost-effectiveness of individual programs or the entire Focus on Energy portfolio of programs. The PSC also directs that three additional tests be conducted for advisory purposes. These are an expanded TRC test that also includes net economic benefits, the Utility Administrator Test (UAT), and the Ratepayer Impact Measure (RIM) test.

Net-to-gross (NTG) ratios can be a significant driver in the results of the TRC, UAT, and RIM tests. NTG ratios are applied to adjust the impacts of the programs so they reflect only the gains resulting from the programs. Therefore, NTG ratios take into account energy savings that would have been achieved without the efficiency programs (that is, when NTG is less than 1 savings are removed and when NTG is greater than 1 savings are added). In all cases, the savings are multiplied by NTG.

On the cost side, expenditures that would have occurred without the efficiency effort are also removed. These expenditures include the incremental measure costs and lost revenues, both of which are multiplied by NTG. Costs that would not have occurred in the absence of the programs are not impacted by NTG (e.g., delivery and administrative costs).

Test Descriptions

The Evaluation Team—as well as the Program Administrator in developing its calculator—uses methods adapted from the California Standard Practice Manual, the conventional standard of cost-effectiveness analysis for energy efficiency programs in the United States.² Four tests—the modified TRC test, the expanded TRC test, the UAT, and the RIM test—are described in the next sections.

¹ The use of the modified TRC test as the primary cost-effectiveness test is directed by the PSC. Public Service Commission of Wisconsin. Quadrennial Planning Process II – Scope. Order PSC Docket 5-FE-100, REF#:215245. January 9, 2014. Available online: http://psc.wi.gov/apps35/ERF_view/viewdoc.aspx?docid=215245

² California Public Utilities Commission. *California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects*. July 2002. Available online: http://www.calmac.org/events/SPM_9_20_02.pdf

Modified Total Resource Cost Test

The TRC test is the most commonly applied test for evaluating the cost-effectiveness of energy efficiency and renewable resource programs around the country. Applications range across states and utility jurisdictions, from the standard TRC test to the Societal Cost Test, which expands the test inputs to account for a more holistic societal perspective. Modifications to the standard TRC test often include reducing the discount rate or including various environmental and non-energy benefits. The test includes total participant and Program Administrator costs. The test also includes some non-energy benefits (e.g., emission reduction benefits).

The modified TRC test used for the CY 2015 evaluation defines if programs are cost-effective from a regulatory perspective (i.e., as directed by the PSC) and is intended to measure the overall impacts of program benefits and costs on the state of Wisconsin. The test compares all benefits and costs to the state that can be measured with a high degree of confidence, including any net avoided emissions that are regulated and that have either well-defined market or commission-established values. The test’s purpose here is to determine if the total costs incurred by residents, businesses, and Focus on Energy for operating the programs are outweighed by the total benefits they receive.

In simple terms, the modified TRC test benefit/cost (B/C) value is the ratio of avoided utility and environmental costs from avoided energy consumption and the combination of program administrative costs, program delivery costs, and net participant incremental measure costs.

The B/C equation used for the modified TRC test is:

$$TRC \frac{B}{C} = \frac{[Value\ of\ Gross\ Saved\ Energy + Value\ of\ Gross\ Avoided\ Emissions] * NTG}{[Administrative\ Costs + Delivery\ Costs + (Incremental\ Measure\ Cost * NTG)]}$$

Where:

$$Value\ of\ Gross\ Saved\ Energy = Net\ Gross\ Savings \times Utility\ Avoided\ Costs$$

Expanded Total Resource Cost Test with Net Economic Benefits

The Evaluation Team most recently investigated the impact of expanding the TRC to include net economic benefits for the CY 2014 programs. The analysis of economic benefits is conducted every two years, and the results are issued separately from the evaluation reports. The next analysis will be conducted after the completion of the CY 2016 program year. The most recent report is available on the Focus on Energy website.³

³ Cadmus. *Focus on Energy Economic Impacts 2011–2014*. December 2015. Available online: <https://focusonenergy.com/sites/default/files/WI%20FOE%202011%20to%202014%20Econ%20Impact%20Report.pdf>.

The B/C equation used for the expanded TRC test with net economic benefits is:

$$TRC \frac{B}{C} = \frac{[(Value\ of\ Gross\ Saved\ Energy + Value\ of\ Gross\ Avoided\ Emissions) * NTG + Net\ Economic\ Benefits]}{[Administrative\ Costs + Delivery\ Costs + (Incremental\ Measure\ Cost * NTG)]}$$

Utility Administrator/Program Administrator Cost Test

The Evaluation Team also assessed the portfolio’s cost-effectiveness using the UAT, which measures the net benefits and costs of the programs as a resource option from the perspective of the Focus on Energy Program Administrator. In Wisconsin, the UAT effectively represents the collective perspectives of the participating utilities that hire and fund the Program Administrator.

The UAT, previously called the Revenue Requirements test, effectively estimates the impacts on utility revenue requirements (i.e., the costs of providing service) by comparing the benefits of avoided utility costs from avoided energy consumption to the combined costs of operating the program, such as incentive payments, administrative costs, and delivery costs. A positive B/C ratio, therefore, indicates that the program improves an energy system’s overall efficiency.

For this evaluation, the UAT’s B/C value indicates whether the combined revenue requirements from all participating utilities increase or decrease as a result of the Focus on Energy programs. The net benefits determined with the UAT indicate the estimated dollar value of the change in the combined revenue requirements from all participating utilities. The NTG ratio impacts only the benefit side of the UAT because none of the costs would have occurred absent the effort and, therefore, all are kept in the test (i.e., not subtracted from denominator).

The B/C equation used for the UAT is:

$$UAT \frac{B}{C} = \frac{[Value\ of\ Gross\ Saved\ Energy * NTG]}{[Participant\ Incentives + Administrative\ Costs + Delivery\ Costs]}$$

Ratepayer Impact Measure Test

Generally, the RIM test indicates the isolated and marginal effect on utility energy rates from changes in revenues and operating costs caused by energy efficiency and renewable resource programs, all else being equal. It does not, however, provide a comprehensive picture of ratepayer impacts. The RIM test’s estimated effects are theoretical and assume annual rate cases that may, in fact, not take place. Furthermore, the RIM test neither accounts for non-energy benefits enjoyed by ratepayers, nor clearly distinguishes the difference between rate and total bill impacts.

From the RIM test perspective, the relatively expansive view of program costs, particularly the inclusion of lost revenues—which are foregone revenues as opposed to new costs—from avoided energy

consumption, leads most energy efficiency and renewable energy programs to not be cost-effective. Exceptions include demand response programs or programs targeted to the highest marginal cost hours (when marginal costs are greater than rates). In simple terms, the RIM test B/C value is the ratio of avoided utility costs and the combination of participant incentives, administrative costs, and lost utility revenue.

The B/C equation used for the RIM test is:

$$RIM \frac{B}{C} = \frac{[Value\ of\ Gross\ Saved\ Energy * NTG]}{[Participant\ Incentives + Administrative\ Costs + Lost\ Revenue * NTG]}$$

For this evaluation, a RIM test B/C value less than 1 indicates that Focus on Energy will induce theoretical upward pressure on rates because the decrease in utility revenues caused by its programs is greater than the avoided utility costs (i.e., net benefits are negative), and vice versa. Conversely, a value greater than 1 indicates that Focus on Energy will induce theoretical downward pressure on rates because the decrease in revenues is less than the avoided utility costs.

Results from the RIM test are better understood within the context of UAT results. The most common combination of results involve a UAT B/C value greater than 1 and a RIM test B/C value less than 1. Passing the UAT means that revenue requirements (i.e., revenue needed to operate the utility business and deliver energy services) will decrease as a result of the programs; in other words, the utilities are running more efficiently because of their programs.

However, if the programs do not pass the RIM test, it means the improvement in efficiency and the associated decrease in revenue requirements were not sufficient to offset the lost revenues. As a result, the programs will put upward pressure on rates. Rates are roughly estimated as:

$$\frac{revenue\ requirement}{sales\ (kWh\ or\ therms)}$$

The numerator (revenue requirement) decreases, but so does the denominator (sales). If the denominator decreases more than the numerator, the ratio of the two will increase. In this scenario, although all *rates* may theoretically increase, the energy *bills* for participants will decrease and the energy *bills* for nonparticipants will increase. The decrease in revenue requirement means that the decrease in participant bills will exceed the increase in nonparticipant bills such that the average bills across the two customer groups will decrease.

In essence, the RIM test is not a cost-effectiveness (i.e., efficiency) test in an economic sense but rather an analysis of the distributional (i.e., equity) impacts on energy bills.⁴ Because Focus on Energy programs are designed to meet a statutory requirement to make program benefits available to all ratepayers,

⁴ The RIM test assumes annual rate cases that may not take place. If there is not an annual rate adjustment, there is a transfer payment to participants from utility shareholders rather than from nonparticipants.

Focus RIM test results are influenced by its programs' success in meeting that requirement, its ability to meet that requirement within existing resources, and its customers' own willingness to participate.

The RIM test assumes that a true-up will occur every year through rate cases. The test as applied could be considered the worst case scenario. The RIM test also does not consider any societal nor some system benefits that accrue to *all* customers.

Interpreting Test Results

No single B/C test can provide a comprehensive understanding of program performance or impacts in isolation. The results of tests that measure overall program cost-effectiveness, such as the modified TRC test, should be reviewed along with the results of other tests such as the UAT. Such a multi-perspective approach warrants a clear understanding of the tradeoffs among the tests.

Due to changes in avoided electric energy and natural gas costs, and emissions allowance prices for the current quadrennial cycle (CY 2015 to CY 2018), cost-effectiveness results reported here are not directly comparable to results from the previous quadrennial cycle (CY 2011 to CY 2014).

Energy Avoided Costs

The PSC established the methodology to estimate electric energy avoided costs on June 18, 2012, in PSC Order, docket 5-GF-191 (PSC REF#:166932).⁵ It established the natural gas avoided costs on February 26, 2015, by PSC Order, docket 5-FE-100 (PSC REF#:232431) on February 26, 2015;⁶ these costs are based on Henry Hub price forecasts from the 2014 U.S. Energy Information Administration (EIA) Annual Energy Outlook⁷.

The source for electric energy avoided costs in this 2015 evaluation comes from the annualized forecast avoided cost model developed by Cadmus. This forecast relied on the Midwest Independent Transmission System Operator, Inc. (MISO), forecast of Locational Margin Price (LMP) for the years 2019, 2024, and 2029⁸.

⁵ Public Service Commission of Wisconsin. Quadrennial Planning Process II – Scope. Order PSC Docket 5-FE-100, REF#:166932. June 18, 2012. Available online:
http://psc.wi.gov/apps35/ERF_view/viewdoc.aspx?docid=166932

⁶ Public Service Commission of Wisconsin. Quadrennial Planning Process II – Scope. Order PSC Docket 5-FE-100, REF#:232431. February 25, 2015. Available online:
http://psc.wi.gov/apps35/ERF_view/viewdoc.aspx?docid=232431

⁷ 2014 U.S. Energy Information Administration (EIA). Annual Energy Outlook. Available online:
<http://www.eia.gov/forecasts/aeo/er/index.cfm>

⁸ Midcontinent Independent Transmission System Operator, Inc. Available online:
<https://www.misoenergy.org/Planning/TransmissionExpansionPlanning/Pages/MTEPFutures.aspx>

The forecast model decreases the verified gross energy savings by the conventional attribution factor of NTG to derive net savings. The net savings are then increased by the line loss factor of 8% to account for avoided distribution losses. Table F-1 shows the assumptions for the 2015 evaluation avoided cost used for the cost-effectiveness tests.

Table F-1. Avoided Cost

Avoided Cost	CY 2015
Electric Energy (\$/kWh)	\$0.02914-0.06871 ¹
Electric Capacity (\$/kW year)	130.26
Gas (\$/therms)	\$0.625-\$1.278 ²
Avoided Cost Inflation	0%
Real Discount Rate	2%
Line Loss	8%

¹The CY 2015 cost-effectiveness analyses used a time series that grows from \$0.02914 to \$0.06871 over 14 years in the forecast model.

²The natural gas avoided costs grows from \$0.625 to \$1.278 over a 25-year period based on growth rates from the EIA Annual Energy Outlook 2014

Emissions Benefits

The modified TRC B/C calculations includes the benefit of avoiding three air pollutants that are regulated under the Clean Air Act. These are carbon dioxide (CO₂), sulfur dioxide (SO₂), and nitrogen oxides (NO_x). Determining the emissions benefits requires three key parameters—lifecycle net energy savings, emissions factors, and the dollar value of the displaced emissions.

Emissions factors are the rate at which the criteria pollutants are emitted per unit of energy and are most often expressed in tons of pollutant per energy unit—electric is in tons/megawatt hour (MWH), and gas is in tons/thousand therms (MThm). The product of the emissions factor and the net energy savings is the total weight of air pollutant offset or avoided by the program. The product of the total tonnage of pollutant saved and the dollar value of the reduced emissions per ton is therefore the avoided emissions benefit, as shown in this equation, as shown in this equation.

$$\text{Value of Avoided Emissions} = [\text{Net Saved Energy} \times \text{Emissions Factor} \times \text{Value of Emissions Allowance}]$$

The natural gas emissions factor has remained constant since the 2011 evaluation report, For CY 2015, the Evaluation Team revised the electric emissions factors using a tool developed by the U.S. Environmental Protection Agency (EPA) to calculate avoided emissions from renewable energy and energy efficiency programs (the tool is officially called the “AVoided Emissions and geneRation Tool” or “AVERT”). AVERT is a spreadsheet-based model that uses historical hourly generation and emissions data to determine the individual power plants that are likely to be displaced by energy efficiency or renewable energy during each hour of the year. The tool then compares the electricity generation avoided by the Focus on Energy programs during each hour of the year with the hourly generation

information to determine the quantity of emissions displaced. The Evaluation Team then calculated an emissions factor based on the tons of emissions displaced by each MWh of generation avoided.

Table F-2 lists the emissions factors and allowance prices.

Table F-2. Emissions Factors and Allowance Price

Service Fuel Type	CO ₂	NO _x	SO ₂
Electric Emissions Factor (Tons/MWh)	0.8358	0.0007	0.0016
Gas Emissions Factor (Tons/MThm)	5.85	N/A	N/A
Allowance Price (\$/Ton)	\$15	\$97.50	\$3

The Evaluation Team obtained NO_x and SO₂ emissions allowance prices at the end of 2015 from the EPA’s Cross State Air Pollution Rule (“CSAPR”).⁹ Because of the continued decline in and uncertainty surrounding forecasted NO_x and SO₂ allowance prices, the values used were the prices at the end of 2015 and were among the lowest prices reported during 2015. The Evaluation Team used the CO₂ emissions price in the PSC’s Order, docket 5-FE-100 Ref#: 279739, which states, “For purposes of evaluating the Focus program during the 2015–2018 quadrennium, the value of avoided carbon emissions shall be \$15 per ton.”¹⁰

Table F-3 lists the emissions benefits for all programs by nonresidential or residential segment.

Table F-3. Total Program Emissions Benefits by Segment

Program Year	Nonresidential	Residential	Total
CY 2015 Emissions Benefits ¹	\$25,236,521	\$85,344,610	\$110,581,131

¹ Reported emissions impacts are based upon portfolio level modeling within AVERT and are not measure-or project-level specific.

Program Costs

The 2015 program costs were provided to the Evaluation Team from Focus on Energy’s contract fiscal agent, the accounting firm Wipfli. The program costs represent all costs associated with running the efficiency programs (including administration and delivery costs). Note that incentive costs are not included as program costs because they are deemed transfer payments, which is consistent with industry guidelines defining the TRC test.

⁹ Luhavalja, Amanda. “Year in review: CSAPR NOx, SO2 emissions markets end 2015 sharply lower.” SNL Financial. January 6, 2016. Accessed online March, 2016 at: <https://www.snl.com/Interactivex/article.aspx?CdId=A-34986619-11301>

¹⁰ Public Service Commission of Wisconsin. Quadrennial Planning Process II – Scope. Order PSC Docket 5-FE-100, REF#:279739. January 9, 2014. Available online: http://psc.wi.gov/apps35/ERF_view/viewdoc.aspx?docid=279739

Incremental Costs

The gross incremental costs are the additional costs incurred as a result of purchasing efficient equipment over and above a baseline nonqualified product. The Evaluation Team derived the gross incremental cost values used in this CY 2015 evaluation from the incremental cost study conducted by the Program Administrator, implementers, and Evaluation Team, which established up-to-date incremental costs for all measures based on the best available data, including historical Focus on Energy program data and independent research from other state programs. The gross incremental costs, similar to the energy savings values used in the cost-effectiveness tests, required the application of attribution factors to account for freeridership.

Similar to the previous quadrennial’s evaluation effort, the Evaluation Team assigned actual project cost values from the program tracking databases to the renewable energy projects.

Cost-Effectiveness Results by Test

Table F-4 presents the inputs and results from the modified TRC test for the Focus on Energy 2015 energy efficiency and renewable resource program portfolio. Application of the modified TRC test showed that net statewide benefits to residents, businesses, and Focus on Energy from the 2015 programs were more than \$596 million overall. The benefits from the residential programs more than three times greater than the costs, while the benefits from the nonresidential programs outweighed the costs by a factor of 3.63.

Table F-4. 2015 Sector-Level and Overall Results, Modified TRC Test

	Residential	Nonresidential	Total
Administrative Costs	\$4,421,952	\$4,070,977	\$8,492,929
Delivery Costs	\$10,084,023	\$16,623,494	\$26,707,516
Incremental Measure Costs	\$39,756,677	\$162,338,959	\$202,095,636
Total TRC Costs	\$54,262,652	\$183,033,430	\$237,296,082
Electric Benefits	\$114,250,435	\$340,422,234	\$454,672,669
Gas Benefits	\$29,894,236	\$238,838,527	\$268,732,764
Emissions Benefits	\$25,236,521	\$85,344,610	\$110,581,131
Total TRC Benefits	\$169,381,193	\$664,605,371	\$833,986,564
TRC Benefits Minus Costs	\$115,118,540	\$481,571,942	\$596,690,482
TRC B/C Ratio	3.12	3.63	3.51

The Focus on Energy portfolio’s net economic benefits are determined every two years; results from the next economic impact analysis will be applied later in the 2015–2019 quadrennial cycle. Based on inputs and results from the expanded TRC test, net statewide benefits—including the 2014 Focus on Energy portfolio’s net economic benefits—to residents, businesses, and Focus on Energy from the 2015 programs were nearly \$1.4 billion overall (Table F-5). The benefits from the residential programs were nearly seven times greater than the costs, while the benefits from the nonresidential programs were more than 6.6 times greater than the costs.

Table F-5. 2015 Sector-Level and Overall Results, Expanded TRC Test with Economic Benefits

	Residential	Nonresidential	Total
Administrative Costs	\$4,421,952	\$4,070,977	\$8,492,929
Delivery Costs	\$10,084,023	\$16,623,494	\$26,707,516
Incremental Measure Costs	\$39,756,677	\$162,338,959	\$202,095,636
Total TRC Costs	\$54,262,652	\$183,033,430	\$237,296,082
Electric Benefits	\$114,250,435	\$340,422,234	\$454,672,669
Gas Benefits	\$29,894,236	\$238,838,527	\$268,732,764
Emissions Benefits	\$25,236,521	\$85,344,610	\$110,581,131
Economic Benefits	\$206,039,409	\$550,179,341	\$756,218,750
Total TRC Benefits	\$375,420,602	\$1,214,784,712	\$1,590,205,314
TRC Benefits Minus Costs	\$321,157,949	\$1,031,751,283	\$1,352,909,232
TRC B/C Ratio	6.92	6.64	6.70

Table F-6 presents the inputs and results from the UAT for the 2015 Focus on Energy portfolio. Results show that net benefits were approximately \$626 million; in other words, the 2015 portfolio resulted in a statewide reduction in combined utility revenue requirements of \$626 million. The benefits from the residential programs were more than four times greater than the costs, while the benefits from the nonresidential programs outweighed the costs by a factor of 9.45.

Table F-6. 2015 Sector-Level and Overall Results, UAT

	Residential	Nonresidential	Total
Incentive Costs	\$21,377,732	\$40,612,777	\$61,990,509
Administrative Costs	\$4,421,952	\$4,070,977	\$8,492,929
Delivery Costs	\$10,084,023	\$16,623,494	\$26,707,516
Total UAT Costs	\$35,883,707	\$61,307,247	\$97,190,955
Electric Benefits	\$114,250,435	\$340,422,234	\$454,672,669
Gas Benefits	\$29,894,236	\$238,838,527	\$268,732,764
Total UAT Benefits	\$144,144,671	\$579,260,761	\$723,405,433
UAT Benefits Minus Costs	\$108,260,964	\$517,953,514	\$626,214,478
UAT B/C Ratio	4.02	9.45	7.44

Table F-7 shows the inputs and results from the RIM test for 2015 energy efficiency and renewable resource programs. As expected, estimated B/C values from the RIM test are all near 1. When interpreted within the context of the UAT test results, these findings indicate that although annual Focus on Energy activities will probably induce theoretical upward pressure on future energy rates, total ratepayer energy costs will go down.

Table F-7. 2015 Sector-Level and Overall Results, RIM Test

	Residential	Nonresidential	Total
Incentive Costs	\$21,377,732	\$40,612,777	\$61,990,509
Electric Lost Revenues	\$200,480,465	\$326,363,531	\$526,843,996
Gas Lost Revenues	\$21,460,200	\$150,204,805	\$171,665,005
Admin Costs	\$4,421,952	\$4,070,977	\$8,492,929
Delivery Costs	\$10,084,023	\$16,623,494	\$26,707,516
Total RIM Costs	\$257,824,372	\$537,875,584	\$795,699,956
Electric Benefits	\$114,250,435	\$340,422,234	\$454,672,669
Gas Benefits	\$29,894,236	\$238,838,527	\$268,732,764
Total RIM Benefits	\$144,144,671	\$579,260,761	\$723,405,433
RIM Benefits Minus Costs	(\$113,679,701)	\$41,385,178	(\$72,294,523)
RIM B/C Ratio¹	0.56	1.08	0.91

¹ For the CY 2015 cost-effectiveness analysis the lost revenue portion of the RIM test assumes a fixed utility rate that does not escalate over time, while the avoided energy costs are escalated on a yearly basis resulting in greater benefits than costs for the nonresidential Portfolio.

Cost-Effectiveness Results by Program

Table F-8 provides the sector-level and overall results of the cost-effectiveness analysis with renewables reported separately. Incentive costs are provided below but are not included in the TRC calculation. The TRC ratio equals the total TRC benefits divided by total non-incentive costs.

Table F-8. CY 2015 Overall with Renewables Separate Cost-Effectiveness Analysis

	Residential	Nonresidential	Renewables	Total
Incentive Costs	\$19,766,034	\$37,550,922	\$4,673,553	\$61,990,509
Administrative Costs	\$4,088,575	\$3,764,060	\$640,294	\$8,492,929
Delivery Costs	\$9,323,774	\$15,370,225	\$2,013,518	\$26,707,516
Incremental Measure Costs	\$35,244,790	\$143,915,512	\$22,935,334	\$202,095,636
Total Non-Incentive Costs	\$48,657,139	\$163,049,797	\$25,589,146	\$237,296,082
Electric Benefits	\$108,372,416	\$322,908,003	\$23,392,250	\$454,672,669
Gas Benefits	\$29,572,622	\$236,269,009	\$2,891,132	\$268,732,764
Emissions Benefits	\$24,315,597	\$82,230,236	\$4,035,299	\$110,581,131
Total TRC Benefits	\$162,260,635	\$641,407,248	\$30,318,681	\$833,986,564
TRC Benefits Minus Costs	\$113,603,496	\$478,357,452	\$4,729,535	\$596,690,482
TRC Ratio	3.33	3.93	1.18	3.51

Table F-9 provides the residential program cost-effectiveness analysis. Incentive costs are provided below but are not included in the TRC calculation. The TRC ratio equals the total TRC benefits divided by total non-incentive costs.

Table F-9. CY 2015 Residential Programs Cost-Effectiveness Analysis

	Appliance Recycling	HPwES Income-Qualified Track	HPwES Standard Track	Express Energy Efficiency	Residential and Renewable Rewards	Enhanced Rewards	Multifamily Energy Savings	Multifamily Direct Install	New Homes	Residential Lighting
Incentive Costs	\$742,160	\$1,068,382	\$1,667,813	\$549,439	\$4,095,199	\$1,020,000	\$1,925,153	\$405,581	\$1,605,000	\$8,299,005
Administrative Costs	\$569,618	\$100,575	\$272,801	\$778,268	\$976,181	\$181,336	\$305,431	\$221,822	\$243,045	\$772,876
Delivery Costs	\$1,298,982	\$229,355	\$622,109	\$1,774,798	\$2,226,129	\$413,526	\$696,518	\$505,852	\$554,252	\$1,762,503
Incremental Measure Costs	\$0	\$2,025,973	\$3,530,955	\$978,347	\$17,128,198	\$2,327,897	\$5,231,112	\$365,091	\$369,797	\$7,799,306
Total Non-Incentive Costs	\$1,868,600	\$2,355,903	\$4,425,865	\$3,531,412	\$20,330,509	\$2,922,759	\$6,233,060	\$1,092,764	\$1,167,094	\$10,334,685
Electric Benefits	\$3,053,921	\$333,928	\$841,975	\$3,479,627	\$16,012,637	\$896,029	\$7,388,053	\$1,931,482	\$0	\$80,312,783
Gas Benefits	\$0	\$2,632,560	\$4,292,688	\$3,279,423	\$8,983,211	\$4,504,088	\$3,942,209	\$804,243	\$1,455,814	\$0
Emissions Benefits	\$635,419	\$314,912	\$585,474	\$1,066,296	\$3,025,234	\$563,021	\$1,841,351	\$506,075	\$132,587	\$16,566,153
Total TRC Benefits	\$3,689,340	\$3,281,400	\$5,720,137	\$7,825,346	\$28,021,081	\$5,963,138	\$13,171,613	\$3,241,800	\$1,588,401	\$96,878,936
TRC Benefits Minus Costs	\$1,820,740	\$925,496	\$1,294,272	\$4,293,934	\$7,690,573	\$3,040,379	\$6,938,553	\$2,149,035	\$421,307	\$86,544,251
TRC Ratio	1.97	1.39	1.29	2.22	1.38	2.04	2.11	2.97	1.36	9.37

Table F-10 provides nonresidential program cost-effectiveness analysis. Incentive costs are provided below but are not included in the TRC calculation. The TRC ratio equals the total TRC benefits divided by total non-incentive costs.

Table F-10. CY 2015 Nonresidential Programs Cost-Effectiveness Analysis

	Agriculture, Schools, and Government	Business Incentive	Chain Stores and Franchises	Large Energy Users	Small Business	Design Assistance	Renewable Energy Competitive Incentive
Incentive Costs	\$5,656,868	\$6,943,989	\$3,027,391	\$13,920,708	\$3,759,992	\$3,181,680	\$4,122,150
Admin Costs	\$762,602	\$941,845	\$307,206	\$1,048,361	\$337,049	\$514,394	\$36,371
Delivery Costs	\$3,114,023	\$3,845,947	\$1,254,449	\$4,280,895	\$1,376,311	\$2,100,485	\$148,518
Incremental Measure Costs	\$28,464,405	\$25,188,784	\$16,474,953	\$53,682,911	\$8,398,051	\$13,218,037	\$16,911,818
Total Non-Incentive Costs	\$32,341,030	\$29,976,576	\$18,036,607	\$59,012,167	\$10,111,411	\$15,832,916	\$17,096,707
Electric Benefits	\$49,956,749	\$57,009,772	\$29,356,615	\$132,363,885	\$24,317,163	\$27,677,925	\$19,740,127
Gas Benefits	\$47,207,282	\$37,219,059	\$5,305,481	\$133,828,779	\$162,637	\$12,224,875	\$2,890,415
Emissions Benefits	\$14,442,289	\$14,059,978	\$6,041,743	\$37,417,087	\$3,992,762	\$5,828,143	\$3,562,607
Total TRC Benefits	\$111,606,319	\$108,288,809	\$40,703,839	\$303,609,751	\$28,472,561	\$45,730,943	\$26,193,149
TRC Benefits Minus Costs	\$79,265,289	\$78,312,233	\$22,667,232	\$244,597,584	\$18,361,150	\$29,898,026	\$9,096,443
TRC Ratio	3.45	3.61	2.26	5.14	2.82	2.89	1.53

Cost-Effectiveness Results for Renewables

Table F-11 lists the CY 2015 cost-effectiveness results, with renewables separate and with renewables included.

Table F-11. Cost-Effectiveness Results for Focus on Energy Portfolio

Calendar Year	Residential	Nonresidential	Renewables	Total
CY 2015: Modified TRC Test Result With Renewables	3.12	3.63	N/A	3.51
CY 2015: Modified TRC Test Result Renewables Separate	3.33	3.93	1.18	3.51

Appendix G. Summary of Confidence and Precision

Focus on Energy gives significant consideration to evaluation design to ensure that its programs achieve the most accurate and reliable results possible under the available evaluation budget. The evaluation uses statistical confidence and precision standards as a key driver in determining the scale and scope of the evaluation design for each program where the target for each program over the quadrennial period is 90% confidence and 10% precision for net savings.

The Evaluation Team calculated the precision of final net first-year energy savings estimates (MMBtu) at 90% confidence for each program in the Wisconsin Focus on Energy portfolio. The precision reflects the uncertainty in the savings estimates because of measurement error, regression error, and sampling error. Measurement error refers to the uncertainty around engineering parameters derived from simulation or professional judgment, regression error refers to uncertainty around estimates derived from regression analysis, and sampling error refers to uncertainty introduced by estimating population parameters based on a sample.

In this appendix, the Evaluation Team provides details on how estimates and their standard errors were calculated. After calculating standard errors (SE), the Evaluation Team calculated the precision of the final estimates using the following formula:

$$\text{relative precision} = \frac{z \text{ statistic} * SE}{\text{total net savings}}$$

Where:

- z statistic = Critical z-statistic at a chosen confidence level
- SE = standard error of the total net savings estimate

The Evaluation Team collected data for the analyses from survey results, billing history, metered data, and secondary sources such as the Focus on Energy Technical Reference Manual.

Introduction to Statistical Uncertainty

Statistical uncertainty is inherent in all activities for which a sample or regression model is used to estimate a property of a population. Using a sample is preferred for a number of practical reasons, most notably to save the cost and time of studying an entire population, the physical difficulty of checking all members of a population, and the adequacy of sample results. The statistical properties of a sample allow for making inferences about the population, with the strength of an estimate related to the amount of uncertainty or error around the estimate. In statistical analysis, the results should produce an estimate with a low amount of uncertainty under time and budgetary constraints.

Statistical uncertainty is comprised of two parts: the confidence in an estimate and the amount of precision for the estimate at a certain level of confidence. Confidence is set at a specified level, such as

90%, 95%, or 99%. The precision of an estimate indicates a range of values where the actual population parameter will fall at the given confidence level.

Together, confidence and precision create a confidence interval around the estimate, which is the estimate plus or minus its precision. For example, if an estimate of 24 has a precision of plus or minus five at 90% confidence, then there is a 90% confidence that the true value of the estimate falls between 19 and 29. A small confidence interval indicates that the true population value is very similar to the estimate calculated using the sample.

For the Focus on Energy evaluation, the general standard for uncertainty is to achieve evaluation results with 90% confidence and 10% precision over the quadrennial period. Evaluation activities are defined and prioritized to align with this standard. This standard is in line with nationwide best practices for the evaluation of energy efficiency programs, as documented in the U.S. EPA’s National Action Plan for Energy Efficiency and elsewhere.¹¹

Nonresidential Programs

The Evaluation Team selected a sample of projects within each nonresidential program. It used a probability proportional to size sample design to increase the likelihood of selecting projects with the highest *ex ante* MMBtu savings. It then assessed *ex post* verified gross savings for sampled projects and calculated program level realization rates (RR). The Evaluation Team applied the RR values to the population total *ex ante* savings within each program to estimate the population total *ex post* gross savings. It calculated realization rates and standard errors using the formulas presented in the Uniform Methods Protocol sampling chapter where the weights (w_i) are proportional to the sampling probabilities (i.e., contribution to savings), *ex ante* savings are represented by x_i and *ex post* saving are represented by y_i :¹²

$$RR = \frac{\sum_{sample} w_i y_i}{\sum_{sample} w_i x_i}$$

$$total\ ex\ post\ gross\ savings = RR * \sum_{population} w_i x_i$$

$$SE_{total\ ex\ post\ gross\ savings} = \sqrt{w_i(w_i - 1)(y_i - RR * x_i)^2}$$

The Evaluation Team estimated nonresidential net-to-gross (NTG) ratios using survey data collected from an independent simple random sample of participants. The Evaluation Team used a ratio estimator and similar standard error formula to quantify the uncertainty in the NTG ratios (SE_{NTG}) and then

¹¹ U.S. EPA National Action Plan for Energy Efficiency. <http://www.epa.gov/cleanenergy/energy-programs/suca/resources.html>

¹² National Renewable Energy Laboratory. “Chapter 11: Sample Design Cross-Cutting Protocols.” *The Uniform Methods Project: Methods for Determining Energy Efficiency Savings for Specific Measures*. Prepared by Cadmus. April 2013. <http://energy.gov/sites/prod/files/2013/11/f5/53827-11.pdf>

multiplied the NTG ratio by the total *ex post* gross savings to estimate total net savings. To calculate the precision of the total net savings estimates, the Evaluation Team used the formula for the standard error of the product of two independent random variables.

$$SE_{total\ net\ savings} = \sqrt{NTG * SE_{total\ ex\ post\ gross\ savings}^2 + total\ ex\ post\ gross\ savings * SE_{NTG}^2 + SE_{NTG}^2 * SE_{total\ ex\ post\ gross\ savings}^2}$$

Table G-1 presents the precision of total net first-year savings estimates at 90% confidence for each nonresidential program. The sources of uncertainty in nonresidential savings estimates were due to estimating RR and NTG values based on a sample.

Table G-1. Nonresidential Net First-Year MMBtu Energy Savings Precision

Nonresidential Programs	Precision at 90% Confidence
Agriculture, Schools and Government	12%
Business Incentive	31%
Chain Stores and Franchises	26%
Design Assistance	9%
Large Energy Users	13%
Small Business	9%

Precision of net savings in the Agriculture, Schools and Government, Design Assistance, and Small Business programs are close to the 10% precision target. Precision of net savings in the Business Incentive and Chain Stores and Franchises programs are two to three times higher. Variation in both the gross and net savings in the Business Incentive Program are high, which is driving the higher overall precision. Higher variation in net savings in the Chain Stores and Franchises Program is driving the higher overall precision. The Evaluation Team expects to achieve the target of 10% precision over the quadrennial period for these programs and will monitor them in the second-year evaluation to determine if an alternate approach is necessary for their evaluation.

Note that the Large Energy Users Program precision was calculated using an unweighted estimate (as a simple random sample), resulting in an underestimate of the precision. A number of Program participants with the largest savings that were sampled did not get evaluated, either because they did not agree to a site visit for this evaluation or because their site representatives were unavailable during the Evaluation Team’s mobilization period. The absence of the large projects in the sample violates the probability proportional to size sample design and assumptions in the standard error formula.

In next year’s evaluation, the Evaluation Team will work to improve its recruiting and scheduling strategy for larger projects to ensure that a higher number of larger projects are evaluated and that the precision is calculated with the proper weights. If, upon sampling and scheduling in the next year, the Evaluation Team identifies additional challenges, it will adjust the sample design or evaluation strategy.

Residential Programs

To estimate net savings and precision for the multifamily programs, the Evaluation Team used the methods described above for the nonresidential programs. For the remaining programs, different approaches were required due to the nature of the savings estimation. The methods are described in the following sections. Table G-2 presents the precision of total net savings estimates and the sources of uncertainty for each residential program.

Table G-2. Residential Net First-Year MMBtu Energy Savings Precision (90% Confidence)

Residential Programs	Precision	Sources of Uncertainty
Multifamily Direct Install	7%	RR and NTG ratio
Multifamily Energy Savings	17%	RR and NTG ratio
Appliance Recycling	51%	UEC, part use, NTG
Residential Lighting	10%	Freeridership ratio
Home Performance with ENERGY STAR® - Standard Track, Electric	15%	PRISM model usage changes
Home Performance with ENERGY STAR® - Standard Track, Gas	7%	PRISM model usage changes
Home Performance with ENERGY STAR® - Income Qualified, Electric	38%	PRISM model usage changes
Home Performance with ENERGY STAR® - Income Qualified, Gas	18%	PRISM model usage changes
New Homes – Gas ¹	52%	Average therms/sq. ft. usage
Residential and Enhanced Rewards	n/a	D+R survey and program data
Express Energy Efficiency	34%	Survey estimated ISRs

¹The Evaluation Team did not find any electric savings for the New Homes Program and assumed a realization rate of 0%. Precision was not calculated for electric savings.

Appliance Recycling Program

The Evaluation Team multiplied full-year unit energy savings (UEC) estimates resulting from a regression-based metering analysis by average annual running time estimates resulting from a participant survey analysis to estimate gross per-unit savings. The Evaluation Team calculated combined standard errors for the final estimate using this formula for the product of two independent random variables:¹³

$$SE_{total\ net\ savings} = \sqrt{Run\ time * SE_{UEC}^2 + UEC * SE_{Run\ time}^2 + SE_{Run\ time}^2 * SE_{UEC}^2}$$

Residential Lighting Program

The Evaluation Team estimated net savings for the residential lighting program using a demand elasticity regression model. It calculated net savings by first estimating a freeridership ratio then multiplying that ratio with gross savings to estimate net savings. There is no “closed-form” solution for the standard

¹³ Goodman, Leo. “The Variance of the Product of K Random Variables.” *Journal of the American Statistical Association*. 1962.

error of this estimate,¹⁴ so the Evaluation Team estimated uncertainty using a simulation-based bootstrapping procedure.¹⁵

As part of the bootstrap estimation, the Evaluation Team resampled the original program population data 300 times with replacement within strata defined by bulb technology (CFL or LED) and bulb type (standard, specialty, or reflector).

The Evaluation Team fit the elasticity model and estimated freeridership ratios for each resample to produce a distribution of final net savings estimates. The 5th and 95th percentile of this distribution represent the lower and upper bounds of the 90th confidence interval. The Evaluation Team calculated the precision based on the half-width of the confidence interval.

Home Performance with ENERGY STAR® Program

The Evaluation Team used PRInceton Scorekeeping Method (PRISM) models to estimate savings for the Home Performance with ENERGY STAR programs. The PRISM modeling approach has often been used in billing analysis since first introduced in the 1980s—and is the standard approach for billing analysis used by Cadmus, since the method obtains weather normalized usage and savings estimates at the customer level. With these customer-level weather-normalized usages, obtaining savings for various subsets and subgroups is straightforward. The Evaluation Team calculated the precision of each estimate based on the PRISM regression standard errors of the estimated changes in usage, then it pooled standard errors within participants and nonparticipants to calculate precision for the final adjusted gross savings.

New Homes Program

The Evaluation Team calculated gas savings for the New Homes Program by taking the difference between the participant and nonparticipant gas (therm) usage per square foot. It collected square footage data using Zillow and estimated post-installation period normalized annual consumption (POSTNAC) using PRISM regression models.¹⁶ The Evaluation Team divided the POSTNAC by the square footage to estimate therms per square foot usage (POSTNAC/square feet) for participants and nonparticipants for each utility. To estimate the precision of the respective usage estimates, the

¹⁴ An equation is said to have a closed-form solution if it solves a given problem in terms of functions and mathematical operations. (<http://mathworld.wolfram.com/Closed-FormSolution.html>)

¹⁵ Bootstrapping refers to a process of repeated random sampling of the population. Each draw is used to estimate some statistical parameter. Numerous samples produce numerous estimates which are used to determine standard error and associated precision.

¹⁶ The Evaluation Team did not find any electric savings and assumed a realization rate of 0%. Precision was not calculated for electric savings.

Evaluation Team applied the following formula to estimate the standard error of a ratio of two random variables,¹⁷ where A represents the POSTNAC in therms and B represents square footage:

$$SE\left(\frac{A}{B}\right) = \frac{1}{B} \sqrt{SE(A)^2 + \left(\frac{A}{B}\right)^2 \times SE(B)^2}$$

One standard error was calculated for the total participant usage and nonparticipant usage using weights based on sample sizes in each utility. To calculate the standard error of the gas savings, the difference between participant and nonparticipant usage, the Evaluation Team used the formula for the standard error of the sum of two independent random variables:¹⁸

$$SE_{gas\ savings} = \sqrt{SE_{participant\ usage}^2 + SE_{nonparticipant\ usage}^2}$$

Residential and Enhanced Rewards Program

The Evaluation Team used a standard market practice analysis to estimate savings for the Residential and Enhanced Rewards Program. It used D+R data to estimate the proportion of HVAC equipment in each AFUE category. The D+R survey reported proportions based on over 9,000 sampled units. The Evaluation Team calculated the corresponding precision of these estimates, which is close to 0%. It combined the D+R AFUE proportions with those observed in the program tracking database to estimate a Wisconsin-specific distribution of non-program HVAC AFUE in the market place and then multiplied this result with the energy consumption estimates calculated using an engineering algorithm with inputs from the TRM.

The TRM values are not reported with error bounds, thus the Evaluation Team was not able to calculate the uncertainty in the energy consumption estimates. To estimate savings, the Evaluation Team calculated the difference between the market baseline and the program energy consumption estimates. Because the Evaluation Team could not account for uncertainty in the engineering algorithm inputs from the TRM, it did not calculate the precision of net savings for this program.

¹⁷ American Community Survey. "Instructions for Applying Statistical Testing to 2008 ACS 1-Year Data." Available online: http://www2.census.gov/programs-surveys/acs/tech_docs/statistical_testing/ACS_2008_Statistical_Testing.pdf

¹⁸ National Renewable Energy Laboratory. "Chapter 11: Sample Design Cross-Cutting Protocols." *The Uniform Methods Project: Methods for Determining Energy Efficiency Savings for Specific Measures*. Prepared by Cadmus. April 2013. <http://energy.gov/sites/prod/files/2013/11/f5/53827-11.pdf>.

Express Energy Efficiency Program

The Evaluation Team used a survey to collect information on installation rates (ISR) from a sample of customers. ISRs were estimated for each measure, then multiplied to the total *ex ante* for that measure to estimate the *ex post* gross savings, and finally summed the gross savings for each measure. The uncertainty in the total savings estimate is associated with the estimated ISRs. The Evaluation Team calculated the standard error for each ISR using the formula for a proportion:

$$ISR = \frac{\# \text{ installed}}{\# \text{ reported}}$$

$$SE_{ISR} = \sqrt{\frac{ISR * (1 - ISR)}{n}}$$

The Evaluation Team calculated the standard error for the gross savings associated with each measure as:

$$SE_{\text{gross measure savings}} = \text{gross measure savings} * SE_{ISR}$$

And the standard error for the total gross savings as:

$$SE_{\text{total gross savings}} = \sqrt{\sum_{\text{measures}} \text{gross measure savings}^2 * SE_{ISR}^2}$$

Appendix H. Geographic Analysis

The Evaluation Team assessed trends in LED and CFL purchases across Wisconsin by performing a geographic analysis using questions from the general population survey.

The Evaluation Team divided the state into six regions to allow maximum granularity while maintaining a statistically relevant number of general population survey respondents in each region. Three regions represented the metropolitan areas of Green Bay, Madison, and Milwaukee. The other three were more rural areas and are referred to as the East, North and West, and Central regions. Table H-1 shows the number of respondents to the general population survey, total population, number of participating stores, number of stores per 100,000 residents, and Residential Lighting Program CFL sales per person in each region.

Table H-1. GIS Map Regions and Characteristics

GIS Map Regions	Total General Population Survey Respondents	Region Population (2014) ¹	Number of CY 2015 Participating Stores	Stores/100,000 Residents	CFL Sales/Person
Green Bay	82	608,187	144	23.7	1.58
Madison	61	516,284	84	16.3	1.26
Milwaukee	135	1,351,524	234	17.3	1.15
East	135	1,416,546	257	18.1	1.1
North and West	113	1,224,901	274	22.4	1.02
Central	83	640,122	135	21.1	0.95

¹ U.S. Census Bureau. "2014 Population and Housing Unit Estimates." Available online: <http://www.census.gov/popest/>

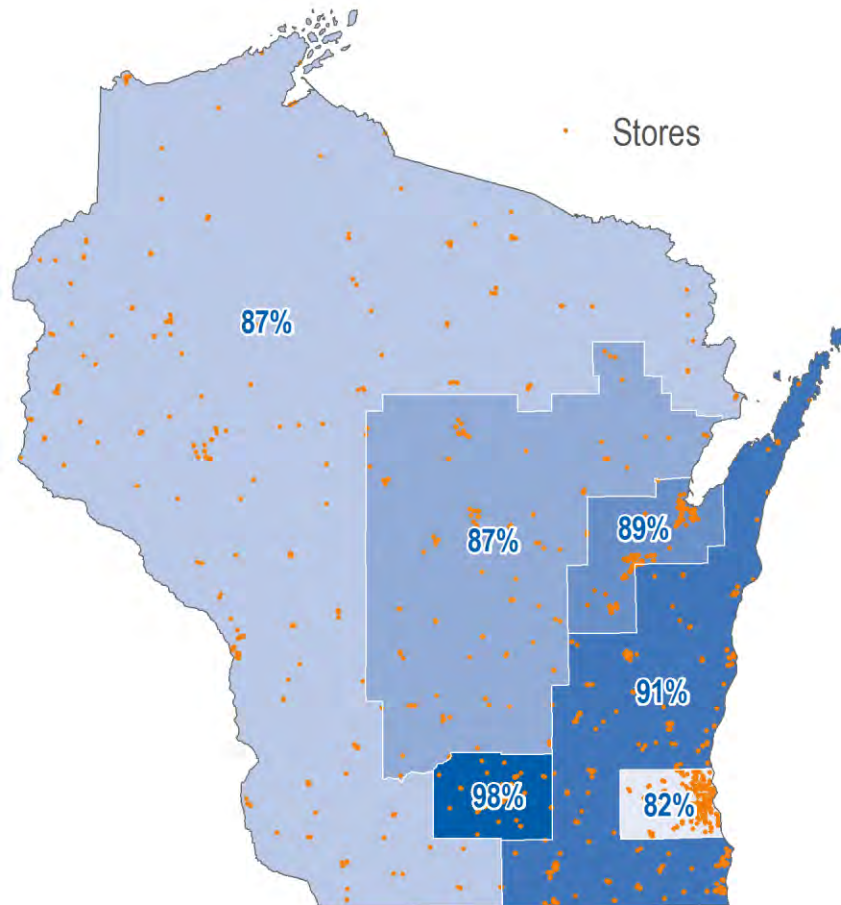
The Green Bay, North and West, and Central regions had the highest number of participating stores per capita. However, there was no identifiable trend between the number of stores per capita in a region and the CFL sales per capita in that region. The highest CFL sales were in the state’s three metropolitan regions, probably attributable to the easier access to CFL bulbs in urban areas compared to rural areas where stores carrying CFLs are more geographically dispersed.

The Evaluation Team mapped general population survey responses to CFL awareness, penetration,¹⁹ and purchasing history. The majority of respondents in all regions exhibited high awareness of CFLs, ranging from 82% in the Milwaukee region to 98% in the Madison region, for a statewide average of 88% (Figure H-1). The majority of respondents in all regions also reported having at least one CFL at home, ranging from 82% of respondents in the Central region to 90% in the Madison region, with a statewide average

¹⁹ Penetration refers to the percentage of homes with at least one CFL.

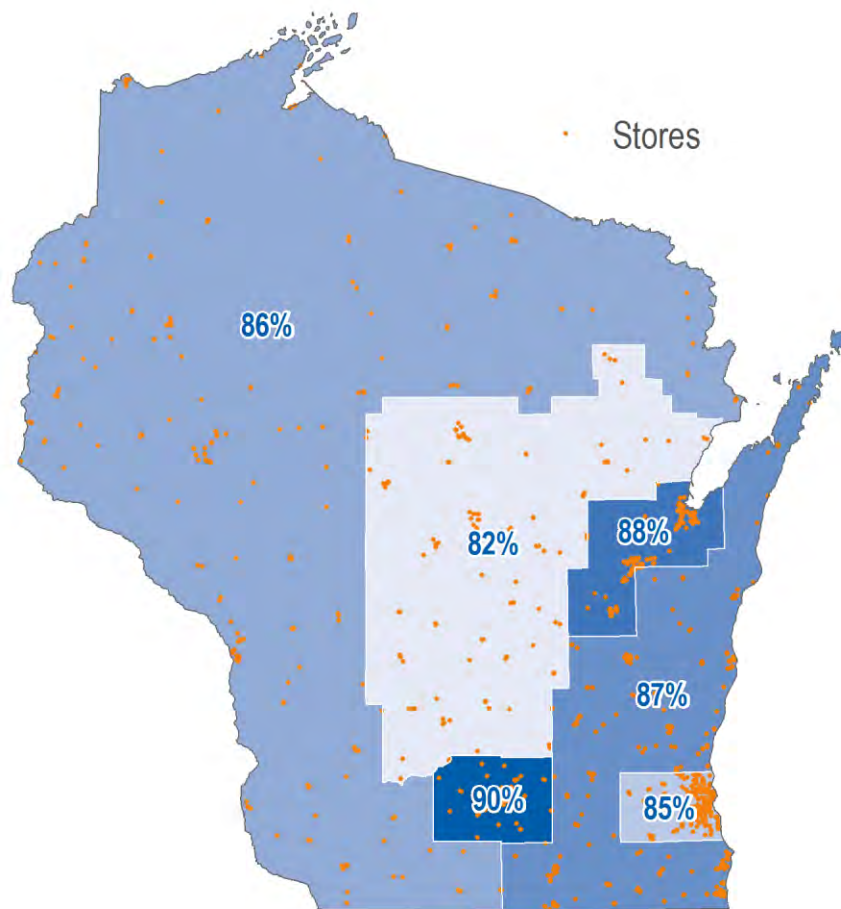
of 86% (Figure H-2). When asked if they had purchased CFLs in the last year, the majority said they had, ranging from 57% in the Green Bay region to 64% in the Madison region, for a statewide average of 61% (Figure H-3).

Figure H-1. Map of General Population’s Awareness of CFLs



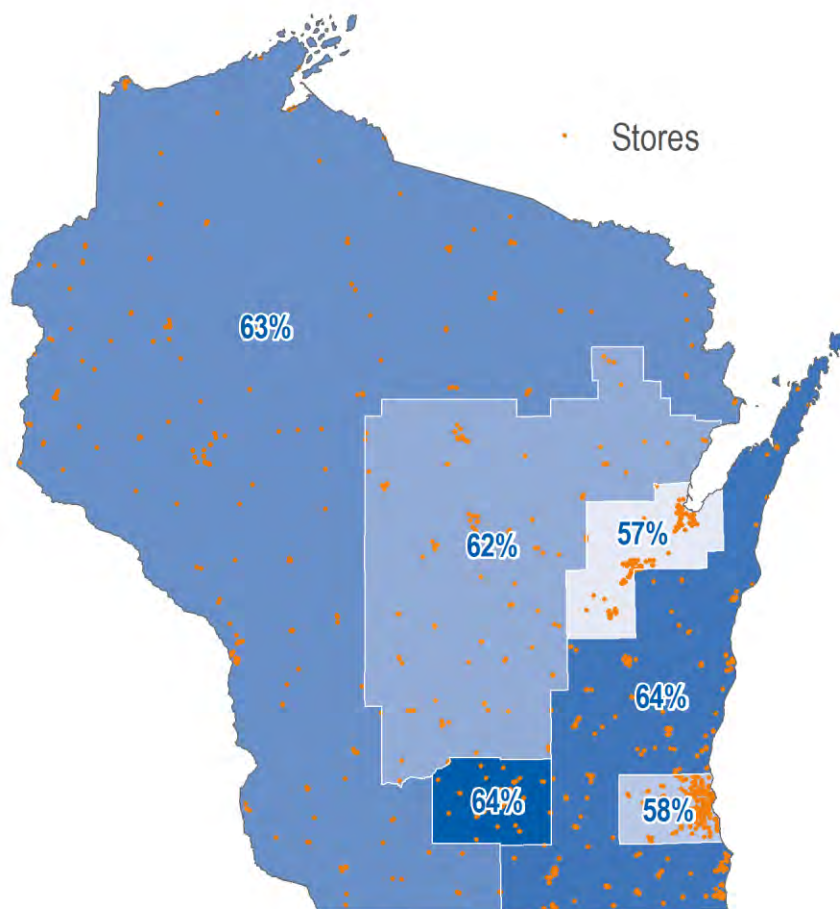
Source: 2015 General Population Survey. Question E1: “Before today, had you heard of a type of energy-efficient light bulb called a ‘compact fluorescent light bulb,’ or CFL, for short?” (n≥ 587)

Figure H-2. Map of General Population's Penetration of CFLs



Source: 2015 General Population Survey. Question E3: "Do you currently have one or more CFLs installed in your home?" (n≥ 565)

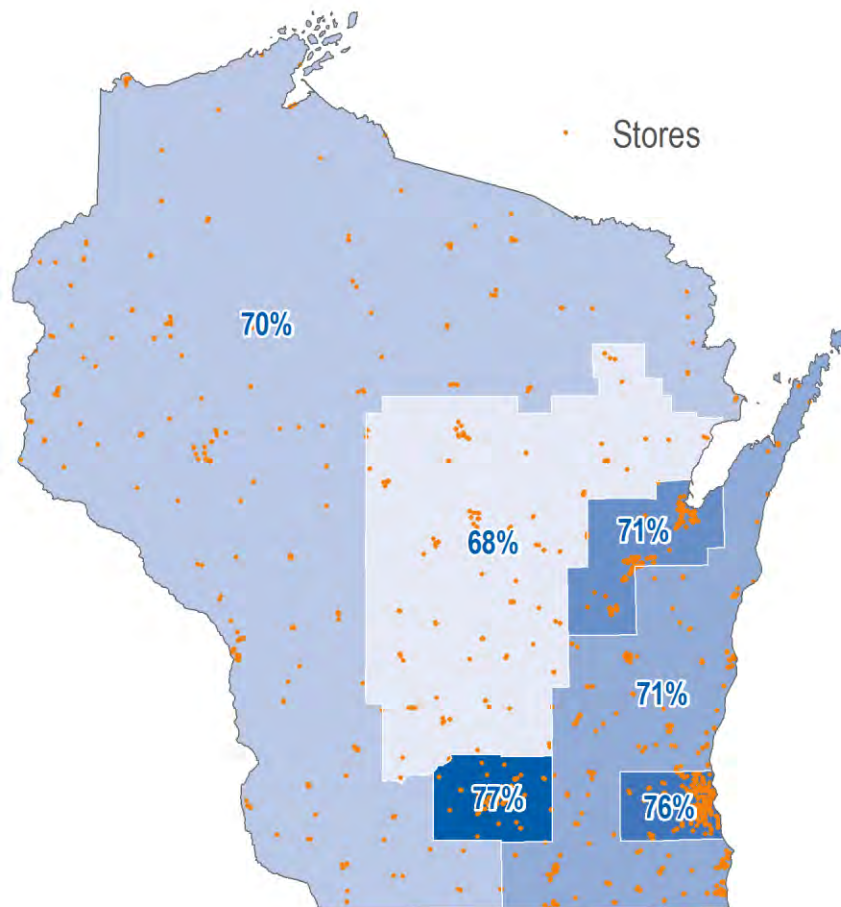
Figure H-3. Map of General Population’s Purchasing History for CFLs



Source: General Population Survey. Question E6: “Have you purchased any CFLs for either home or business use during the last 12 months?” (n≥ 553)

The Evaluation Team asked the general population respondents identical questions for LEDs as for CFLs. Figure H-4, Figure H-5, and Figure H-6 show the distribution of responses regarding LED awareness, penetration, and purchasing history. General awareness of LEDs was lower than for CFLs in all regions but still fairly high, with a statewide average of 72%. Respondents from two urban regions had the highest awareness (Madison, 77%, and Milwaukee, 76%), while respondents had lower levels in the more rural Central region (68%) and the North and West region (70%) (Figure H-4).

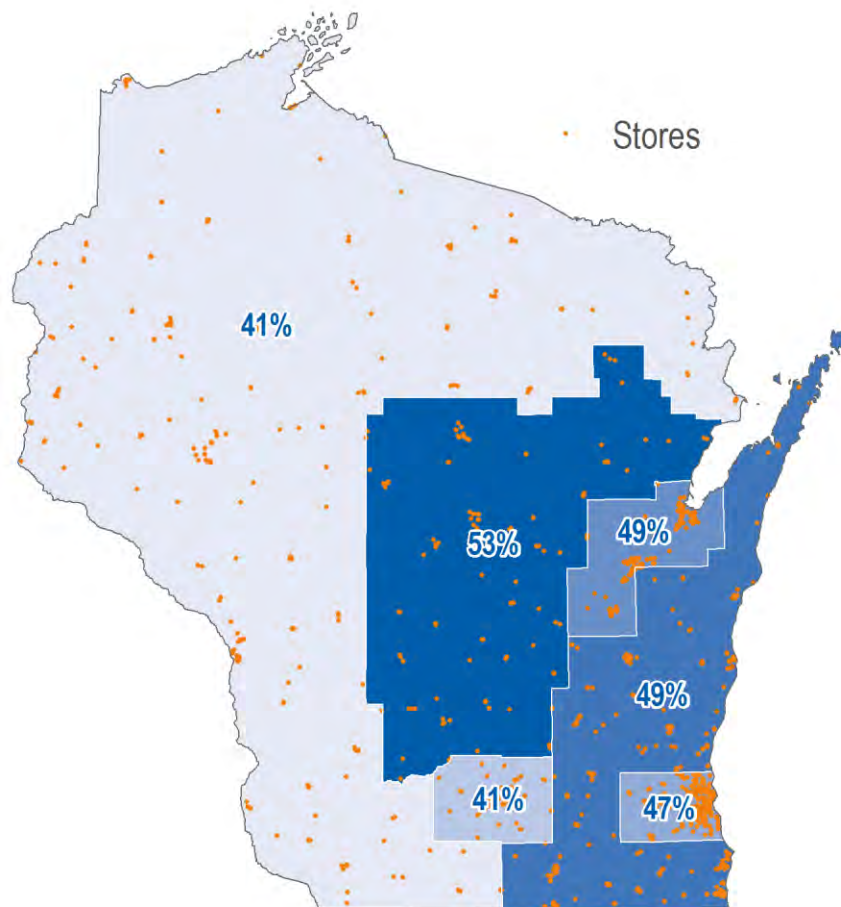
Figure H-4. Map of General Population’s Awareness of LEDs



Source: 2015 General Population Survey. Question E13: “Before today, had you heard of LEDs that can be used in regular, screw base light sockets?” (n≥ 592)

Although respondents in the Madison region had a relatively high awareness of LEDs, only 41% reported having at least one LED installed in their home compared to other regions such as the Central region, where penetration was 53%. Respondents from the North and West region also reported relatively low LED ownership (41%). The statewide average for LED ownership was 47%.

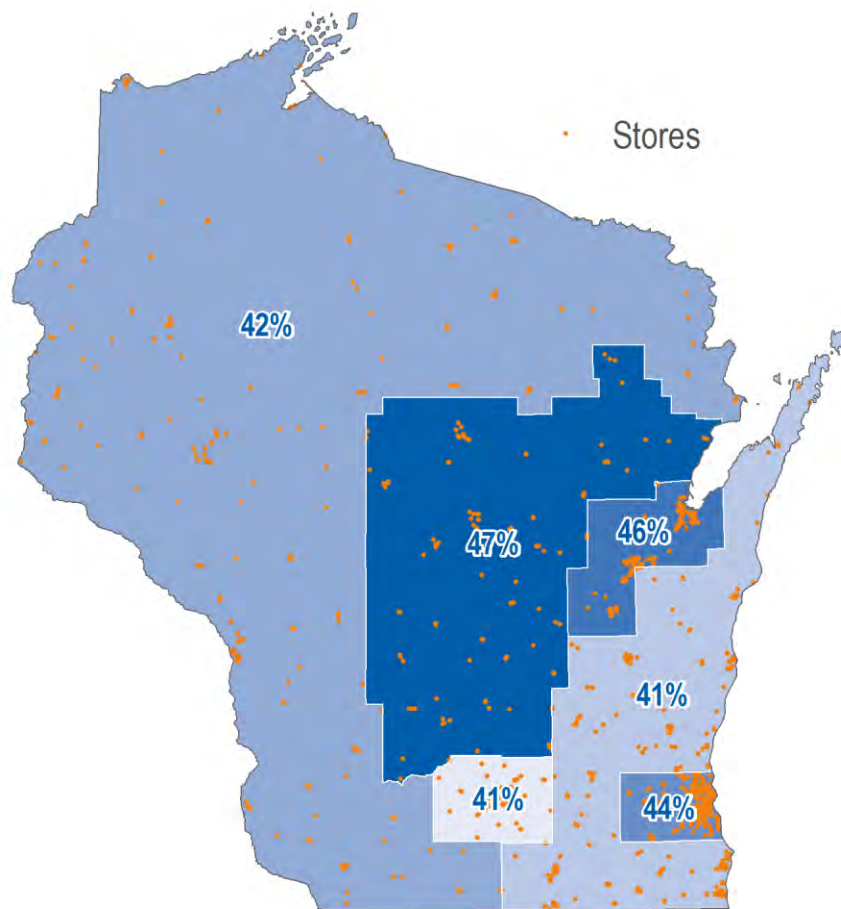
Figure H-5. Map of General Population’s Penetration of LEDs



Source: 2015 General Population Survey. Question E14: “Do you currently have one or more screw base LED light bulbs installed in your home?” (n ≥ 401)

Fewer than half of the respondents across all regions reported purchasing LEDs in the last year, ranging from 41% in the Madison region to 47% in the Central region, for an average of 44% across the state. On average across the state, the percentage of respondents who purchased CFLs in the last year was about 18% higher than respondents who purchased LEDs (Figure H-6), which suggests there are opportunities for increasing adoption as the Program expands the types of LEDs it offers in more stores across the state. A particular opportunity is in the Madison region, which had a relatively high level of awareness of LED technology and a relatively low level of penetration.

Figure H-6. Map of General Population’s Purchasing History for LEDs



Source: 2015 General Population Survey. Question E14: “Have you purchased any screw base LEDs for either home or business use during the last 12 months?” (n ≥ 407)

Appendix I. Measure Analysis

The CY 2015 evaluation included detailed analysis for a limited number of measures in the Residential segment. This appendix describes the CY 2015 analyses, including the methodologies followed and the results applied to the CY 2015 program evaluations.

Residential Measures

Appliance Recycling

Gross Annual Unit Energy Consumption

In CY 2015, the Evaluation Team estimated the per-unit savings estimates for recycled refrigerators and freezers analysis using meter data and multivariate regression models as in the CY 2013 evaluation.

Refrigerator Regression Model

Table I-1 shows the UMP model specification the Evaluation Team used to estimate annual energy consumption of refrigerators recycled in CY 2015, along with the model’s estimated coefficients.

**Table I-1. Refrigerator UEC Regression Model Estimates
(Dependent Variable = Average Daily kWh, R-square = 0.30)**

Independent Variables	Coefficient	p-Value
Intercept	0.800	0.134
Age (years)	0.020	0.035
Dummy: Manufactured Pre-1990	1.040	0.000
Size (cu. ft.)	0.060	0.021
Dummy: Single Door	-1.750	0.000
Dummy: Side-by-Side	1.120	0.000
Dummy: Primary	0.560	0.003
Interaction: Unconditioned Space x HDDs	-0.040	0.000
Interaction: Unconditioned Space x CDDs	0.030	0.239

Freezer Regression Model

Table I-2 details the final model specifications the Evaluation Team used to estimate energy consumption of participating freezers recycled, along with the results.

**Table I-2. Freezer UEC Regression Model Estimates
(Dependent Variable = Average Daily kWh, R-square = 0.38)**

Independent Variables	Coefficient	p-Value
Intercept	-0.950	0.236
Age (years)	0.050	0.010
Dummy: Manufactured Pre-1990	0.540	0.202
Size (cu. ft.)	0.120	0.001
Dummy: Chest Freezer	0.300	0.273
Interaction: Unconditioned Space x HDDs	-0.030	0.035
Interaction: Unconditioned Space x CDDs	0.080	0.026

Extrapolation

After estimating the final regression models, the Evaluation Team analyzed the corresponding characteristics (i.e., the independent variables) for participating appliances (as captured in the Program Administrator’s database). Table I-3 summarizes Program averages or proportions for each independent variable.

Table I-3. CY 2015 Participant Mean Explanatory Variables

Appliance	Independent Variables	Participant Population Mean Value
Refrigerator	Age (years)	26.75
	Dummy: Manufactured Pre-1990	0.47
	Size (cu. ft.)	17.74
	Dummy: Single Door	0.05
	Dummy: Side-by-Side	0.17
	Dummy: Primary	0.54
	Interaction: Unconditioned Space x HDDs ¹	4.65
	Interaction: Unconditioned Space x CDDs ¹	0.33
Freezer	Age (years)	33.66
	Dummy: Manufactured Pre-1990	0.72
	Size (cu. ft.)	15.69
	Dummy: Chest Freezer	0.42
	Interaction: Unconditioned Space x HDDs ¹	7.52
	Interaction: Unconditioned Space x CDDs ¹	0.54

¹CDDs and HDDs derive from the weighted average from Typical Meteorological Year (TMY3) data for weather stations that Cadmus mapped to participating appliance zip codes. TMY3 uses median daily values for a variety of weather data collected from 1991–2005.

Using the values from Table I-1, Table I-2, and Table I-3, the Evaluation Team estimated the *ex post* annual UEC of the average refrigerator and freezer participating in the Program. Table I-4 displays the estimated *ex post* estimates compared to the Program initial *ex ante* values.

Table I-4. Average UEC by Appliance Type

Appliance	Ex Ante Annual UEC (kWh/year)	Ex Post Annual UEC (kWh/year)	Relative Precision (90% Confidence)
Refrigerators	1,190	1,139	10%
Freezers	1,283	1,077	19%

Part-Use Factor

Part-use is an adjustment factor specific to appliance recycling that is used to convert the UEC into an average per-unit gross savings value. The UEC itself is not equal to the gross savings value, because:

- The UEC model yields an estimate of annual consumption, and
- Not all recycled refrigerators would have operated year-round had they not been decommissioned through the Program.

The part-use methodology relies on information from surveyed customers regarding pre-Program usage patterns, that is, how many months of the year prior to recycling was the appliance plugged in and running.

The final estimate of part-use reflects how appliances were likely to operate had they not been recycled (rather than how they previously operated). For example, it is possible that a primary refrigerator operated year-round would have become a secondary appliance and operated part-time. The methodology accounts for these potential shifts in usage types. Specifically, part-use is calculated using a weighted average of the following prospective part-use categories and factors:

- Appliances that would have run full-time (part-use = 1.0)
- Appliances that would not have run at all (part-use = 0.0)
- Appliances that would have operated a portion of the year (part-use is between 0.0 and 1.0)

The Evaluation Team calculated a weighted average part-use factor, representing the three participant usage categories as defined by the appliance’s operational status during the year before recycling. For example, the Evaluation Team gave participants who did not use their appliance at all during the year prior to its recycling a part-use factor of zero, because no immediate savings were generated by the appliance’s retirement.

Using information gathered through participant surveys, the Evaluation Team took the following steps to determine part-use:

1. The Evaluation Team determined whether recycled refrigerators were primary or secondary units (treating all stand-alone freezers as secondary units).
2. The Evaluation Team asked participants who indicated they had recycled a secondary refrigerator or freezer if the appliance had operated year-round, operated for a portion of the preceding year, or was unplugged and not operated. The Evaluation Team assumed all primary units operated year-round.

- The Evaluation Team asked participants who indicated they operated their secondary refrigerator or freezer for only a portion of the preceding year to estimate the total number of months that the appliance remained plugged in. This allowed the calculation of the portion of the year in which the appliance remained in use.

The Evaluation Team determined that the average refrigerator, operating part-time, had a part-use factor of 0.45, or five months. Freezers operating part time had a part-use factor of 0.25, or three months.

These three steps resulted in information about how refrigerators and freezers operated prior to recycling, as shown in Table I-5.

Table I-5. Historical Part-Use Factors by Category

Usage Type and Part-Use Category	Percentage of Recycled Units	Part-Use Factor	Per-Unit Energy Savings (kWh/Yr)
Secondary Refrigerators Only		n = 45	
Not in Use	4%	0	0
Used Part Time	31%	0.45	513
Used Full Time	64%	1.00	1,139
Weighted Average		78%	888
All Refrigerators (Primary and Secondary)		n = 99	
Not in Use	2%	0	0
Used Part Time	14%	0.45	513
Used Full Time	84%	1.00	1,139
Weighted Average		0.90	1,029
All Freezers		n = 70	
Not in Use	23%	0	0
Used Part Time	6%	0.25	269
Used Full Time	71%	1.00	1,077
Weighted Average		0.73	781

In many cases, the way an appliance was used historically (prior to being recycled) is not indicative of how the appliance would have been used had it not been recycled. To account for this, the Evaluation Team next asked surveyed participants how they would have (likely) operated their appliances had they not recycled them through the Program. For example, if surveyed participants indicated they would have kept a primary refrigerator in the Program’s absence, the Evaluation Team asked if they would have continued to use the appliance as their primary refrigerator or would have relocated it, using it as a secondary refrigerator.

Participants who said they would have discarded their appliance independent of the Program were not asked about the future use of that appliance, as that would be determined by another customer.

Because the future use type of discarded refrigerators is unknown, the Evaluation Team applied the weighted part-use average of all units (0.90) for all refrigerators that would have been discarded independent of the Program. By using this approach, the Evaluation Team acknowledged that the discarded appliances might be used as either primary or secondary units in the would-be recipient’s home.

The Evaluation Team then combined the part-use factors shown in Table I-5 with participants’ self-reported actions had the Program *not* been available. This resulted in the distribution of likely future usage scenarios and corresponding part-use estimates.

The weighted average of these future scenarios, shown in Table I-6, produced the CY 2015 part-use factor for refrigerators (0.88, up from 0.82 in CY 2014) and freezers (0.73, down from 0.79 in CY 2014). The decrease in the part use for freezers is because of an increase in the number of respondents who said their freezer was not in use at all for the year prior to recycling, 23% in CY 2015 compared to 17% in CY 2014.

Table I-6. Part-Use Factors by Appliance Type

Use Prior to Recycling	Likely Use Independent of Recycling	Part-Use Factor	Percentage of Participants
Primary Refrigerators	Kept (as primary unit)	1	5%
	Kept (as secondary unit)	0.78	10%
	Discarded	0.90	39%
Secondary Refrigerators	Kept	0.78	15%
	Discarded	0.90	31%
Overall		0.875	100%
Freezers	Kept	0.73	36%
	Discarded	0.73	64%
Overall		0.73	100%

Applying the part-use factors from Table I-6 to the modeled annual consumption from Table I-4 yields the average gross per-unit energy savings. Table I-7 shows the average gross savings for refrigerators is 1,098 kWh and savings for freezers is 829 kWh.

Table I-7. Per-Unit Gross Energy Savings by Measure

Appliance	Average Per-Unit Annual Energy Consumption (kWh/Year)	Part-Use Factor	Adjusted Per-Unit Gross Energy Savings (kWh/Yr)	Precision at 90% Confidence
Refrigerators	1,139	0.875	997	12%
Freezers	1,077	0.730	786	22%

Residential Lighting

Unit Energy Savings Input Details

Table I-8 provides the descriptions, values, and sources for the inputs the Program Implementer applied to estimate *ex ante* savings for the Residential Lighting Program. Items under the heading Unit Savings Inputs were used to calculate savings for individual bulbs, and items under the heading Total Savings Inputs are applied to aggregated savings.

Table I-8. CY 2015 Lighting SPECTRUM Inputs

Input	Description	Value	Units	Source
Unit Savings Inputs				
HOU ¹	Hours of use: daily average use of CFLs and LEDs	2.77	Hours/day	WI January 2015 TRM
ISR	In-service rate: percentage of lights installed	n/a	-	Not applied in SPECTRUM
ΔWatts	Delta Watts: difference in wattage between the efficient and baseline bulb	varies	W	WI January 2015 TRM
CF ¹	Coincidence Factor: summer peak coincidence factor	0.119	-	WI January 2015 TRM
365	Days per year: conversion to annualize the daily hours of use	365	Days/year	WI January 2015 TRM
Total Savings Inputs				
EUL _{CFL} ²	Effective useful life: average life of a CFL bulb	8.0	Years	WI January 2015 TRM
EUL _{LED} ²	Effective useful life: average life of a LED bulb	15.0	Years	WI January 2015 TRM

¹ HOU and CF include adjustments for cross sector sales (CSS) of 7.1%.

² EUL values listed represent the effective useful lives of CFLs and LEDs offered by the program, and are not representative of all existing CFLs or LEDs.

The Evaluation Team used the values shown in Table I-9 to calculate verified savings.

Table I-9. CY 2015 Lighting Verified Gross Inputs

Input	Description	Residential Value	Nonresidential Value	Units	Source
Unit Savings Inputs					
HOU	Hours of use: daily average use of CFLs and LEDs	2.20	10.20	Hours/day	WI January 2015 TRM
ISRCFL	In-service rate: percentage of CFLs installed	96.6%	96.6%	%	Survey administered during the WI 2015 in-home audits of 124 homes. Net present value ISR accounts for bulbs installed from storage.
ISILED	In-service rate: percentage of LEDs installed	99.9%	99.9%	%	
ΔWatts	Delta Watts: difference in wattage between the efficient and baseline bulb	varies	varies	W	WI 2015 lumen equivalence analysis
CF	Coincidence Factor: summer peak coincidence factor	0.069	0.770	-	WI January 2015 TRM
365	Days per year: conversion to annualize the daily hours of use	365	365	Days/year	WI January 2015 TRM
Total Savings Inputs					
CSS	Cross sector sales: percentage of bulbs sales allocated to the residential and nonresidential sector	93.4%	6.6%	%	WI 2015 cross-sector sale analysis
EULCFL	Effective useful life: average life of a CFL bulb	8.0	5.0	Years	WI January 2015 TRM, MMID 2959 and 2134
EULED	Effective useful life: average life of a LED bulb	15.0	6.0	Years	WI January 2015 TRM, MMID3112

The verified inputs include the cross sector sales percentage of 6.6% because verified savings calculate residential and nonresidential savings independently, then weight the savings for each residential and nonresidential measure using the cross sector sales percentage. The verified savings in Table I-10 show the residential, nonresidential and weighted savings.

Table I-10. CY 2015 Verified Gross Unit Savings¹

Measure	Residential		Nonresidential		Residential/ Nonresidential Weighted ²	
	kWh	kW	kWh	kW	kWh	kW
CFL, Reflector	26	0.002	123	0.025	32	0.004
CFL, Standard Bulb, 310-749 lm	12	0.001	58	0.012	15	0.002
CFL, Standard Bulb, 750-1,049 lm	21	0.002	94	0.020	26	0.003
CFL, Standard Bulb, 1,050-1,489 lm	23	0.002	107	0.022	28	0.003
CFL, Standard Bulb, 1,490-2,600 lm	34	0.003	158	0.033	42	0.005
LED, Reflector	39	0.004	184	0.038	49	0.006
LED, Omnidirectional, 310-749 lm	18	0.002	82	0.017	22	0.003
LED, Omnidirectional, 750-1,049 lm	25	0.002	118	0.025	31	0.004
LED, Omnidirectional, 1,050-1,489 lm	30	0.002	132	0.027	37	0.004
LED, Omnidirectional, 1,490-2,600 lm	43	0.004	200	0.041	53	0.006

¹No gas savings are claimed for the Program.

²Residential and nonresidential unit savings weighted by evaluated cross-sector sales percentage

Table I-11 provides baseline and efficient wattages and the corresponding delta watts values for the *ex ante* and verified savings.

Table I-11. Ex Ante and Verified Delta Watts Comparison

Measure	Ex Ante Baseline	Average Evaluated Baseline	Ex Ante Bulb Wattage	Average Bulb Wattage	Ex ante delta watts	Average Evaluated Delta watts
CFL, Reflector	65	53	15	14	50	39
CFL, Standard Bulb, 310-749 lm	29	29	9	10	20	19
CFL, Standard Bulb, 750-1,049 lm	43	44	13	13	30	31
CFL, Standard Bulb, 1,050-1,489 lm	53	53	18	19	35	34
CFL, Standard Bulb, 1,490-2,600 lm	72	72	23	22	49	50
LED, Reflector	65	61	12	11	53	50
LED, Omnidirectional, 310-749 lm	29	29	7	6	22	23
LED, Omnidirectional, 750-1,049 lm	43	42	11	10	32	32
LED, Omnidirectional, 1,050-1,489 lm	53	54	13	15	40	39
LED, Omnidirectional, 1,490-2,600 lm	72	73	17	18	55	55

Delta Watts

The sections below provide details related to calculating the verified delta watts input.

ENERGY STAR-Qualified Product List Analysis

The Evaluation Team analyzed the ENERGY STAR®-qualified lamps for two reasons. The primary reason was to estimate lumen outputs of bulbs that could not be matched directly by stock keeping unit (SKU) number. The secondary reason was to develop the list the estimated CFL and LED wattages associated

with each lumen bin. The analysis used the ENERGY STAR-qualified bulb product list updated on October 5, 2015.

The sales database for the Residential Lighting Program consisted of approximately 7,900 CFL products and 11,500 LED products, along with their associated wattages and lumens. The lumen outputs for a given lamp wattage varied significantly; for example, 266 CFL products rated for 20 watts had outputs ranging from 850 lumens to 1,500 lumens.

The Evaluation Team addressed these variations by using median lumens to create the relationship. As shown in Figure I-1, the calculated trend line shows a strong linear relationship between the CFL wattage and its lumen output. The Evaluation Team used this linear relationship to determine the lumen output for the CFL lamps that did not have a model number matching the ENERGY STAR-qualified lamp product list.

Figure I-1. Median Lumens vs. CFL Wattage for ENERGY STAR-Qualified Standard CFLs

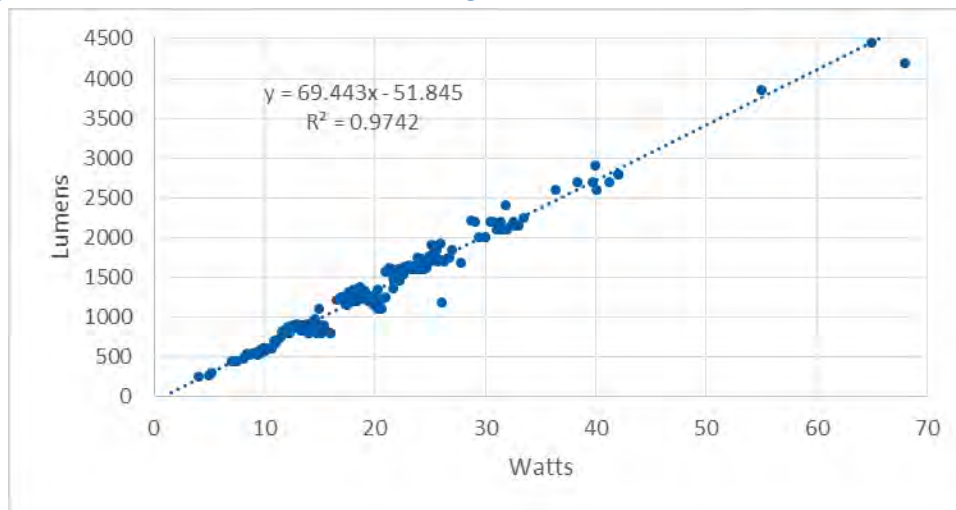
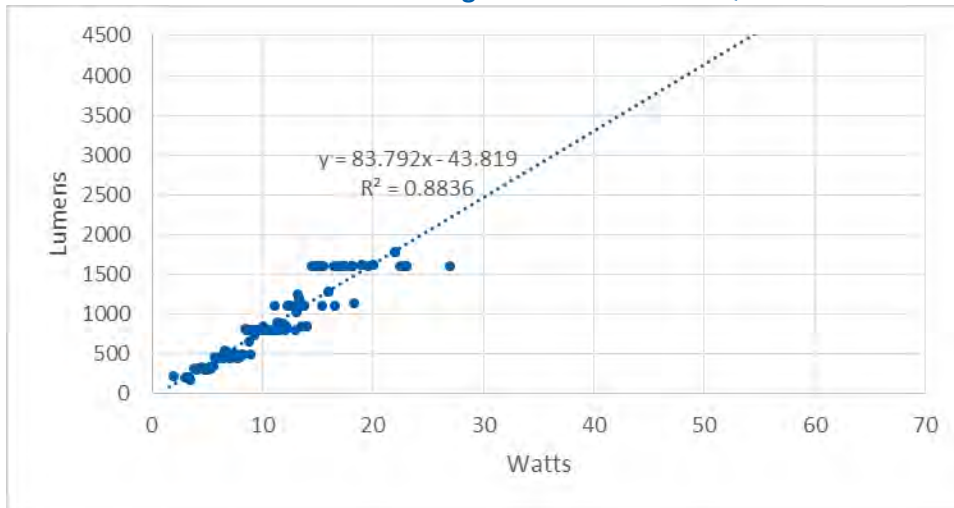


Figure I-2 shows the same relationship for LED standard lamps.

Figure I-2. Median Lumens vs. LED Wattage for ENERGY STAR-Qualified Standard LEDs



In total, the upstream lighting analysis employed six linear best-fit lines—for LED and CFL standard, reflector, and specialty lamps. Generally, watts and lumens exhibited a stronger relationship for CFLs than for LEDs, as shown in the figures above.

Lumen Bins

Lumen bins for specialty bulbs are below in Table I-12, Table I-13, and Table I-14. The UMP specifies these lumen bins.

Table I-12. Globe Lumen Bins

Bin	Pre-2012 Baseline (Pre-EISA)	Baseline (EISA-Impacted Bulbs)
250-349	25	25
350-499	40	29
500-574	60	43
575-649	75	53
650-1099	100	72
1100-1300	100	72

Table I-13. Decorative Shape (Candles) Lumen Bins

Bin	Pre-2012 Baseline (Pre-EISA)	Baseline (EISA-Impacted Bulbs)
70-89	10	10
90-149	15	15
150-299	25	25
300-499	40	29
500-699	60	43

Table I-14. EISA-Exempt Lumen Bins (i.e., 3-way, post lamps, etc.)

Bin	Pre-2012 Baseline (Pre-EISA)	Baseline (Exempt Bulbs)
0-309	25	25
310-449	25	25
450-799	40	40
800-1099	60	60
1100-1599	75	75
1600-1999	100	100
2000-2600	150	150
2601-3300	150	150
3301-4815	200	200

Cross-Sector Sales Analysis

The upstream lighting component of Focus’ Residential Lighting Program is intended for residential customers; however, because the Program pays incentives directly to manufacturers, actual participants are not known. Focus assumes small-business owners make up a proportion of the customers buying discounted bulbs from participating retailers.

Because bulbs installed in nonresidential settings are subject to different assumptions that affect annual savings, the Evaluation Team conducted surveys and analysis to estimate the proportion of the Program bulbs purchased by small business customers (i.e., the cross-sector sales proportion). This methodology, developed internally in collaboration with other evaluation firms has been employed in evaluations in Pennsylvania and Ohio.

Methodology

During 2015, the Evaluation Team conducted several cross-sector sales surveys with Focus’ residential customers and a subset of small business customers. The Evaluation Team administered the general population survey by phone and online to 609 customers (442 online, 167 phone). The survey achieved 572 completes, with 409 valid responses from customers who purchased CFLs or LEDs from a retailer participating in the Residential Lighting Program the previous year. In fall 2015, the Evaluation Team surveyed 294 small business customers, achieving 275 completes, with 122 valid responses from customers who purchased at least one CFL or LED bulb specifically for the business.

The phone survey included questions about purchases in the last 12 months, such as the following:

- “Where do you purchase your efficient, screw-based bulbs?”
- “How many efficient screw-based bulbs have you purchased in the last year?”
- “In what types of spaces did you install these light bulbs in your business?”

In addition to quantifying how many residential lighting program bulbs are installed in small business applications, the survey provided insights into the ways businesses use the bulbs and, by extension, how much energy these installed bulbs saved.

Calculations

The Evaluation Team calculated the percentage of residential and small business customers who purchased bulbs and the average number of bulbs they purchased then multiplied these two metrics by each surveyed population’s total customer base. This resulted in an estimate of the number of bulbs purchased during the 12-month period and the proportion of each group. In CY 2015, this analysis estimated that small business customers purchased 6.0% of program bulbs. Table I-15 shows the computed metrics and resulting proportions.

Table I-15. Metrics and Calculated Proportions

Population	% of Customers Who Purchased CFLs or LEDs		Average Number of CFLs/LEDs Purchased per Respondent			% of Bulbs Purchased at Participating Retailers	Customers in Territory	Bulbs Purchased from Participating Retailers ¹	% of Total
	Estimate	n	Estimate	n	Std. Deviation				
Residential	72%	572	6.5	409 ²	10.1	96%	2,515,901	11,347,014	94.0%
Nonresidential	44%	275	20.2	122	18.5	88%	91,601	721,637	6.0%
Total							2,607,502	12,068,651	100%

¹ The calculation is represented as % x Avg. # x % Participating x Customer Base.

² Excludes respondents who said “don’t know” or who purchased a bulb for their business.

Per CB&I, to calculate the number of residential customers in the FOE territory we took 95% of the total number of housing units in Wisconsin, which was 2,648,317 in the 2014 U.S. census²⁰. The number of nonresidential customers was taken from the U.S. Small Business Administration’s records of firms with 1-19 employees in Wisconsin.²¹

Statistical Confidence and Proportional Adjustment

The proportion of cross-sector sales is based on two variables derived from the customer survey—the percentage of respondents and the average number of bulbs purchased per respondent in each population. The percentage of purchasers in each population, based on a yes/no question asking if they purchased a bulb for their home use (if they were a residential customer) or nonresidential use (if they were a small business customer) in the past 12 months, produced 572 residential respondents and 275 small business respondents. The estimate of the average number of bulbs was calculated from a subset of responses for each population: the respondents who actually purchased at least one bulb (i.e., n=409 residential, n=122 small business).

To compute a statistical confidence interval, Cadmus ran simulations of the above computations, treating the distribution of the number of bulbs per respondent as a normally distributed random

²⁰ U.S. Census Bureau. *Quick Facts Wisconsin*. Accessed December 12, 2015. <http://www.census.gov/quickfacts/table/PST045215/55>

²¹ U.S. Small Business Administration. *Wisconsin Small Business Profile*. P. 3. February 2015. <https://www.sba.gov/sites/default/files/advocacy/WI.pdf>

variable and the percentage of purchasers as a uniform random variable. At 90% confidence, the resulting cross-sector sales proportion lies between 4.45% and 7.15%. The precision around bulbs sold to nonresidential customers (721,637) is 68% and the precision around bulbs sold to residential customers (11,347,014) is 4.3%.

Appendix J. Net Savings Analysis Methodologies

For the CY 2015 evaluation of Focus on Energy's programs, the Evaluation Team applied net-to-gross (NTG) adjustments drawn mostly from primary research. This appendix presents the four general approaches used to assess net savings—standard market practice (SMP), demand elasticity modeling, billing analysis, and self-report NTG (including non-participant spillover).

Net Savings Overview

As described in Volume II, the evaluation of a program involves reviewing the reported gross savings to ensure that the measures installed have remained installed and are working as intended and applying any adjustments from the findings of the review. The result is the verified gross savings.

Net savings are the final savings, as reviewed by an independent evaluator, attributed to a program. This means that the program is directly responsible for the savings, and the savings would not have been achieved in the absence of that program. In deriving this value, evaluators account for, and deduct, reported savings that are associated with freeriders (participants who would have undertaken the same action and achieved the same savings in the absence of a program) and account for, and add, spillover savings (savings that are the result of a program's influence but for which no incentive was paid and for which no program has recorded savings).

Net savings represent the total savings achieved from the investment of ratepayer dollars into the program. These net savings are the primary benefits factored into the benefit-cost analysis used for designing programs and ensuring that they are operating in a manner that returns a net positive benefit to ratepayers. For Focus on Energy, these net savings are also used for tracking the progress toward the savings targets established by the Public Service Commission of Wisconsin for Focus on Energy.

This appendix discusses the specific approaches the Evaluation Team used in deriving the net savings for the CY 2015 Focus on Energy programs. Of particular note, beginning in CY 2013, the Evaluation Team began the process of moving away from estimating net savings exclusively from survey results to approaches driven by sales data or results determined through an experimental design. One example is SMP, an approach that measures the impact of the programs on the average efficiencies of measures sold and installed in Wisconsin. Other examples of data-driven approaches are billing analysis (which uses a nonparticipant control group) and demand elasticity modeling (which measures the lift in retail sales from changes in incentive levels).

Focus on Energy's long-term goal is to use these data-driven approaches as broadly as possible and to limit reliance on self-reporting methods. The Evaluation Work Group (EWG) approved the use of these approaches and supports increasing their use.

The Evaluation Team conducted billing analysis, demand elasticity modeling, self-report, and SMP for measures offered throughout the portfolio. In some cases, the Evaluation Team combined the measure-level results from the SMP with the self-report methods to determine savings-weighted average

program NTG ratios. Table J-1 shows the net savings method(s) applied for each program for the CY 2015 evaluation.

Table J-1. CY 2015 Net Savings Methodology by Program

CY 2015 Programs	Net Savings Methodologies
Residential	
Multifamily Energy Savings	Self-Report
Multifamily Direct Install	Stipulated NTG = 1.0
Appliance Recycling	Self-Report
Lighting and Appliance	Demand Elasticity Modeling
Home Performance with ENERGY STAR (Standard Track)	Billing Analysis
Home Performance with ENERGY STAR (Income Qualified Track)	Billing analysis
New Homes	Billing Analysis
Residential Rewards	Standard Market Practice and Self-Report
Enhanced Rewards	Stipulated NTG = 1.0
Renewable Rewards	Self-Report
Express Energy Efficiency	Stipulated NTG = 1.0
Nonresidential	
Agriculture, Schools and Government	Self-Report
Business Incentive	Self-Report
Chain Stores and Franchises	Self-Report
Small Business	Self-Report
Large Energy Users	Self-Report
Renewable Energy Competitive Incentive	Self-Report
Design Assistance	Self-Report

The Evaluation Team attempted market research for nonresidential lighting and boiler measures in CY 2015 but could not obtain sufficient sales data to apply SMP results as a net method. The Evaluation Team launched a new strategy to collect these data for CY 2016 directly from distributors and manufacturers.

Although the rigor of the SMP approach has been discussed and reviewed at length by the Evaluation Team and the EWG, any systematic change in approach introduces or eliminates systematic biases that cannot always be quantified. As a result, NTG (or net savings divided by verified gross savings) ratios reported for the CY 2015 programs may not be directly comparable to those reported for CY 2014 or CY 2013 in cases where the SMP or other data-driven approach was applied.

Standard Market Practice Approach

This section describes the Evaluation Team’s methods in applying the SMP approach during the CY 2015 evaluation. Where adequate market baseline data were available, the Evaluation Team calculated net-of-freeridership savings with an SMP approach, using program data and data collected through the evaluation process, to define the average market baseline and average program-installed energy consumption (kWh and/or therm) of each measure category.

The Evaluation Team first accessed a representative sample of records showing existing efficiency levels of a particular equipment type sold outside of the Focus on Energy program. Market baselines include a range of varying efficiency levels (both inefficient and efficient levels) and represent the average efficiency being sold in Wisconsin during the current (CY 2015–2018) or prior quadrennium (CY 2011–2014). In the SMP approach, net-of-freeridership savings are calculated as the difference between the average market baseline and the average program-installed energy consumption, under the assumption that freeridership is captured in the baseline.

However, the SMP approach does not capture participant spillover effects, so the Evaluation Team applied participant spillover (estimated through the self-response surveys) to the net-of-freeridership savings. The NTG ratio is derived from the comparison of net savings to the verified gross savings.

SMP Baseline Data Sources

The Evaluation Team then determined the baseline for each selected Residential Rewards Program measure category using these two sources of sales and installation data:

- D+R International sales data
- CY 2012-CY 2015 Home Performance with ENERGY STAR® Program audit data

Table J-2 lists the measures selected for the SMP analysis in CY 2015 and their corresponding baseline data sources.

Table J-2. Measures Assessed with Standard Market Practice Methodology

CY 2015 SMP Measures	Baseline Data Source
Residential	
Natural Gas Furnace	D+R International and HPwES Audit Data
Air Conditioner	D+R International and HPwES Audit Data
ECM	D+R International

D+R International 2014 HVAC Market Report

D+R International Ltd. (D+R International) has an exclusive license with Heating, Air-conditioning & Refrigeration Distributors International (HARDI) that authorizes D+R to collect data from HARDI members and to aggregate member data to produce analysis and reports. The Evaluation Team contracted with D+R to purchase a report of residential HVAC measures sold in Wisconsin during 2014,²² which used sales data reported to D+R International by HARDI members participating in the Unitary HVAC Market Report. The report contained summaries of quantities of observed sales by efficiency level and estimations of the size of each measure’s total market in 2014.

Home Performance with ENERGY STAR Program Audit Data

CLEAResult, the Program Implementer for the Home Performance with ENERGY STAR (HPwES) Program, provided the Evaluation Team with data obtained during all home assessments (i.e. before Program updates were made) since the inception of the Program in CY 2012. The data contained information on efficiency and age of household equipment such as furnaces and air conditioners.

Measure-Specific Analyses

The Evaluation Team used the SMP approach to determine freeridership for furnaces, air conditioners, and ECMs offered under the Residential Rewards Program. The analysis used sales data from the two sources noted above to estimate a market baseline efficiency.

Table J-3 presents the Residential Rewards SMP results, showing per-unit net-of-freeridership savings and the corresponding percentage of freeridership for all measures evaluated.

Table J-3. CY 2015 Summary of Net-of-Freeridership Savings by Measure

Measure	Per-Unit Savings			Freeridership (%)		
	kWh	kW	therms	kWh	kW	therms
ECM, Furnace, New or Replacement	340	0.06	-	18%	20%	n/a
Furnace And A/C, ECM, 95% + AFUE, >= 16 SEER	419 ¹	0.14	34.9	20%	52%	-8%
LP Furnace with ECM, 90%+ AFUE (Existing)	340	0.06	-	18%	18%	n/a
LP or Oil Furnace with ECM, 90%+ AFUE (Existing)	340	0.06	-	19%	27%	n/a
NG Furnace with ECM, 95%+ AFUE (Existing)	340	0.06	29.2	19%	22%	4%
NG Furnace with ECM, 97%+ AFUE	340	0.06	39.2	19%	25%	22%

¹ The Evaluation Team added the electric net-of-freeridership savings for the ECM and AC measures to calculate the total electric savings for this measure.

²² Data received for electronically commutated motors (ECMs) and natural gas furnaces were specific to Wisconsin only; however, data for air conditioners included sales data for Wisconsin, Michigan, and Minnesota.

SMP gas savings for furnaces produced low freeridership results due to two factors:

- In CY 2015, the Program Implementer updated the *ex ante* savings to account for a market baseline of 92% AFUE, which was recommended from the 2013 Baseline Report (i.e. furnace *ex ante* savings already accounted for a market baseline, as opposed to the lowest available efficiency baseline).
- The Evaluation Team conducted model number lookups on all furnaces sold through the Program in CY 2015, and found higher efficiency units on average than anticipated in the *ex ante* assumptions.

Net-of-freeridership gas savings for the joint furnace and AC with ECM measure produced a negative freeridership percentage, meaning that the savings found through this analysis were higher than the reported savings (due a combination of both factors listed above).

Ex ante assumptions for electricity and demand savings for furnaces, air conditioners, and ECMs did not incorporate market baselines, and therefore freeridership is higher for those savings types (ranging from 18% to 52%).

The following sections provide the measure-level methodology and results for the Residential Rewards Program measures using the SMP approach.

Natural Gas Furnace

To estimate net-of-freeridership savings for natural gas furnaces, the Evaluation Team first calculated weighted average market baseline efficiency (AFUE) using the two baseline data sources. Because of offsetting strengths and weaknesses in these data sources, the Evaluation Team chose to average the market baseline efficiencies, resulting in a 92.8% AFUE as shown in Table J-4.

Table J-4. CY 2015 Natural Gas Furnace Market Baseline AFUE by Data Source

Data Source	Market Baseline AFUE
D+R International	93.5
HPwES Assessment Data	92.2
Average	92.8

The Evaluation Team then applied the 92.8% AFUE as the baseline efficiency to calculate the average baseline consumption. Similarly, the Evaluation Team used the weighted average efficiency of all units in the Program tracking database (Program-installed average efficiency) to calculate the average Program-installed energy consumption.

The Evaluation Team used the following equation and inputs, as shown in Table J-5, to calculate furnace consumption for the market baseline and the average efficient case for each natural gas furnace:

$$Annual\ therms = \frac{MBTU/h \times Hours_{Heating}}{\frac{AFUE}{100}}$$

Table J-5. CY 2015 Natural Gas Furnace SMP Inputs

Variable	Market Baseline Input	Efficient Case Input	Market Baseline Source	Efficient Case Source
95% Furnace with ECM				
MBTU/h	68.0		SPECTRUM CY 2015 Data	
Hour ^{Heating}	1158		Wisconsin TRM (January 2015)	
AFUE	92.8	96.1	HPwES/D+R	SPECTRUM CY 2015 Data
97% Furnace with ECM				
MBTU/h	70.1		SPECTRUM CY 2015 Data	
Hour ^{Heating}	1158		Wisconsin TRM (January 2015)	
AFUE	92.8	97.2	HPwES/D+R	SPECTRUM CY 2015 Data
95% Furnace and Air Conditioner with ECM				
MBTU/h	70.9		SPECTRUM CY 2015 Data	
Hour ^{Heating}	1158		Wisconsin TRM (January 2015)	
AFUE	92.8	96.6	HPwES/D+R	SPECTRUM CY 2015 Data

Table J-6 provides the average market baseline and efficient case gas consumption for the three natural gas furnace measures offered by the Residential Rewards Program. The difference between the baseline and efficient consumption yields the net-of-freeridership savings for each measure.

Table J-6. CY 2015 Natural Gas Furnace SMP Savings Results (therms)

Measure	Market Baseline Consumption	Efficient Case Consumption	Net-of-Freeridership Per Unit Savings
95% Furnace with ECM	848.5	819.4	29.2
97% Furnace with ECM	873.9	834.7	39.2
95% Furnace and Air Conditioner with ECM	885.0	850.1	34.9

Air Conditioner

Similar to natural gas furnaces, the Evaluation Team calculated a weighted average seasonal energy efficiency rating (SEER) value from baseline source data to calculate the average consumption of a market baseline air conditioner. Again, because of offsetting strengths and weaknesses from the data sources, the Evaluation Team chose to average the market baseline efficiencies, resulting in a 13.9 SEER (Table J-7).

Table J-7. CY 2015 Air Conditioner Market Baseline SEER Value by Data Source

Data Source	Market Baseline SEER
D+R International	14.0
HPwES Assessment Data	13.8
Average	13.9

The Evaluation Team applied the 13.9 SEER as the baseline efficiency to calculate the average baseline consumption. The Evaluation Team used the weighted average efficiency of all units in the Program tracking database (Program-installed average efficiency) to calculate the average Program-installed energy consumption.

The Evaluation Team used the following equation and inputs, as shown in Table J-8, to calculate electric consumption of air conditioners for the market baseline and the average efficient case:

$$Annual\ kWh = \frac{Mbtu/h \times Hours_{Cooling}}{SEER}$$

Table J-8. CY 2015 Air Conditioner SMP Inputs

Variable	Market Baseline Input	Efficient Case Input	Market Baseline Source	Efficient Case Source
MBTU/h	29.6		SPECTRUM CY 2015 Data	
Hour _{Heating}	410		Wisconsin TRM (January 2015)	
SEER	13.9	16.5	HPwES/D+R	SPECTRUM CY 2015 Data

Table J-9 provides the average market baseline and efficient case electric consumption for the joint air conditioner measure offered by the Residential Rewards Program. The difference between the baseline and efficient consumption yields the net-of-freeridership savings for each measure.

Table J-9. CY 2015 Air Conditioner SMP Savings Results (kWh)

Measure	Market Baseline Consumption	Efficient Case Consumption	Net-of-Freeridership Per Unit Savings
Air Conditioner	873.6	736.8	136.8

Electronically Commutated Motors

Measuring net-of-freeridership savings for ECMs differs from the analysis for furnaces and air conditioners, which used an efficiency rating to determine the market baseline, because there are no efficiency ratings for furnace fans. The Evaluation Team used a binary approach (the measure is simply installed or not installed) to estimate freeridership as the percentage of market furnaces (sold outside of the Program) that had ECMs compared to other types of motors such as a permanent split capacitor.

Using market data from D+R International, the Evaluation Team estimated that 18% of furnaces sold outside of the Program had ECMs. The Evaluation Team then relied on the Wisconsin TRM savings of

416 kWh per motor and 345.5 kWh per air conditioner with ECM measure and applied 18% freeridership to calculate net-of-freeridership savings.²³

Table J-10 lists the savings in the Wisconsin TRM (January 2015) and the net-of-freeridership savings calculated by the Evaluation Team.

Table J-10. ECMs: CY 2015 Net-of-Freeridership Electric and Demand Savings

Measure	WI TRM Per-Unit Savings		Freeridership	Net-of-Freeridership Per-Unit Savings	
	kWh	kW		kWh	kW
Furnace with ECM	416.0	0.079	18%	340.2	0.065
Standalone ECM	416.0	0.079	18%	340.2	0.065
Furnace and AC with ECM	345.5	0.172	18%	282.5	0.141 ¹

¹ Net-of-freeridership demand savings for the joint furnace and AC measure includes demand savings from both the air conditioners and the ECMs.

Appliance Recycling Net-To-Gross Methodology

The Evaluation Team used the following formula to estimate net savings for recycled refrigerators:

$$\text{Net savings} = \text{Gross Savings} - \text{Freeridership and Secondary Market Impacts} - \text{Induced Replacement} + \text{Spillover}$$

Where:

Evaluated Gross Savings = The evaluated *in situ* UEC for the recycled unit, adjusted for part-use;

Freeridership and Secondary Market Impacts = Program savings that would have occurred in the program’s absence;

Induced Replacement = Average additional energy consumed by replacement units purchased due to the program;

Spillover = Non-programmatic savings induced by the program.

Secondary market impacts requires a decision-tree approach to calculating and presenting net Program savings.

The decision tree—populated by the responses of surveyed participants—presents savings under all possible scenarios concerning the participants’ actions regarding the recycled equipment. Through these

²³ The value of 345.5 kWh excludes cooling savings achieved, because this variable is accounted for in the air conditioner analysis. The cooling savings from the air conditioner is added to the ECM savings in the total measure net-of-freeridership savings.

scenarios, the Evaluation Team used a weighted average of savings to calculate net savings attributable to the Program. This section includes specific portions of the decision tree to highlight specific aspects of the net savings analysis. The full decision trees are presented at the end of this section.

Freeridership

The Evaluation Team's freeridership analysis first asked participants if they had considered discarding the participating appliance prior to learning of the Program. If the participant did not previously consider appliance disposal, the Evaluation Team categorized him/her as a non-freerider and excluded him/her from subsequent freeridership analysis.

Next, the Evaluation Team asked all remaining participants (i.e., those who considered discarding their existing appliance before learning about the Program) a series of questions to determine, in the Program's absence, the distribution of participating units likely to have been kept or discarded. Actions independent of Program intervention follow three scenarios:

- Unit is discarded and transferred to someone else.
- Unit is discarded and destroyed.
- Unit is kept in the home.

To determine the percentage of participants following each scenario, the Evaluation Team asked surveyed participants about the likely fate of their recycled appliance had it not been decommissioned through the Program. The Evaluation Team categorized their responses as:

- Kept the appliance.
- Sold the appliance to a private party (i.e., via an acquaintance or through a posted advertisement).
- Sold or gave the appliance to a used appliance dealer.
- Gave the appliance to a private party, such as a friend or neighbor.
- Gave the appliance to a charity organization.
- Left the appliance on the curb with a "free" sign.
- Had the appliance removed by the dealer from whom the new or replacement appliance had been obtained.
- Hauled the appliance to a landfill or recycling center.
- Had the appliance picked up by a local waste management company.

Once the Evaluation Team determined the final assessments of participants' actions independent of the Program, calculations could determine the percentage of refrigerators and freezers kept or discarded. Table J-11 shows the results.

Table J-11. Final Distribution of Kept and Discarded Appliance

Stated Action Absent Program	Indicative of Freeridership	Refrigerators (n=89)	Freezer (n=58)
Kept	No	34%	43%
Discarded	Varies by Discard Method	66%	57%
Total		100%	100%

As shown in Table J-11, 66% of respondents would not have kept their refrigerator. Of those, 86% would have discarded it by one of these actions:

- Taking their appliance to the dump
- Hiring someone to take the appliance to the dump
- Having a retailer pick up their appliance

Having the retailer pick up the appliance is not necessarily indicative of freeridership. This depends on the retailer’s decision whether or not to resell the unit. Not all appliances would be viable for resale. The Evaluation Team uses age as a proxy for secondary market viability and assumes any appliance over 10 years old is unlikely to be resold by a retailer. All of the respondents who indicated they would have had their appliance picked up by a retailer recycled an appliance over 10 years old. Together these actions resulted in a 57% reduction in gross savings due to freeridership for refrigerators.²⁴

Freeridership for freezer recyclers was lower. Of the 57% of respondents who would not have kept their freezer, 85% would have taken one of the three actions above that would have led to the appliance being removed from the grid. Thus, freeridership for freezers was 48%.

Secondary Market Impacts

If, in the Program’s absence, a participant would have directly or indirectly (through a market actor) transferred the Program-recycled unit to another customer, the Evaluation Team estimated what actions the would-be acquirer might have taken, given the unit would be unavailable without the Program.

Some would-be acquirers in the market for a refrigerator or freezer would find another unit. Others would not (only taking the unit opportunistically). Difficulties arise in trying to quantify the change in the total number of refrigerators and freezers (overall and used) in use before and after Program implementation and what effect the Program has on the total. Without this information, the UMP recommends that evaluators assume one-half of would-be acquirers would find an alternate unit.²⁵

²⁴ Sixty-six percent of respondents not keeping their appliance multiplied by 86% of respondents who reported one of the three actions leading to freeridership equals 57% freeridership. For freezers, 57% * 85% = 48%.

²⁵ U.S. Department of Energy. “Uniform Methods Project for Determining Energy Efficiency Program Savings for Specific Measures Chapter 7: Refrigerator Recycling Evaluation Protocol.” Accessed March 13, 2014. <http://www1.eere.energy.gov/wip/pdfs/53827-7.pdf>

Without information to the contrary, the Evaluation Team applied the UMP recommendation to this evaluation.

The Evaluation Team then determined whether the alternate unit would likely be another used appliance (similar to those recycled through the Program) or a new standard-efficiency unit (presuming that fewer used appliances would be available due to Program activity).²⁶

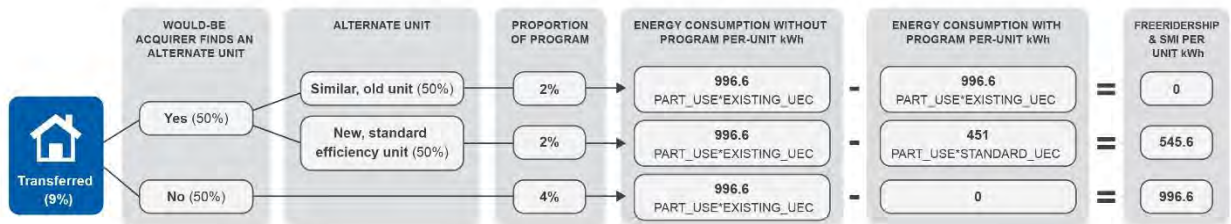
Again, as discussed, definitively estimating this distribution proves difficult. The UMP recommends adopting a midpoint approach when primary research is unavailable: evaluators should assume one-half of the would-be acquirers who would have acquired an alternate unit would find a similar used appliance, and one-half would acquire a new, standard-efficiency unit.

The Evaluation Team used the ENERGY STAR website to determine energy consumption for new, standard-efficiency appliances,²⁷ then averaged the reported energy consumption of new, standard-efficiency appliances with sizes and configurations comparable to the Program units.

Figure J-1 details the Evaluation Team’s methodology for assessing the Program’s impact on the secondary refrigerator market and for applying the recommended midpoint assumptions when primary data were unavailable (Figure J-5 provides a freezer-specific diagram). As evident, accounting for market effects results in three savings scenarios:

- Full per-unit gross savings
- No savings
- Partial savings (i.e., the difference between energy consumption of the Program unit and the new, standard-efficiency appliance acquired alternatively)

Figure J-1. Secondary Market Impacts—Refrigerators



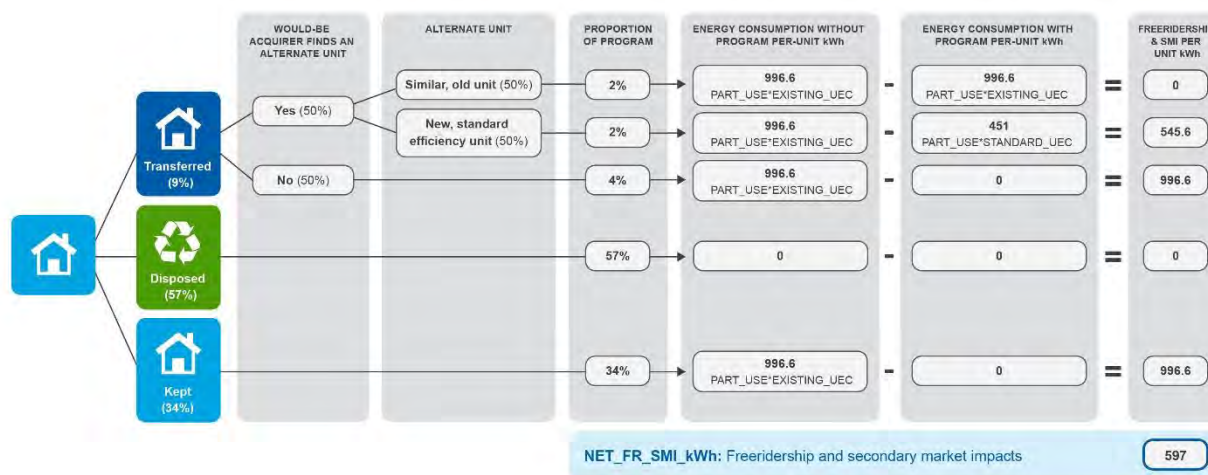
²⁶ It is also possible that the would-be acquirer would select a new ENERGY STAR unit. However, Cadmus assumed most customers who are in the market for a used appliance would upgrade to the next lowest price point (a baseline, standard-efficiency unit).

²⁷ Energy consumption of a new, standard-efficiency appliance was calculated using the ENERGY STAR Website (<http://www.energystar.gov/index.cfm?fuseaction=refrig.calculator>) taking the average energy consumption of new comparably sized, standard-efficiency appliances with similar configurations as the program units.

Integration of Freeridership and Secondary Market Impacts

After estimating the parameters of freeridership and secondary market impacts, the Evaluation Team used the UMP decision tree to calculate average per-unit Program savings, net of their combined effect. Figure J-2 shows how the Evaluation Team integrated these values into an estimate of savings net of freeridership and secondary market impacts. The final savings net of freeridership and secondary market impacts is calculated as the weighted average of the savings for each of the decision tree categories.

Figure J-2. Savings Net of Freeridership and Secondary Market Impacts—Refrigerators



Induced Replacement

The UMP states that evaluators must account for the energy consumption of replacement units *only* when the program induced that replacement (i.e., when the participant would *not* have purchased the replacement refrigerator in the recycling program’s absence). For non-induced replacements, energy consumption of a replacement appliance is not germane to the savings analysis, as that appliance would have been purchased or acquired regardless of the Program. Acquisition of another appliance in conjunction with Program participation does not necessarily indicate induced replacement. Again, this method is consistent with those described in the UMP.

The Evaluation Team used participant survey results to determine which replacement refrigerators and freezers were acquired by participants due to the Program. The results indicated the Program reduced the total number of used appliances operating in the Program service territory and raised the average efficiency of the active appliance stock. Across both appliance types, roughly 80% of participants replaced their recycled appliances. Additionally, of respondents that replaced their appliances, 83% of refrigerator and 91% of freezer respondents reported replacing their appliance with an ENERGY STAR-rated appliance.

The Evaluation Team then used participant survey results to estimate the proportion of replacements induced by the customer’s participation in the Program. Specifically, the Evaluation Team asked each

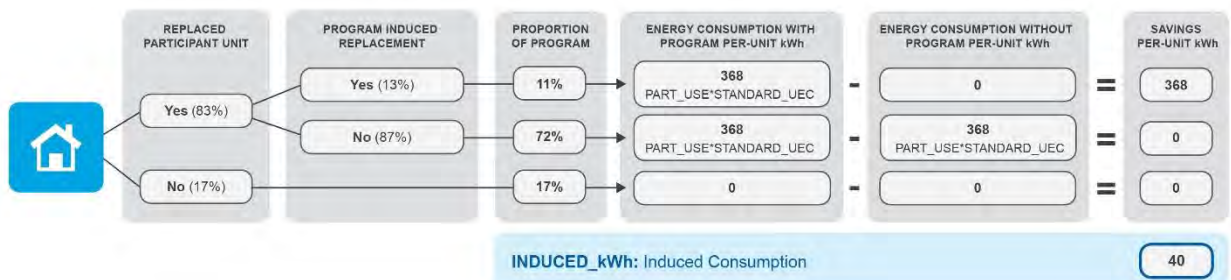
participant who replaced the participating appliance: “Were you already planning to replace your appliance before you decided to recycle your existing unit through the Appliance Recycling Program?” As it is unlikely a \$40 incentive would provide sufficient motivation for most participants to purchase an otherwise unplanned replacement unit (costing from \$500 to \$2,000), the Evaluation Team asked a follow-up question of participants who responded “No.” Intended to confirm the participant’s assertion that the Program alone caused them to replace their appliance, the question asked: “Let me make sure I understand: you would not have replaced your appliance with a different appliance without the program? Is that correct?”

To further increase the reliability of these self-reported actions, induced replacement analysis considered the following:

- Whether the refrigerator was a primary unit
- The participant’s stated intentions in the program’s absence

For example, if a participant would have discarded his/her primary refrigerator independent of the Program, the replacement unit could not be induced (i.e., the participant very likely would not forego use of a primary refrigerator). For all other use types and stated intention combinations, however, induced replacement offered a viable response.

Figure J-3. Induced Replacement—Refrigerators



The final induced replacement rate is the product of the proportion of respondents who replaced their appliance and the proportion of those who were induced. As expected, only a portion of total replacements could be considered induced—the Program induced 11% and 3% of refrigerator and freezer participants, respectively, to acquire a replacement unit, as shown in Table J-12.

Table J-12. CY 2015 Induced Replacement Rates

Appliance	Induced Replacement Rates
Refrigerator	11%
Freezer	3%

The induced replacement rates increased slightly for refrigerators between CY 2013, the most recent evaluation to estimate a NTG ratio, and CY2015, from 9% to 11%. Induced replacement rates for freezers, on the other hand, decreased from 11% to 3%.

Spillover

Spillover refers to additional savings generated by Program participants but not captured by Program records. Spillover occurs when participants choose to purchase energy-efficient measures or adopt energy-efficient practices after being influenced by Program or marketing activities, but they do not apply for an incentive and are therefore not captured through any other programs offered through Focus on Energy. These customers' savings are not automatically counted toward the utility's programmatic savings. In contrast with freeridership impacts, which reduce net program savings, spillover impacts increase net program savings.

The Evaluation Team did not include spillover questions in the participant survey for CY 2015 and instead applied the results from the CY 2013 evaluation, which found no spillover savings for refrigerators and a small amount of spillover savings for freezers, equal to 0.4% of gross savings.

Final Net-to-Gross

As shown in Table J-13, the Evaluation Team determined final net savings as evaluated gross per-unit savings less per-unit freeridership, secondary market impacts, induced replacement kWh, plus spillover.

Table J-13. CY 2015 NTG Ratios

Appliance	Gross Per-Unit Savings	Freeridership and Secondary Market Impacts (kWh)	Induced Replacement kWh	Induced Additional Savings (Spillover)	Net Per-Unit kWh	NTG
Refrigerator	997	597	40	-	360	36%
Freezer	786	401	11	3	377	48%

The decision trees used to calculate NTG are shown in Figure J-4 for refrigerators and Figure J-5 for freezers.

Figure J-4. Refrigerator NTG Combined Decision Tree

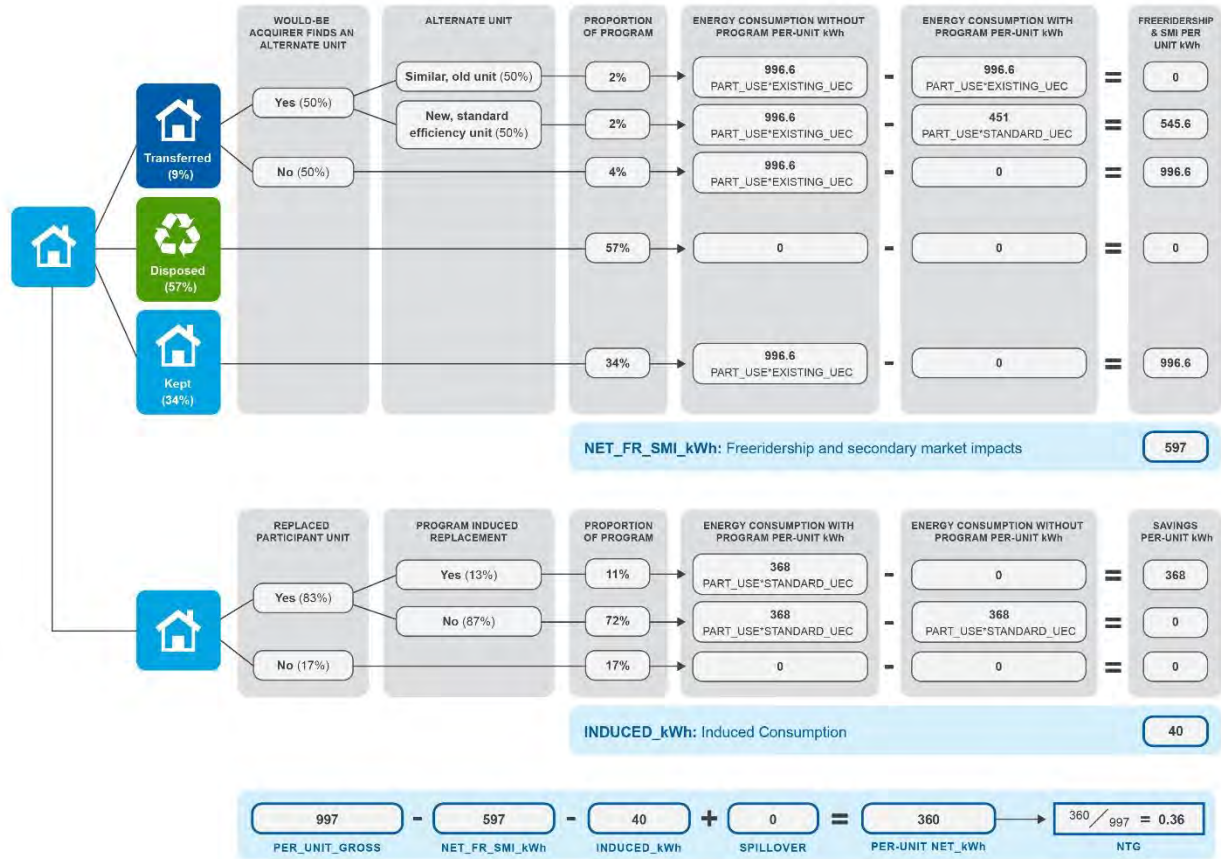
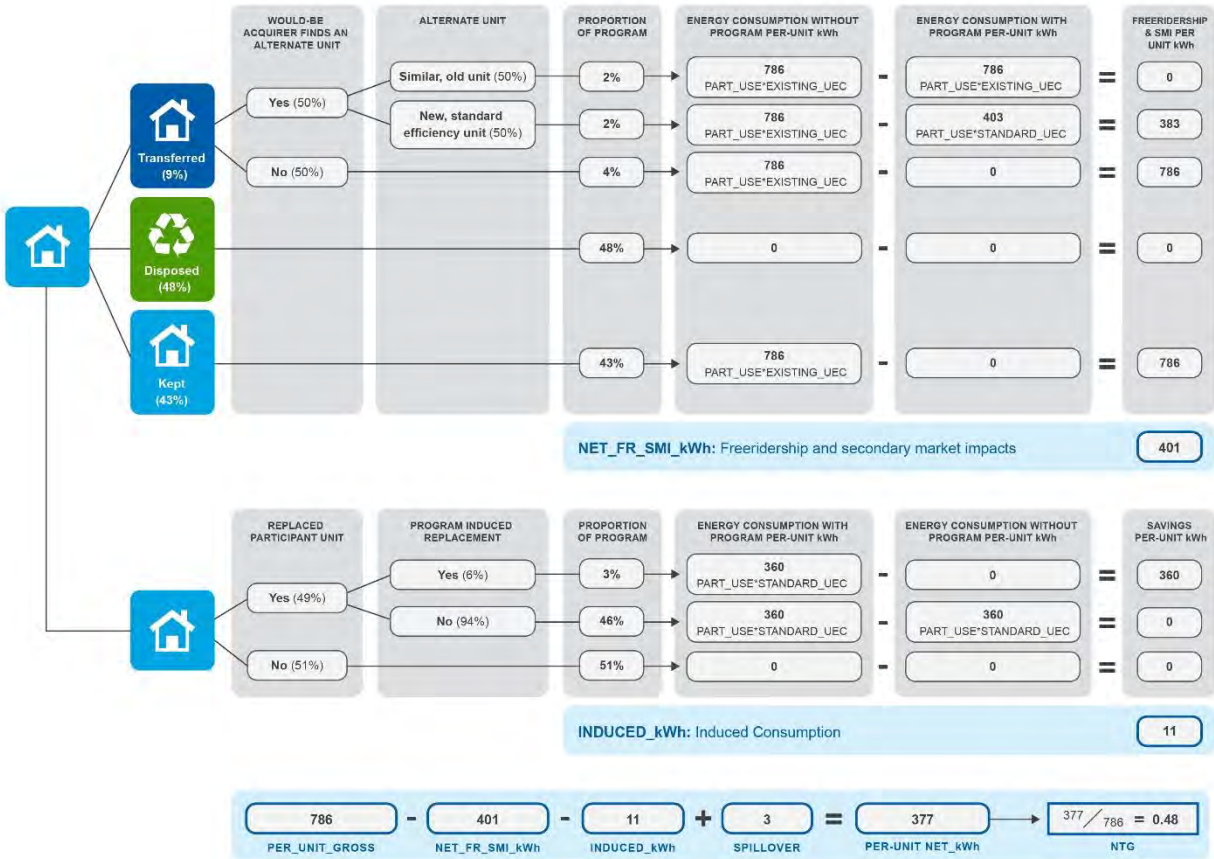


Figure J-5. Freezer NTG Combined Decision Tree



Demand Elasticity Modeling

Demand elasticity modeling draws upon the same economic principle that drives program design: changes in price and promotion generate changes in quantities sold (i.e., the upstream buy-down approach). Demand elasticity modeling uses sales and promotion information to achieve the following:

- Quantify the relationship of price and promotion to sales
- Determine likely sales levels without the program’s intervention (baseline sales)
- Estimate freeridership by comparing modeled baseline sales with actual sales

After estimating variable coefficients, the Evaluation Team used the resulting model to predict these:

- Sales that would occur *without* the program’s price impact
- Sales that would occur *with* the program (and should be close to actual sales with a representative model)

The Evaluation applied evaluated savings values, calculated as part of this evaluation, to these sales predictions, then calculated savings freeridership using this formula:

$$FR\ Ratio = \left(\frac{Predicted\ Savings\ without\ Program}{Predicted\ Savings\ with\ Program} \right)$$

Input Data

Because the demand elasticity approach relies exclusively on program data, a model’s robustness depends on data quality. The Program Implementer provided the Evaluation Team with detailed program tracking data that included product sales by unique product number and by retailer and unique store number. The reporting frequencies varied by manufacturer and retailer, but most sales were reported weekly or monthly. The Evaluation Team aggregated all sales to monthly sales so time periods across all observations were consistent.

Price Variation

As desired for analysis, the Evaluation Team observed relatively high price variations in the sales data for the average per-bulb price by retail channel, measure (CFL/LED), and bulb type (standard, specialty, reflector).

Merchandising Displays

The Program Administrator collected data on product merchandising (e.g., clip strips, end caps, pallet displays). However, the data did not indicate which product was featured in the display, only that Program bulbs were featured at a given store location in a given week. Therefore, the model may not have captured all Program impacts.²⁸

Because product-specific merchandising data were not provided, the Evaluation Team used a binary indicator if a Program product was featured at a given store in a given month. This method of treating merchandising captures the average aggregate sales lift spread across all products at the store compared with months that do not feature Program products. Table J-14 shows the average proportional sales lift when a Program product is featured in merchandising displays.

Table J-14. Merchandising Lift by Bulb Type

Bulb Type	Merchandising Coefficient
Standard	12%
Reflector	23%

²⁸ To the degree that product merchandising and prices co-vary, elasticity estimates may capture some sales lift generated by merchandising. However, as data were not available to incorporate into the model, it is impossible to estimate individual impacts.

Reflector bulb sales appeared to be more responsive to merchandising than standard bulbs, with an average sales lift of 23% compared to 12% for standard bulbs. However, because the Evaluation Team did not have product-specific merchandising information, and because there were more varieties of standard bulbs available, the sales lift for standard bulbs may be understated due to being averaged across standard bulbs that were never featured in merchandising displays.

Evaluations in other jurisdictions have found that product-specific merchandising sales lift estimates are typically between 60% and 120%. Capturing and providing this level of detail ensures that the Program is credited for all activities and provides more specific, useful information for Program planners, that is, for which bulbs and retailers are sales most responsive to merchandising.

Seasonality Adjustment

In economic analysis, it is critical to separate data variations that result from seasonality from those that result from relevant external factors. For example, suppose prices had been reduced on umbrellas at the beginning of the rainy season. Any estimate of the impact of this price shift would be skewed if the analysis did not account for the natural seasonality of umbrella sales.

To adjust for seasonal variations in sales, the Evaluation Team used a monthly seasonal trend provided by an evaluation partner. This trend represented national sales from a major lighting products manufacturer. Ideally, a trend would derive from historical data on aggregate sales of lighting products (e.g., inefficient and efficient, program and non-program). Such data would represent overall trends in lighting product sales and would not suffer from potential confounding with programmatic activity to the same degree as CFL sales.²⁹

The specific trend used by the Evaluation Team, however, indicated aggregated, nationwide CFL sales for a specific manufacturer. Presumably, this trend included some activity from programs across the nation, which could affect the sales trend, possibly leading to underestimating program impacts. The Evaluation Team assumed, however, that program activity would be somewhat random across all programs that could be included in the sales data used to develop the trend. In that case, program activity would be spread through the year, and the variation between months would be driven primarily by non-program factors.

Nevertheless, not controlling for seasonal variations could lead to overestimating program impacts by falsely attributing seasonal trends to price impacts (to the degree that they co-varied) or vice versa.

For example, sales in July tend to be lower (presumably due to longer daylight hours); so if program activity increased sales in July, not controlling for seasonal variation would underestimate the program's

²⁹ This assumes aggregate lighting sales did not change due to promotions; that is, customers simply substituted an efficient product for an inefficient one. Although bulb stockpiling could occur during programmatic periods, this should smooth out over time, as the program would not affect the number of sockets in the home.

impact. October, on the other hand, sees higher sales, and no control for seasonality would probably overestimate Program activity impacts occurring in that month.

The trend, given the national aggregation level, covered non-program products and areas without programs, therefore limiting the degree that the trend correlated with Program activity.

Model Specification

The Evaluation Team modeled bulb, pricing, and promotional data using an econometric model, addressing these data as a panel, with a cross-section of program package quantities modeled over time as a function of prices, promotional events, and retail channels. This involved testing a variety of specifications to ascertain price impacts—the main instrument affected by the Program—on bulb demand. The Evaluation Team estimated this equation for the model (for bulb model *i*, in month *t*):

$$\ln(Q_{it}) = \sum_{\pi} (\beta_{\pi} Store ID_{\pi,i}) * (Measure_{\theta,i}) + \sum_{\theta} (\beta_{\theta 1} [\ln(P_{it}) * (Channel_{\theta,i}) * (Measure_{\theta,i})]) + \beta_{\theta 2} \ln(P_{it}) * (Standard_{\theta,i}) + \beta_{\theta 3} \ln(P_{it}) * (Specialty_{\theta,i}) + \beta_{\theta 4} (Promo_t) * (Standard_{\theta,i}) + \beta_{\theta 5} (Promo_t) * (Reflector_{\theta,i}) + \alpha Seasonal Trend_t + \varepsilon_i$$

Where:

- ln = Natural log
- Q = Quantity of bulbs sold during the month
- P = Per-bulb retail price (after markdown) in that month
- Channel = Retail category (Club, DIY, Grocery, HTR, Mass-market retailer)
- Measure = Product category (CFL or LED)
- Standard = Dummy variable equaling 1 for standard bulbs; 0 otherwise
- Specialty = Dummy variable equaling 1 for specialty bulbs; 0 otherwise
- Reflector = Dummy variable equaling 1 for reflector bulbs; 0 otherwise
- Promo = Dummy variable equaling 1 if a store ID featured product merchandising in month *t*; 0 otherwise
- Store ID = Dummy variable equaling 1 for each unique retailer store location; 0 otherwise
- Seasonal Trend = Quantitative trend representing the impact of secular trends not related to the Program³⁰
- ε_{it} = Cross-sectional random-error term

³⁰ The time trend for this analysis represented shifts in sales due to non-Program-related seasonality.

The model specification assumed a negative binomial distribution, which served as the best fit of the plausible distributions (e.g., lognormal, poisson, negative binomial, gamma). The negative binomial distribution provided accurate predictions for a small number of high-volume sale bulbs, while the other distributions under predicted sales for those bulbs.

Modeling bulb sales this way captures price variation caused by multiple factors:

- Changes to the incentive amount or the regular retail price absent incentives (which, when incentive levels do not change results in a lower target price) for a specific product
- New products introduced to the Program
- Changes in pack size offerings as multi-pack bulbs are often priced lower on a per-bulb basis

The modeling approach also captures substitution effects—in this case, the displacement of one bulb’s sales by a cheaper and comparable, if not identical, alternative bulb.

The Evaluation Team also adjusted the model to account for seasonality, because baseline lighting sales tend to follow a seasonal pattern unrelated to price or promotion, by inserting a seasonal trend into the model.

Using the following criteria, the Evaluation Team ran over 60 different model scenarios to identify the one with the best parsimony and explanatory power:

- Model coefficient p-values (keeping values less than <0.1)³¹
- Explanatory variable cross-correlation (minimizing where possible)
- Minimizing the number of coefficients signs (+/-) contrary to expectations and economic theory;
- Model Akaike’s Information Criteria (AIC) (minimizing between models)³²
- Minimizing multicollinearity
- Optimizing model fit

The model’s fit can be examined by comparing model-predicted sales with actual sales. The model-predicted sales matches closely with actual sales indicating the model fit the data well. Overall, the modeled sales fell within 4% of actual sales.

³¹ Where a qualitative variable had many states (such as bulb types), Cadmus did not omit variables if one state was insignificant; rather, the analysis considered the joint significance of all states.

³² The Team used AIC to assess model fit, as nonlinear models do not define the R-square statistic. AIC also offers a desirable property in that it penalizes overly complex models, similarly to the adjusted R-square.

Findings

The Evaluation Team estimated a combined CFL and LED freeridership of 18%. Table J-15 shows the estimated freeridership ratio by bulb type. LEDs have lower freeridership than CFLs, which was initially unexpected. Upon closer examination, the Evaluation Team believed the differences could be explained in the way the Program was implemented in 2015.

Table J-15. Modeling Results by Bulb Type

Bulb Type	Freeridership
CFL	17%
LED	29%

Two program factors explain the differences and, together, account for over half of CFL sales:

- The targeting of retail channels, such as the hard-to-reach (HTR) and grocery channels, that had markdown levels (the incentives as a share of the original price)
- The relatively high elasticities observed in club stores and mass market retailers

Because elasticities reflect the proportional change in sales for a proportional change in price, the greater the elasticity, the lower the estimated freeridership for a given discount. Given that, overall, elasticity estimates were relatively similar between CFLs and LEDs, markdown levels was the primary driver of the difference in Program freeridership. The sales-weighted average markdown level for CFLs was 70% per bulb and for LEDs was 52%. The relatively high elasticities for CFLs was probably because, in most channels, standard CFLs were selling for around \$0.60 per bulb, less than the price of halogen bulbs, which typically sell for \$1 or more per-bulb. Because incandescent bulbs have largely been absent in the market for general purpose residential applications, the discounted CFLs are now the lowest price option.

Table J-16 shows the average elasticity estimate by retail channel and measure.

Table J-16. Price Elasticities by Retail Channel and Measure

Channel	Measure	Elasticity Coefficient
DIY	CFL	-1.20
	LED	-1.09
Mass Market	CFL	-1.43
	LED	-1.36
HTR	CFL	-1.13
	LED	-2.77
Club	CFL	-1.37
	LED	-1.94
Grocery	CFL	-1.10
	LED	-3.12

Price elasticity of demand measures the percentage change in the quantity demanded given a percentage change in price. Because of the form of the model’s logarithmic functional, these changes simply represented the coefficients for each price variable. In previous, similar analyses, the Evaluation Team has seen elasticities ranging from -1 to -3, meaning a 10% drop in price led to a 10% to 30% increase in the quantity sold. The elasticities largely fell within this range for CY 2015 as well.

Table J-17 shows the incentive as a share of the original retail price and the estimated freeridership ratio by bulb type and retail channel. Typically, the proportional price reduction and the freeridership trend correlate—the greater the markdown, the lower the freeridership.

Table J-17. Modeling Results by Bulb Type and Retail Channel

Lamp Style	Retail Channel	Percentage Markdown	Freeridership
LED	DIY	47%	40%
	Club	55%	24%
	Grocery	49%	13%
	HTR	49%	16%
	Mass Market	58%	22%
CFL	DIY	69%	18%
	Club	68%	22%
	Grocery	88%	11%
	HTR	83%	11%
	Mass Market	66%	17%

Where LED sales were most price-sensitive—HTR and grocery retailers—the freeridership for standard CFLs and LEDs was considerably lower than for other channels and actually very similar despite large differences in markdown levels. This is because LED sales at HTR and grocery retailers were nearly three times as sensitive to price changes as LED sales through big-box, mass market, or do-it-yourself (DIY) retailers; even with smaller markdowns than CFLs, the changes in sales of LEDs were much greater.

As shown in Table J-18, standard CFLs had markdowns of 66% to 88%, including additional manufacturer incentives, and were selling for between \$0.42 and \$0.62 per bulb (lower than many halogens); whereas standard LEDs had markdowns in the range of 50% to 60% with no additional manufacturer incentives. In the club and mass market channels, freeridership for standard CFLs and LEDs was nearly identical because both the elasticities and markdown levels are very similar.

Table J-18. Prices, Markdown, and Freeridership by Channel, Measure, and Bulb Type

Retail Channel	Measure	Lamp Type	Original Price	Target Retail Price	Incentive	Manufacturer Contribution	Markdown	Freeridership
DIY	CFL	Reflector	\$4.06	\$2.53	\$1.53	\$0.00	38%	55%
		Specialty	\$4.83	\$3.33	\$1.50	\$0.00	31%	63%
		Standard	\$2.07	\$0.62	\$1.25	\$0.20	70%	17%
	LED	Reflector	\$9.98	\$4.81	\$5.17	\$0.00	52%	42%
		Specialty	\$18.46	\$14.72	\$3.74	\$0.00	20%	76%
		Standard	\$8.23	\$4.44	\$3.78	\$0.00	46%	38%
HTR	CFL	Reflector	\$6.99	\$4.99	\$1.50	\$0.50	29%	74%
		Specialty	\$2.54	\$0.29	\$1.25	\$1.00	89%	7%
		Standard	\$3.05	\$0.58	\$1.24	\$1.22	81%	13%
	LED	Reflector	\$9.99	\$5.99	\$4.00	\$0.00	40%	24%
		Standard	\$7.49	\$3.49	\$4.00	\$0.00	53%	10%
Club	CFL	Reflector	\$3.00	\$1.50	\$1.50	\$0.00	50%	47%
		Standard	\$1.68	\$0.51	\$1.17	\$0.00	70%	21%
	LED	Reflector	\$9.13	\$3.61	\$5.52	\$0.00	60%	22%
		Specialty	\$7.11	\$4.11	\$3.00	\$0.00	42%	32%
		Standard	\$5.34	\$2.45	\$2.89	\$0.00	54%	23%
Grocery	CFL	Standard	\$3.44	\$0.42	\$1.25	\$1.77	88%	11%
	LED	Reflector	\$9.99	\$5.99	\$4.00	\$0.00	40%	21%
		Standard	\$7.49	\$3.49	\$4.00	\$0.00	53%	8%
Mass Market	CFL	Specialty	\$6.45	\$5.02	\$1.43	\$0.00	22%	57%
		Standard	\$1.73	\$0.58	\$1.15	\$0.00	66%	17%
	LED	Reflector	\$8.76	\$2.79	\$5.97	\$0.00	68%	27%
		Specialty	\$8.02	\$5.01	\$3.01	\$0.00	38%	52%
		Standard	\$6.43	\$2.57	\$3.86	\$0.00	60%	19%

Table J-19 shows the price elasticity estimates that correspond to Table J-18, by retail channel, measure, and bulb type.

Table J-19. Price Elasticity Estimates by Retail Channel, Measure, and Bulb Type

Retail Channel	Measure	Bulb Type	Average Elasticity Coefficient
Club	CFL	Reflector	-0.98
		Standard	-1.38
	LED	Reflector	-1.58
		Specialty	-2.01
		Standard	-1.98
DIY	CFL	Reflector	-0.81
		Specialty	-1.24
		Standard	-1.21
	LED	Reflector	-0.77
		Specialty	-1.21
		Standard	-1.17
Grocery	CFL	Standard	-1.10
	LED	Reflector	-2.82
		Standard	-3.22
HTR	CFL	Reflector	-0.72
		Specialty	-1.15
		Standard	-1.12
	LED	Reflector	-2.49
		Standard	-2.89
		Specialty	-1.46
Mass Market	CFL	Standard	-1.43
		Reflector	-0.98
	LED	Specialty	-1.41
		Standard	-1.38
		Reflector	-0.98

Most retail channels’ elasticity estimates ranged from 1 to 1.5 for both CFLs and LEDs. As previously stated, the LED elasticity estimates were considerably higher than CFLs in some channels.

At club stores, which accounted for almost half of all LED sales in CY 2015, the Evaluation Team observed elasticities around 2 for both standard and specialty LEDs.

HTR stores and grocery retailers, where LED sales were most sensitive to price changes, accounted for only 5% of LED sales. These two channels also had the greatest markdowns for CFLs and accounted for 13% of CFL sales.

DIY stores accounted for nearly a third of CFL and LED sales and had the lowest elasticities for LEDs. Lower elasticities in DIY stores has also been observed in other recent evaluations. One possible reason is that some DIY retailers have been expanding and promoting LEDs nationally, and the market within those channels is more mature. Literature also suggests consumers are becoming less price sensitive

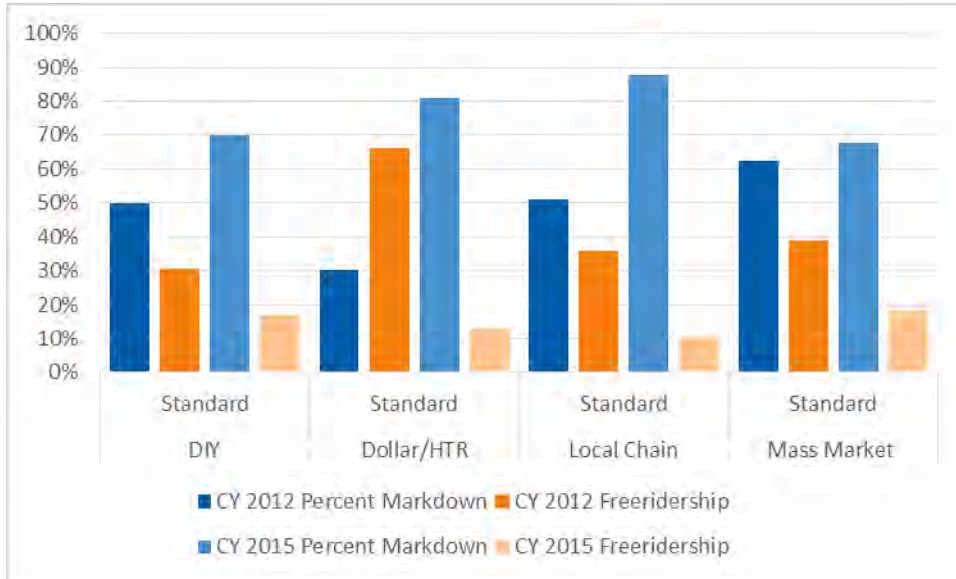
over time as expectations change. Consumers become accustomed to lower prices, and stockpiling is less common.³³

Benchmarking

Freeridership was considerably lower for the Residential Lighting Program in CY 2015 than in CY 2012 when this analysis was last conducted. It is important to note that the CY 2012 analysis included only CFLs and the retail channel categories did not line up exactly. In CY 2012, club stores were aggregated with other mass market retailers. Therefore, in keeping with the previous analysis, the Evaluation Team combined the CY 2015 club store sales, freeridership, and markdown levels with the other mass market retailers. In addition, the grocery channel in CY 2015 was essentially the same retailers as the local chain channel in CY 2012, and the HTR stores in CY 2015 contained similar retailers to the dollar channel in CY 2012.

Figure J-6 compares freeridership rates and markdown levels between CY 2012 and CY 2015 and Figure J-7 compares specialty CFLs.

Figure J-6. Standard CFL Freeridership and Markdown Level - CY 2012 and CY 2015

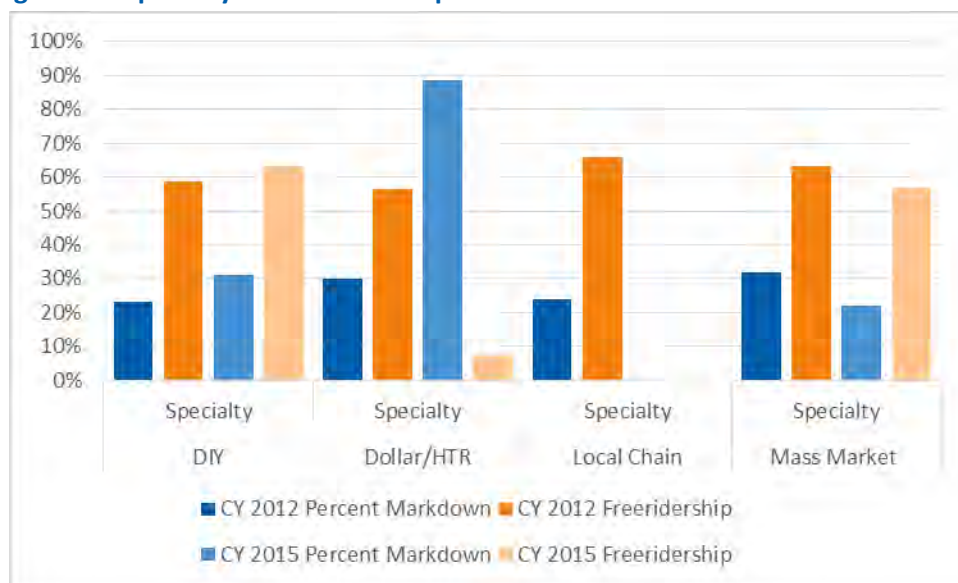


The differences in freeridership rates between CY 2012 and CY 2015 were largely driven by the differences in markdown levels. In all cases except mass market standard CFLs, the decreases in freeridership were because of increased markdown levels. The markdown levels at DIY, local chains, and HTR/dollar stores all increased in CY 2015, and freeridership rates declined.

³³ “The Robustness Of Retail-Level Price Elasticity Estimates”. Journal of Retailing; Summer 1989; 65, 2; ABI/INFORM Global pg. 193

The mass market channel saw only a small increase in the CFL markdown levels, though freeridership decreased in that channel as well. This could be in part because of the lack of competition from incandescent bulbs as in CY 2012. If CFLs are cheaper than the halogen bulbs after Program incentives (with an average per-bulb price of \$0.58 at mass market retailers), customers whose primary consideration is price when purchasing light bulbs are more likely to purchase CFLs.

Figure J-7. Specialty CFL Freeridership and Markdown Level - CY 2012 and CY 2015



The markdown levels for specialty CFLs remained largely the same in CY 2015, and freeridership rates were also largely unchanged with the exception of bulbs sold through HTR/dollar stores. The markdown levels increased substantially for specialty CFLs in HTR/dollar stores, and the freeridership rate decreased significantly as well.

It is important to note that the Program incentives did not account for all of the markdowns. Manufacturers provided additional incentives that contributed to the aggressive markdowns in the grocery, HTR, and, to a lesser degree, the DIY stores. The Evaluation Team assumed that manufacturers would not have provided incentives absent the Program’s intervention; that is, the Program incentives convinced manufacturers to offer the additional incentives. With that assumption, the Evaluation Team estimated freerider sales at the price level without manufacturer or program incentives. Assuming otherwise—that manufacturer incentives would have been applied regardless—would have meant increasing freeridership for CFLs through those select channels.

The Evaluation Team also estimated freeridership with the assumption manufacturer incentives would have remained even absent program incentives. In that scenario, the price per bulb would have been lower absent the Program’s intervention and freerider sales would be expected to be greater. However, because the additional manufacturer incentives were largely limited to HTR and grocery retailers, which accounted for a relatively low proportion of overall sales, the impact on freeridership was small. CFL

freeridership increased from 17% to 19% with the manufacturer incentives included in the baseline price.

Another recent evaluation also found lower freeridership for CFLs than LEDs, though the markdown levels in that program were considerably lower for LEDs. Table J-20 shows CFL freeridership estimates for some recent evaluations, and Table J-21 shows recent results for LEDs.

Table J-20. Benchmarking CFL Freeridership

Evaluation	Freeridership
Focus on Energy CY 2015	0.17
South (2015)	0.20
Midwest (2014)	0.24
Mountain West (2013-2014)	0.40
Mid-Atlantic (2013)	0.41

Table J-21. Benchmarking LED Freeridership

Evaluation	Freeridership
Focus on Energy CY 2015	0.29
Midwest (2014)	0.30
Mountain West (2013-2014)	0.34
South (2015)	0.48
Mid-Atlantic (2014-2015)	0.48

Focus on Energy’s Residential Lighting Program had the lowest observed freeridership ratios for both bulb types.

Overall, the combination of expanding sales in the HTR and grocery channels (where elasticities tend to be greater), the aggressive markdowns (including manufacturer incentives), and merchandising led to a lower freeridership for CFLs than for LEDs.

Billing Analysis

Home Performance with ENERGY STAR Program

Wisconsin Focus on Energy provided the Evaluation Team with gas and electric billing data for all customers who participated in standard track and income-qualified track Home Performance with ENERGY STAR (HPwES) programs during 2012 through 2014. These data were from most of the utilities

in Wisconsin and covered the period from January 2011 through July 2015.^{34,35} Focus on Energy also provided detailed tracking data from SPECTRUM for participants in all of its programs from 2012 through 2014.

The Evaluation Team conducted a billing analysis to establish the net gas and electric savings of the standard track and income-qualified track HPwES programs. The Evaluation Team used a nonparticipant group composed of future participants to control for exogenous factors during the analysis period then calculated the percentage change in this group's energy use to establish the programs' net savings. The Evaluation Team also estimated these programs' overall and pre-participation-use quartile energy savings.

The Evaluation Team also filtered the income-qualified track billing analysis results for We Energies customers only. We Energies provided bonuses for its customers who participated in the income-qualified track, and both We Energies and the PSC showed interest in identifying the results specific to the population of bonus recipients.

This appendix contains the methodology and results for the three billing analysis efforts conducted for this Program: standard track, income-qualified track, and We Energies' Residential Assistance Program.

For each participant, the Evaluation Team obtained these data:

- SPECTRUM ID and customer ID
- Customer name and address including zip code
- Minimum measure installation date
- Maximum measure installation date
- Total *ex ante* gas therm savings
- Total *ex ante* electric kWh savings
- Minimum other Focus on Energy program measure installation date
- Maximum other Focus on Energy program measure installation date

³⁴ The gas utilities included Alliant (Wisconsin Power & Light), Madison Gas and Electric Company, Midwest Natural Gas Incorporated, Northern States Power Company (Xcel Energy-Wis), Superior Water Light and Power Co., Wisconsin Electric Power Company (We Energies), and Wisconsin Public Service Corporation.

³⁵ The electric utilities included Adams-Columbia, Alliant (Wisconsin Power & Light), Arcadia, Black River Falls, Clintonville Water & Electric Utility, Columbus Water and Light Department, Cumberland Municipal Utility, Jefferson Water and Electric Department, Kaukauna Utilities, La Farge Municipal Electric Utility, Madison Gas and Electric Company, Manitowoc Public Utilities, Marshfield Utilities, New Holstein Public Utility, New Richmond Municipal Electric Utility, Northern States Power Company (Xcel Energy-Wis), Oconomowoc City of Utilities, Oconto Electric Cooperative, Oconto Falls Water And Light Commission, Plymouth Utilities, Rock Energy Cooperative, Sauk City Municipal Water & Light Utility, Shawano Municipal Utilities, Superior Water Light and Power Co., Two Rivers Water & Light Utility, Waunakee Water and Light Commission, Waupun Public Utilities, Wisconsin Electric Power Company (We Energies), and Wisconsin Public Service Corporation.

- Total other Focus on Energy program participation therm *ex ante* savings
- Total other Focus on Energy program participation kWh *ex ante* savings
- Measure-level flags including air sealing, attic insulation, foundation insulation, sill-box insulation, wall insulation, bonus measures, water-heating measures (showerheads, aerators, water heater replacement, pipe wrap), CFLs, LEDs, and a measure completion indicator

The Evaluation Team then combined the customer-level tracking information with the electric and gas billing data by SPECTRUM ID.³⁶

Next, the Evaluation Team followed these steps to conduct the billing analysis of the standard track and income-qualified Track HPwES programs:

1. Checked each participant account against the complete measure tracking data for participation in other programs occurring in the analysis period
2. Used zip code mapping to determine the nearest weather station for each zip code
3. Obtained daily average temperature weather data from January 2011 through July 2015 for 41 National Oceanic and Atmospheric Administration (NOAA) weather stations, representing all zip codes associated with the participants
4. Used daily average temperatures to determine base 45 through base 85 heating degree days (HDDs) and cooling degree days (CDDs) for each station
5. Obtained typical meteorological year 3 (TMY3; 1991–2005) annual normal and cooling degree days to weather normalize the billing data
6. Matched billing data periods with the CDDs and HDDs from the associated stations

Comparison Group

An important aspect of the CY 2015 billing analysis quasi-experimental design is to compare the participant, or treatment, group to a group of nonparticipants to account for exogenous factors that may have occurred simultaneous to program activity. These factors can include macroeconomic effects, increases or decreases in energy rates, or other interactions that may have affected energy consumption outside of program influence. For the standard track and income-qualified track HPwES programs, nonparticipant groups can be identified by sampling future program participants—that is, customers who participated *after* the analysis period.

This approach has several advantages over randomly selecting from the customer population. First, the future participants are more representative of the participant treatment group because they are more likely to be aware of saving energy and to have similar pre-program building characteristics. Second, this population has received program measures (though after the analysis period), so the installation period can be isolated to ensure this group had no impact during the analysis period.

³⁶ The Evaluation Team also obtained the square footage primarily from Zillow for each gas home.

Because comparison group pre-period use may not be identical to participant pre-period use, the Evaluation Team used a percentage of pre-period use to obtain the net participant savings. The following formula depicts this specific calculation for adjusted gross participant savings:

$$Net\ Savings = (Pre\ Part\ Usage) \left(\frac{Part\ Change\ In\ Usage}{Pre\ Part\ Usage} - \frac{NonPart\ Change\ In\ Usage}{Pre\ NonPart\ Usage} \right)$$

Instead of taking the difference between the participant savings delta and the nonparticipant savings delta (i.e., a difference-of-differences approach), the calculation can obtain the percentage reduction of both the participant and the nonparticipant groups. The percentage reduction that represents net savings is the participant percentage-change reduction minus the nonparticipant percentage reduction. This net percentage reduction can then be multiplied by the participant pre-period use to obtain the net participant savings, thus effectively accounting for the differences in pre-period use between participants and nonparticipants.

The Evaluation Team defined the future nonparticipant group as participants who installed measures from October 2014 through December 2014. This group did not have sufficient post-period billing data to be used in the participant group but had sufficient pre-participation billing data.

The Evaluation Team defined the participant pre-installation period as the one year before the first measure installation and the post-installation period as the one year after the last measure installation. It assigned the nonparticipant periods using the average participant installation date of September 1, 2013. The nonparticipant pre-period was September 2012 through August 2013, and the post-period was September 2013 through August 2014.

The Evaluation Team relied primarily on the PRIncton Scorekeeping Method (PRISM) to develop savings estimates because its models are easier to summarize across various groups and yield better precision than the more complex Conditional Savings Analysis (CSA) fixed-effects modeling approach. The Evaluation Team used the CSA approach to corroborate PRISM findings at the overall program level only.

Data Screening

The Evaluation Team removed these items from the analysis:

- Billing data readings that spanned less than 15 days or more than 65 days
- Electric billing data monthly readings where the use was less than 1 kWh per day
- Participant customers with fewer than 10 pre- and 10 post-installation months
- Nonparticipant customers with fewer than 10 pre- and 10 post-installation months

This ensured that the pre- and post-installation periods were well balanced and that all seasons were represented in the PRISM models.

PRISM Modeling Approach

In the next step of the screening process, the Evaluation Team estimated PRISM models for pre- and post-installation billing data. These models provided weather-normalized pre- and post-installation annual use for each account and an alternate check to savings obtained from the fixed-effects model.

The PRISM electric model used the following specification:

$$ADC_{it} = \alpha_i + \beta_1 AVGHDD_{it} + \beta_2 AVGCDD_{it} + \varepsilon_{it}$$

Where for each customer *i* and month *t*:

ADC_{it}	=	Average daily kWh consumption in the pre-/post-installation period
α_i	=	Participant intercept; represents the average daily kWh base load
β_1	=	Model space heating parameter value
β_2	=	Model cooling parameter value
$AVGHDD_{it}$	=	Base 45-65 average daily HDDs for the specific location
$AVGCDD_{it}$	=	Base 65-85 average daily CDDs for the specific location
ε_{it}	=	Error term

Using this model, the Evaluation Team computed weather-normalized annual consumption (NAC) for each heating and cooling reference temperature, as follows:

$$NAC_i = \alpha_i * 365 + \beta_1 LRHDD_i + \beta_2 LRCDD_i + \varepsilon_i$$

Where for each customer ‘*i*’:

NAC_i	=	Normalized annual kWh consumption
α_i	=	Intercept is the average daily or base load for each participant; it represents the average daily base load from the model
$\alpha_i * 365$	=	Annual base load kWh usage (non-weather sensitive)
β_1	=	Heating parameter value; in effect, this is usage per heating degree day from the model above
$LRHDD_i$	=	Annual, long-run HDDs of a typical meteorological year (TMY3) in the 1991–2005 series from NOAA, based on the home location
$\beta_1 * LRHDD_i$	=	Weather-normalized annual weather sensitive heating usage, also known as HEATNAC
β_2	=	Cooling parameter value; in effect, this is usage per CDD from the model above
$LRCDD_i$	=	Annual, long-run CDDs of a typical meteorological year (TMY3) in the 1991–2005 series from NOAA, based on home location
$\beta_2 * LRCDD_i$	=	Weather-normalized annual weather sensitive cooling usage, also known as COOLNAC
ε_i	=	Error term

Furthermore, if the heating and cooling models above yielded negative intercepts, negative heating parameters, or negative cooling parameters, the Evaluation Team estimated additional models that included only the cooling usage (cooling-only models) or the heating usage (heating-only models). From these models with correct signs on all of the parameters, the best model chosen for each participant for the pre- and post-installation periods was the model that had the highest R-square.

The PRISM gas models used the following specification:

$$ADC_{it} = \alpha_i + \beta_1 AVGHDD_{it} + \varepsilon_{it}$$

Where for each customer ‘i’ and month ‘t’:

ADC_{it}	=	Average daily therms consumption in the pre-/post-program period
α_i	=	Participant intercept; represents the average daily therms base load
β_1	=	Model space heating parameter value
$AVGHDD_{it}$	=	Base 45-65 average daily HDDs for the specific location
ε_{it}	=	Error term

Using this model, the Evaluation team computed NAC for each heating and cooling reference temperature, as follows:

$$NAC_i = \alpha_i * 365 + \beta_1 LRHDD_i + \varepsilon_i$$

Where for each customer ‘i’:

NAC_i	=	Normalized annual therms consumption
α_i	=	Intercept is the average daily or base load for each participant; it represents the average daily base load from the model
$\alpha_i * 365$	=	Annual base load therms usage (non-weather sensitive)
β_1	=	Heating parameter value; in effect, this is usage per heating degree day from the model above
$LRHDD_i$	=	Annual, long-run HDDs of a typical month year (TMY3) in the 1991–2005 series from NOAA, based on the home location
$\beta_1 * LRHDD_i$	=	Weather-normalized annual weather sensitive heating usage, also known as HEATNAC
ε_i	=	Error term

Once the pre- and post-installation uses were obtained for each customer, the Evaluation Team applied other PRISM-based screening steps and excluded these items:

- Accounts where the post-installation weather-normalized (POSTNAC) use was 70% higher or lower than the pre-installation weather-normalized (PRENAC) use. Such large changes could

indicate property vacancies when adding or removing other electric equipment that are unrelated to the Program.

- Accounts that had missing PRENAC or POSTNAC estimates (because of negative heating/cooling slopes or negative intercepts) because they probably indicated problems with the billing data
- Accounts that received additional measures through other programs in the analysis period
- Accounts where the *ex ante* claimed savings was less than 1% of the PRENAC
- Electric accounts where PRENAC or POSTNAC was less than 1,200 kWh or more than 60,000 kWh
- Gas accounts where PRENAC or POSTNAC was less than 200 therms or more than 5,500 therms

Finally, the Evaluation Team performed a billing data screen that examined the gas and electric monthly billing data for one customer at a time and plotted average monthly use. To avoid confounding the billing analysis, the Evaluation Team removed accounts with outliers, vacancies, seasonal use, and equipment changes in the pre- or post-installation periods.

Table J-22 summarizes the attrition for the standard track HPwES Program gas account participants from the various screens. The data showed that 4,164 participants received gas measures from January 2012 through September 2014. Attrition removed approximately 24% because billing data did not match and there were insufficient months of billing data. Another 12% were removed from individual billing review problems and 11% from PRISM screening, large percentage changes, participation in other programs during the analysis period, or installation of only minor measures (i.e., no project completion). The final analysis group involved 2,214 participants.

Table J-22. Standard Track HPwES Gas Participant Account Attrition

Screen	Participants Remaining	Percentage Remaining	Number Dropped	Percentage Dropped
Original Gas Accounts	4,164	100%	0	0%
Matched to Billing Data Provided	3,658	88%	506	12%
Less than 10 Months of Pre- or Post-Period Billing Data	3,152	76%	506	12%
Usage/Percentage Change Screens + PRISM Screening	2,985	72%	167	4%
Participated In Other Programs During Analysis Period	2,846	68%	139	3%
Installed Only Minor Measures (no Project Completion)	2,694	65%	152	4%
Individual Customer Bill Review: Outliers, Vacancies, Seasonal Usage, and Equipment Changes	2,214	53%	480	12%
Final Analysis Group	2,214	53%	1,950	47%

Table J-23 lists the attrition of standard track HPwES gas account nonparticipants from the various screens. From October 2014 through December 2014, there were 443 nonparticipant gas accounts. Attrition removed approximately 21% because billing data did not match and there were insufficient months of billing data. Another 9% of the attrition was from PRISM screening, large percentage changes, or from participation in other programs during the analysis period. Another 3% was from individual billing review problems. The final analysis group involved 297 nonparticipants.

Table J-23. Standard Track HPwES Gas Nonparticipant Account Attrition

Screen	Nonparticipants Remaining	Percentage Remaining	Number Dropped	Percentage Dropped
Original Gas Accounts	443	100%	0	0%
Matched to Billing Data Provided	399	90%	44	10%
Less than 10 Months of Pre- or Post-Period Billing Data	351	79%	48	11%
Usage/Percentage Change Screens + PRISM Screening	330	74%	21	5%
Participated In Other Programs During Analysis Period	311	70%	19	4%
Installed Only Minor Measures (no Project Completion)	311	70%	0	0%
Individual Customer Bill Review: Outliers, Vacancies, Seasonal Usage, And Equipment Changes	297	67%	14	3%
Final Analysis Group	297	67%	146	33%

Table J-24 lists the attrition of income-qualified track HPwES gas account participants from the various screens. From January 2012 through September 2014, 986 participants received gas measures. Attrition removed approximately 23% because billing data did not match and there were insufficient months of billing data. Another 14% were removed because they had participated in other programs during the analysis period. Another 9% were removed because of individual billing review problems and 6% because of PRISM screening, large percentage changes, or only minor measures were installed (i.e., no project completion). The final analysis group involved 481 participants.

Table J-24. Income-Qualified Track HPwES Gas Participant Account Attrition

Screen	Participants Remaining	Percentage Remaining	Number Dropped	Percentage Dropped
Original Gas Accounts	986	100%	0	0%
Matched to Billing Data Provided	840	85%	146	15%
Less than 10 months of Pre- or Post-Period Billing Data	762	77%	78	8%
Usage/Percentage Change Screens + PRISM Screening	727	74%	35	4%
Participated In Other Programs During Analysis Period	589	60%	138	14%
Installed Only Minor Measures (no Project Completion)	565	57%	24	2%
Individual Customer Bill Review: Outliers, Vacancies, Seasonal Usage, And Equipment Changes	481	49%	84	9%
Final Analysis Group	481	49%	505	51%

Table J-25 lists the attrition of income-qualified track HPwES gas account nonparticipants from the various screens. From October 2014 through December 2014, there were 85 nonparticipant gas accounts. Attrition removed approximately 20% because billing data did not match and from insufficient months of billing data. Another 18% were removed because customers had participated in other programs during the analysis period, 13% were removed because of PRISM screening and large percentage changes, and 4% were removed for individual billing review problems. The final analysis group involved 39 nonparticipants.

Table J-25. Income-qualified Track HPwES Gas Nonparticipant Account Attrition

Screen	Nonparticipants Remaining	Percentage Remaining	Number Dropped	Percentage Dropped
Original Gas Accounts	85	100%	0	0%
Matched to Billing Data Provided	79	93%	6	7%
Less than 10 months of Pre- or Post-Period Billing Data	68	80%	11	13%
Usage/Percentage Change Screens + PRISM Screening	57	67%	11	13%
Participated In Other Programs During Analysis Period	42	49%	15	18%
Installed Only Minor Measures (no Project Completion)	42	49%	0	0%
Individual Customer Bill Review: Outliers, Vacancies, Seasonal Usage, And Equipment Changes	39	46%	3	4%
Final Analysis Group	39	46%	46	54%

The Evaluation Team also filtered the billing analysis results to a subset of participants: income-qualified track participants who received an extra bonus from We Energies (in the Residential Assistance Program). Table J-26 lists the attrition of the We Energies Residential Assistance Program income-qualified track gas account participants from the various screens. From January 2012 through September 2014, 68 participants received gas measures. Attrition removed approximately 10% because of individual billing review problems. Another 7% were removed because billing data did not match and there were insufficient months of billing data. Another 6% were removed because of PRISM screening, and large percentage changes. The final analysis group involved 52 participants.

Table J-26. We Energies Residential Assistance Program Gas Participant Account Attrition

Screen	Participants Remaining	Percentage Remaining	Number Dropped	Percentage Dropped
Original Gas Accounts	68	100%	0	0%
Matched to Billing Data Provided	67	99%	1	1%
Less than 10 months of Pre- or Post-Period Billing Data	63	93%	4	6%
Usage/Percentage Change Screens + PRISM Screening	59	87%	4	6%
Participated In Other Programs During Analysis Period	59	87%	0	0%
Installed Only Minor Measures (no Project Completion)	59	87%	0	0%
Individual Customer Bill Review: Outliers, Vacancies, Seasonal Usage, And Equipment Changes	52	76%	7	10%
Final Analysis Group	52	76%	16	24%

Table J-27 lists the standard track HPwES electric account participants from the various screens. From January 2012 through September 2014, 4,425 participants received electric measures. Attrition removed approximately 30% because billing data did not match and from insufficient months of billing data. Another 15% were removed because of PRISM screening, large percent changes, and participation in other programs during the analysis period, and 10% were removed from individual billing review problems. The final analysis group involved 1,980 participants.

Table J-27. Standard Track HPwES Electric Participant Account Attrition

Screen	Participants Remaining	Percentage Remaining	Number Dropped	Percentage Dropped
Original Electric Accounts	4,425	100%	0	0%
Matched to Billing Data Provided	3,708	84%	717	16%
Less than 10 Months of Pre- or Post-Period Billing Data	3,106	70%	602	14%
Usage/Percentage Change Screens + PRISM Screening	2,669	60%	437	10%
Participated In Other Programs During Analysis Period	2,435	55%	234	5%
Individual Customer Bill Review: Outliers, Vacancies, Seasonal Usage, And Equipment Changes	1,980	45%	455	10%
Final Analysis Group	1,980	45%	2,445	55%

Table J-28 lists the attrition of standard track HPwES electric account nonparticipants from the various screens. From October 2014 through December 2014, there were 464 nonparticipant electric accounts.

Attrition removed approximately 31% because billing data did not match and there were insufficient months of billing data. Another 12% were removed because of PRISM screening, large percentage changes, or participation in other programs during the analysis period, and 4% were removed because of individual billing review problems. The final analysis group involved 244 nonparticipants.

Table J-28. Standard Track HPwES Electric Nonparticipant Account Attrition

Screen	Nonparticipants Remaining	Percentage Remaining	Number Dropped	Percentage Dropped
Original Electric Accounts	464	100%	0	0%
Matched to Billing Data Provided	384	83%	80	17%
Less Than 10 Months of Pre- or Post-Period Billing Data	318	69%	66	14%
Usage/Percentage Change Screens + Prism Screening	300	65%	18	4%
Participated in Other Programs During Analysis Period	264	57%	36	8%
Individual Customer Bill Review: Outliers, Vacancies, Seasonal Usage, And Equipment Changes	244	53%	20	4%
Final Analysis Group	244	53%	220	47%

Table J-29 lists the attrition of income-qualified track HPwES electric account participants from the various screens. From January 2012 through September 2014, 1,060 participants received electric measures. Attrition removed approximately 28% because billing data did not match and there were insufficient months of billing data. Another 15% were removed because of participation in other programs during the analysis period, 13% because of individual billing review problems, and 7% because of PRISM screening and large percentage changes.

Table J-29. Income-Qualified Track HPwES Electric Participant Account Attrition

Screen	Participants Remaining	Percentage Remaining	Number Dropped	Percentage Dropped
Original Electric Accounts	1,060	100%	0	0%
Matched to Billing Data Provided	881	83%	179	17%
Less than 10 Months of Pre- or Post-Period Billing Data	763	72%	118	11%
Usage/Percentage Change Screens + PRISM Screening	687	65%	76	7%
Participated In Other Programs During Analysis Period	525	50%	162	15%
Individual Customer Bill Review: Outliers, Vacancies, Seasonal Usage, And Equipment Changes	387	37%	138	13%
Final Analysis Group	387	37%	673	63%

Table J-30 lists the attrition of income-qualified track HPwES electric account nonparticipants from the various screens. From October 2014 through December 2014, there were 115 nonparticipant electric accounts. Attrition removed approximately 27% because the billing data did not match and there were insufficient months of billing data. Another 18% were removed because of participation in other programs during the analysis period, 4% from PRISM screening and large percentage changes, and 3% from individual billing review problems.

Table J-30. Income-Qualified Track HPwES Electric Nonparticipant Account Attrition

Screen	Nonparticipants Remaining	Percentage Remaining	Number Dropped	Percentage Dropped
Original Electric Accounts	115	100%	0	0%
Matched to Billing Data Provided	101	88%	14	12%
Less than 10 Months of Pre- or Post-Period Billing Data	84	73%	17	15%
Usage/Percentage Change Screens + PRISM Screening	79	69%	5	4%
Participated In Other Programs During Analysis Period	58	50%	21	18%
Individual Customer Bill Review: Outliers, Vacancies, Seasonal Usage, And Equipment Changes	55	48%	3	3%
Final Analysis Group	55	48%	60	52%

Table J-31 lists the attrition for the We Energies electric account participants from the various screens. From January 2012 through September 2014, 68 participants received electric measures. Attrition removed approximately 13% because of individual billing review problems. Another 8% were removed because billing data did not match and there were insufficient months of billing data. Another 6% were removed because of PRISM screening, and large percentage changes. The final analysis group involved 50 participants.

Table J-31. We Energies Residential Assistance Program Electric Participant Account Attrition

Screen	Participants Remaining	Percentage Remaining	Number Dropped	Percentage Dropped
Original Electric Accounts	69	100%	0	0%
Matched to Billing Data Provided	68	99%	1	1%
Less than 10 Months of Pre- or Post-Period Billing Data	63	91%	5	7%
Usage/Percentage Change Screens + PRISM Screening	59	86%	4	6%
Participated In Other Programs During Analysis Period	59	86%	0	0%
Individual Customer Bill Review: Outliers, Vacancies, Seasonal Usage, And Equipment Changes	50	72%	9	13%
Final Analysis Group	50	72%	19	28%

Following these screens, the final gas analysis groups for standard track HPwES involved 2,214 participants (53% of the original total) and 297 nonparticipants (67% of the original total), and for income-qualified track HPwES 481 participants (49% of the original total), 52 We Energies Residential Assistance Program participants (76% of the original total), and 39 nonparticipants (46% of the original total). The final electric analysis groups for standard track HPwES involved 1,980 participants (45% of the original total), and 244 nonparticipants (53% of the original total), and for income-qualified track HPwES 387 participants (37% of the original total), 50 We Energies Residential Assistance Program participants (72% of the original total), and 55 nonparticipants (48% of the original total).

From the screened billing analysis samples, the Evaluation Team summarized the PRISM average Difference in Normalized Annual Consumption (DNAC = PRENAC – POSTNAC) for participants and nonparticipants to yield the average gross savings for the programs. The Evaluation team also used the PRISM method to obtain the weather normalized pre-installation period usage (PRENAC) used to determine the percentage savings. The difference between the participant and nonparticipant percentage change in use yielded the adjusted gross savings.

Standard Track Billing Analysis Results

Electric Savings Results

Table J-32 presents the standard track HPwES electric gross and net realized savings estimated by the PRISM models and NTG rates, as well as the standard errors around the savings estimates. The participant group reduced energy use by 573 kWh or 6.2%. However, the nonparticipant group increased energy use by 261 kWh or 2.8% over the same period. As a result, the participants achieved an 832 kWh net reduction in energy use or 8.9% savings.

**Table J-32. Standard Track Home Performance with ENERGY STAR
Gross and Net Electric Savings from Billing Analysis**

Group	N	Ex Post Model Savings (kWh)	Ex Ante Savings per Participant	NTG Rate	Precision at 90% Level	PRENAC	Ex Ante Expected Percent Savings	Ex Post Percent Savings
Participant Gross	1,980	573	657	n/a	6%	9,311	7.1%	6.2%
Nonparticipant	244	-261	n/a	n/a	45%	9,402	n/a	-2.8%
Participant Net	1,980	832	657	127%	15%	9,311	7.1%	8.9%

Table J-33 summarizes the standard track HPwES net savings overall and by quartile after adjusting for the nonparticipant change in use from Table J-32.³⁷ The average standard track Program electric participant achieved net electric savings of 832 kWh. Compared to the *ex ante* savings estimate of 657 kWh, this represents a 127% NTG rate. With an average pre-installation period use of 9,311 kWh, the savings represent a reduction in use of approximately 9%.

The Evaluation Team also separated the electric PRENAC uses into four quartiles. Net savings represented approximately 7% of pre-installation period consumption for the lowest quartile and 9% for the higher use quartiles. The *ex ante*, expected consumption savings as a percentage of pre-installation period consumption were as high as 11% for the first quartile (i.e., lowest pre-installation period consumption) down to 6% for the highest quartile. Thus, the realized savings were low, at only 69% of claimed savings, for the lowest quartile group, and 157% for the highest consumption quartile.

**Table J-33. Standard Track Home Performance with ENERGY STAR
Evaluated Electric Net Energy Savings from Billing Analysis**

Group	N	Ex Post Model Savings (kWh)	Ex Ante Savings per Participant	NTG Rate	Precision at 90% Level	PRENAC	Ex Ante Expected Percent Savings	Ex Post Percent Savings
Quartile 1	495	348	507	69%	35%	4,742	10.7%	7.3%
Quartile 2	495	671	558	120%	19%	7,263	7.7%	9.2%
Quartile 3	495	869	648	134%	16%	9,663	6.7%	9.0%
Quartile 4	495	1,439	916	157%	11%	15,576	5.9%	9.2%
Overall	1,980	832	657	127%	15%	9,311	7.1%	8.9%

Gas Savings Results

Table J-34 presents the standard track HPwES gas gross and net realized savings estimated by the PRISM models and NTG rates, as well as the standard errors around the savings estimates. The participant group reduced energy use by 138 therms or 6.2%. However, the nonparticipant group increased energy

³⁷ Quartiles are defined as equal groups of participant sorted by pre-installation period consumption (lowest to highest).

use by 15 therms or 1.4% over the same period. As a result, participants achieved a net reduction in use of 153 therms or 15% savings.³⁸

**Table J-34. Standard Track Home Performance with ENERGY STAR
Gross and Net Gas Savings from Billing Analysis**

Group	N	Ex Post Model Savings (therms)	Ex Ante Savings per Participant	NTG Rate	Precision at 90% Level	PRENAC	Ex Ante Expected Percent Savings	Ex Post Percent Savings
Participant Gross	2,214	138	316	n/a	4%	992	31.9%	13.9%
Nonparticipant	297	-15	n/a	n/a	67%	1,068	n/a	-1.4%
Participant Net	2,214	153	316	48%	7%	992	31.9%	15.4%

Table J-35 summarizes the standard track HPwES net savings overall and by quartile after adjusting for the nonparticipant change in use from Table J-34. The average gas standard track Program participant achieved net gas savings of 153 therms. Compared to the *ex ante* savings estimate of 316 therms, this represents a 48% NTG rate. With an average pre-installation period use of 992 therms, the savings represent a reduction in use of approximately 15%.

The Team also separated the gas PRENAC uses into four quartiles. Net savings represented approximately 13% of pre-installation period consumption for the lowest quartile and 17% for the highest quartile.

The *ex ante*, expected savings as a percentage of pre-installation period consumption were as high as 42% for the first quartile (i.e., the lowest pre-installation period consumption) to 26% for the highest quartile. Thus, the realized savings were very low for the lowest quartile group, at only 32% of claimed savings, whereas for the highest consumption quartile, realized savings were 63% of claimed savings.

³⁸ The Evaluation Team checked the PRISM savings estimate against an alternate monthly fixed effects model specification using the average PRISM reference temperatures. The fixed effects models yielded a very similar net savings estimate of 151 therms, with a slightly higher precision of 8%. As noted, the Evaluation Team used the PRISM approach to obtain the final savings estimates.

**Table J-35. Standard Track Home Performance with ENERGY STAR
Evaluated Gas Net Energy Savings from Billing Analysis**

Group	N	Ex Post Model Savings (therms)	Ex Ante Savings per Participant	NTG Rate	Precision at 90% Level	PRENAC	Ex Ante Expected Percent Savings	Ex Post Percent Savings
Quartile 1	554	80	254	32%	14%	597	42.5%	13.5%
Quartile 2	553	120	293	41%	10%	814	36.0%	14.7%
Quartile 3	553	155	314	49%	8%	1,024	30.7%	15.1%
Quartile 4	554	255	404	63%	7%	1,531	26.4%	16.7%
Overall	2,214	153	316	48%	7%	992	31.9%	15.4%

Income-Qualified Track Billing Analysis Results

Electric Savings Results

Table J-36 presents the income-qualified track HPwES electric gross and net realized savings estimated by the PRISM models and NTG rates and the standard errors around the savings estimates. The participant group reduced use by 617 kWh or 7.4%. However, the nonparticipant group increased use by 306 kWh or 3.2% over the same period. As a result, the participants achieved an 887 kWh net reduction in use or 11% savings.

**Table J-36. Income-Qualified Track Home Performance with ENERGY STAR
Gross and Net Electric Savings from Billing Analysis**

Group	N	Ex Post Model Savings (kWh)	Ex Ante Savings per Participant	NTG Rate	Precision at 90% Level	PRENAC	Ex Ante Expected Percent Savings	Ex Post Percent Savings
Participant Gross	387	617	689	n/a	14%	8,314	8.3%	7.4%
Nonparticipant	55	-306	n/a	n/a	107%	9,423	n/a	-3.2%
Participant Net	387	887	689	129%	38%	8,314	8.3%	10.7%

Table J-37 presents the income-qualified We Energies electric gross and net realized savings estimated by the PRISM models and NTG rates, as well as the standard errors around the savings estimates. The participant group reduced use by 1,208 kWh or 11.4%. However, the nonparticipant group increased use by 306 kWh or 3.2% over the same period. As a result, the participants achieved a 1,553 kWh net reduction in use or 15% savings.

Table J-37. We Energies Residential Assistance Program Gross and Net Electric Savings from Billing Analysis

Group	N	Ex Post Model Savings (kWh)	Ex Ante Savings per Participant	NTG Rate	Precision at 90% Level	PRENAC	Ex Ante Expected Percent Savings	Ex Post Percent Savings
Participant Gross	50	1,208	1,147	n/a	29%	10,634	10.8%	11.4%
Nonparticipant ¹	55	-306	n/a	n/a	107%	9,423	n/a	-3.2%
Participant Net	50	1,553	1,147	135%	31%	10,634	10.8%	14.6%

¹ The income-qualified HPWES program electric nonparticipant group was also used in the We Energies Residential Assistance Program billing analysis.

Table J-38 lists the income-qualified track HPWES net savings overall and by quartile after adjusting for the nonparticipant change in use from Table J-36. The average electric income-qualified track Program participant achieved net electric savings of 887 kWh. Compared to the *ex ante* savings estimate of 689 kWh, this represents a 129% NTG rate. With an average pre-installation period use of 8,314 kWh, the savings represent a reduction in use of approximately 11%.

The Team also separated the electric PRENAC uses into four quartiles. Net savings represent approximately 7% of pre-installation period consumption for the lowest quartile and 10% to 11% for the higher quartiles.

The *ex ante* expected consumption savings as a percentage of pre-installation period consumption were as high as 13% for the first quartile (i.e., lowest pre-installation period consumption) to 7% for the highest quartile. Thus, the realized savings were low for the lowest quartile group, at only 52% of claimed savings, whereas for the two highest consumption quartiles, realized savings were 162% of claimed savings.

Table J-38. Income-Qualified Track Home Performance with ENERGY STAR Evaluated Electric Net Energy Savings from Billing Analysis

Group	N	Ex Post Model Savings (kWh)	Ex Ante Savings per Participant	NTG Rate	Precision at 90% Level	PRENAC	Ex Ante Expected Percent Savings	Ex Post Percent Savings
Quartile 1	96	281	545	52%	120%	4,099	13.3%	6.8%
Quartile 2	98	648	596	109%	54%	6,407	9.3%	10.1%
Quartile 3	96	982	606	162%	37%	8,395	7.2%	11.7%
Quartile 4	97	1,633	1010	162%	24%	14,329	7.0%	11.4%
Overall	387	887	689	129%	38%	8,314	8.3%	10.7%

Table J-39 lists the income-qualified We Energies net savings overall and by quartile after adjusting for the nonparticipant change in use from Table J-37. The average electric income-qualified We Energies Residential Assistance Program participant achieved net electric savings of 1,553 kWh. Compared to the

ex ante savings estimate of 1,147 kWh, this represents a 135% NTG rate. With an average pre-installation period use of 10,634 kWh, the savings represent a reduction in use of approximately 15%.

The Team also separated the electric PRENAC uses into four quartiles. Net savings represent approximately 9% to 12% of pre-installation period consumption for the lowest quartiles and 15% to 17% for the higher quartiles.

The *ex ante* expected consumption savings as a percentage of pre-installation period consumption were as high as 17% for the first quartile (i.e., lowest pre-installation period consumption) to 11% for the highest quartile. Thus, the realized savings were low for the lowest quartile group, at only 50% of claimed savings, whereas for the two highest consumption quartiles, realized savings were 158% to 198% of claimed savings.

**Table J-39. Income-Qualified We Energies Residential Assistance Program
Evaluated Electric Net Energy Savings from Billing Analysis**

Group	N	Ex Post Model Savings (kWh)	Ex Ante Savings per Participant	NTG Rate	Precision at 90% Level	PRENAC	Ex Ante Expected Percent Savings	Ex Post Percent Savings
Quartile 1	12	437	869	50%	142%	5,064	17.2%	8.6%
Quartile 2	13	1,069	924	116%	60%	8,363	11.1%	12.8%
Quartile 3	12	1,634	860	198%	34%	11,213	7.7%	14.6%
Quartile 4	13	2,993	1,890	158%	30%	17,514	10.8%	17.1%
Overall	50	1,553	1,147	135%	31%	10,634	10.8%	14.6%

Gas Savings Results

Table J-40 presents the income-qualified track HPwES gas gross and net realized savings estimated by the PRISM models and NTG rates, as well as the standard errors around the savings estimates. The participant group reduced use by 173 therms or 17.9%. However, the nonparticipant group increased use by 40 therms or 3.8% over the same period. As a result, the participants achieved a 210 therms net reduction in use or 22% savings.³⁹

³⁹ The Evaluation Team checked the PRISM savings estimate against an alternate monthly fixed effects model specification using the average PRISM reference temperatures. The fixed effects models yielded a very similar net savings estimate of 203 therms, with a slightly higher precision of 20%. As noted, the Team only used the PRISM approach to obtain the final savings estimates.

**Table J-40. Income-Qualified Track Home Performance with ENERGY STAR
Gross and Net Gas Savings from Billing Analysis**

Group	N	Ex Post Model Savings (therms)	Ex Ante Savings per Participant	NTG Rate	Precision at 90% Level	PRENAC	Ex Ante Expected Percent Savings	Ex Post Percent Savings
Participant Gross	481	173	336	n/a	7%	968	34.7%	17.9%
Nonparticipant	39	-40	n/a	n/a	90%	1,063	n/a	-3.8%
Participant Net	481	210	336	62%	18%	968	34.7%	21.7%

Table J-41 presents the income-qualified We Energies Residential Assistance Program gas gross and net realized savings estimated by the PRISM models and NTG rates and the standard errors around the savings estimates. The participant group reduced use by 285 therms or 21.6%. However, the nonparticipant group increased use by 40 therms or 3.8% over the same period. As a result, the participants achieved a 334 therms net reduction in use or 25% savings.

**Table J-41. Income-Qualified We Energies Residential Assistance Program
Gross and Net Gas Savings from Billing Analysis**

Group	N	Ex Post Model Savings (therms)	Ex Ante Savings per Participant	NTG Rate	Precision at 90% Level	PRENAC	Ex Ante Expected Percent Savings	Ex Post Percent Savings
Participant Gross	52	285	547	n/a	17%	1,318	41.5%	21.6%
Nonparticipant ¹	39	-40	n/a	n/a	90%	1,063	n/a	-3.8%
Participant Net	52	334	547	61%	18%	1,318	41.5%	25.4%

¹The income-qualified HPwES program gas nonparticipant group was also used in the We Energies Residential Assistance Program billing analysis

Table J-42 summarizes the income-qualified track HPwES net savings overall and by quartile after adjusting for the nonparticipant change in use from Table J-40. The average gas income-qualified track Program participant achieved net gas savings of 210 therms. Compared to the *ex ante* savings estimate of 336 therms, this represents a 62% NTG rate. With an average pre-installation period use of 968 therms, the savings represent a reduction in use of approximately 22%.

The Team also separated the gas PRENAC uses into four quartiles. Net savings represent approximately 15% of pre-installation period consumption for the lowest quartile, increasing to 25% for the highest use quartiles.

The *ex ante*, expected consumption savings as a percentage of pre-installation period consumption were as high as 39% for the first quartile (i.e., lowest pre-installation period consumption) to 33% for the highest quartile. Thus, the realized savings were very low for the lowest quartile, at only 40% of claimed savings, whereas for the highest consumption quartile, realized savings were 75% of claimed savings.

**Table J-42. Income-Qualified Track Home Performance with ENERGY STAR
Evaluated Gas Net Energy Savings from Billing Analysis**

Group	N	Ex Post Model Savings (therms)	Ex Ante Savings per Participant	NTG Rate	Precision at 90% Level	PRENAC	Ex Ante Expected Percent Savings	Ex Post Percent Savings
Quartile 1	121	88	223	40%	42%	579	38.6%	15.3%
Quartile 2	120	159	276	57%	24%	802	34.4%	19.8%
Quartile 3	119	227	358	63%	18%	1013	35.4%	22.4%
Quartile 4	121	364	487	75%	14%	1479	32.9%	24.6%
Overall	481	210	336	62%	18%	968	34.7%	21.7%

Table J-43 summarizes the We Energies Residential Assistance Program net savings overall and by quartile after adjusting for the nonparticipant change in use from Table J-41. The average gas income-qualified We Energies Residential Assistance Program participant achieved net gas savings of 210 therms. Compared to the *ex ante* savings estimate of 334 therms, this represents a 61% realization rate. With an average pre-installation period use of 1,318 therms, the savings represent a reduction in use of approximately 25%.

The Team also separated the gas PRENAC uses into four quartiles. Net savings represent approximately 23% of pre-installation period consumption for the lowest quartiles, and ranging from 23% to 32% for the highest use quartiles.

The *ex ante*, expected consumption savings as a percentage of pre-installation period consumption were as high as 58% for the first quartile (i.e., lowest pre-installation period consumption) to 26% for the highest quartile. Thus, the realized savings were low for the lowest quartile, at only 41% of claimed savings, whereas for the highest consumption quartile, realized savings were 87% of claimed savings.

**Table J-43. Income-Qualified We Energies Residential Assistance Program
Evaluated Gas Net Energy Savings from Billing Analysis**

Group	N	Ex Post Model Savings (therms)	Ex Ante Savings per Participant	NTG Rate	Precision at 90% Level	PRENAC	Ex Ante Expected Percent Savings	Ex Post Percent Savings
Quartile 1	13	203	498	41%	31%	860	57.9%	23.6%
Quartile 2	13	261	581	45%	31%	1128	51.5%	23.1%
Quartile 3	13	430	595	72%	21%	1338	44.4%	32.1%
Quartile 4	13	444	513	87%	30%	1947	26.3%	22.8%
Overall	52	334	547	61%	18%	1,318	41.5%	25.4%

NTG Rates

Table J-44 lists the net overall gas and electric savings, NTG rates, and other information for the two tracks of the HPwES program, as well as for the We Energies subset for its Residential Assistance Program.

Table J-44. NTG Rates for Gas and Electric Savings for Standard Track and Income-Qualified Track Home Performance with ENERGY STAR Program

Program Track + Fuel	N	Ex Post Model Savings (kWh or therms)	Ex Ante Savings per Participant	NTG Rate	Precision at 90% Level	PRENAC	Ex Ante Expected Percent Savings	Ex Post Percent Savings
Standard Track Gas	2,214	153	316	48%	7%	992	31.9%	15.4%
Income-Qualified Track Gas	481	210	336	62%	18%	968 ¹	34.7% ²	21.7%
We Energies Residential Assistance Program Gas	52	334	547	61%	18%	1,318	41.5%	25.4%
Standard Track Electric	1,980	832	657	127%	15%	9,311	7.1%	8.9%
Income-Qualified Track Electric	387	887	689	129%	38%	8,314	8.3%	10.7%
We Energies Residential Assistance Program Electric	50	1,553	1,147	135%	31%	10,634	10.8%	14.6%

¹ The gas pre-period use for the income-qualified track was 968 therms, very similar to the standard track pre-period use of 992 therms. The average standard track participant home was 2,008 square feet compared to 1,543 square feet for the average income-qualified track home. Thus, the income-qualified group started out with a much less efficient home.

² The HPwES measures mainly contribute to reducing the heating use. These values show the *ex ante* savings as a percentage of total use (including baseload/water heating). The pre-period heating use for the income-qualified group is 783 therms. The income-qualified track *ex ante* savings are 43% of the pre-period heating use. For the standard track, the heating use is 813 therms. The standard track *ex ante* savings are 39% of the pre-period heating use.

New Homes Program

Wisconsin Focus on Energy provided the Evaluation Team with gas and electric billing data for all new connect customers from January 2012 through July 2015. These data were from most of the utilities in Wisconsin and covered the period from January 2012 through July 2015.^{40,41} Focus on Energy also provided detailed tracking data from SPECTRUM for participants in all of its programs from 2012 through 2014.

The Evaluation Team conducted a billing analysis to establish the verified net *ex post* gas and electric savings of the New Homes Program. The Team used a nonparticipant group composed of new hookup customers who did not participate in the New Homes Program to provide a representative group of homes to establish the current market baseline energy use to establish the programs' net savings.

For each participant, the Evaluation Team obtained these data:

- SPECTRUM ID and customer ID
- Customer name and address including zip code
- The participant tier level
- Minimum New Homes participation date
- Maximum New Homes participation date
- Total *ex ante* gas therm savings
- Total *ex ante* electric kWh savings
- Minimum other Focus on Energy program measure installation date
- Maximum other Focus on Energy program measure installation date
- Total other Focus on Energy program participation therm *ex ante* savings
- Total other Focus on Energy program participation kWh *ex ante* savings

⁴⁰ The gas utilities included Alliant (Wisconsin Power & Light), Madison Gas and Electric Company, Northern States Power Company (Xcel Energy-Wis), Wisconsin Electric Power Company (We Energies), and Wisconsin Public Service Corporation.

⁴¹ The electric utilities included Alliant (Wisconsin Power & Light), Black River Falls, Boscobel Utilities, Cedarburg Light & Power, Eagle River, Village of Hustiford, Jefferson Water and Electric Department, Madison Gas and Electric Company, Manitowoc Public Utilities, Marshfield Utilities, New Holstein Public Utility, New Richmond Municipal Electric Utility, Northern States Power Company (Xcel Energy-Wis), Oconomowoc City of Utilities, Oconto Electric Cooperative, Oconto Falls Water And Light Commission, Plymouth Utilities, Sauk City Municipal Water & Light Utility, Shawano Municipal Utilities, Slinger Utilities, Stratford Utilities, Two Rivers Water & Light Utility, Waunakee Water and Light Commission, Waupun Public Utilities, Wisconsin Electric Power Company (We Energies), and Wisconsin Public Service Corporation.

The Evaluation Team then combined the customer-level tracking information with the electric and gas billing data by customer address.⁴²

Next, the Evaluation Team followed these steps to conduct the billing analysis of the New Homes Program:

1. Checked each participant account against the complete list of new connects. All matching addresses were assigned to the participant group, all non-matching addresses were assigned to the nonparticipant group
2. Used zip code mapping to determine the nearest weather station for each zip code
3. Obtained daily average temperature weather data from January 2011 through July 2015 for 41 National Oceanic and Atmospheric Administration (NOAA) weather stations, representing all zip codes associated with the participants
4. Used daily average temperatures to determine base 45 through base 85 heating degree days (HDDs) and cooling degree days (CDDs) for each station
5. Obtained typical meteorological year 3 (TMY3; 1991–2005) annual normal and cooling degree days to weather normalize the billing data
6. Matched billing data periods with the CDDs and HDDs from the associated stations

Comparison Group

An important aspect of the CY 15 billing analysis quasi-experimental design is to compare the participant, or treatment group, to a group of nonparticipants with new homes who did not participate in the New Homes Program.

Adjusted gross savings are obtained from the differences in usage per square foot for participants with the nonparticipant homes built during a similar time period.

Furthermore, since all participants in the Program fell into the category of single-family homes, the Team removed all apartments from the nonparticipant group.

The Evaluation Team defined the analysis period for both the participants and nonparticipants as the period from July 2014 through June 2015. This was the latest annual period of billing data with the most complete data for all utilities. Furthermore, selecting the latest period allows more time for the homes to become occupied after they are built.

The Team relied on the PRinceton Scorekeeping Method (PRISM) to develop the participant and nonparticipant usages and savings estimates.

⁴² The Evaluation Team also obtained the square footage primarily from Zillow for new homes. To simplify the process of obtaining square footage, any home with less than 10 months of billing data did not receive a square footage lookup since that home fails the minimum number of month screens.

Data Screening

The Evaluation Team removed these items from the analysis:

- Billing data readings that spanned less than 15 days or more than 65 days
- Electric billing data monthly readings where the use was less than 1 kWh per day
- Participant customers with fewer than 10 analysis period months
- Nonparticipant customers with fewer than 10 analysis period months

This ensured that the pre- and post-installation periods were well balanced and that all seasons were represented in the PRISM models.

PRISM Modeling Approach

In the next step of the screening process, the Evaluation Team estimated PRISM models for the analysis period billing data. These models provided weather-normalized annual use for each account.

The PRISM electric model used the following specification:

$$ADC_{it} = \alpha_i + \beta_1 AVGHDD_{it} + \beta_2 AVGCDD_{it} + \varepsilon_{it}$$

Where for each customer i and month t :

ADC_{it}	=	Average daily kWh consumption in the analysis period
α_i	=	Participant intercept; represents the average daily kWh base load
β_1	=	Model space heating parameter value
β_2	=	Model cooling parameter value
$AVGHDD_{it}$	=	Base 45° to 65° average daily HDDs for the specific location
$AVGCDD_{it}$	=	Base 65° to 85° average daily CDDs for the specific location
ε_{it}	=	Error term

Using this model, the Evaluation Team computed weather-normalized annual consumption (NAC) for each heating and cooling reference temperature, as follows:

$$NAC_i = \alpha_i * 365 + \beta_1 LRHDD_i + \beta_2 LRCDD_i$$

Where for each customer 'i':

NAC_i	=	Normalized annual kWh consumption
α_i	=	Intercept is the average daily or base load for each participant; it represents the average daily base load from the model
$\alpha_i * 365$	=	Annual base load kWh usage (non-weather sensitive)
β_1	=	Heating parameter value; in effect, this is usage per heating degree day from the model above
$LRHDD_i$	=	Annual, long-run HDDs of a typical meteorological year (TMY3) in the 1991–2005 series from NOAA, based on the home location

$\beta_1 * LRHDD_i$	=	Weather-normalized annual weather sensitive heating usage, also known as HEATNAC
β_2	=	Cooling parameter value; in effect, this is usage per CDD from the model above
$LRCDD_i$	=	Annual, long-run CDDs of a typical meteorological year (TMY3) in the 1991–2005 series from NOAA, based on home location
$\beta_2 * LRCDD_i$	=	Weather-normalized annual weather sensitive cooling usage, also known as COOLNAC

Furthermore, if the heating and cooling models above yielded negative intercepts, negative heating parameters, or negative cooling parameters, the Evaluation Team estimated additional models that included only the cooling usage (cooling-only models) or the heating usage (heating-only models). From these models with correct signs on all of the parameters, the best model chosen for each customer was the model that had the highest R-square.

The PRISM gas models used the following specification:

$$ADC_{it} = \alpha_i + \beta_1 AVGHDD_{it} + \varepsilon_{it}$$

Where for each customer ‘i’ and month ‘t’:

ADC_{it}	=	Average daily therms consumption in the analysis period
α_i	=	Participant intercept; represents the average daily therms base load
β_1	=	Model space heating parameter value
$AVGHDD_{it}$	=	Base 45-65 average daily HDDs for the specific location
ε_{it}	=	Error term

Using this model, the Evaluation team computed NAC for each heating and cooling reference temperature, as follows:

$$NAC_i = \alpha_i * 365 + \beta_1 LRHDD_i$$

Where for each customer ‘i’:

NAC_i	=	Normalized annual therms consumption
α_i	=	Intercept is the average daily or base load for each participant; it represents the average daily base load from the model
$\alpha_i * 365$	=	Annual base load therms usage (non-weather sensitive)
β_1	=	Heating parameter value; in effect, this is usage per heating degree day from the model above
$LRHDD_i$	=	Annual, long-run HDDs of a typical month year (TMY3) in the 1991–2005 series from NOAA, based on the home location
$\beta_1 * LRHDD_i$	=	Weather-normalized annual weather sensitive heating usage, also known as HEATNAC

Once the Team obtained analysis period weather normalized usages for each customer, it applied other PRISM-based screening steps and excluded these items:

- Accounts that had missing post-installation analysis (POSTNAC) estimates (because of negative heating/cooling slopes or negative intercepts) because they probably indicated problems with the billing data
- Electric accounts where POSTNAC was less than 1,000 kWh or greater than 80,000 kWh
- Gas accounts where the POSTNAC was less than 200 therms or more than 6,000 therms

The Evaluation Team also performed a billing data screen that examined the gas and electric monthly billing data for one customer at a time and plotted average analysis period monthly use. To avoid confounding the billing analysis, the Evaluation Team removed accounts with outliers, vacancies, or seasonal use in the post-period analysis periods.

Furthermore—since it was important to obtain a normalized kWh per square foot estimate—the Team removed customers with missing square footage data from the analysis.

Also for better comparability between participants and nonparticipants, as mentioned earlier, the Team removed nonparticipant non-single-family homes from the analysis. Similarly, the Team removed nonparticipants from utilities that did not have any Program participants from the analysis.

Table J-45 summarizes the attrition for the New Homes Program gas account participants from the various screens. The data showed that there were 2,622 gas New Homes Program participants from January 2012 through July 2015. Attrition removed approximately 30% because of insufficient months of analysis billing data. The Team removed another 2% due to from missing square feet, and through PRISM and usage screening. The final gas analysis group included 1,787 participants.

Table J-45. New Homes Program Gas Participant Account Attrition

Screen	Participants Remaining	Percentage Remaining	Number Dropped	Percentage Dropped
Original Gas Accounts	2,622	100%	0	0%
Less than 10 months of billing data	1,841	70%	781	30%
Usage/percentage change screens + PRISM screening	1,811	69%	30	1%
Keep only single-family homes + remove nonparticipants for utilities not participating	1,810	69%	1	less than 1%
Remove homes with missing square footage	1,794	68%	16	1%
Individual customer bill review: outliers, vacancies, seasonal usage	1,787	68%	7	less than 1%
Final Analysis Group	1,787	68%	835	32%

Table J-46 lists the attrition of New Homes Program gas account nonparticipants from the various screens. From January 2012 through July 2015, there were 8,132 nonparticipant gas accounts. Attrition removed approximately 30% because there were insufficient months of billing data. Another 20% of the attrition was from removing non-single-family homes and homes with missing square footage. The Team removed another 2% of the nonparticipants because of PRISM and usage screening or from individual billing review problems. The final gas analysis group included 3,130 nonparticipants.

Table J-46. New Homes Program Gas Nonparticipant Account Attrition

Screen	Nonparticipants Remaining	Percentage Remaining	Number Dropped	Percentage Dropped
Original Gas Accounts	8,132	100%	0	0%
Less than 10 months of billing data	5,711	70%	2,421	30%
Usage/percentage change screens + PRISM screening	5,616	69%	95	1%
Keep only single-family homes + remove nonparticipants for utilities not participating	4,025	49%	1,591	20%
Remove homes with missing square footage	3,233	40%	792	10%
Individual customer bill review: outliers, vacancies, seasonal usage	3,130	38%	103	1%
Final Analysis Group	3,130	38%	5,002	62%

Table J-47 summarizes the attrition for the New Homes Program electric account participants from the various screens. The data showed that there were 2,732 electric New Homes Program participants from January 2012 through July 2015. Attrition removed approximately 30% because of insufficient months of analysis billing data. The Team removed another 3% from PRISM and usage screening, 3% from

individual billing review, and 1% due to missing square feet. The final electric analysis group included 1,734 participants.

Table J-47. New Homes Program Electric Participant Account Attrition

Screen	Participants Remaining	Percentage Remaining	Number Dropped	Percentage Dropped
Original Electric Accounts	2,732	100%	0	0%
Less than 10 months of billing data	1,920	70%	812	30%
Usage/percentage change screens + PRISM screening	1,848	68%	72	3%
Keep only single-family homes + remove nonparticipants for utilities not participating	1,844	67%	4	0%
Remove homes with missing square footage	1,812	66%	32	1%
Individual customer bill review: outliers, vacancies, seasonal usage	1,734	63%	78	3%
Final Analysis Group	1,734	63%	998	37%

Table J-48 lists the attrition of New Homes Program electric account nonparticipants from the various screens. From January 2012 through July 2015, there were 17,984 nonparticipant electric accounts. Attrition removed approximately 30% because there were insufficient months of billing data. Another 27% of the attrition was from removing non-single-family homes, and the Team removed 14% of homes because of missing square footage. The Evaluation Team removed another 4% of the nonparticipants because of PRISM and usage screening or from individual billing review problems. The final electric analysis group included 4,533 nonparticipants.

Table J-48. New Homes Program Electric Nonparticipant Account Attrition

Screen	Nonparticipants Remaining	Percentage Remaining	Number Dropped	Percentage Dropped
Original Electric Accounts	17,984	100%	0	0%
Less than 10 months of billing data	12,637	70%	5,347	30%
Usage/percentage change screens + PRISM screening	12,167	68%	470	3%
Keep only single-family homes + remove nonparticipants for utilities not participating	7,236	40%	4,931	27%
Remove homes with missing square footage	4,738	26%	2,498	14%
Individual customer bill review: outliers, vacancies, seasonal usage	4,533	25%	205	1%
Final Analysis Group	4,533	25%	13,451	75%

Following these screens, the final gas analysis groups for the New Homes Program involved 1,787 participants (68% of the original total) and 3,130 nonparticipants (38% of the original total). The final electric analysis groups for New Homes Program involved 1,734 participants (63% of the original total) and 4,533 nonparticipants (25% of the original total).

From the screened billing analysis samples, the Evaluation Team summarized the analysis period PRISM post-period usage and divided it by the square footage to obtain a kWh per square foot estimate for each customer. The difference between the participant and nonparticipant kWh per square foot yielded the adjusted gross savings.

Billing Analysis Results

Electric Savings Results

Table J-49 summarizes the certification level and overall program New Homes Program electric PRISM usages and summaries.⁴³ Because the nonparticipant distribution may vary from the participant distribution, all nonparticipant usages in the summaries are weighted by the participant sample size to remove potential bias. Because the participant utility mix varied for each certification level, the nonparticipant averages varied as well.

This summary includes the final group of 4,533 nonparticipants and 1,734 participants. The nonparticipant usage estimates ranged from 4.1 to 4.2 kWh per square foot. The typical nonparticipant home square footage varied in size but was around the 2,400 to 2,500 square foot range. The overall participants had homes with approximately 2,150 square feet. The difference between the participant and nonparticipant kWh per square foot yielded the net savings. Overall, the average participant had negative savings of 0.279 kWh per square foot.

The Program tracking data showed average expected savings of 0.880 kWh per square foot. The NTG rate was -35%. Based on the *ex ante* savings, the Program was expected to save approximately 17% from the theoretical baseline usage. However, kWh usage through the Program was 7% higher than the actual baseline usage. The theoretical baseline usage overall was expected to be 11,395 kWh; however, the nonparticipant homes built in the same time period showed a considerably lower usage of approximately 9,286 kWh.

As expected, the savings per square foot increase by level from -0.221 kWh per square foot in Level 1 to 0.417 kWh per square foot in Level 4. The NTG rates also improved as the home tier and associated percentage over code increases: -35% NTG rate in Level 1 compared to 17% NTG rate in Level 4. Similarly, the percentage of savings above the actual nonparticipant baseline usage per square foot increase from -5% in Level 1 to 10% in Level 4.

Since the Evaluation Team did not expect the Program to have a higher usage than the nonparticipant baseline homes, it applied a 0% NTG rate for the electric component of the Program.

⁴³ These summaries show the overall summaries across all the utilities only. These results are weighted across each separate electric utility.

Table J-49. New Homes Program Overall and Certification Level Electric Summary

Part/ Non- Part	Tier	N	Postnac kWh	Square Feet	Expected kWh	kWh per sq. ft.	Savings kWh/ sq. ft.	Expected kWh/ sq. ft.	Expected Baseline kWh	Actual Baseline kWh	% Savings Expected	% Savings Achieved	NTG
Non-part	Level 1	4,533	10,303	2,539	n/a	4.059	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 2	4,533	10,018	2,445	n/a	4.098	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 3	4,533	10,098	2,388	n/a	4.228	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 4	4,533	10,141	2,405	n/a	4.216	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Part	Level 1	389	9,621	2,248	1,420	4.280	-0.221	0.632	11,041	9,478	13%	-5%	-35%
Part	Level 2	1,138	9,385	2,092	1,845	4.485	-0.388	0.882	11,230	8,955	16%	-9%	-44%
Part	Level 3	188	9,695	2,400	2,930	4.040	0.188	1.221	12,625	10,763	23%	4%	15%
Part	Level 4	19	9,931	2,614	6,404	3.798	0.417	2.449	16,335	10,563	39%	10%	17%
Part	All Certification Levels	1,734	9,478	2,166	1,917	4.383	-0.279	0.880	11,395	9,286	17%	-7%	-35%

Table J-50 summarizes the results by participation level separately for large and small homes. For large homes over 2,188 square feet, a similar pattern exists – savings increase by certification levels: the savings per square foot increased by level from -0.241 kWh per square foot in Level 1 to 0.755 kWh per square foot in Level 4. Similarly, NTG rates improved as the certification level and associated percentage over code increases: -41% NTG rate in Level 1 compared to 32% NTG rate in Level 4. The percentage savings above the actual nonparticipant baseline usage per square foot increased from -6% in Level 1 to 21% in Level 4.

For smaller homes under 2,188 square feet, the savings patterns were not divisive. Almost all levels produced negative NTG rates. Large and small homes both had negative NTG rates; however, the NTG rate for larger homes was -10% compared to -35% for smaller homes. Also, note that the nonparticipants in larger homes have lower kWh per square feet in the 3.9 kWh per square foot range; however, for smaller homes the kWh per square feet are approximately 4.8-5.0 kWh per square foot.

Table J-50. New Homes Program Small and Large Homes Electric Summary

Part/Non-part	Certification Level	N	Postnac kWh	Square Feet	Expected Therms	Therms per sq. ft.	Savings Therms sq. ft.	Expected Therms sq. ft.	Expected Baseline Therms	Actual Baseline Therms	% Savings Expected	% Savings Achieved	NTG
Large Homes, Over 2,188 Square Feet													
Non-part	Level 1	2342	11877	3102	n/a	3.829	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 2	2342	11818	3084	n/a	3.832	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 3	2342	11877	3052	n/a	3.891	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 4	2342	12009	3075	n/a	3.905	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Part	Level 1	262	10265	2522	1482	4.070	-0.241	0.588	11747	9849	13%	-6%	-41%
Part	Level 2	486	10325	2642	1845	3.908	-0.076	0.665	12084	10752	15%	-2%	-11%
Part	Level 3	114	10695	2908	2930	3.678	0.213	1.112	13928	11364	23%	5%	19%
Part	Level 4	14	9357	2971	6404	3.150	0.755	2.351	16342	10926	43%	21%	32%
Part	All Certification Levels	876	10340	2646	1951	3.914	-0.074	0.737	12291	10564	16%	-2%	-10%
Small Homes, Under 2,188 Square Feet													
Non-part	Level 1	2182	7665	1608	n/a	4.768	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 2	2182	7646	1608	n/a	4.754	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 3	2182	8053	1588	n/a	5.073	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 4	2182	7871	1610	n/a	4.888	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Part	Level 1	125	8427	1709	1313	4.929	-0.162	0.768	9739	8355	13%	-3%	-21%
Part	Level 2	652	8684	1683	1909	5.161	-0.407	1.135	10593	8295	18%	-8%	-36%
Part	Level 3	74	8154	1617	2465	5.044	0.029	1.525	10618	8343	23%	1%	2%
Part	Level 4	5	11538	1617	4777	7.134	-2.246	2.954	16315	8158	29%	-45%	-76%
Part	All Certification Levels	856	8617	1680	1887	5.128	-0.344	1.125	10504	8307	18%	-7%	-31%

Gas Savings Results

Table J-51 summarizes the certification level and overall gas PRISM usages and summaries for the New Homes Program.⁴⁴ Since the nonparticipant distribution may vary from the participant distribution, all nonparticipant usages in the summaries are weighted by the participant sample size to remove potential bias. Since the participant utility mix varied for each certification level, the nonparticipant averages varied for each as well. This summary includes the final group of 3,130 nonparticipants and 1,787 participants. The nonparticipant usage estimate were all approximately 0.35 therms per square foot. The typical nonparticipant home square footage varied in size but was approximately 2,300 to 2,500 square feet. Overall, participants' homes averaged approximately 2,300 square feet. The difference between the participant and nonparticipant kWh per square foot yielded the NTG rate.

Overall, the average participant achieved savings of 0.013 therms per square foot. The Program tracking data showed average expected savings of 0.176 therms per square foot. The NTG rate estimated by the billing analysis was 7%. Based on the *ex ante* savings, the Program was expected to save approximately 34% from the theoretical baseline usage. However, the Program achieved only 4% of the actual baseline usage. Overall, the theoretical baseline usage was expected to be 1,181 therms; however, the nonparticipant homes built in the same time period showed a considerably lower usage of approximately 800 therms.

Table J-51 also summarizes the results by certification level. As expected, the savings per square foot increased by level from 0.007 therms per square foot in Level 1 to 0.029 therms per square foot in Level 4. The NTG rates also improved as the certification level and associated percentage over code increases: 4% NTG rate in Level 1 compared to 11% NTG rate in Level 4. Similarly, the percentage of savings over the actual nonparticipant baseline usage per square foot increased from 4% in Level 1 to 9% in Level 4.

⁴⁴ These summaries show the overall summaries across all the utilities only. These results are weighted across each separate gas utility.

Table J-51. New Homes Program Overall and Certification Level Electric Summary

Part/Non-Part	Tier	N	Postnac Therms	Square Feet	Expected Therms	Therms per sq. ft.	Savings Therms sq. ft.	Expected Therms sq. Ft.	Expected Baseline Therms	Actual Baseline Therms	% Savings Expected	% Savings Achieved	NTG Rate
Non-part	Level 1	3130	870	2470	n/a	0.352	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 2	3130	844	2398	n/a	0.352	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 3	3130	800	2315	n/a	0.346	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 4	3130	827	2384	n/a	0.347	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Part	Level 1	418	873	2527	401	0.345	0.007	0.159	1274	877	31%	2%	4%
Part	Level 2	1180	735	2172	383	0.338	0.014	0.176	1117	750	34%	4%	8%
Part	Level 3	176	811	2501	519	0.324	0.021	0.207	1330	846	39%	6%	10%
Part	Level 4	13	1064	3348	866	0.318	0.029	0.259	1930	1086	45%	9%	11%
Part	All Certification Levels	1787	777	2296	404	0.338	0.013	0.176	1181	791	34%	4%	7%

Table J-52 summarizes the results by certification level separately for large and small homes. For large homes over 2188 square feet, a similar pattern exists – savings increased by certification levels: the savings per square foot increased by level from 0.008 therms per square foot in Level 1 to 0.036 therms per square foot in Level 4. The NTG rates also improved as the certification level and associated percentage over code increases: 5% NTG rate in Level 1 compared to 15% NTG rate in Level 4. Similarly, the percentage of savings above the actual nonparticipant baseline usage per square foot increased from 2% in Level 1 to 12% in Level 4.

As discussed in the electric analysis, smaller homes under 2188 square feet did not produce a clear pattern by certification level. However, overall, large and small homes achieved similar NTG rates; 10% and 9%, respectively. Also, nonparticipants in larger homes had lower therms per square feet (0.33 therms per square foot) while smaller homes had higher usage (0.38 therms per square foot).

Table J-52. New Homes Program Small and Large Homes Gas Summary

Part/Non-Part	Certification Level	N	Postnac therms	Square Feet	Expected therms	Therms per sq. ft.	Savings therms sq. ft.	Expected therms sq. ft.	Expected Baseline therms	Actual Baseline therms	% Savings Expected	% Savings Achieved	NTG Rate
Large Homes, Over 2188 Square Feet													
Non-part	Level 1	1563	1030	3062	n/a	0.337	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 2	1563	1023	3051	n/a	0.335	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 3	1563	1000	3019	n/a	0.331	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 4	1563	1013	3043	n/a	0.333	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Part	Level 1	287	944	2874	458	0.329	0.008	0.159	1402	956	33%	2%	5%
Part	Level 2	503	893	2821	383	0.316	0.019	0.174	1385	927	36%	6%	11%
Part	Level 3	108	927	3045	519	0.305	0.027	0.194	1516	964	39%	8%	14%
Part	Level 4	10	1136	3824	866	0.297	0.036	0.235	2032	1165	44%	12%	15%
Part	All Certification Levels	908	916	2875	497	0.319	0.017	0.173	1413	943	35%	5%	10%
Small Homes, Under 2188 Square Feet													
Non-part	Level 1	1567	634	1618	n/a	0.392	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 2	1567	631	1622	n/a	0.389	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 3	1567	589	1586	n/a	0.371	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Non-part	Level 4	1567	605	1607	n/a	0.376	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Part	Level 1	131	715	1767	277	0.405	-0.013	0.157	992	665	28%	-3%	-8%
Part	Level 2	677	617	1689	301	0.365	0.024	0.178	919	684	33%	6%	13%
Part	Level 3	68	628	1637	407	0.383	-0.012	0.248	1034	598	39%	-3%	-5%
Part	Level 4	3	825	1759	763	0.469	-0.093	0.433	1588	675	48%	-24%	-21%
Part	All Certification Levels	879	633	1697	307	0.373	0.015	0.181	941	674	33%	4%	9%

Self-Report Net-To-Gross Methodology

Two components—freeridership and spillover—constitute NTG. True freeriders are customers who would have purchased a measure without a program’s influence. Spillover is the amount of additional savings obtained by customers investing in additional, energy-efficient measures or activities because of their program participation.

This section presents the approaches and detailed results of residential and nonresidential NTG estimates derived from the analysis of self-reports procured through participant surveys. The Evaluation Team applied these results to measure categories and programs for which adequate baseline data were unavailable. In some cases, the Evaluation Team combined the measure-level results from the SMP and the self-report methods to determine weighted average program NTG ratios.

Survey Design

For programs for which participating customer surveys were conducted in the CY 2015 evaluation, the Evaluation Team asked a series of freeridership and spillover questions.

The Evaluation Team designed the freeridership questions to elicit, to the best of the respondent’s ability, the impact of the particular program on the respondent’s decision to purchase the high-efficiency equipment. Programs can also influence a customer to purchase an energy-efficient measure sooner than planned, to purchase a higher-efficiency measure than planned, or to purchase more units than planned without the program. The survey also sought to establish what decision-makers might have done in the program’s absence.

Direct questions such as “Would you have installed measure X without the program incentive?” tend to result in exaggerated “yes” responses. Participants often provide answers they believe surveyors seek, so a question becomes the equivalent of asking: “Would you have done the right thing on your own?” Effectively avoiding such bias involves asking a question in several different ways then checking for consistent responses.

Basing freeridership estimates on a series of questions, rather than a single question, can help evaluators recognize and minimize response biases. Not all questions are weighted equally. For example, if a respondent would not have installed the measure(s) to the same level of efficiency without the program, they are automatically a 0% freerider. If they would not have installed the measure(s) within two years without the program, they are automatically a 0% freerider.

Other questions included in the freeridership analysis are assigned partial weights for responses that are indicative of a non-freerider. This method does not allow estimation of a respondent as a 100% freerider based on a single answer to a single question; a customer must provide consistent responses across the relevant questions in the freeridership analysis.

The survey questions addressed five core freeridership dimensions for residential programs and six core freeridership dimensions for nonresidential programs:

- Would participants have installed measures without the program?
- Were participants planning on ordering or installing the measures before learning about the program?
- Would participants have installed the measures at the same efficiency levels without the program incentive?
- Would participants have installed the same quantity of measures without the program?
- In the program’s absence, would participants have installed the measures at a different time?
- Was the purchase of the measures in the organization’s most recent capital budget?
(Nonresidential only)

The survey design included several skip patterns, allowing interviewers to confirm answers previously provided by respondents by asking the same question in a different format. Specific freeridership questions used for the programs are presented in their analysis sections in this appendix.

Freeridership Methodology

The Evaluation Team developed a score for all participants, using their responses to the freeridership questions, and developed a probability matrix for assigning a single score to each participant, using his or her objective responses to targeted survey questions.⁴⁵ The Evaluation Team applied freeridership scores to question response patterns in the probability matrix and calculated confidence and precision estimates to the distribution of these scores.

This matrix approach provides these key benefits:

- Derivation of a partial freeridership score, based on the likelihood of a respondent taking similar actions in the incentive’s absence
- Use of a rules-based approach for consistency among multiple respondents
- Ability to change weightings in a “what if” exercise, testing the response set’s stability

The Evaluation Team’s method offered the advantage of partial freeridership. Experience has shown that program participants do not fall neatly into freerider and non-freerider categories. For example, the Evaluation Team assigned partial freeridership scores to participants who had plans to install a measure; although the program exerted some influence over their decisions, they were also influenced by other market characteristics outside of the program. Further, the Evaluation Team could assign partial credit to “don’t know” and “refused” responses, rather than removing respondents entirely from the analysis.

⁴⁵ Khawaja, M. S. *The NAPEE Handbook on DSM Evaluation*. 2007 edition, page 5-1.

The Evaluation Team assessed freeridership at three levels:

- Each participant survey response was converted into a freeridership matrix terminology.
- Each participant's combination of responses received a score from the matrix.
- All participants were aggregated into an average freeridership score for the entire program category.

Convert Responses to Matrix Terminology

The Evaluation Team independently evaluated each survey question's response, assessed participants' freeridership levels for each question, and converted each survey response option into one of these values:

- "Yes" (indicative of freeridership)
- "No" (indicative of non-freeridership)
- "Partial" (partially indicative of freeridership)

Participant Freeridership Scoring

Following conversion of survey responses into matrix terminology, the Evaluation Team created a freeridership matrix for each program, allowing each participant's combined responses to be assigned a freeridership score. All combinations of survey question responses were considered in creating the matrix, with each combination receiving a freeridership score of 0% to 100%.

The Evaluation Team's process for determining freeridership score is as follows:

- Customers were categorized as 0% freeriders in these instances:
 - They had no plans to install the measure in the absence of the program's incentives and would not have installed the measure within a year for residential programs and within two years for nonresidential programs.
 - They had specific plans to install the measure before learning about the program but would not have done so without program incentives.
 - In the absence of program incentives, the customer would not have purchased or installed equipment to the same level of efficiency.
- Customers were categorized as 100% freeriders if they would have installed the measure without the program or if they had installed the measure before learning about the program.
- Customers received a partial freeridership score (ranging from 12% to 75%) if they had plans to install the measure and their decision was influenced by the program. (This influence may have been installation timing, the number of measures installed, or the efficiency levels of measures installed.) For customers who were highly likely to install a measure and for whom the program had less influence over their decision, a higher freeridership percentage was applied.

Measure Category Freeridership Scoring

After assigning a freeridership score to every survey respondent, the Evaluation Team calculated a savings-weighted average freerider score for the measure category. For each program, the respondents' freerider scores were individually weighted by estimated savings of equipment installed, using the following calculation:

$$\text{SavingsWeightedFreeridership} = \frac{\sum[\text{Respondent FR Score}] * [\text{Measure Energy Savings}]}{\sum[\text{All Respondents Measure Energy Savings}]}$$

Spillover Methodology

Spillover refers to additional savings generated by program participants through program participation but not captured by program records. Spillover occurs when participants choose to purchase energy-efficient measures or adopt energy-efficient practices because of a program's influence but do not participate (or otherwise cannot participate) in the program.

The Evaluation Team measured spillover by asking a sample of participants purchasing and receiving an incentive for a particular measure if, because of the program, they installed another efficient measure or undertook another energy efficiency activity. Respondents were asked to rate the program's (and incentive's) relative influence (either highly, somewhat, or not at all influential) on their decisions to pursue additional savings.

Participant Spillover Analysis

The Evaluation Team used a top-down approach to calculate spillover savings. Analysis began with a subset containing only the survey respondents who indicated they had installed additional energy-saving measures after participating in the program. The Evaluation Team screened out any participants who received an incentive for these additional measures. It also removed participants if they indicated the program had little influence on their decisions to purchase additional measures, thus retaining only participants who rated the program as "highly influential."

The Evaluation Team applied evaluated and deemed savings values to the spillover measures that respondents said they had installed as a result of their program participation.

The spillover percentage per program category was calculated by dividing the sum of additional spillover savings reported by respondents for a given program category by total gross savings achieved by all respondents in the program category:

$$\text{Spillover \%} = \frac{\sum \text{Spillover Measure Energy Savings for All Survey Respondents}}{\sum \text{Program Measure Energy Savings for All Survey Respondents}}$$

Net-to-Gross Analysis

The Evaluation Team combined this spillover information with the program-level freeridership results to achieve the NTG ratio, using the following calculation:

$$\text{NTG} = 1 - \text{Freeridership} + \text{Spillover}$$

Table J-53 summarizes the self-report CY 2015 participant freeridership, spillover and NTG results by program.

Table J-53. CY 2015 Self-Report Participant Freeridership, Spillover and NTG by Program

Program	n	Freeridership ¹	Spillover ¹	NTG ¹
Residential Rewards	70	77%	6%	29%
Renewable Rewards	73	37%	0%	63%
Agriculture, Schools and Government	77	12%	0%	88%
Business Incentive	104	36%	0%	64%
Multifamily Energy Savers	60	19%	1%	82%
Chain Stores and Franchises	45	23%	0%	77%
Small Business	70	13%	0%	87%
Large Energy Users	73	18%	0%	82%
Renewable Energy Competitive Incentive	32	0%	0%	100%
Design Assistance	8	32%	0%	68%

¹Weighted by gross evaluated energy savings

Residential Rewards Program HVAC Self-Report NTG Methodology and Findings

Freeridership Survey Questions

The participant survey’s freeridership section included involved 10 questions that addressed the five core freeridership dimensions. These freeridership questions were asked in the survey format for gas furnaces:

- F1. Before you heard anything about the Focus on Energy Residential Rewards program, had you already purchased or installed the new furnace?
- F2. [Ask if question F1 is Yes] So just to be clear, you installed the new [MEASURE] before you heard anything about the Focus on Energy Residential Rewards program. Is that correct?
- F3. Before you heard about the Focus on Energy Residential Rewards program, had you already been planning to purchase a [MEASURE]?
- F4. Would you have installed the same [MEASURE] without the Cash-back Reward from Focus on Energy?
- F5. [Ask if question F4 is No] So I understand, would you have installed a different [MEASURE] without the Focus on Energy Cash-back Reward or would you have decided not to replace it?
- F6. When you say you would have installed a [MEASURE] without the Focus on Energy Cash-back Reward from Focus on Energy, would you have installed one that was at the same level of efficiency?
- F7. And, thinking about timing, without the Focus on Energy Cash-back Reward, would you have installed the [MEASURE] ... [READ LIST]

- F8. [Ask if question F5 is Don't Know or Refused] So just to confirm, you would not have replaced your [MEASURE] at all, without a Focus on Energy Cash-back Reward. Is that correct?
- F9. [Ask if question F8 is No] Without the Focus on Energy Cash-back Reward, would you have installed a [MEASURE], but one that was not as energy-efficient?
- F10. [Ask if question F8 is No] And with respect to timing, would you have installed the [MEASURE] ... [READ LIST]

Convert Responses to Matrix Terminology

Table J-54 illustrates how initial survey responses are translated into whether the response is “yes,” “no,” or “partially” indicative of freeridership (in parentheses).

Table J-54. Residential Rewards Raw Survey Response Translation to Freeridership Scoring Matrix Terminology

F1. Before you heard anything about the Focus on Energy Residential Rewards program, had you already purchased or installed the new [MEASURE]?	F2. So just to be clear, you installed the new [MEASURE] before you heard anything about the Focus on Energy Residential Rewards program. Is that correct?	F3. Before you heard about the Focus on Energy Residential Rewards program, had you already been planning to purchase a [MEASURE]?	F4. Would you have installed the same [MEASURE] without the Cash-back Reward from Focus on Energy	F5. So I understand, would you have installed a different [MEASURE] without the Focus on Energy Cash-back Reward or would you have decided not to replace it?	F6. When you say you would have installed a [MEASURE] without the Focus on Energy Cash-back Reward from Focus on Energy, would you have installed one that was at the same level of efficiency?	F7. And, thinking about timing, without the Focus on Energy Cash-back Reward, would you have installed the [MEASURE] ...	F8. So just to confirm, you would not have replaced your [MEASURE] at all, without a Focus on Energy Cash-back Reward. Is that correct?	F9. Without the Focus on Energy Cash-back Reward, would you have installed a [MEASURE], but one that was not as energy-efficient?	F10. And with respect to timing, would you have installed the [MEASURE] ...
Yes (Yes)	Yes, that's correct (Yes)	Yes (Yes)	Yes (Yes)	I would have installed a different [MEASURE] (Yes)	Yes (Yes)	At the same time (Yes)	Yes (No)	Yes (No)	At the same time (Yes)
No (No)	No, that's not correct (No)	No (No)	No (No)	I would have decided not to replace it (No)	No (No)	Within the same year (Partial)	No (Yes)	No (Yes)	Within the same year (Partial)
Don't Know (No)	Don't Know (No)	Don't Know (Partial)	Don't Know (Partial)	Don't Know (Partial)	Don't Know (Partial)	One to two years out (No)	Don't Know (Partial)	Don't Know (Partial)	One to two years out (No)
Refused (No)	Refused (No)	Refused (Partial)	Refused (Partial)	Refused (Partial)	Refused (Partial)	More than two years out (No)	Refused (Partial)	Refused (Partial)	More than two years out (No)
						Never (No)			Never (No)
						Don't Know (Partial)			Don't Know (Partial)
						Refused (Partial)			Refused (Partial)

Participant Freeridership Scoring

Each participant freeridership score starts with 100%, which the Evaluation Team decremented based on his or her responses to the ten questions as shown in Table J-55.

Table J-55. Residential Rewards Freeridership Scoring Legend

Q#	Decrement
F1	0% decrement for "No," Partial level not needed
F2	100% FR if "Yes," 0% decrement for "No" level, "Partial" level not needed
F3	50% decrement for "No," 25% decrement for "Partial"
F4	50% decrement for "No," 25% decrement for "Partial"
F5	0% decrement for "No," Partial level not needed
F6	100% decrement for "No," 25% decrement for "Partial"
F7	100% decrement for "No," 25% decrement for "Partial"
F8	100% decrement for "No," 25% decrement for "Partial"
F9	100% decrement for "No," 25% decrement for "Partial"
F10	100% decrement for "No," 25% decrement for "Partial"

Table J-56 illustrates the unique response combinations from participants answering the Residential Rewards Program freeridership battery (actual responses mapped to “yes,” “no,” or “partial,” as indicative of freeridership), the freeridership score assigned to each combination, and the number of responses. This table includes only the participants who installed measures for which the Evaluation Team applied the self-report methodology (some additional measures were assessed using the SMP approach). The Evaluation Team calculated a self-report freeridership score for the Program based on the distribution of scores within the matrix.

Table J-56. Residential Rewards Frequency of Freeridership Scoring Combinations

F1. Before you heard anything about the Focus on Energy Residential Rewards program, had you already purchased or installed the new [MEASURE]?	F2. So just to be clear, you installed the new [MEASURE] before you heard anything about the Focus on Energy Residential Rewards program. Is that correct?	F3. Before you heard about the Focus on Energy Residential Rewards program, had you already been planning to purchase a [MEASURE]?	F4. Would you have installed the same [MEASURE] without the Cash-back Reward from Focus on Energy	F5. So I understand, would you have installed a different furnace without the Focus on Energy Cash-back Reward or would you have decided not to replace it?	F6. When you say you would have installed a furnace without the Focus on Energy Cash-back Reward from Focus on Energy, would you have installed one that was at the same level of efficiency?	F7. And, thinking about timing, without the Focus on Energy Cash-back Reward, would you have installed the furnace ...	F8. So just to confirm, you would not have replaced your furnace at all, without a Focus on Energy Cash-back Reward. Is that correct?	F9. Without the Focus on Energy Cash-back Reward, would you have installed a furnace, but one that was not as energy-efficient?	F10. And with respect to timing, would you have installed the furnace ...	FR Score	Frequency
Yes	Yes	x	x	x	x	x	x	x	x	100%	10
Yes	No	Yes	Yes	x	Yes	Yes	x	x	x	100%	38
No	x	Yes	Yes	x	Yes	Yes	x	x	x	75%	4
No	x	Yes	Yes	x	Yes	Partial	x	x	x	0%	1
No	x	Yes	Yes	x	Partial	Yes	x	x	x	0%	1
No	x	Yes	Yes	x	No	x	x	x	x	0%	1
No	x	Yes	Partial	Yes	No	x	x	x	x	50%	2
No	x	Yes	Partial	Partial	x	x	x	x	x	0%	1
No	x	Yes	No	Yes	Yes	Yes	x	x	x	50%	10
No	x	Yes	No	Yes	Yes	No	x	x	x	25%	1
No	x	Yes	No	Yes	Partial	Yes	x	x	x	25%	1

Participant Spillover Analysis

The Evaluation Team estimated participant spillover based on answers from respondents who purchased additional high-efficiency equipment or appliances following their participation in the Residential Rewards Program. The Evaluation Team applied evaluated and deemed savings values to the spillover measures that customers said they had installed as a result of their Program participation (Table J-57).

Table J-57. Residential Rewards Participant Spillover Measures and Savings

Spillover Measure	Quantity	Total MMBTU Savings Estimate
Efficient Gas Storage Water Heater	2	19
Efficient Clothes Washer	1	1

Next, the Evaluation Team divided the sample spillover savings by the program gross savings from the entire survey sample, as shown in this equation:

$$Spillover \% = \frac{\sum \text{Spillover Measure Energy Savings for All Survey Respondents}}{\sum \text{Program Measure Energy Savings for All Survey Respondents}}$$

This yielded a 6% spillover estimate for the Residential Rewards Program respondents (Table J-58).

Table J-58. Residential Rewards Participant Spillover Percent Estimate

Variable	Total MMBTU Savings Estimate
Spillover Savings	20
Program Savings	346
Spillover Estimate	6%

Net-to-Gross Analysis

The Evaluation Team combined the spillover information with the freeridership results to achieve the measure-level NTG ratios, using the following calculation:

$$NTG = 1 - Freeridership + Spillover$$

Table J-59. Residential Rewards NTG Estimates

n	Freeridership ¹	Spillover	NTG
70	77%	6%	29%

¹Weighted by gross evaluated energy savings

Renewable Rewards Program Self-Report NTG Methodology and Findings

Freeridership Survey Questions

The participant survey's freeridership section included seven questions, addressing the five core freeridership dimensions. These freeridership questions were asked in the survey format for gas furnaces:

- F1. Before you heard anything about the Focus on Energy Renewable Rewards program, had you already purchased or installed your PV system?
- F2. [Ask if question F1 is Yes] So just to be clear, you installed your PV system before you heard anything about the Focus on Energy Renewable Rewards program. Is that correct?
- F3. Before you heard about the program, had you already been planning to install a PV system?
- F4. Would you have installed the same PV system without the Cash-back Reward from Focus on Energy?
- F5. [Ask if question F4 is No or DK/RF] What would you have done differently if the Renewable Rewards program had not been available to you?
- F7. And, thinking about timing, without the Focus on Energy Cash-back Reward, would you have installed the PV system... [READ LIST]
- F8. [Ask if question F5 is 'I would not have installed a PV system at all'] So just to confirm, you would not have installed a PV system at all, without a Focus on Energy Cash-back Reward. Is that correct?

Convert Responses to Matrix Terminology

Table J-60 illustrates how initial survey responses are translated into whether the response is "yes," "no," or "partially" indicative of freeridership (in parentheses).

Table J-60. Renewable Rewards Raw Survey Response Translation to Freeridership Scoring Matrix Terminology

F1. Before you heard anything about the Focus on Energy Renewable Rewards program, had you already purchased or installed your PV system?	F2. So just to be clear, you installed your PV system before you heard anything about the Focus on Energy Renewable Rewards program. Is that correct?	F3. Before you heard about the program, had you already been planning to install a PV system?	F4. Would you have installed the same PV system without the Cash-back Reward from Focus on Energy?	F5. What would you have done differently if the Renewable Rewards program had not been available to you?	F7. And, thinking about timing, without the Focus on Energy Cash-back Reward, would you have installed the PV system...	F8. So just to confirm, you would not have installed a PV system at all, without a Focus on Energy Cash-back Reward. Is that correct?
Yes (Yes)	Yes, that's correct (Yes)	Yes (Yes)	Yes (Yes)	I would have installed a different [MEASURE] (Yes)	At the same time (Yes)	Yes (No)
No (No)	No, that's not correct (No)	No (No)	No (No)	I would have decided not to replace it (No)	Within the same year (Partial)	No (Yes)
Don't Know (No)	Don't Know (No)	Don't Know (Partial)	Don't Know (Partial)	Don't Know (Partial)	One to two years out (No)	Don't Know (Partial)
Refused (No)	Refused (No)	Refused (Partial)	Refused (Partial)	Refused (Partial)	More than two years out (No)	Refused (Partial)
					Never (No)	
					Don't Know (Partial)	
					Refused (Partial)	

Participant Freeridership Scoring

Each participant freeridership score starts with 100%, which the Evaluation Team decremented based on participant’s responses to the ten questions shown in Table J-61.

Table J-61. Renewable Rewards Freeridership Scoring Legend

Q#	Decrement
F1	0% decrement for "No," Partial level not needed
F2	100% FR if "Yes," 0% decrement for "No" level, "Partial" level not needed
F3	50% decrement for "No," 25% decrement for "Partial"
F4	50% decrement for "No," 25% decrement for "Partial"
F5	50% decrement for "No," 25% decrement for "Partial"
F7	100% decrement for "No," 25% decrement for "Partial"
F8	100% decrement for "No," 25% decrement for "Partial"

Table J-62 illustrates the unique response combinations from participants answering the Renewables Rewards freeridership battery (actual responses mapped to “yes,” “no,” or “partial,” as indicative of freeridership), the freeridership score assigned to each combination, and the number of responses. The Evaluation Team calculated a freeridership score for the Program based on the distribution of scores within the matrix.

Table J-62. Renewable Rewards Frequency of Freeridership Scoring Combinations¹

F1. Before you heard anything about the Focus on Energy Renewable Rewards program, had you already purchased or installed your PV system?	F2. So just to be clear, you installed your PV system before you heard anything about the Focus on Energy Renewable Rewards program. Is that correct?	F3. Before you heard about the program, had you already been planning to install a PV system?	F4. Would you have installed the same PV system without the Cash-back Reward from Focus on Energy?	F5. What would you have done differently if the Renewable Rewards program had not been available to you?	F7. And, thinking about timing, without the Focus on Energy Cash-back Reward, would you have installed the PV system...	F7. And, thinking about timing, without the Focus on Energy Cash-back Reward, would you have installed the furnace ...	FR Score	Frequency
No	x	Yes	Yes	x	Yes	x	100%	19
No	x	Yes	Yes	x	Partial	x	75%	5
No	x	Yes	Yes	x	No	x	0%	3
No	x	Yes	No	Yes	No	x	0%	1
No	x	Yes	No	No	Yes	x	13%	2
No	x	Yes	No	No	Partial	x	0%	1
No	x	Yes	No	No	No	x	0%	3
No	x	Yes	No	No	x	No	0%	9
No	x	No	Yes	x	Yes	x	50%	7
No	x	No	Partial	Partial	x	x	13%	3
No	x	No	Partial	No	Partial	x	0%	1
No	x	No	Partial	No	x	No	0%	1
No	x	No	No	No	Yes	x	0%	1
No	x	No	No	No	No	Partial	0%	1
No	x	No	No	No	Partial	x	0%	1
No	x	No	No	No	No	x	0%	2
No	x	No	No	No	x	Partial	0%	1
No	x	No	No	No	x	No	0%	13

¹ An “x” in this table and subsequent tables indicates that the respondent was not asked that particular question. These questions were skipped intentionally, based on customer responses, to avoid asking redundant questions.

Participant Spillover Analysis

The Evaluation Team estimated participant spillover based on answers from respondents who purchased additional high-efficiency equipment or appliances following their participation in the Renewable Rewards Program. The Evaluation Team applied evaluated and deemed savings values to the spillover measures customers said they had installed as a result of their Program participation (Table J-63).

Table J-63. Renewable Rewards Participant Spillover Measures and Savings

Spillover Measure	Quantity	Total MMBTU Savings Estimate
Air Heat Exchange System	1	5

Next, the Evaluation Team divided the sample spillover savings by the program gross savings from the entire survey sample, as shown in this equation:

$$Spillover \% = \frac{\sum \text{Spillover Measure Energy Savings for All Survey Respondents}}{\sum \text{Program Measure Energy Savings for All Survey Respondents}}$$

This yielded a 0% spillover estimate, when rounded to the nearest whole percentage point, for the Residential Rewards Program respondents (Table J-64).⁴⁶

Table J-64. Renewable Rewards Participant Spillover Percent Estimate

Variable	Total MMBTU Savings Estimate
Spillover Savings	5
Program Savings	1,575
Spillover Estimate	0%

Net-to-Gross Analysis

The Evaluation Team combined the spillover information with the freeridership results to achieve the measure-level NTG ratios, using the following calculation:

$$NTG = 1 - \text{Freeridership} + \text{Spillover}$$

Table J-65. Renewable Rewards NTG Estimates

n	Freeridership ¹	Spillover	NTG
73	37%	0%	63%

¹Weighted by gross evaluated energy savings

Business Incentive Program, Multifamily Energy Savings Program, Agriculture, Schools and Government Program and Chain Stores and Franchises Program Self-Report NTG Methodology and Findings

Freeridership Survey Questions

The following programs participant survey’s freeridership sections included two separate sets of questions, which addressed the six core freeridership dimensions:

- Business Incentive Program
- Multifamily Energy Savings Program
- Agriculture, Schools and Government Program
- Chain Stores and Franchises Program

⁴⁶ Actual value is 0.3%.

For these programs, one set of freeridership questions was asked of participants who said they were the decision makers. A second set of freeridership questions was asked of participants whose contractor helped make the decision. Participants were asked only one of the sets of questions.

The two sets of freeridership questions are directly comparable; the difference is that one is oriented toward counterfactual behavior without the program incentive and one is oriented toward counterfactual behavior if there was no involvement from the contractors.

The freeridership questions about the Program incentive (asked in the survey format) were:

- G1. First, did your organization have specific plans to install the [MEASURE][s] before learning about the incentive?
- G2. Prior to learning about the incentive, was the purchase of the [MEASURE[s]] included in your organization's capital budget?
- G3. Had your organization ALREADY ordered or purchased the [MEASURE[s]] BEFORE your organization heard about the Agricultural, Schools and Government program incentive?
- G4. Would you have purchased and installed the same [MEASURE[s]] without the incentive?
- G5. Would you have installed something without the incentive?
- G6. When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?
- G7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the incentive, would you have installed the same amount of [MEASURE1[s]]?
- G8. Without the [INCENTIVE FOR MEASURE], would you have installed the [MEASURE[s]]...
- G9. When you say you would not have installed the same [MEASURE1 OR C_MEASURE1][s] without the incentive, would you have installed anything at all?
- G10. Without the incentive, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?
- G11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] Without the incentive, would you have installed the same amount of [MEASURE[s]]?
- G12. And, would you have installed the same [MEASURE1[s]]. . .

The freeridership questions oriented toward the involvement of the contractor (as asked in the survey format) were:

- H1. At the time that you first started working with your contractor on this project, had you already purchased or installed the [MEASURE][s]?
- H2. Did your organization have specific plans to install the [MEASURE][s] before you began working with your contractor?
- H3. [Ask if question H1 is Yes] Before you began working with your contractor, was the purchase of the [MEASURE][s] included in your organization's capital budget

- H4. Would you have purchased and installed the same [MEASURE][s] without the assistance from your contractor?
- H5. [Ask if question H4 is Don't Know or Refused] Would you have installed something without the involvement of your contractor?
- H6. [Ask if H5 is Yes] When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE1 OR C_MEASURE1][s] you installed?
- H7. [Ask if QTY > 1 and question H4 is Yes or H5 is Yes] And without the assistance from your contractor, would you have installed the same number of [MEASURE]?
- H7b. [Ask if question H7 is No] Would you have installed fewer or more of the [MEASURE]?
- H8. Without the assistance from your contractor, would you have installed the [MEASURE][s]?
- H9. [Ask if question H4 is No or if H5 is No] When you say you would not have installed the same [MEASURE][s] without the assistance from your contractor, would you have installed anything at all?
- H10. [Ask if question H9 is Yes] Without the assistance from your contractor, would you have installed something that was just as energy efficient as the [MEASURE][s] you installed?
- H11. [Ask if QTY > 1 and H11 is Yes] And without the contractor, would you have installed the same number of [MEASURE][s]?
- H11b. [Ask if H11 is No] Would you have installed fewer or more of the [MEASURE]?
- H12. [Ask if H9 is Yes] And, when would you have installed the same [MEASURE][s]?

Convert Responses to Matrix Terminology

Table J-66 illustrates how initial incentive focused survey responses are translated into the responses “yes,” “no,” or “partially,” indicative of freeridership (in parentheses). Table J-67 illustrates how initial contractor focused survey responses are translated into the responses “yes,” “no,” or “partially,” indicative of freeridership (in parentheses).

Table J-66. Incentive - Raw Survey Response Translation to Freeridership Scoring Matrix Terminology

G1. First, did your organization have specific plans to install the [MEASURE1 OR C_MEASURE1][s] before learning about the incentive?	G2. Prior to learning about the incentive, was the purchase of the [MEASURE[s]] included in your organization's capital budget?	G3. Had your organization ALREADY ordered or purchased the [MEASURE[s]] BEFORE your organization heard about the Agricultural, Schools and Government program incentive?	G4. Would you have purchased and installed the same [MEASURE[s]] without the incentive?	G5. Would you have installed something without the incentive?	G6. When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	G7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the incentive, would you have installed the same amount of [MEASURE[s]]?	G8. Without the [INCENTIVE FOR MEASURE1 OR C_MEASURE1], would you have installed the [[MEASURE[s]]	G9. When you say you would not have installed the same [MEASURE[s]] without the incentive, would you have installed anything at all?	G10. Without the incentive, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	G11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] Without the incentive, would you have installed the same amount of [MEASURE1 OR C_MEASURE1][s]?	G12. And, would you have installed the same [MEASURE1 OR C_MEASURE1][s].
Yes (Yes)	Yes (Yes)	Yes (Yes)	Yes (Yes)	Yes, would have installed something (Yes)	Yes (Yes)	Yes (Yes)	Within the same year? (Yes)	Yes, would have installed something (Yes)	Yes (Yes)	Yes, the same amount (Yes)	Within the same year? (Yes)
No (No)	No (No)	No (No)	No (No)	No, would not have installed anything (No)	No (No)	No (No)	Within one to two years? (Partial)	No, would not have installed anything at all (No)	No (No)	No, would have installed less (No)	Within one to two years? (Partial)
Don't Know (Partial)	Don't Know (Partial)	Don't Know (No)	Don't Know (Partial)	Don't Know (Partial)	Don't Know (Partial)	Don't Know (Partial)	Within three to five years? (No)	Don't Know (Partial)	Don't Know (Partial)	No, would have installed more (Yes)	Within three to five years? (No)
Refused (Partial)	Refused (Partial)	Refused (No)	Refused (Partial)	Refused (Partial)	Refused (Partial)	Refused (Partial)	In more than five years? (No)	Refused (Partial)	Refused (Partial)	Don't Know (Partial)	In more than five years? (No)
							Don't Know (Partial)			Refused (Partial)	Don't Know (Partial)
							Refused (Partial)				Refused (Partial)

Table J-67. Contractor - Raw Survey Response Translation to Freeridership Scoring Matrix Terminology

H1. At the time that you first started working with your contractor on this project, had you already purchased or installed the [MEASURE][s]?	H2. Did your organization have specific plans to install the [MEASURE][s] before you began working with your contractor?	H3. [Ask if question H2 is Yes] Before you began working with your contractor, was the purchase of the [MEASURE][s] included in your organization's capital budget?	H4. Would you have purchased and installed the same [MEASURE][s] without the assistance from your contractor?	H5. [Ask if question H4 is Don't Know or Refused] Would you have installed something without the involvement of your contractor?	H6. [Ask if H5 is Yes] When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE1] OR [MEASURE1][s] you installed?	H7. [Ask if QTY > 1 and question H4 is Yes or H5 is Yes] And without the assistance from your contractor, would you have installed the same number of [MEASURE]?	H7b. [Ask if question H7 is No] Would you have installed fewer or more of the [MEASURE]?	H8. Without the assistance from your contractor, would you have installed the [MEASURE][s]?	H9. [Ask if question H4 is No or if H5 is No] When you say you would not have installed the same [MEASURE][s] without the assistance from your contractor, would you have installed anything at all?	H10. [Ask if question H9 is Yes] Without the assistance from your contractor, would you have installed something that was just as energy efficient as the [MEASURE][s] you installed?	H11. [Ask if QTY > 1 and H11 is Yes] And without the contractor, would you have installed the same number of [MEASURE][s]?	H11b. [Ask if H11 is No] Would you have installed fewer or more of the [MEASURE]?	H12. [Ask if H9 is Yes] And, when would you have installed the same [MEASURE][s]?
Yes (Yes)	Yes (Yes)	Yes (Yes)	Yes (Yes)	Yes, would have installed something (Yes)	Yes (Yes)	Yes (Yes)	Fewer (No)	Within the same year? (Yes)	Yes, would have installed something (Yes)	Yes (Yes)	Yes (Yes)	Fewer (No)	Within the same year? (Yes)
No (No)	No (No)	No (No)	No (No)	No, would NOT have installed anything (No)	No (No)	No (No)	More (Yes)	Within one to two years? (Partial)	No, would not have installed anything at all (No)	No (No)	No (No)	More (Yes)	Within one to two years? (Partial)
Don't Know (Partial)	Don't Know (Partial)	Don't Know (No)	Don't Know (Partial)	Don't Know (Partial)	Don't Know (Partial)	Don't Know (Yes)	Don't Know (Partial)	Within three to five years? (No)	Don't Know (Partial)	Don't Know (Partial)	Don't Know (Yes)	Don't Know (Partial)	Within three to five years? (No)
Refused (Partial)	Refused (Partial)	Refused (No)	Refused (Partial)	Refused (Partial)	Refused (Partial)	Refused (Yes)	Refused (Partial)	In more than five years? (No)	Refused (Partial)	Refused (Partial)	Refused (Yes)	Refused (Partial)	In more than five years? (No)
								Don't Know (Partial)					Don't Know (Partial)
								Refused (Partial)					Refused (Partial)

Participant Freeridership Scoring

Each incentive path participant freeridership score starts with 100%, which the Evaluation Team decremented based on the participant's responses to the twelve incentive questions shown in Table J-68.

Table J-68. Incentive - Freeridership Scoring Legend

Q#	Decrement
G1	50% decrement for "No," 25% decrement for "Partial"
G2	50% decrement for "No," 25% decrement for "Partial"
G3	100% FR if "Yes," 0% decrement for "No" level, "Partial" level not needed
G4	25% decrement for 'No', 0% decrement for 'Partial'
G5	25% decrement for 'No', 100% decrement for 'Partial'
G6	100% decrement for 'No', 25% decrement for 'Partial'
G7	50% decrement for 'No', 25% decrement for 'Partial'
G8	100% decrement for 'No', 25% decrement for 'Partial'
G9	100% decrement for 'No', 25% decrement for 'Partial'
G10	100% decrement for 'No', 25% decrement for 'Partial'
G11	50% decrement for 'No', 25% decrement for 'Partial'
G12	100% decrement for 'No', 25% decrement for 'Partial'

The scoring decrements for the contractor path participant freeridership score that are based on responses to the fourteen questions shown in Table J-69.

Table J-69. Contractor - Freeridership Scoring Legend

Q#	Decrement
H1	100% FR if "Yes," 0% decrement for "No" level, "Partial" level not needed
H2	50% decrement for "No," 25% decrement for "Partial"
H3	50% decrement for "No," 25% decrement for "Partial"
H4	25% decrement for 'No', 0% decrement for 'Partial'
H5	25% decrement for 'No', 100% decrement for 'Partial'
H6	100% decrement for 'No', 25% decrement for 'Partial'
H7	0% decrement for 'No', No 'Partial' level needed
H7b	50% decrement for 'No', 25% decrement for 'Partial'
H8	100% decrement for 'No', 25% decrement for 'Partial'
H9	100% decrement for 'No', 25% decrement for 'Partial'
H10	100% decrement for 'No', 25% decrement for 'Partial'
H11	0% decrement for 'No', No 'Partial' level needed
H11b	50% decrement for 'No', 25% decrement for 'Partial'
H12	100% decrement for 'No', 25% decrement for 'Partial'

Business Incentive Program Findings

In Table J-70 and Table J-71, the Evaluation Team illustrates the unique response combinations from participants answering the Business Incentive Program freeridership incentive and contractor focused freeridership batteries (actual responses mapped to “yes,” “no,” or “partial,” as indicative of freeridership), the freeridership score assigned to each combination, and the number of responses.

The Evaluation Team calculated a freeridership score for the Program based on the distribution of scores within the matrix.

Table J-70. Incentive - Business Incentive Program Frequency of Freeridership Scoring Combinations

G1. First, did your organization have specific plans to install the [MEASURE1 OR C_MEASURE1][s] before learning about the incentive?	G2. Prior to learning about the incentive, was the purchase of the [MEASURE[s]] included in your organization's capital budget?	G3. Had your organization ALREADY ordered or purchased the [MEASURE[s]] BEFORE your organization heard about the Agricultural, Schools and Government program incentive?	G4. Would you have purchased and installed the same [MEASURE[s]] without the incentive?	G5. Would you have installed something without the incentive?	G6. When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	G7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the incentive, would you have installed the same amount of [MEASURE[s]]?	G8. Without the [INCENTIVE FOR MEASURE1 OR C_MEASURE1], would you have installed the [MEASURE[s]]?	G9. When you say you would not have installed the same [MEASURE[s]] without the incentive, would you have installed anything at all?	G10. Without the incentive, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	G11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] Without the incentive, would you have installed the same amount of [MEASURE1 OR C_MEASURE1][s]?	G12. And, would you have installed the same [MEASURE1 OR C_MEASURE1][s].	FR Score	Frequency
Yes	Yes	Yes	x	x	x	x	x	x	x	x	x	100%	5
Yes	Yes	Partial	Yes	x	x	Yes	Yes	x	x	x	x	100%	1
Yes	Yes	No	Yes	x	x	Yes	Yes	x	x	x	x	100%	1
Yes	Yes	No	No	x	x	x	x	Yes	Yes	Yes	Yes	75%	1
Yes	No	x	Yes	x	x	Yes	Yes	x	x	x	x	50%	5
Yes	No	x	Yes	x	x	No	Yes	x	x	x	x	12.5%	1
Yes	No	x	Yes	x	x	No	Partial	x	x	x	x	0%	1
No	x	x	Yes	x	x	Yes	Yes	x	x	x	x	50%	4
No	x	x	Yes	x	x	No	Partial	x	x	x	x	0%	1
No	x	x	Yes	x	x	No	No	x	x	x	x	0%	1
No	x	x	No	x	x	x	x	No	x	x	x	0%	1
No	x	x	No	x	x	x	x	Yes	Yes	No	x	0%	1
No	x	x	No	x	x	x	x	Yes	No	Yes	x	0%	1

Table J-71. Contractor - Business Incentive Program Frequency of Freeridership Scoring Combinations

H1. At the time that you first started working with your contractor on this project, had you already purchased or installed the [MEASURE]?	H2. Just to make sure I understand, did your organization have specific plans to install the [MEASURE[s]] before you began working with your contractor?	H3. Before you began working with your contractor, was the purchase of the [MEASURE[s]] included in your organization's capital budget?	H4. Would you have purchased and installed the same [MEASURE[s]] without the assistance from your contractor?	H5. Would you have installed something without the involvement of your contractor? [DO NOT READ LIST UNLESS NECESSARY]	H6. When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the assistance from your contractor, would you have installed the same number of:	H7b. Would you have installed fewer or more of the:	H8. Without the assistance from your contractor, would you have installed the [MEASURE[s]] ...[READ LIST AND RECORD ONE RESPONSE]	[ASK H9 TO H13 IF H4=2 OR H5=2] H9. When you say you would not have installed the same [MEASURE[s]] without the assistance from your contractor, would you have installed anything at all?	H10. Without the assistance from your contractor, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] And without the assistance from your contractor, would you have installed the same number of:	H11b. Would you have installed fewer or more of the:	H12. And, would you have installed the same [MEASURE[s]] . . .	FR Score	Frequency
Yes	x	x	x	x	x	x	x	x	x	x	x	x	x	100%	7
No	Yes	Yes	Yes	x	x	Yes	x	Yes	x	x	x	x	x	100%	6
No	Yes	Yes	Yes	x	x	Yes	x	Partial	x	x	x	x	x	75%	1
No	Yes	Yes	Yes	x	x	Partial	x	Partial	x	x	x	x	x	75%	1
No	Yes	Yes	Partial	No	x	x	x	x	Yes	Yes	Yes	x	Yes	75%	1
No	Yes	Yes	No	x	x	x	x	x	Yes	Yes	Yes	x	Yes	75%	2
No	Yes	Yes	No	x	x	x	x	x	Yes	Partial	No	No	Yes	12.5%	1
No	Yes	Yes	No	x	x	x	x	x	Yes	No	x	x	x	0%	2
No	Yes	Yes	No	x	x	x	x	x	No	x	x	x	x	0%	6
No	Yes	Partial	Yes	x	x	Yes	x	Partial	x	x	x	x	x	50%	1
No	Yes	Partial	Partial	Yes	Partial	Partial	x	Partial	x	x	x	x	x	25%	1
No	Yes	No	Yes	x	x	Yes	x	Yes	x	x	x	x	x	50%	6
No	Yes	No	Yes	x	x	Yes	x	Partial	x	x	x	x	x	25%	2
No	Yes	No	Yes	x	x	No	No	Yes	x	x	x	x	x	12.5%	1
No	Yes	No	Partial	Yes	Partial	No	No	No	x	x	x	x	x	0%	1
No	Yes	No	No	x	x	x	x	x	Yes	Yes	Yes	x	Yes	25%	2
No	Yes	No	No	x	x	x	x	x	Yes	Yes	Partial	x	Partial	12.5%	1

H1. At the time that you first started working with your contractor on this project, had you already purchased or installed the [MEASURE]?	H2. Just to make sure I understand, did your organization have specific plans to install the [MEASURE[s]] before you began working with your contractor?	H3. Before you began working with your contractor, was the purchase of the [MEASURE[s]] included in your organization's capital budget?	H4. Would you have purchased and installed the same [MEASURE[s]] without the assistance from your contractor?	H5. Would you have installed something without the involvement of your contractor? [DO NOT READ LIST UNLESS NECESSARY]	H6. When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the assistance from your contractor, would you have installed the same number of:	H7b. Would you have installed fewer or more of the:	H8. Without the assistance from your contractor, would you have installed the [MEASURE[s]] ...[READ LIST AND RECORD ONE RESPONSE]	[ASK H9 TO H13 IF H4=2 OR H5=2] H9. When you say you would not have installed the same [MEASURE[s]] without the assistance from your contractor, would you have installed anything at all?	H10. Without the assistance from your contractor, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] And without the assistance from your contractor, would you have installed the same number of:	H11b. Would you have installed fewer or more of the:	H12. And, would you have installed the same [MEASURE[s]] . . .	FR Score	Frequency
No	Yes	No	No	x	x	x	x	x	Yes	Yes	No	Partial	No	0%	1
No	Yes	No	No	x	x	x	x	x	Yes	No	x	x	x	0%	2
No	Yes	No	No	x	x	x	x	x	No	x	x	x	x	0%	4
No	Partial	x	No	x	x	x	x	x	Yes	Yes	Yes	x	Yes	50%	1
No	Partial	x	No	x	x	x	x	x	Yes	Partial	Yes	x	Yes	25%	1
No	No	x	Yes	x	x	Yes	x	Yes	x	x	x	x	x	50%	3
No	No	x	Yes	x	x	Yes	x	Partial	x	x	x	x	x	25%	1
No	No	x	Yes	x	x	No	No	Yes	x	x	x	x	x	12.5%	1
No	No	x	Partial	Yes	Partial	Yes	x	Yes	x	x	x	x	x	25%	1
No	No	x	Partial	Yes	Partial	No	No	Yes	x	x	x	x	x	0%	1
No	No	x	Partial	Partial	x	x	x	x	x	x	x	x	x	0%	2
No	No	x	Partial	No	x	x	x	x	Yes	Partial	No	No	Yes	0%	1
No	No	x	No	x	x	x	x	x	Yes	Yes	Yes	x	Yes	25%	1
No	No	x	No	x	x	x	x	x	Yes	Yes	Yes	x	No	0%	1
No	No	x	No	x	x	x	x	x	Yes	Yes	No	No	Partial	0%	1
No	No	x	No	x	x	x	x	x	Yes	Partial	No	No	Partial	0%	1
No	No	x	No	x	x	x	x	x	Yes	No	x	x	x	0%	4
No	No	x	No	x	x	x	x	x	No	x	x	x	x	0%	11

Business Incentive Program Participant Spillover Analysis

The Evaluation Team estimated participant spillover based on answers from respondents who purchased additional high-efficiency equipment or appliances following their participation in the Business Incentive Program. The Evaluation Team applied evaluated and deemed savings values to the spillover measures that customers said they had installed as a result of their Program participation, presented in Table J-72.

Table J-72. Business Incentive Program Participant Spillover Measures and Savings

Spillover Measure	Quantity	Total MMBTU Savings Estimate
LEDs	3	63
Roof Top Unit with Economizer	3	36

Next, the Evaluation Team divided the sample spillover savings by the program gross savings from the entire survey sample, as shown in this equation:

$$Spillover \% = \frac{\sum \text{Spillover Measure Energy Savings for All Survey Respondents}}{\sum \text{Program Measure Energy Savings for All Survey Respondents}}$$

This yielded a 0% spillover estimate, when rounded to the nearest whole percent, for the Business Incentive Program respondents (Table J-73).⁴⁷

Table J-73. Business Incentive Program Participant Spillover Percent Estimate

Variable	Total MMBTU Savings Estimate
Spillover Savings	99
Program Savings	164,209
Spillover Estimate	0%

Net-to-Gross Analysis

The Evaluation Team combined the spillover information with the freeridership results to achieve the measure-level NTG ratios, using the following calculation, as shown in Table J-74:

$$NTG = 1 - \text{Freeridership} + \text{Spillover}$$

⁴⁷ Actual value is 0.06%

Table J-74. Business Incentive Program NTG Estimates

Analysis Category	n	Freeridership	Spillover	NTG	% of Total Survey Sample Savings
Incentive	24	46%	0%	54%	9%
Contractor	80	35%	0%	65%	91%
Overall	104	36% ¹	0% ¹	64% ¹	100%

¹ Weighted by gross evaluated energy savings.

Multifamily Energy Savings Program Findings

In Table J-75 and Table J-76, the Evaluation Team illustrates the unique response combinations from participants answering the Multifamily Energy Savings Program incentive and contractor focused freeridership batteries (actual responses mapped to “yes,” “no,” or “partial,” as indicative of freeridership), the freeridership score assigned to each combination, and the number of responses.

The Evaluation Team calculated a freeridership score for the program based on the distribution of scores within the matrix.

Table J-75. Incentive - Multifamily Energy Savings Program Frequency of Incentive Freeridership Scoring Combinations

G1. First, did your organization have specific plans to install the [MEASURE1[s]] before learning about the incentive?	G2. Prior to learning about the incentive, was the purchase of the [MEASURE[s]] included in your organization's capital budget?	G3. Had your organization ALREADY ordered or purchased the [MEASURE[s]] BEFORE your organization heard about the Agricultural, Schools and Government program incentive?	G4. Would you have purchased and installed the same [MEASURE[s]] without the incentive?	G5. Would you have installed something without the incentive?	G6. When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	G7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the incentive, would you have installed the same amount of [MEASURE[s]]?	G8. Without the [INCENTIVE FOR MEASURE1 OR C_MEASURE1], would you have installed the [MEASURE[s]]?	G9. When you say you would not have installed the same [MEASURE[s]] without the incentive, would you have installed anything at all?	G10. Without the incentive, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	G11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] Without the incentive, would you have installed the same amount of [MEASURE1 OR C_MEASURE1][s]?	G12. And, would you have installed the same [MEASURE1 OR C_MEASURE1][s]. . .	FR Score	Frequency
Yes	Yes	Yes	x	x	x	x	x	x	x	x	x	100%	1
Yes	Yes	No	Yes	x	x	Yes	Yes	x	x	x	x	100%	6
Yes	Yes	No	Yes	x	x	Yes	Partial	x	x	x	x	100%	1
Yes	Yes	No	Yes	x	x	Yes	No	x	x	x	x	50%	1
Yes	Yes	No	Partial	Yes	Yes	Yes	Yes	x	x	x	x	100%	1
Yes	Yes	No	No	x	x	x	x	Yes	Yes	No	No	0%	1
Yes	No	x	Yes	x	x	Yes	Yes	x	x	x	x	100%	1
Yes	No	x	No	x	x	x	x	No	x	x	x	25%	1
No	x	x	Yes	x	x	Yes	Partial	x	x	x	x	100%	1
No	x	x	Yes	x	x	Yes	Yes	x	x	x	x	50%	1
No	x	x	No	x	x	x	x	No	x	x	x	12.5%	1
No	x	x	No	x	x	x	x	Yes	No	Yes	x	0%	1
Yes	Yes	Yes	Yes	x	x	Yes	Yes	x	x	x	x	0%	16

Table J-76. Contractor - Multifamily Energy Savings Program Frequency of Freeridership Scoring Combinations

H1. At the time that you first started working with your contractor on this project, had you already purchased or installed the [MEASURE]?	H2. Just to make sure I understand, did your organization have specific plans to install the [MEASURE[s]] before you began working with your contractor?	H3. Before you began working with your contractor, was the purchase of the [MEASURE[s]] included in your organization's capital budget?	H4. Would you have purchased and installed the same [MEASURE[s]] without the assistance from your contractor?	H5. Would you have installed something without the involvement of your contractor? [DO NOT READ LIST UNLESS NECESSARY]	H6. When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the assistance from your contractor, would you have installed the same number of:	H7b. Would you have installed fewer or more of the:	H8. Without the assistance from your contractor, would you have installed the [MEASURE[s]] ...[READ LIST AND RECORD ONE RESPONSE]	H9. When you say you would not have installed the same [MEASURE[s]] without the assistance from your contractor, would you have installed anything at all?	H10. Without the assistance from your contractor, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] And without the assistance from your contractor, would you have installed the same number of:	H11b. Would you have installed fewer or more of the:	H12. And, would you have installed the same [MEASURE[s]] . . .	Score	Frequency
Yes	x	x	x	x	x	x	x	x	x	x	x	x	x	100%	8
No	Yes	Yes	Yes	x	x	Yes	x	Yes	x	x	x	x	x	100%	5
No	Yes	Yes	Yes	x	x	Yes	x	No	x	x	x	x	x	0%	1
No	Yes	Yes	No	x	x	x	x	x	Yes	Yes	Yes	x	Yes	75%	2
No	Yes	Yes	No	x	x	x	x	x	Yes	No	x	x	x	0%	1
No	Yes	Yes	No	x	x	x	x	x	No	x	x	x	x	0%	2
No	Yes	No	Yes	x	x	Yes	x	Yes	x	x	x	x	x	50%	1
No	Yes	No	Yes	x	x	Yes	x	Partial	x	x	x	x	x	25%	1
No	Yes	No	No	x	x	x	x	x	Yes	Yes	Yes	x	Yes	25%	1
No	Yes	No	No	x	x	x	x	x	Yes	Yes	Yes	x	No	0%	1
No	Yes	No	No	x	x	x	x	x	Yes	No	x	x	x	0%	1
No	Yes	No	No	x	x	x	x	x	No	x	x	x	x	0%	2
No	No	x	Yes	x	x	No	No	No	x	x	x	x	x	0%	1
No	No	x	Partial	Yes	Yes	Yes	x	Yes	x	x	x	x	x	50%	1
No	No	x	Partial	Yes	Yes	Yes	x	Partial	x	x	x	x	x	25%	1

H1. At the time that you first started working with your contractor on this project, had you already purchased or installed the [MEASURE]?	H2. Just to make sure I understand, did your organization have specific plans to install the [MEASURE[s]] before you began working with your contractor?	H3. Before you began working with your contractor, was the purchase of the [MEASURE[s]] included in your organization's capital budget?	H4. Would you have purchased and installed the same [MEASURE[s]] without the assistance from your contractor?	H5. Would you have installed something without the involvement of your contractor? [DO NOT READ LIST UNLESS NECESSARY]	H6. When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the assistance from your contractor, would you have installed the same number of:	H7b. Would you have installed fewer or more of the:	H8. Without the assistance from your contractor, would you have installed the [MEASURE[s]] ...[READ LIST AND RECORD ONE RESPONSE]	H9. When you say you would not have installed the same [MEASURE[s]] without the assistance from your contractor, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H10. Without the assistance from your contractor, would you have installed something from your contractor, would you have installed the same number of:	H11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] And without the assistance from your contractor, would you have installed the same number of:	H11b. Would you have installed fewer or more of the:	H12. And, would you have installed the same [MEASURE[s]] . . .	Score	Frequency
No	No	x	No	x	x	x	x	x	Yes	Yes	Yes	x	Yes	25%	1
No	No	x	No	x	x	x	x	x	Yes	Partial	Partial	x	Partial	0%	1
No	No	x	No	x	x	x	x	x	Yes	No	x	x	x	0%	2
No	No	x	No	x	x	x	x	x	Partial	Yes	Yes	x	No	0%	1
No	No	x	No	x	x	x	x	x	Partial	Partial	No	No	Yes	0%	1
No	No	x	No	x	x	x	x	x	No	x	x	x	x	0%	10

Multifamily Energy Savings Program Participant Spillover Analysis

The Evaluation Team estimated participant spillover based on answers from respondents who purchased additional high-efficiency equipment following their participation in the Multifamily Energy Savings Program. The Evaluation Team applied evaluated and deemed savings values to the spillover measures that customers said they had installed as a result of their Program participation, presented in Table J-77.

Table J-77. Multifamily Energy Savings Program Participant Spillover Measures and Savings

Spillover Measure	Quantity	Total MMBTU Savings Estimate
High Efficiency Water Heater	5	331.50
Refrigeration Equipment	5	151.90
LEDs	10	209.84

Next, the Evaluation Team divided the sample spillover savings by the program gross savings from the entire survey sample, as shown in this equation:

$$Spillover \% = \frac{\sum \text{Spillover Measure Energy Savings for All Survey Respondents}}{\sum \text{Program Measure Energy Savings for All Survey Respondents}}$$

This yielded a 1% spillover estimate, rounded to the nearest whole percentage point, for the Multifamily Energy Savings Program respondents (Table J-78).

Table J-78. Multifamily Energy Savings Program Participant Spillover Percentage Estimate

Variable	Total MMBTU Savings Estimate
Spillover Savings	693
Program Savings	80,135
Spillover Estimate	1%

Net-to-Gross Analysis

The Evaluation Team combined the spillover information with the measure-level freeridership results to achieve the measure-level NTG ratios, using the following calculation, and shown in Table J-79:

$$NTG = 1 - \text{Freeridership} + \text{Spillover}$$

Table J-79. Multifamily Energy Savings Program NTG Estimates

Analysis Category	n	Freeridership	Spillover	NTG	% of Total Survey Sample Savings
Incentive	15	29%	2%	73%	12%
Contractor	45	17%	1%	83%	88%
Overall	60	19%¹	1%¹	82%¹	100%

¹Weighted by gross evaluated energy savings.

Agriculture, Schools and Government Program Findings

In Table J-80 and Table J-81, the Evaluation Team illustrates the unique response combinations from participants answering the Agriculture, Schools and Government Program incentive and contractor focused freeridership batteries (actual responses mapped to “yes,” “no,” or “partial,” as indicative of freeridership), the freeridership score assigned to each combination, and the number of responses.

The Evaluation Team calculated a freeridership score for the Program based on the distribution of scores within the matrix.

Table J-80. Incentive - Agriculture, Schools and Government Program Frequency of Freeridership Scoring Combinations

G1. First, did your organization have specific plans to install the [MEASURE1 OR C_MEASURE1][s] before learning about the incentive?	G2. Prior to learning about the incentive, was the purchase of the [MEASURE[s]] included in your organization's capital budget?	G3. Had your organization ALREADY ordered or purchased the [MEASURE[s]] BEFORE your organization heard about the Agricultural, Schools and	G4. Would you have purchased and installed the same [MEASURE[s]] without the incentive?	G5. Would you have installed something without the incentive?	G6. When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	G7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the incentive, would you have installed the same amount of [MEASURE[s]]?	G8. Without the [INCENTIVE FOR MEASURE1 OR C_MEASURE1], would you have installed the [[MEASURE[s]]	G9. When you say you would not have installed the same [MEASURE[s]] without the incentive, would you have installed anything at all?	G10. Without the incentive, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	G11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] Without the incentive, would you have installed the same amount of [MEASURE1 OR C_MEASURE1][G12. And, would you have installed the same [MEASURE1 OR C_MEASURE1][s].	FR Score	Frequency
Yes	Yes	Yes	x	x	x	x	x	x	x	x	x	100%	2
Yes	Yes	Partial	Yes	x	x	Yes	Yes	x	x	x	x	100%	1
Yes	Yes	No	Yes	x	x	Yes	Yes	x	x	x	x	100%	4
Yes	Yes	No	Yes	x	x	Yes	Partial	x	x	x	x	0%	1
Yes	Yes	No	Partial	Yes	Yes	x	Yes	x	x	x	x	0%	1
Yes	Yes	No	No	x	x	x	x	No	x	x	x	0%	1
Yes	No	x	Yes	x	x	Yes	Yes	x	x	x	x	0%	2
No	x	x	Yes	x	x	Yes	Yes	x	x	x	x	0%	1
No	x	x	Yes	x	x	No	No	x	x	x	x	0%	1
No	x	x	Partial	Yes	Yes	Yes	Partial	x	x	x	x	0%	1
No	x	x	Partial	Yes	Yes	No	Partial	x	x	x	x	0%	1
No	x	x	Partial	Yes	No	x	x	x	x	x	x	0%	2
No	x	x	Partial	Partial	x	x	x	x	x	x	x	0%	1
No	x	x	No	x	x	x	x	Yes	No	Yes	x	0%	3
No	x	x	No	x	x	x	x	Yes	No	No	x	0%	1
No	x	x	No	x	x	x	x	No	x	x	x	0%	3

Table J-81. Contractor - Agriculture, Schools and Government Program Frequency of Freeridership Scoring Combinations

H1. At the time that you first started working with your contractor on this project, had you already purchased or installed the [MEASURE]?	H2. Just to make sure I understand, did your organization have specific plans to install the [MEASURE[s]] before you began working with your contractor?	H3. Before you began working with your contractor, was the purchase of the [MEASURE[s]] included in your organization's capital budget?	H4. Would you have purchased and installed the same [MEASURE[s]] without the assistance from your contractor?	H5. Would you have purchased something without the involvement of your contractor? [DO NOT READ LIST UNLESS NECESSARY]	H6. When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the assistance from your contractor, would you have installed the same number of:	H7b. Would you have installed fewer or more of the:	H8. Without the assistance from your contractor, would you have installed the [MEASURE[s]] ...[READ LIST AND RECORD ONE RESPONSE]	[ASK H9 TO H13 IF H4=2 OR H5= 2] H9. When you say you would not have installed the same [MEASURE[s]] without the assistance from your contractor, would you have installed anything at all?	H10. Without the assistance from your contractor, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] And without the assistance from your contractor, would you have installed the same number of:	H11b. Would you have installed fewer or more of the:	H12. And, would you have installed the same [MEASURE[s]] . . .	FR Score	Frequency
Yes	x	x	x	x	x	x	x	x	x	x	x	x	x	100%	6
No	Yes	Yes	Yes	x	x	x	x	Yes	x	x	x	x	x	100%	3
No	Yes	Yes	Yes	x	x	Yes	x	Yes	x	x	x	x	x	100%	4
No	Yes	Yes	Yes	x	x	No	Partial	Yes	x	x	x	x	x	75%	1
No	Yes	Yes	Yes	x	x	No	No	Yes	x	x	x	x	x	50%	1
No	Yes	Yes	Yes	x	x	No	No	Partial	x	x	x	x	x	25%	1
No	Yes	Yes	Partial	Yes	Yes	Yes	x	Yes	x	x	x	x	x	100%	1
No	Yes	Yes	No	x	x	x	x	x	Yes	Yes	x	x	Yes	75%	1
No	Yes	Yes	No	x	x	x	x	x	Yes	Yes	x	x	Partial	50%	1
No	Yes	Yes	No	x	x	x	x	x	Yes	Yes	Yes	x	Yes	75%	1
No	Yes	Yes	No	x	x	x	x	x	Yes	No	x	x	x	0%	1
No	Yes	No	Yes	x	x	Partial	x	Yes	x	x	x	x	x	50%	1
No	Yes	No	Yes	x	x	No	No	Partial	x	x	x	x	x	0%	1
No	Yes	No	No	x	x	x	x	x	Yes	Partial	x	x	Yes	12.5%	1
No	Yes	No	No	x	x	x	x	x	No	x	x	x	x	0%	2

H1. At the time that you first started working with your contractor on this project, had you already purchased or installed the [MEASURE]?	H2. Just to make sure I understand, did your organization have specific plans to install the [MEASURE[s]] before you began working with your contractor?	H3. Before you began working with your contractor, was the purchase of the [MEASURE[s]] included in your organization's capital budget?	H4. Would you have purchased and installed the same [MEASURE[s]] without the assistance from your contractor?	H5. Would you have installed something without the involvement of your contractor? [DO NOT READ LIST UNLESS NECESSARY]	H6. When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the assistance from your contractor, would you have installed the same number of:	H7b. Would you have installed fewer or more of the:	H8. Without the assistance from your contractor, would you have installed the [MEASURE[s]] ...[READ LIST AND RECORD ONE RESPONSE]	[ASK H9 TO H13 IF H4=2 OR H5= 2] H9. When you say you would not have installed the same [MEASURE[s]] without the assistance from your contractor, would you have installed anything at all?	H10. Without the assistance from your contractor, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] And without the assistance from your contractor, would you have installed the same number of:	H11b. Would you have installed fewer or more of the:	H12. And, would you have installed the same [MEASURE[s]]. . .	FR Score	Frequency
No	Partial	x	Yes	x	x	Yes	x	Yes	x	x	x	x	x	75%	1
No	Partial	x	Partial	Partial	x	x	x	x	x	x	x	x	x	0%	1
No	No	x	Yes	x	x	x	x	Partial	x	x	x	x	x	25%	1
No	No	x	Yes	x	x	x	x	No	x	x	x	x	x	0%	1
No	No	x	Yes	x	x	Yes	x	Yes	x	x	x	x	x	50%	5
No	No	x	Partial	Yes	Yes	Yes	x	Yes	x	x	x	x	x	50%	1
No	No	x	Partial	Yes	Partial	No	No	Yes	x	x	x	x	x	0%	1
No	No	x	Partial	Partial	x	x	x	x	x	x	x	x	x	0%	2
No	No	x	No	x	x	x	x	x	Yes	No	x	x	x	0%	4
No	No	x	No	x	x	x	x	x	No	x	x	x	x	0%	8

Agriculture, Schools and Government Program Participant Spillover Analysis

No Agriculture, Schools and Government Program participants surveyed by the Evaluation Team reported purchasing or installing high efficiency equipment after participating in the program that was influenced by their participation in the Agriculture, Schools and Government Program. This yielded a 0% spillover estimate for the Agriculture, Schools and Government Program respondents (Table J-82).

Table J-82. Agriculture, Schools and Government Program Participant Spillover Percent Estimate

Variable	Total MMBTU Savings Estimate
Spillover Savings	0
Program Savings	220,569
Spillover Estimate	0%

Net-to-Gross Analysis

The Evaluation Team combined the spillover information with the freeridership results to achieve the measure-level NTG ratios, using the following calculation, as shown in Table J-83.

$$NTG = 1 - Freeridership + Spillover$$

Table J-83. Agriculture, Schools and Government Program NTG Estimates

Analysis Category	n	Freeridership	Spillover	NTG	% of Total Survey Sample Savings
Incentive	26	3%	0%	97%	83%
Contractor	51	52%	0%	48%	17%
Overall	77	12%¹	0%¹	88%¹	100%

¹ Weighted by gross evaluated energy savings

Chain Stores and Franchise Program Findings

In Table J-84 and Table J-85, the Evaluation Team illustrates the unique response combinations from participants answering the Chain Stores and Franchise Program findings incentive and contractor focused freeridership batteries (actual responses mapped to “yes,” “no,” or “partial,” as indicative of freeridership), the freeridership score assigned to each combination, and the number of responses.

The Evaluation Team calculated a freeridership score for the Program based on the distribution of scores within the matrix.

Table J-84. Incentive - Chain Stores and Franchise Program Frequency of Freeridership Scoring Combinations

G1. First, did your organization have specific plans to install the [MEASURE1 OR C_MEASURE1][s] before learning about the incentive?	G2. Prior to learning about the incentive, was the purchase of the [MEASURE[s]] included in your organization's capital budget?	G3. Had your organization ALREADY ordered or purchased the [MEASURE[s]] BEFORE your organization heard about the Agricultural, Schools and Government	G4. Would you have purchased and installed the same [MEASURE[s]] without the incentive?	G5. Would you have installed something without the incentive?	G6. When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	G7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the incentive, would you have installed the same amount of [MEASURE[s]]?	G8. Without the [INCENTIVE FOR MEASURE1 OR C_MEASURE1], would you have installed the [MEASURE[s]]?	G9. When you say you would not have installed the same [MEASURE[s]] without the incentive, would you have installed anything at all?	G10. Without the incentive, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	G11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] Without the incentive, would you have installed the same amount of [MEASURE1 OR C_MEASURE1][s]?	G12. And, would you have installed the same [MEASURE1 OR C_MEASURE1][s].	FR Score	Frequency
Yes	Yes	No	Partial	Yes	Yes	x	Yes	x	x	x	x	100%	1
Yes	No	x	Partial	Yes	Partial	Yes	Yes	x	x	x	x	25%	1
No	x	x	Yes	x	x	No	Partial	x	x	x	x	0%	1
No	x	x	No	x	x	x	x	No	x	x	x	0%	1

Table J-85. Contractor - Chain Stores and Franchise Program Frequency of Freeridership Scoring Combinations

H1. At the time that you first started working with your contractor on this project, had you already purchased or installed the [MEASURE]?	H2. Just to make sure I understand, did your organization have specific plans to install the [MEASURE[s]] before you began working with your contractor?	H3. Before you began working with your contractor, was the purchase of the [MEASURE[s]] included in your organization's capital budget?	H4. Would you have purchased and installed the same [MEASURE[s]] without the assistance from your contractor?	H5. Would you have installed something without the involvement of your contractor? [DO NOT READ LIST UNLESS NECESSARY]	H6. When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H7. And without the assistance from your contractor, would you have installed the same number of:	H7b. Would you have installed fewer or more of the:	H8. Without the assistance from your contractor, would you have installed the [MEASURE[s]] ...	H9. When you say you would not have installed the same [MEASURE[s]] without the assistance from your contractor, would you have installed anything at all?	H10. Without the assistance from your contractor, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H11. And without the assistance from your contractor, would you have installed the same number of:	H11b. Would you have installed fewer or more of the:	H12. And, would you have installed the same [MEASURE[s]]. . .	FR Score	Frequency
Yes	x	x	x	x	x	x	x	x	x	x	x	x	x	100%	3
No	Yes	Yes	Yes	x	x	Yes	x	Yes	x	x	x	x	x	100%	5
No	Yes	Yes	Yes	x	x	No	No	No	x	x	x	x	x	0%	1
No	Yes	Yes	No	x	x	x	x	x	Yes	Yes	x	x	Yes	75%	1
No	Yes	Yes	No	x	x	x	x	x	Yes	Yes	Yes	x	Yes	75%	1
No	Yes	Yes	No	x	x	x	x	x	Yes	Partial	Partial	x	Partial	25%	1
No	Yes	Yes	No	x	x	x	x	x	Yes	No	x	x	x	0%	1
No	Yes	Yes	No	x	x	x	x	x	No	x	x	x	x	0%	1
No	Yes	No	Yes	x	x	Yes	x	Yes	x	x	x	x	x	50%	3
No	Yes	No	Yes	x	x	Yes	x	Partial	x	x	x	x	x	25%	1
No	Yes	No	Yes	x	x	Yes	x	No	x	x	x	x	x	0%	1
No	Yes	No	Yes	x	x	No	Yes	Yes	x	x	x	x	x	50%	1
No	Yes	No	Partial	Partial	x	x	x	x	x	x	x	x	x	0%	1
No	Yes	No	No	x	x	x	x	x	Yes	Yes	Yes	x	Yes	25%	1
No	Yes	No	No	x	x	x	x	x	No	x	x	x	x	0%	2
No	Partial	x	Partial	Partial	x	x	x	x	x	x	x	x	x	0%	1

H1. At the time that you first started working with your contractor on this project, had you already purchased or installed the [MEASURE]?	H2. Just to make sure I understand, did your organization have specific plans to install the [MEASURE[s]] before you began working with your contractor?	H3. Before you began working with your contractor, was the purchase of the [MEASURE[s]] included in your organization's capital budget?	H4. Would you have purchased and installed the same [MEASURE[s]] without the assistance from your contractor?	H5. Would you have installed something without the involvement of your contractor? [DO NOT READ LIST UNLESS NECESSARY]	H6. When you say you would have installed something, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H7. And without the assistance from your contractor, would you have installed the same number of:	H7b. Would you have installed fewer or more of the:	H8. Without the assistance from your contractor, would you have installed the [MEASURE[s]] ...	H9. When you say you would not have installed the same [MEASURE[s]] without the assistance from your contractor, would you have installed anything at all?	H10. Without the assistance from your contractor, would you have installed something that was just as energy efficient as the [MEASURE[s]] you installed?	H11. And without the assistance from your contractor, would you have installed the same number of:	H11b. Would you have installed fewer or more of the:	H12. And, would you have installed the same [MEASURE[s]]. . .	FR Score	Frequency
No	Partial	x	No	x	x	x	x	x	Partial	Yes	Yes	x	Yes	25%	1
No	No	x	Yes	x	x	Yes	x	Yes	x	x	x	x	x	50%	3
No	No	x	Yes	x	x	Yes	x	Partial	x	x	x	x	x	25%	1
No	No	x	Partial	Yes	Partial	Partial	x	Partial	x	x	x	x	x	12.5%	1
No	No	x	Partial	Partial	x	x	x	x	x	x	x	x	x	0%	1
No	No	x	No	x	x	x	x	x	Yes	Yes	Yes	x	Yes	25%	1
No	No	x	No	x	x	x	x	x	Yes	Yes	No	No	Yes	0%	1
No	No	x	No	x	x	x	x	x	Yes	Partial	x	x	Partial	0%	1
No	No	x	No	x	x	x	x	x	Yes	No	x	x	x	0%	1
No	No	x	No	x	x	x	x	x	No	x	x	x	x	0%	5

Chain Stores and Franchise Program Participant Spillover Analysis

No Chain Stores and Franchise Program participants surveyed by the Evaluation Team reported purchasing or installing high efficiency equipment after participating in the program that was influenced by their participation in the Chain Stores and Franchise Program. This yielded a 0% spillover estimate for the Chain Stores and Franchise Program respondents (Table J-86).

Table J-86. Chain Stores and Franchise Program Participant Spillover Percent Estimate

Variable	Total MMBTU Savings Estimate
Spillover Savings	0
Program Savings	161,18
Spillover Estimate	0%

Net-to-Gross Analysis

The Evaluation Team combined the spillover information with the freeridership results to achieve the measure-level NTG ratios, using the following calculation, as shown in Table J-87:

$$NTG = 1 - Freeridership + Spillover$$

Table J-87. Chain Stores and Franchise Program Findings NTG Estimates

Analysis Category	n	Freeridership	Spillover	NTG	% of Total Survey Sample Savings
Incentive	4	85%	0%	15%	2%
Contractor	41	21%	0%	79%	98%
Overall	45	23%¹	0%¹	77%¹	100%

¹ Weighted by gross evaluated energy savings

Small Business Program Self-Report NTG Methodology and Findings

Freeridership Survey Questions

The Small Business Program participant survey freeridership section included 12 questions, which addressed the six core freeridership dimensions.

The freeridership questions about the Program energy assessment (asked in the survey format) were:

- H1. First, did your business have specific plans to install the energy-efficient equipment before your contractor conducted the free energy assessment?
- H2. Before you received the energy assessment, was the purchase of the energy-efficient equipment recommended by your contractor included in your organization’s budget?

- H3. Had your organization already ordered or purchased the energy-efficient equipment before you received the recommendations in the energy assessment report?
- H4. Would you have purchased and installed the same equipment without the energy assessment report from your contractor?
- H5. [ASK IF H4=DK OR RF] Would you have purchased and installed something else, but not the recommended equipment, without the information you received in the energy assessment?
- H6. [ASK IF H4=1] When you say you would have purchased and installed the same equipment, would you have installed the same type that was just as energy efficient?
- H7. [ASK H7-H8 IF H4=Yes OR H5=Yes] And without the information you received in the energy assessment report, would you have purchased and installed the same amount of new equipment?
- H8. Without the information from the contractor’s energy assessment, would you have purchased and installed the recommended energy-efficient equipment...[READ LIST AND RECORD ONE RESPONSE]
- H9. [ASK H9 TO H12 IF H4=No OR H5= No] When you say you would not have purchased and installed the same efficient equipment without the recommendations from the energy assessment, do you mean you would not have installed the equipment at all?
- H10. Without the information from the contractor’s energy assessment report, would you have put in the same type of equipment but it would not have been as energy efficient?
- H11. Without the information from the contractor’s energy assessment, would you have purchased and installed a smaller number of efficient equipment?
- H12. And, would you have purchased and installed the same equipment. . .

Convert Responses to Matrix Terminology

Table J-88 illustrates how initial survey responses are translated into the responses “yes,” “no,” or “partially,” indicative of freeridership (in parentheses).

Table J-88. Small Business - Raw Survey Response Translation to Freeridership Scoring Matrix Terminology

H1. First, did your business have specific plans to install the energy-efficient equipment before your contractor conducted the free energy assessment?	H2. Before you received the energy assessment, was the purchase of the energy-efficient equipment recommended by your contractor included in your organization's budget?	H3. Had your organization already ordered or purchased the energy-efficient equipment before you received the recommendations in the energy assessment report?	H4. Would you have purchased and installed the same equipment without the energy assessment report from your contractor?	H5. Would you have purchased and installed something else, but not the recommended equipment, without the information you received in the energy assessment?	H6. [ASK IF H4=1] When you say you would have purchased and installed the same equipment, would you have installed the same type that was just as energy efficient?	H7. And without the information you received in the energy assessment report, would you have purchased and installed the same amount of new equipment?	H8. Without the information from the contractor's energy assessment, would you have purchased and installed the recommended energy-efficient equipment...	H9. When you say you would not have purchased and installed the same efficient equipment without the recommendation from the energy assessment, do you mean you would not have installed the equipment at all?	H10. Without the information from the contractor's energy assessment report, would you have put in the same type of equipment but it would not have been as energy efficient?	H11. Without the information from the contractor's energy assessment, would you have purchased and installed a smaller number of efficient equipment?	H12. And, would you have purchased and installed the same equipment. . .
Yes (Yes)	Yes (Yes)	Yes (Yes)	Yes (Yes)	Yes, would have done something else (Yes)	Yes (Yes)	Yes (Yes)	Within the same year? (Yes)	Yes (Yes)	Yes (Yes)	Yes (Yes)	Within the same year? (Yes)
No (No)	No (No)	No (No)	No (No)	No, would not have installed anything (No)	No (No)	No (No)	Within one to two years? (Partial)	No (No)	No (No)	No (No)	Within one to two years? (Partial)
Don't Know (Partial)	Don't Know (Partial)	Don't Know (No)	Don't Know (Partial)	Don't Know (Partial)	Don't Know (Partial)	Don't Know (Partial)	Within three to five years? (No)	Don't Know (Partial)	Don't Know (Partial)	Don't Know (Partial)	Within three to five years? (No)
Refused (Partial)	Refused (Partial)	Refused (No)	Refused (Partial)	Refused (Partial)	Refused (Partial)	Refused (Partial)	In more than five years? (No)	Refused (Partial)	Refused (Partial)	Refused (Partial)	In more than five years? (No)
							Don't Know (Partial)				Don't Know (Partial)
							Refused (Partial)				Refused (Partial)

Participant Freeridership Scoring

Each Small Business Program participant freeridership score starts with 100%, which the Evaluation Team decremented based on the participant’s responses to the twelve questions shown in Table J-89.

Table J-89. Small Business - Freeridership Scoring Legend

Q#	Decrement
G1	50% decrement for "No," 25% decrement for "Partial"
G2	50% decrement for "No," 25% decrement for "Partial"
G3	100% FR if "Yes," 0% decrement for "No" level, "Partial" level not needed
G4	25% decrement for 'No', 0% decrement for 'Partial'
G5	25% decrement for 'No', 100% decrement for 'Partial'
G6	100% decrement for 'No', 25% decrement for 'Partial'
G7	50% decrement for 'No', 25% decrement for 'Partial'
G8	100% decrement for 'No', 25% decrement for 'Partial'
G9	100% decrement for 'No', 25% decrement for 'Partial'
G10	100% decrement for 'No', 25% decrement for 'Partial'
G11	50% decrement for 'No', 25% decrement for 'Partial'
G12	100% decrement for 'No', 25% decrement for 'Partial'

Small Business Program Findings

In Table J-90, the Evaluation Team illustrates the unique response combinations from participants answering the Small Business Program findings freeridership battery (actual responses mapped to “yes,” “no,” or “partial,” as indicative of freeridership), the freeridership score assigned to each combination, and the number of responses.

The Evaluation Team calculated a freeridership score for the Program based on the distribution of scores within the matrix.

Table J-90. Small Business Program Frequency of Incentive Freeridership Scoring Combinations

H1. First, did your business have specific plans to install the energy-efficient equipment before your contractor conducted the free energy assessment?	H2. Before you received the energy assessment, was the purchase of the energy-efficient equipment recommended by your contractor included in your organization's budget?	H3. Had your organization already ordered or purchased the energy-efficient equipment before you received the recommendations in the energy assessment report?	H4. Would you have purchased and installed the same equipment without the energy report from your contractor?	H5. [ASK IF H4=99 OR 88] Would you have purchased and installed something else, but not the recommended equipment, without the information you received in the energy assessment?	H6. [ASK IF H4=1] When you say you would have purchased and installed the same equipment, would you have installed the same type that was just as energy efficient?	H7. [ASK H7-H8 IF H4=1 OR H5=1] And without the information you received in the energy assessment report, would you have purchased and installed the same amount of new equipment?	H8. Without the information from the contractor's energy assessment, would you have purchased and installed the recommended energy-efficient equipment?	H9. When you say you would not have purchased and installed the same efficient equipment without the recommendation from the energy assessment, do you mean you would not have installed the equipment at all?	H10. Without the information from the contractor's energy assessment report, would you have put in the same type of equipment but it would not have been as energy efficient?	H11. Without the information from the contractor's energy assessment, would you have purchased and installed a smaller number of efficient equipment?	G12. And, would you have installed the same [MEASUR E][s] . . .	FR Score	Frequency
Yes	Yes	No	Yes	x	Yes	Yes	Yes	x	x	x	x	100%	1
Yes	Yes	No	Yes	x	Yes	Yes	Partial	x	x	x	x	75%	1
Yes	Yes	No	Partial	Yes	x	Yes	Yes	x	x	x	x	100%	1
Yes	Yes	No	No	x	x	x	x	Yes	Yes	Yes	Partial	50%	1
Yes	Yes	No	No	x	x	x	x	Yes	Partial	No	Partial	0%	1
Yes	No	Yes	x	x	x	x	x	x	x	x	x	100%	2
Yes	No	No	Yes	x	Yes	Yes	Partial	x	x	x	x	25%	1
Yes	No	No	Yes	x	Yes	Yes	No	x	x	x	x	0%	1
Yes	No	No	Partial	Yes	x	No	Yes	x	x	x	x	12.5%	1
Yes	No	No	No	x	x	x	x	Yes	No	x	x	0%	1
Yes	No	No	No	x	x	x	x	No	x	x	x	0%	1
No	x	x	Yes	x	Yes	Yes	Yes	x	x	x	x	50%	1
No	x	x	Yes	x	Yes	Yes	Partial	x	x	x	x	25%	2
No	x	x	Yes	x	Yes	Yes	No	x	x	x	x	0%	1
No	x	x	Yes	x	Yes	No	Partial	x	x	x	x	0%	1
No	x	x	Yes	x	Yes	No	No	x	x	x	x	0%	2
No	x	x	Yes	x	No	x	x	x	x	x	x	0%	1
No	x	x	Partial	Yes	x	Yes	No	x	x	x	x	0%	1
No	x	x	Partial	No	x	x	x	No	x	x	x	0%	1
No	x	x	No	x	x	x	x	Yes	Yes	Yes	Partial	12.5%	5
No	x	x	No	x	x	x	x	Yes	Yes	No	Partial	0%	3
No	x	x	No	x	x	x	x	Yes	Partial	Partial	Partial	0%	1
No	x	x	No	x	x	x	x	Yes	No	x	x	0%	8
No	x	x	No	x	x	x	x	No	x	x	x	0%	31

Small Business Program Participant Spillover Analysis

No Small Business Program participants surveyed by the Evaluation Team reported purchasing or installing high efficiency equipment after participating in the program that was influenced by their participation in the Small Business Program. This yielded a 0% spillover estimate for the Small Business Program respondents (Table J-91).

Table J-91. Small Business Program Participant Spillover Percent Estimate

Variable	Total MMBTU Savings Estimate
Spillover Savings	0
Program Savings	161,182
Spillover Estimate	0%

Net-to-Gross Analysis

The Evaluation Team combined the spillover information with the freeridership results to achieve the measure-level NTG ratios, using the following calculation, as shown in Table J-92:

$$NTG = 1 - Freeridership + Spillover$$

Table J-92. Small Business Program Findings NTG Estimate

n	Freeridership	Spillover	NTG
70	13% ¹	0%	87% ¹

¹Weighted by gross evaluated energy savings

Large Energy User Program Self-Report NTG Methodology and Findings

Freeridership Survey Questions

The Large Energy Users Program participant survey freeridership section included 12 questions, which addressed the six core freeridership dimensions.

The freeridership questions about the Program incentive and technical assistance (asked in the survey format) were:

- FR0a. First, did your organization have specific plans to install the [MEASURE][s] before learning about the Large Energy Users Program incentive?
- FR0b. Prior to participating in this program, was the purchase and installation of the [MEASURE][s] included in your organization’s capital budget?
- FR0c. Had your organization already ordered or purchased the [MEASURE][s] before your organization heard about the Large Energy Users Program technical assistance and incentives?
- FR1. Help me understand, would you have purchased and installed the same [MEASURE][s] without the technical assistance and incentives provided by Focus on Energy?

- FR1a. Let me make sure I understand correctly, would you have installed something without the incentive program?
- FR2. When you say you would have installed the same [MEASURE][s], would you have installed the same (measure[s]) that (was/were) just as energy efficient
- FR3. [Ask for measures with [MEASURE]>1] And without the Large Energy Users Program technical assistance and incentive, would you have installed the same number of [MEASURE][s]?
- FR4. Without the Large Energy Users Program technical assistance and incentive, would you have installed the [MEASURE][s] ...
- FR5. Did the technical assistance provided and the incentive for the high efficiency equipment allow you to increase the project's Return on Investment (ROI) so that it would meet the company's internal ROI requirements for capital allocation, thereby allowing the project to receive implementation approval?
- FR6. Let me make sure I understand. When you say you would not have installed the same [MEASURE][s] without the Large Energy Users Program's incentive or technical assistance, do you mean you would not have installed the [MEASURE][s] at all?
- FR7. Without the Large Energy Users Program's technical assistance or incentive, would you have purchased something that was just as energy efficient as the [MEASURE][s] you installed?
- FR8. [Ask for measures with [MEASURE1]>1] And without the Large Energy Users Program incentive or technical assistance, would you have installed the same number of [MEASURE1]s?
- FR9. And finally, when would you have installed the [MEASURE1][s]. . .
- FR10. Did the incentive for the high efficiency equipment allow you to increase the project's Return on Investment (ROI) so that it met the company's internal ROI requirements for capital allocation, thereby allowing the project to receive implementation approval?

Convert Responses to Matrix Terminology

Table J-93 illustrates how initial survey responses are translated into the responses "yes," "no," or "partially," indicative of freeridership (in parentheses).

Table J-93. Large Energy Users - Raw Survey Response Translation to Freeridership Scoring Matrix Terminology

FR0a. First, did your organization have specific plans to install the [MEASURE][s] BEFORE learning about the Large Energy Users Program incentive?	FR0b. Prior to participating in this program, was the purchase and installation of the [MEASURE1][s] included in your organization's capital budget?	FR0c. Had your organization ALREADY ordered or purchased the [MEASURE][s] BEFORE your organization heard about the Large Energy Users Program technical assistance and incentives?	FR1. Help me understand, would you have purchased and installed the same [MEASURE][s] without the technical assistance and incentives provided by Focus on Energy?	FR1a. Let me make sure I understand correctly, would you have installed something without the incentive program?	FR2. When you say you would have installed the same [MEASURE][s], would you have installed the same (measure[s]) that just as energy efficient?	FR3. [Ask for measures with [MEASURE1]>1] And without the Large Energy Users Program technical assistance and incentive, would you have installed the same number of [MEASURE][s]?	FR4. Without the Large Energy Users Program technical assistance and incentive, would you have installed the [MEASURE][s] ...	FR5. Did the technical assistance provided and the incentive for the high efficiency equipment allow you to increase the project's Return on Investment (ROI) so that it would meet the company's internal ROI requirements for capital allocation, thereby allowing the project to receive approval?	FR6. Let me make sure I understand. When you say you would not have installed the same [MEASURE1][s] without the Large Energy Users Program's incentive or technical assistance, do you mean you would not have installed the [MEASURE[s]] at all?	FR7. Without the Large Energy Users Program's technical assistance or incentive, would you have purchased something that was just as energy efficient as the [MEASURE1][s] you installed?	FR8. [Ask for measures with [MEASURE1]>1] And without the Large Energy Users Program incentive or technical assistance, would you have installed the same number of [MEASURE1][s]?	FR9. And finally, when would you have installed the [MEASURE1][s] . . .	FR10. Did the incentive for the high efficiency equipment allow you to increase the project's Return on Investment (ROI) so that it met the company's internal ROI requirements for capital allocation, thereby allowing the project to receive implementation approval?
Yes (Yes)	Yes (Yes)	Yes (Yes)	Yes (Yes)	Yes, would have installed something (Yes)	Yes (Yes)	Yes (Yes)	Fewer (No)	Within the same year? (Yes)	Yes, would have installed something (Yes)	Yes (Yes)	Yes (Yes)	Fewer (No)	Within the same year? (Yes)
No (No)	No (No)	No (No)	No (No)	No, would NOT have installed anything (No)	No (No)	No (No)	More (Yes)	Within one to two years? (Partial)	No, would not have installed anything at all (No)	No (No)	No (No)	More (Yes)	Within one to two years? (Partial)
Don't Know (Partial)	Don't Know (Partial)	Don't Know (No)	Don't Know (Partial)	Don't Know (Partial)	Don't Know (Partial)	Don't Know (Yes)	Don't Know (Partial)	Within three to five years? (No)	Don't Know (Partial)	Don't Know (Partial)	Don't Know (Yes)	Don't Know (Partial)	Within three to five years? (No)
Refused (Partial)	Refused (Partial)	Refused (No)	Refused (Partial)	Refused (Partial)	Refused (Partial)	Refused (Yes)	Refused (Partial)	In more than five years? (No)	Refused (Partial)	Refused (Partial)	Refused (Yes)	Refused (Partial)	In more than five years? (No)
								Don't Know (Partial)					Don't Know (Partial)
								Refused (Partial)					Refused (Partial)

Participant Freeridership Scoring

Each Large Energy User Program participant freeridership score starts with 100%, which the Evaluation Team decremented based on the participant’s responses to the fourteen questions shown in Table J-94.

Table J-94. Large Energy User Freeridership Scoring Legend

Q#	Decrement
FR0a	50% decrement for "No," 25% decrement for "Partial"
FR0b	50% decrement for "No," 25% decrement for "Partial"
FR0c	100% FR if "Yes," 0% decrement for "No" level, "Partial" level not needed
FR1	25% decrement for 'No', 0% decrement for 'Partial'
FR1a	25% decrement for 'No', 100% decrement for 'Partial'
FR2	100% decrement for 'No', 25% decrement for 'Partial'
FR3	0% decrement for 'No', No 'Partial' level needed
FR4	100% decrement for 'No', 25% decrement for 'Partial'
FR5	50% decrement for 'No', 25% decrement for 'Partial'
FR6	100% decrement for 'No', 25% decrement for 'Partial'
FR7	100% decrement for 'No', 25% decrement for 'Partial'
FR8	0% decrement for 'No', No 'Partial' level needed
FR9	100% decrement for 'No', 25% decrement for 'Partial'
FR10	50% decrement for 'No', 25% decrement for 'Partial'

Large Energy User Program Findings

In Table J-95, the Evaluation Team illustrates the unique response combinations from participants answering the Small Business Program findings freeridership battery (actual responses mapped to “yes,” “no,” or “partial,” as indicative of freeridership), the freeridership score assigned to each combination, and the number of responses.

The Evaluation Team calculated a freeridership score for the Program based on the distribution of scores within the matrix.

Table J-95. Large Energy Users Program Frequency of Freeridership Scoring Combinations

FR0a. First, did your organization have specific plans to install the [MEASURE][s] BEFORE learning about the Large Energy Users Program incentive?	FR0b. Prior to participating in this program, was the [MEASURE1] [s] included in your organization's capital budget?	FR0c. Had your organization ALREADY ordered or purchased the [MEASURE] [s] BEFORE your organization heard about the Large Energy Users Program technical assistance and incentives?	FR1. Help me understand, would you have purchased and installed the same [MEASURE] [s] without the technical assistance and incentives provided by Focus on Energy?	FR1a. Let me make sure I understand correctly, would you have installed something without the incentive program?	FR2. When you say you would have installed the same [MEASURE] [s], would you have installed the same (was/were) just as energy efficient?	FR3. [Ask for measures with [MEASURE1]>1] And without the Large Energy Users Program technical assistance and incentive, would you have installed the same number of [MEASURE] [s]?	FR4. Without the Large Energy Users Program technical assistance and incentive, would you have installed the [MEASURE][s] ...	FR5. Did the technical assistance provided and the incentive for the high efficiency equipment allow you to increase the project's Return on Investment (ROI) so that it would meet the company's internal ROI requirements for capital allocation, thereby allowing the project to receive implementation approval?	FR6. Let me make sure I understand. When you say you would not have installed the same [MEASURE1] [s] without the Large Energy Users Program's incentive or technical assistance, do you mean you would not have installed the [MEASURE][s] you installed?	FR7. Without the Large Energy Users Program's technical assistance or incentive, would you have purchased something that was just as energy efficient as the [MEASURE1] [s] you installed?	FR8. [Ask for measures with [MEASURE1] >1] And without the Large Energy Users Program incentive or technical assistance, would you have installed the [MEASURE1] [s]. . .	FR9. And finally, when would you have installed the [MEASURE1] [s]. . .	FR10. Did the incentive for the high efficiency equipment allow you to increase the project's Return on Investment (ROI) so that it met the company's internal ROI requirements for capital allocation, thereby allowing the project to receive implementation	FR Score	Frequency
Yes	Yes	Yes	x	x	x	x	x	x	x	x	x	x	x	100%	3
Yes	Yes	No	Yes	x	Yes	Yes	Yes	Yes	x	x	x	x	x	100%	2
Yes	Yes	No	Yes	x	Yes	Yes	Yes	No	x	x	x	x	x	50%	4
Yes	Yes	No	Yes	x	Yes	Yes	Partial	Yes	x	x	x	x	x	75%	2
Yes	Yes	No	Yes	x	Yes	x	Yes	Yes	x	x	x	x	x	100%	1
Yes	Yes	No	Yes	x	Yes	x	Yes	No	x	x	x	x	x	50%	2
Yes	Yes	No	Yes	x	Yes	x	Partial	Partial	x	x	x	x	x	50%	1
Yes	Yes	No	No	x	x	x	x	x	No	x	x	x	x	0%	1
Yes	No	x	Yes	x	Yes	Yes	Partial	Partial	x	x	x	x	x	12.5%	1
Yes	No	x	Yes	x	Yes	Yes	Partial	No	x	x	x	x	x	0%	3
Yes	No	x	Yes	x	Yes	x	Yes	No	x	x	x	x	x	12.5%	1
Yes	No	x	Yes	x	Partial	Yes	Partial	Yes	x	x	x	x	x	12.5%	2
Yes	No	x	No	x	x	x	x	x	Yes	Yes	No	No	x	0%	1
Yes	No	x	No	x	x	x	x	x	Yes	No	x	x	x	0%	6
Yes	No	x	No	x	x	x	x	x	Partial	Partial	Partial	Partial	No	0%	1
Yes	No	x	No	x	x	x	x	x	Partial	No	x	x	x	0%	1

FR0a. First, did your organization have specific plans to install the [MEASURE][s] BEFORE learning about the Large Energy Users Program incentive?	FR0b. Prior to participating in this program, was the purchase and installation of the [MEASURE1] [s] included in your organization's capital budget?	FR0c. Had your organization ALREADY ordered or purchased the [MEASURE] [s] BEFORE your organization heard about the Large Energy Users Program technical assistance and incentives?	FR1. Help me understand, would you have purchased and installed the same [MEASURE] [s] without the technical assistance and incentives provided by Focus on Energy?	FR1a. Let me make sure I understand correctly, would you have installed something without the incentive program?	FR2. When you say you would have installed the same [MEASURE] [s], would you have installed the same (measure[s]) that (was/were) just as energy efficient?	FR3. [Ask for measures with [MEASURE1]>1.] And without the Large Energy Users Program technical assistance and incentive, would you have installed the same number of [MEASURE] [s]?	FR4. Without the Large Energy Users Program technical assistance and incentive, would you have installed the [MEASURE][s] ...	FR5. Did the technical assistance provided and the incentive for the high efficiency equipment allow you to increase the project's Return on Investment (ROI) so that it would meet the company's internal ROI requirements for capital allocation, thereby allowing the project to receive implementation approval?	FR6. Let me make sure I understand. When you say you would not have installed the same [MEASURE1] [s] without the Large Energy Users Program's technical assistance, do you mean you would not have installed the [MEASURE][s] at all?	FR7. Without the Large Energy Users Program's technical assistance or incentive, would you have purchased something that was just as energy efficient as the [MEASURE1] [s] you installed?	FR8. [Ask for measures with [MEASURE1]>1] And without the Large Energy Users Program incentive or technical assistance, would you have installed the same number of [MEASURE1] [s]. . .	FR9. And finally, when would you have installed the [MEASURE1] [s]. . .	FR10. Did the incentive for the high efficiency equipment allow you to increase the project's Return on Investment (ROI) so that it met the company's internal ROI requirements for capital allocation, thereby allowing the project to receive implementation	FR Score	Frequency
Yes	No	x	No	x	x	x	x	x	No	x	x	x	x	0%	6
Partial	x	x	Yes	x	Yes	Yes	Partial	Yes	x	x	x	x	x	50%	1
Partial	x	x	Yes	x	Yes	Partial	Partial	Partial	x	x	x	x	x	12.5%	1
Partial	x	x	No	x	x	x	x	x	No	x	x	x	x	0%	1
No	x	x	Yes	x	Yes	Yes	Yes	Partial	x	x	x	x	x	25%	1
No	x	x	Yes	x	Yes	Yes	Partial	Yes	x	x	x	x	x	25%	2
No	x	x	Yes	x	Yes	Yes	Partial	No	x	x	x	x	x	0%	4
No	x	x	Yes	x	Yes	Yes	No	x	x	x	x	x	x	0%	2
No	x	x	Yes	x	Yes	x	Yes	Yes	x	x	x	x	x	50%	1
No	x	x	Yes	x	Yes	x	Yes	No	x	x	x	x	x	12.5%	1
No	x	x	Yes	x	Yes	x	Partial	No	x	x	x	x	x	0%	2
No	x	x	Yes	x	Yes	No	No	x	x	x	x	x	x	0%	2
No	x	x	Partial	Partial	x	x	x	x	x	x	x	x	x	0%	2
No	x	x	No	x	x	x	x	x	Yes	No	x	x	x	0%	3
No	x	x	No	x	x	x	x	x	No	x	x	x	x	0%	12

Large Energy Users Program Participant Spillover Analysis

No Large Energy User Program participants surveyed by the Evaluation Team reported purchasing or installing high efficiency equipment after participating in the program that was influenced by their participation in the Large Energy Users Program. This yielded a 0% spillover estimate for the Large Energy Users Program respondents (Table J-96).

Table J-96. Large Energy Users Program Participant Spillover Percent Estimate

Variable	Total MMBTU Savings Estimate
Spillover Savings	0
Program Savings	1,059,021
Spillover Estimate	0%

Net-to-Gross Analysis

The Evaluation Team combined the spillover information with the freeridership results to achieve the measure-level NTG ratios, using the following calculation:

$$NTG = 1 - Freeridership + Spillover$$

Table J-97. Large Energy Users Program NTG Estimate

N	Freeridership	Spillover	NTG
73	18% ¹	0%	82% ¹

¹Weighted by gross evaluated savings

Renewable Energy Competitive Incentive Program (RECIP) Self-Report NTG Methodology and Findings

Freeridership Survey Questions

The participant survey’s freeridership section included eight questions, addressing five core freeridership dimensions. The freeridership questions included (asked in the survey format):

- F1. First, would your organization have installed the [INSERT PROJECT] without the incentives offered through the RECIP program?
- F2. I will read four statements and would like you to select the one that best describes where you were in the planning of your project’s installation when you first learned of Focus on Energy’s RECIP program. [READ ALL AND SELECT ONE]
- F3. Prior to participating in the RECIP, was the [INSERT PROJECT] included in your organization’s capital or operating budget?
- F4. [IF YES TO F3] Did your capital or operating budget assume that the [INSERT PROJECT] would receive an incentive through RECIP?

- F5. [Ask if Yes to question F1] Without the RECIP program, would you have installed... [READ LIST AND SELECT ONE]
- F6. [Ask if Yes to question F1] Without the RECIP incentive, would you have installed the renewable energy project... [READ LIST; WHEN RESPONSE SELECTED, SKIP TO SECTION G]
- F6. [Ask if No to question F1] To confirm, when you say you would not have installed the same [INSERT PROJECT], do you mean that without the incentive from RECIP, that you would not have installed [INSERT PROJECT] at all?
- F7. [Ask if No to question F1] Without the RECIP program, would you have installed... [READ LIST AND SELECT ONE]
- F8. [Ask if No to question F1] Any finally, would you have installed the [INSERT PROJECT], [READ LIST AND SELECT ONE]
- F9. [ASK IF NO TO F1] And finally, would you have installed the [INSERT PROJECT]... [READ LIST AND SELECT ONE]

Convert Responses to Matrix Terminology

Table J-98 illustrates how initial survey responses are translated into whether the response is “yes,” “no,” or “partially” indicative of freeridership (in parentheses).

Table J-98. RECIP- Raw Survey Response Translation to Freeridership Scoring Matrix Terminology

F1. First, would your organization have installed the [INSERT PROJECT] without the incentives offered through the RECIP program?	F2. I will read four statements and would like you to select the one that best describes where you were in the planning of your project's installation when you first learned of Focus on Energy's RECIP program. [READ ALL AND SELECT ONE]	F3. Prior to participating in the RECIP, was the [INSERT PROJECT] included in your organization's capital or operating budget?	F4. [IF YES TO F3] Did your capital or operating budget assume that the [INSERT PROJECT] would receive an incentive through RECIP?	F5. [IF YES TO F1] Without the RECIP program, would you have installed... [READ LIST AND SELECT ONE]	F6. [IF YES TO F1] Without the RECIP incentive, would you have installed the renewable energy project...	F7. [ASK IF NO TO F1] To confirm, when you say you would not have installed the same [INSERT PROJECT], do you mean that without the incentive from RECIP, that you would not have installed [INSERT PROJECT] at all?	F8. [ASK IF NO TO F1] Without the RP program, would you have installed... [READ LIST AND SELECT ONE]	F9. [ASK IF NO TO F1] And finally, would you have installed the [INSERT PROJECT]... [READ LIST AND SELECT ONE]
Yes (Yes)	We had no formal plans for the project (No)	Yes (Yes)	Yes (Yes)	The same size system (Yes)	Within the same year? (Yes)	Yes (No)	The same size system (Yes)	Within the same year? (Yes)
No (No)	We had already spoken to installation contractors but had not received any quotes for the project (Partial)	No (No)	No (No)	A smaller system (No)	Within one to two years? (Partial)	No (Yes)	A smaller system (No)	Within one to two years? (Partial)
Don't Know (Partial)	We had already spoken to installation contractors and had received a quote (Yes)	Don't Know (Partial)	Don't Know (Partial)	No new system at all (No)	Within three to five years? (No)	Don't Know (Partial)	No new system at all (No)	Within three to five years? (No)
Refused (Partial)	We had received a quote and decided upon the renewable energy system we wanted to install (Yes)	Refused (Partial)	Refused (Partial)	Don't Know (Partial)	In more than five years? (No)	Refused (Partial)	Don't Know (Partial)	In more than five years? (No)
	Don't Know (Partial)			Refused (Partial)	Don't Know (Partial)		Refused (Partial)	Don't Know (Partial)
	Refused (Partial)				Refused (Partial)			Refused (Partial)

RECIP Participant Freeridership Scoring

Each participant freeridership score starts with 100%, which the Evaluation Team decremented based on his or her responses to the eight questions as shown in Table J-99.

Table J-99. RECIP Freeridership Scoring Legend

Q#	Decrement
F1	50% decrement for "No," 25% decrement for "Partial"
F2	50% decrement for 'No', 25% decrement for 'Partial'
F3	50% decrement for 'No', 25% decrement for 'Partial'
F4	50% decrement for 'No', 25% decrement for 'Partial'
F5	50% decrement for 'No', 25% decrement for 'Partial'
F6	100% decrement for 'No', 25% decrement for 'Partial'
F7	100% decrement for 'No', 25% decrement for 'Partial'
F8	50% decrement for 'No', 25% decrement for 'Partial'
F9	100% decrement for 'No', 25% decrement for 'Partial'

RECIP Freeridership Findings

In Table J-100, the Evaluation Team illustrates the unique response combinations from participants answering the Small Business Program findings freeridership battery (actual responses mapped to “yes,” “no,” or “partial,” as indicative of freeridership), the freeridership score assigned to each combination, and the number of responses.

The Evaluation Team calculated a freeridership score for the Program based on the distribution of scores within the matrix.

Table J-100. RECIP Program Frequency of Incentive Freeridership Scoring Combinations

F1. First, would your organization have installed the [INSERT PROJECT] without the incentives offered through the RECIP program?	F2. I will read four statements and would like you to select the one that best describes where you were in the planning of your project's installation when you first learned of Focus on Energy's RECIP program. [READ ALL AND SELECT ONE]	F3. Prior to participating in the RECIP, was the [INSERT PROJECT] included in your organization's capital or operating budget?	F4. [IF YES TO F3] Did your capital or operating budget assume that the [INSERT PROJECT] would receive an incentive through RECIP?	F5. [IF YES TO F1] Without the RECIP program, would you have installed... [READ LIST AND SELECT ONE]	F6. [IF YES TO F1] Without the RECIP incentive, would you have installed the renewable energy project...	F7. [ASK IF NO TO F1] To confirm, when you say you would not have installed the same [INSERT PROJECT], do you mean that without the incentive from RECIP, that you would not have installed [INSERT PROJECT] at all?	F8. [ASK IF NO TO F1] Without the RECIP program, would you have installed... [READ LIST AND SELECT ONE]	F9. [ASK IF NO TO F1] And finally, would you have installed the [INSERT PROJECT]... [READ LIST AND SELECT ONE]	FR Score	Frequency
Yes	Yes	Yes	No	Yes	Yes	x	x	x	50%	1
Yes	Partial	No	x	No	Yes	x	x	x	0%	1
Yes	Partial	No	x	No	Partial	x	x	x	0%	1
Yes	Partial	Yes	No	Yes	Partial	x	x	x	13%	1
Yes	Partial	Yes	No	No	Yes	x	x	x	0%	1
Yes	No	No	x	No	Yes	x	x	x	0%	2
Yes	No	Yes	No	Yes	Yes	x	x	x	13%	1
No	Yes	No	x	x	x	No	x	x	0%	3
No	Partial	Yes	No	x	x	No	x	x	0%	4
No	Partial	No	x	x	x	Yes	No	No	0%	1
No	Partial	No	x	x	x	No	x	x	0%	5
No	No	No	x	x	x	Yes	No	Yes	0%	1
No	No	No	x	x	x	Yes	No	Partial	0%	1
No	No	No	x	x	x	Yes	No	No	0%	1
No	No	No	x	x	x	No	x	x	0%	8

RECIP Energy Savings Program Participant Spillover Analysis

The Evaluation Team estimated participant spillover based on answers from respondents who purchased additional high-efficiency equipment following their participation in the RECIP and where their participation in RECIP was ‘very important’ in their purchasing decision. The Evaluation Team applied evaluated and deemed savings values to the spillover measures that customers said they had installed as a result of their Program participation, presented in Table J-101.

Table J-101. RECIP Program Participant Spillover Measures and Savings

Spillover Measure	Quantity	Total MMBTU Savings Estimate
LEDs	19	21

Next, the Evaluation Team divided the sample spillover savings by the program gross savings from the entire survey sample, as shown in this equation:

$$Spillover \% = \frac{\sum \text{Spillover Measure Energy Savings for All Survey Respondents}}{\sum \text{Program Measure Energy Savings for All Survey Respondents}}$$

This yielded a 0% spillover estimate, rounded to the nearest whole percentage point, for the RECIP respondents (Table J-102).⁴⁸

Table J-102. RECIP Participant Spillover Percentage Estimate

Variable	Total MMBTU Savings Estimate
Spillover Savings	21
Program Savings	45,386
Spillover Estimate	0%

Net-to-Gross Analysis

The weighted by gross evaluated program savings freeridership is 0.2% and, when rounded to the nearest whole percentage point, yields a 0% freeridership estimate for RECIP.⁴⁹ The Evaluation Team combined the spillover information with the freeridership results to achieve the measure-level NTG ratios, using the following calculation:

$$NTG = 1 - \text{Freeridership} + \text{Spillover}$$

Table J-103. RECIP Program NTG Estimate

n	Freeridership	Spillover	NTG
73	0% ¹	0%	100% ¹

¹ Weighted by gross evaluated savings

⁴⁸ Actual value is 0.05%.

⁴⁹ Unweighted freeridership estimate is 2.3%.

Design Assistance Program Self-Report NTG Methodology and Findings

As in CY 2014, the Evaluation Team considered both the modeling assistance and incentives the Program offers when assessing the Program's net savings. In CY 2015, the Evaluation Team estimated two different intention-based freeridership scores: one score addresses the modeling assistance and another score addresses the incentives. In addition, for CY 2015, the Evaluated Team included an influence-based freeridership score that was combined with the average of the modeling assistance and incentive intention-based freeridership scores. Intention-based freeridership scoring was based on eight questions: five questions that assessed the importance of the modeling assistance and three questions that assessed the participant's likelihood to install energy efficient equipment or features without the incentives and assistance from the program.

Freeridership Survey Questions

The modeling assistance focused intention freeridership questions included (asked in the survey format):

- G1. Without this assistance, would your team have conducted energy modeling to the same extent during the early stages of the design process?
- G2. And would you have conducted the same advanced and comprehensive modeling in the early stages without the modeling assistance from the Focus on Energy program staff?
- G3. And would you have conducted the same advanced and comprehensive modeling in the early stages without the modeling assistance and tools provided by the Focus on Energy program staff?
- G4. [IF NO TO G1,G2,OR G3] Would you have done modeling in the early stages at all?
- G6. How important was the energy modeling analysis in the early stages on your decision to add higher efficiency measures to your building? Were the recommendations...[read list]

The incentive focused intention freeridership questions included (asked in the survey format):

- G7. Without the incentive and the report, would you have installed equipment that was just as efficient?
- G8. Had the incentive or energy modeling not been available, would you have installed the same energy efficient equipment?
- G3. And would you have conducted the same advanced and comprehensive modeling in the early stages without the modeling assistance and tools provided by the Focus on Energy program staff?
- G9. Before you learned about the program, was the purchase and installation of the specific energy efficient equipment highlighted in the report included in your construction budget?

The influence focused freeridership question asked participants to rate the level of influence, on a 1 to 5 scale, with 1 being not at all influential and 5 being very influential, for seven different program factors in their decision to participate in the Design Assistance. This question was added to the freeridership

methodology after discussions with program stakeholders following the CY 2014 evaluation. It was determined that the Program contains elements that were not specifically addressed through the intention-focused freeridership questions and an additional freeridership score was needed to fully account for all program factors. The program factors asked were these:

- Total incentives
- Program staff
- Modeling results and report
- Design assistance
- NEO tool
- Program Outreach

Design Assistance Program Participant Freeridership Scoring

Modeling Assistance Focused Intention Freeridership Scoring

Each participant freeridership score starts with 50%, which the Evaluation Team decremented based on participant responses to the five questions as shown in Table J-104. Decrements are contained in parentheses following a response option.

Table J-104. Modeling Assistance Focused - Intention - Freeridership Scoring Legend

G1. Without this assistance, would your team have conducted energy modeling to the same extent during the early stages of the design process?	G2. And would you have conducted the same advanced and comprehensive modeling in the early stages without the modeling assistance from the Focus on Energy program staff?	G3. And would you have conducted the same advanced and comprehensive modeling in the early stages without the modeling assistance and tools provided by the Focus on Energy program staff?	G4. [IF NO TO G1,G2,OR G3] Would you have done modeling in the early stages at all?	G6. How important was the energy modeling analysis in the early stages on your decision to add higher efficiency measures to your building? Were the recommendations...[read list]
Yes (-0%)	Yes (-0%)	Yes (-0%)	Yes (-0%)	Very important (-12.5%)
No (-12.5%)	No (-12.5%)	No (-12.5%)	No (-37.5%)	Somewhat important (-12.5%)
Don't Know (-12.5%)	Don't Know (-12.5%)	Don't Know (-12.5%)		Not too important (-0%)
				Not at all important (0%)
				Don't Know (-12.5%)

Incentive Focused Intention Freeridership Scoring

Each participant freeridership score starts with 50%, which the Evaluation Team decremented based on participant responses to the three questions as shown in Table J-105. Decrements are contained in parentheses following a response option.

Table J-105. Incentive Focused - Intention - Freeridership Scoring Legend

G7. Without the incentive and the report, would you have installed equipment that was just as efficient?	G8. Had the incentive or energy modeling not been available, would you have installed the same energy efficient equipment...	Before you learned about the program, was the purchase and installation of the specific energy efficient equipment highlighted in the report included in your construction budget?
Yes - all (-0)	This year (-0%)	Yes (-0%)
Yes - some (-25%)	Within 1-2 years (- 25%)	No (-25%)
No (-50%)	Within 3 years (-50%)	Don't Know (-12.5%)
	I would not have done it (-50%)	

Influence Focused Freeridership Scoring

The Evaluation Team used the maximum rating given by each participant for any program factor addresses through the influence question to determine their influence freeridership score. The scoring, based on a 1 to 5 ranking, was assigned a score according to the following table:

Table J-106. Influence Focused - Freeridership Scoring Legend

Maximum Influence Rating	Influence Score
1 - Not at all influential	50%
2	37.5%
3	25%
4	12.5%
5 - Very influential	0%

Design Assistance Program Freeridership Findings

The modeling assistance, incentive and influence focused freeridership scores have maximum values of 50%. The average of the modeling assistance and incentive focus freeridership score is summed with the influence freeridership score to obtain the final freeridership score for a participant. The Evaluation Team then calculated the overall program level freeridership estimate of 32% by weighting participant’s final freeridership scores by evaluated program savings, as show in Table J-107 below.

Table J-107. Design Assistance Program Freeridership Findings Summary

Respondent (n=8)	Modeling Assistance - Freeridership	Incentive - Freeridership	Average of Modeling Assistance & Incentive Freeridership	Influence - Freeridership	Final FR Score	Evaluated MMBtu Program Savings
1	12.5%	25.0%	18.8%	12.5%	31.3%	37,703
2	0.0%	25.0%	12.5%	12.5%	25.0%	5,691
3	12.5%	12.5%	12.5%	0.0%	12.5%	36,426
4	50.0%	0.0%	25.0%	12.5%	37.5%	152,890
5	12.5%	25.0%	18.8%	12.5%	31.3%	81,928
6	37.5%	50.0%	43.8%	0.0%	43.8%	9,354
7	37.5%	25.0%	31.3%	0.0%	31.3%	6,892
8	0.0%	0.0%	0.0%	0.0%	0.0%	4,881
Overall Weighted Average	30.4%	12.6%	21.5%	10.4%	31.8%	335,764

Design Assistance Program Participant Spillover Analysis

No Design Assistance Program participants surveyed by the Evaluation Team reported purchasing or installing high efficiency equipment after participating in the program that was influenced by their participation in the Design Assistance Program. This yielded a 0% spillover estimate for the Design Assistance Program respondents (Table J-108).

Table J-108. Design Assistance Program Participant Spillover Percent Estimate

Variable	Total MMBTU Savings Estimate
Spillover Savings	0
Program Savings	1,059,021
Spillover Estimate	0%

Net-to-Gross Analysis

The Evaluation Team combined the spillover information with the freeridership results to achieve the measure-level NTG ratios, using the following calculation:

$$NTG = 1 - \text{Freeridership} + \text{Spillover}$$

Table J-109. Design Assistance Program NTG Estimate

n	Freeridership	Spillover	NTG
8	32% ¹	0%	68% ¹

¹Weighted by gross evaluated savings

Residential General Population Nonparticipant Spillover Findings

Effective program marketing and outreach generates program participation and increases general energy efficiency awareness among customers. The cumulative effect of sustained utility program marketing can affect customers' perceptions of their energy usage and, in some cases, motivate customers to take efficiency actions outside of the utility's program. This is generally called nonparticipant spillover (NPSO)—results in energy savings caused by, but not rebated through, utilities' demand-side management activities.

To understand whether Focus on Energy's general and program marketing efforts generated energy efficiency improvements outside of the company's incentive programs, the Evaluation Team collected spillover data through the general population survey, conducted with randomly selected residential customers.

Methodology

The Evaluation Team randomly selected and surveyed 609 customers from a sample of randomly generated residential accounts provided by Focus on Energy. From the 609 customers surveyed, Evaluation Team screened out customers who self-reported that they participated in a Focus on Energy residential program during 2015. When estimating NPSO, Evaluation Team excluded these customers from analysis, focusing on identified nonparticipants; thus the analysis avoided potential double-counting program savings and/or program-specific spillover.

The Evaluation Team limited the NPSO analysis to the same efficiency measures rebated through Focus on Energy programs (known as "like" spillover). Examples included installing a high-efficiency faucet aerators and installing high-efficiency insulation for which participants (for whatever reason) did not apply for and receive an incentive. The Evaluation Team did exclude one notable category of "like" measures: lighting products. This precluded potentially double-counting NPSO lighting savings already captured through the upstream lighting incentives.

Using a 1 to 4 scale, with 1 meaning "not at all influential" and 4 meaning "very influential," the survey asked customers to rate the influence of several factors on their decisions to install energy efficient equipment without receiving an incentive from Focus on Energy. This question determined whether Focus on Energy's energy efficiency initiatives motivated energy-efficient purchases. The surveys asked respondents to address the following factors:

- Information about energy efficiency provided by Focus on Energy
- Information from friends or family who installed energy-efficient equipment and received an incentive from Focus on Energy
- Their experiences with past Focus on Energy incentive programs

The Evaluation Team estimated NPSO savings from respondents who rated any of the above factors as "very influential" for any energy-efficient actions or installations reported.

The Evaluation Team leveraged measure-level estimated gross savings from the 2015 Focus on Energy residential evaluation activities for the reported NPSO measures.

Using the variables shown in Table J-110, Evaluation Team determine total NPSO generated by Focus on Energy’s marketing efforts during the 2015 evaluation year.

Table J-110. NPSO Analysis Method

Variable	Metric	Source
A	Number of “like spillover” nonparticipant measures	Survey data
B	Total Customers Surveyed	Survey disposition
C	Weighted Average of Per Unit Measures Savings in MMBTU	Variable C from Table J-111
D	Total Residential Customer Nonparticipant Housing Units	2014 US Census minus Focus Participant Population
E	NPSO MMBTU Savings Applied to Population	$[(A \div B) \times C] \times D$
F	Total Gross Program Evaluated MMBTU Savings	2015 Focus on Energy Evaluation
G	NPSO as a Percentage of Total Residential Portfolio Reported Savings	$E \div F$

Results

Of 609 Focus on Energy customers surveyed, four nonparticipant respondents reported installing seven measures attributed to Focus on Energy’s influence. Table J-111 presents measures and gross evaluated kWh savings Evaluation Team attributed to Focus on Energy, generating average savings per NPSO measure of 2.5 MMBTUs.

Table J-111. NPSO Response Summary

Reported Spillover Measures	Mentions by Respondents	Unit Energy Savings (MMBTU) ¹	Total Savings (MMBTU)	Average Savings Per Spillover Measure (MMBTU)
High Efficiency Attic Insulation	1	12.0 per project	12.0	n/a
Water Heater Pipe Insulation	1	0.4 per installation	0.4	
High Efficiency Showerhead	3	1.2 per unit	3.6	
High Efficiency Faucet Aerator	2	0.7 per unit	1.4	
Total	7		17.3	2.5 (Variable C)

¹ Unit energy savings (kWh) estimated for each measure were generated from average CY 2015 Focus on Energy evaluated gross savings by measure.

Table J-112 presents variables used to estimate overall NPSO for the Focus on Energy residential portfolio, a figure the Evaluation Team estimated as 6.0% of total CY 2015 Focus on Energy evaluated program savings.

Table J-112. NPSO Analysis Results

Variable	Metric	Value	Source
A	Number of Like Spillover Nonparticipant Measures	7	Survey data
B	Total Customers Surveyed	609	Survey disposition
C	Weighted Average of Per Unit Measures Savings in MMBTU	2.5	Calculated in Table J-111
D	Total Residential Customer Nonparticipant Population Housing Units	2,455,942	2014 US Census minus Focus on Energy Participant Population
E	NPSO MMBTU Savings Applied to Population	69,852	$((A \div B) \times C) \times D$
F	Total Gross Program Evaluated MMBTU Savings	1,165,785	2015 Focus on Energy Evaluation
G	NPSO as a Percentage of Total Residential Portfolio Reported Savings	6.0%	$E \div F$

Variable E in Table J-112 above represents nonparticipant spillover savings attributable to the Focus on Energy residential portfolio and will be added to each year’s portfolio net savings at the end of the quadrennial (barring any changes based upon new research in the remaining years of the quadrennial).

Table J-113 compares NPSO for the Focus on Energy residential portfolio with results from other residential portfolio evaluations where the Evaluation Team has used similar methodology. The CY 2015 Focus on Energy NPSO estimate of 6.2% falls within the range of the other comparison evaluations.

Table J-113. Comparison of NPSO Analysis Results

Utility	Evaluation Year	Portfolio NPSO as a Percentage of Total Residential Portfolio Savings
Southwest Utility	2013-2014	1%
Northwest Utility	2011	2.6%
Midwest Utility #1	2014	3.6%
Midwest Utility #2	2015	6%
Focus on Energy CY 2015	2015	6.0%
Midwest Utility #1	2015	8.2%

Nonresidential General Population Nonparticipant Spillover Findings

Effective program marketing and outreach generates program participation and increases general energy efficiency awareness among customers. The cumulative effect of sustained utility program marketing can affect customers’ perceptions of their energy usage and, in some cases, motivate customers to take efficiency actions outside of the utility’s program. This is generally called nonparticipant spillover (NPSO)—results in energy savings caused by, but not rebated through, utilities’ demand-side management activities.

To understand whether Focus on Energy's general and program marketing efforts generated energy efficiency improvements outside of the company's incentive programs, the Evaluation Team collected spillover data through a general population survey, conducted with randomly selected nonresidential customers.

Methodology

The Evaluation Team randomly selected and surveyed 140 customers from a sample of 6,000 randomly generated residential accounts provided by Survey Sampling International. From the 140 customers surveyed, Evaluation Team screened out eighteen customers who self-reported that they participated in a Focus on Energy nonresidential program during 2015. When estimating NPSO, Evaluation Team excluded these customers from analysis, focusing on identified nonparticipants; thus the analysis avoided potential double-counting program savings and/or program-specific spillover.

Using a 1 to 5 scale, with 1 meaning "not important" and 5 meaning "very important," the survey asked customers to rate the importance of several factors on their decisions to install energy efficient equipment without receiving an incentive from Focus on Energy. This question determined whether Focus on Energy's energy efficiency initiatives motivated energy-efficient purchases. The surveys asked respondents to address the following factors:

- Information about energy savings from Focus on Energy marketing or program staff
- Information from colleagues or friends who installed energy efficient equipment and received an incentive from Focus on Energy
- Past participation in a Focus on Energy commercial incentive program

The Evaluation Team estimated NPSO savings from respondents who rated any of the above factors as "very important" for any energy-efficient actions or installations reported.

The Evaluation Team leveraged estimated gross savings for the reported measures using 2015 Focus on Energy nonresidential evaluation activities and 2015 Wisconsin TRM.

Using the variables shown in Table J-114, Evaluation Team determine total NPSO generated by Focus on Energy's marketing and outreach efforts during the 2015 evaluation year.

Table J-114. NPSO Analysis Method

Variable	Metric	Source
A	Total MMBTU Spillover Savings from Survey Respondents	Survey data / Engineering Analysis
B	Total Nonparticipant Customers Surveyed	Survey disposition
C	Average MMBTU Spillover Savings Per Nonparticipant Surveyed	$A \div B$
D	Total WI Nonresidential Population - minus CY15 Participants	SSI (Survey Sampling International) minus CY15 Participants
E	NPSO MMBTU Savings Applied to Population	$C \times D$
F	Total Gross Program Evaluated MMBTU Savings	2015 Focus on Energy Evaluation
G	NPSO as a Percentage of Total Residential Portfolio Reported Savings	$E \div F$

Results

Of 122 Focus on Energy nonparticipant customers surveyed, four nonparticipant respondents reported installing four measure types attributed to Focus on Energy’s influence. Table J-115 presents measures and gross evaluated kWh savings Evaluation Team attributed to Focus on Energy, generating total savings of 161 MMBTUs.

Table J-115. NPSO Response Summary

Reported Spillover Measures	Quantity	Unit Energy Savings (MMBTU) ¹	Total Savings (MMBTU)
LED Troffer, 2x4, Replacing 4-foot 3-4 Lamp T8 Troffer	1	0.8 per unit	0.8
LED Replacement of 4-Foot T8 Lamps Using Existing Ballast	15	1.2 per unit	1.2
High Efficiency Large Compressor with a Rotary Vein	1	15.2 per unit	15.2
Tankless Water Heaters	3	47.9 per unit	143.6
Total	20		160.8

¹ Unit energy savings (kWh) estimated for each measure were generated from the 2015 Wisconsin TRM.

Table J-116 presents variables used to estimate overall NPSO for the Focus on Energy nonresidential portfolio, a figure the Evaluation Team estimated as 7.0% of total CY 2015 Focus on Energy evaluated program savings.

Table J-116. NPSO Analysis Results

Variable	Metric	Value	Source
A	Total MMBTU Spillover Savings from Survey Respondents	161	Survey data / Engineering Analysis
B	Total Nonparticipant Customers Surveyed	122	Survey disposition
C	Average MMBTU Spillover Savings Per Nonparticipant Surveyed	1.3	$A \div B$
D	Total WI Nonresidential Population - minus CY15 Participants	259,984	SSI (Survey Sampling International) minus CY15 Participants
E	NPSO MMBTU Savings Applied to Population	342,762	$C \times D$
F	Total Gross Program Evaluated MMBTU Savings	4,913,681	2015 Focus on Energy Evaluation
G	NPSO as a Percentage of Total Residential Portfolio Reported Savings	7.0%	$E \div F$

Variable E in Table J-116 above represents nonparticipant spillover savings attributable to the Focus on Energy nonresidential portfolio and will be added to each year’s portfolio net savings at the end of the quadrennial (barring any changes based upon new research in the remaining years of the quadrennial).

Appendix K. Survey Instruments by Program

This appendix includes the CY 2015 survey instruments and interview guides for the following programs in Focus on Energy's residential and nonresidential sectors as well as ongoing program satisfaction surveys.

Special text indicates the following throughout all of the survey scripts:

- **Green text:** Interview instructions
- **Red text:** CATI programming instructions
- **Asterisk (*):** Survey questions labeled with an asterisk are core question that will be asked across all Focus on Energy phone surveys, where appropriate.

Residential Programs

- Appliance Recycling Program Participant Survey
- Express Energy Efficiency Program Participant Survey
- Express Energy Efficiency Program Utility Partner Interview Guide
- General Population Invitation Letter and Survey
- Home Performance with ENERGY STAR Program Participant Survey
- Home Performance with ENERGY STAR Program Trade Ally Interview Guide
- Multifamily Energy Savings Program Participant Survey
- New Homes Program Participant Survey
- New Homes Program Builder Interview Guide
- Renewable Rewards Program Participant Survey
- Residential and Enhanced Rewards Program Participant Survey
- Residential and Enhanced Rewards Program Trade Ally Interview Guide

Nonresidential Programs

- Agriculture, Schools and Government Program Participant Survey
- Business Incentive Program Participant Survey
- Business Incentive Program Property Manager Discussion Guide
- Chain Stores and Franchises Program Participant Survey
- Design Assistance Program Participant Survey
- Large Energy Users Program Participant Survey
- Large Energy Users Program Key Account Manager Interview Guide
- Multifamily Direct Install Program Tenant Leave-Behind Survey
- Nonresidential General Population Survey

- Nonresidential Online Trade Ally Survey
- RECIP Participant Interview Guide
- RECIP Trade Ally Interview Guide
- Small Business Program Participant Survey
- Small Business Program Utility Energy-Efficiency Manager Interview Guide

Ongoing Program Satisfaction Surveys

Residential Programs

- Appliance Recycling Program
- Express Energy Efficiency Program
- Home Performance with ENERGY STAR Program
- Multifamily Energy Savings Program
- Residential and Enhanced Rewards Program

Nonresidential Programs

- Agriculture, Schools and Government Program
- Business Incentive Program
- Chain Stores and Franchises Program
- Large Energy Users Program
- Multifamily Direct Install Program
- Small Business Program

Focus on Energy 2015 Residential Appliance Recycling Program Participant Survey

Objective: The purpose of the survey is to assess program awareness and motivations, inform the replacement rate calculations, the net-to-gross ratio, and to provide inputs for gross savings algorithm.

Researchable Questions	Item
Screening criteria	A1 - A3
Are quantities in tracking database records accurate?	A4 - A7
Program awareness	B1 - B10
How were appliances used prior to recycling through program and what portion of the year were appliances in use?	C1 - C3
Were appliances that were recycled through the program replaced?	D1 - D3
Were replacement appliances high efficiency appliances?	D4 - D9
Would appliances recycled through the program have remained active on the grid in absence of the program? / Freeridership	E1 - E8
LED and CFL purchases	F1 - F7
Demographics	G1

Target Quota = [170 completes, 100 refrigerator and 70 freezer participants]

General Instructions

- Interviewer instructions are in green **[LIKE THIS]**.
- CATI programming instructions are in red **[LIKE THIS]**
- Items that should not be read by the interviewer are in parentheses like this ().
- Questions with an asterisk (*) are core questions.

Variables to be Pulled into Survey

[CONTACT NAME] = [PAYEEFIRSTNAME AND PAYEELASTNAME]

[PickupDt] = [PICKUPDATE]

[APPLIANCE] = [TYPE]

[CONFIGURATION] = [TYPEDETAIL]

[REF_QTY] = [TYPE] AND [QUANTITY]

[FRZ_QTY] = [TYPE] AND [QUANTITY]

[AGE] = CREATE NEW VARIABLE [PICKUPDATE]-[YEAR]

A. Introduction

Hello, my name is _____ from _____. I'm calling on behalf of **Focus on Energy**. May I please speak to **[CONTACT NAME]**?

I am following up on your household's participation in Focus on Energy's program where you recycled your **[APPLIANCE]**.

- A1. Are you the person in your household that is most familiar with this pick up?
1. (Yes)
 2. (No)
 88. (REFUSED) **[THANK AND TERMINATE]**
 99. (DON'T KNOW) **[ASK TO SPEAK WITH SOMEONE WHO KNOWS AND BEGIN AGAIN]**
- A2. **[ASK IF A1 = 2, 99]** May I please speak with that person? **[IF NOT AVAILABLE, ATTEMPT TO SCHEDULE A CALL BACK]**
1. (Yes)
 2. (No) **[THANK AND TERMINATE]**
 88. (REFUSED) **[THANK AND TERMINATE]**
 99. (DON'T KNOW)

[TERMINATION SCRIPT: "Those are all the questions we have for you. Thank you very much for your time."]

- A3. Great, Focus on Energy would like to make this program as effective as possible. Would you be willing to participate in a short survey to help Focus on Energy evaluate and improve the Appliance Recycling Program? All your answers will be kept confidential. **[IF NECESSARY: THE SURVEY WILL TAKE BETWEEN 10 AND 12 MINUTES.]**
1. (Yes)
 2. (No) **[THANK AND TERMINATE]**
 88. (REFUSED) **[THANK AND TERMINATE]**
 99. (DON'T KNOW)

[If customer is wary of the survey, reassure them that you are not selling anything. If necessary, offer the following contact: JOE FONTAINE (608-266-0910) as the person to contact with any questions about the validity of the research.]

[NOTE TO INTERVIEWER: If the respondent says that they have already been contacted by the program via an email/online survey or a postcard survey, the following response should be provided: "Focus on Energy follows up with each participant to ensure that it has met its high customer service standards through a brief online or postcard questionnaire. The survey that I am calling about now explores additional questions to help improve the program's offerings."]

- A4. **[ASK IF REF_QTY > 0]** Our program records indicate you received an incentive for having **[REF_QTY]** refrigerator(s) recycled by Focus on Energy's program on **[PickupDt]**. Is this correct? *[If needed: specifically a combo refrigerator/freezer, or standalone refrigerator]*
1. (Yes, that is correct)
 2. (No, number of refrigerators is not correct)
 3. (No, pickup date is not correct) **[RECORD CORRECT DATE]**
 4. (No, did not recycle any refrigerators) **[THANK AND TERMINATE]**
 88. (REFUSED) **[THANK AND TERMINATE]**
 99. (DON'T KNOW)
- A5. **[ASK IF A4=2 or 99]** How many refrigerators did you have recycled through Focus on Energy's program?
1. **[RECORD QUANTITY]**
 88. (REFUSED) **[THANK AND TERMINATE]**
 99. (DON'T KNOW)
- A6. **[ASK IF FRZ_QTY > 0]** Our program records indicate you received an incentive for having **[FRZ_QTY]** freezer(s) recycled by Focus on Energy's program on **[PickupDt]**. Is this correct? *[If needed: specifically a standalone freezer]*
1. (Yes, that is correct)
 2. (No, number of freezers is not correct)
 3. (No, pickup date is not correct) **[RECORD CORRECT DATE]**
 4. (No, we did not recycle any freezers) **[THANK AND TERMINATE]**
 88. (REFUSED) **[THANK AND TERMINATE]**
 99. (DON'T KNOW)
- A7. **[ASK IF A6=2 or 99]** How many freezers did you have recycled through Focus on Energy's program?
1. **[RECORD QUANTITY]**
 88. REFUSED **[THANK AND TERMINATE]**
 99. DON'T KNOW

[TERMINATION SCRIPT: "Those are all the questions we have for you. Thank you very much for your time."]

B. Awareness

B1. *Where did you most recently hear about the Focus on Energy Appliance Recycling program? **[DO NOT READ LIST, RECORD ONE ANSWER]**

1. (Television)
2. (Radio)
3. (Print media (magazine, newspaper article or advertisement))
4. (Billboard/outdoor ad)
5. (Bill insert)
6. (Direct mail/brochure/postcard)
7. (Family/friends/word-of-mouth)
8. (Focus on Energy or Utility website)
9. (Other website **[SPECIFY: _____]**)
10. (Email)
11. (Social Media)
12. (Focus on Energy or Utility representative)
13. (Contractor)
14. (Realtor, home builder)
15. (Retail stores)
16. (Home/trade shows)
17. (Sporting or community event)
18. (Other, **[SPECIFY: _____]**)
98. (DON'T KNOW)
99. (REFUSED)

B2. *Are there any other ways you heard about the program? **[DO NOT READ. RECORD ALL THAT APPLY]**

1. (Television)
2. (Radio)
3. (Print media (magazine, newspaper article or advertisement))
4. (Billboard/outdoor ad)
5. (Bill insert)
6. (Direct mail/brochure/postcard)
7. (Family/friends/word-of-mouth)
8. (Focus on Energy or Utility website)
9. (Other website **[SPECIFY: _____]**)
10. (Email)
11. (Social Media)
12. (Focus on Energy or Utility representative)
13. (Contractor)
14. (Realtor, home builder)
15. (Retail stores)
16. (Home/trade shows)
17. (Sporting or community event)
18. (Other, **[SPECIFY: _____]**)
19. (No other way)
98. (DON'T KNOW)

99. (REFUSED)

B3. *Are you aware of any other Focus on Energy programs or rebates? **[IF NEEDED: SUCH AS REBATES ON CFL BULBS, ENERGY STAR APPLIANCES, OR ENERGY-EFFICIENT UPGRADES, OR HOME ENERGY AUDITS”]**

1. (Yes)

2. (No)

98. (DON'T KNOW)

99. (REFUSED)

[ASK IF B3=1]

B4. *Which programs, rebates, or projects? **[DO NOT READ; RECORD ALL THAT APPLY]**

1. (Home Performance with ENERGY STAR)

2. (New Homes)

3. (Appliance Recycling)

4. (Lighting)

5. (Express Energy Efficiency)

6. (Residential Rewards and Enhanced Rewards)

7. (Other **[SPECIFY: _____]**)

98. (DON'T KNOW)

99. (REFUSED)

INTERVIEWER NOTES:

Home Performance with ENERGY STAR: Must say they received an energy audit of their home and that they received an audit report. Program also provides free installation of CFLs, faucet aerators, showerheads, as well as rebates for adopting recommendations on the audit report

New Homes: whole new house built to Focus on Energy specifications

Appliance Recycling: Rebates for recycling old refrigerators and freezers

Lighting: CFLs and LEDs discounted at a store

Express Energy Efficiency: installation of many low-cost energy efficient items by a contractor (must say that someone else installed the items for free): CFLs, faucet aerators, high efficient showerheads, water heater pipe insulation, and water heater temperature set-back

Residential Rewards and Enhanced Rewards: rebates for furnaces, furnace motors, air conditioners, hot water heaters, insulation, solar panels, heat pumps, ground source heat pumps, boilers

B5. *Have you participated in any other Focus on Energy programs? **[RECORD ALL THAT APPLY. IF NEEDED: “SUCH AS REBATES ON CFL BULBS, ENERGY STAR APPLIANCES, OR ENERGY-EFFICIENT UPGRADES OR HOME ENERGY AUDITS.”]**

1. (Yes)

2. (No)

98. (DON'T KNOW)

99. (REFUSED)

[ASK IF B5=1]

- B6. *Which programs or rebates? **[DO NOT READ, BUT PROMPT IF NECESSARY. RECORD ALL THAT APPLY]**
1. (Home Performance with ENERGY STAR)
 2. (New Homes)
 3. (Appliance Recycling)
 4. (Lighting)
 5. (Express Energy Efficiency)
 6. (Residential Rewards and Enhanced Rewards)
 7. (Other **[SPECIFY: _____]**)
 98. (DON'T KNOW)
 99. (REFUSED)

INTERVIEWER NOTES:

Home Performance with ENERGY STAR: Must say they received an energy audit of their home and that they received an audit report. Program also provides free installation of CFLs, faucet aerators, showerheads, as well as rebates for adopting recommendations on the audit report

New Homes: whole new house built to Focus on Energy specifications

Appliance Recycling: Rebates for recycling old refrigerators and freezers

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Express Energy Efficiency: installation of many low-cost energy efficient items by a contractor (must say that someone else installed the items for free): CFLs, faucet aerators, high efficient showerheads, water heater pipe insulation, water heater temperature set-back

Residential Rewards and Enhanced Rewards: rebates for furnaces, furnace motors, air conditioners, hot water heaters, insulation, solar panels, heat pumps, ground source heat pumps, boilers

- B7. *What do you think is the best way for Focus on Energy to inform the public about energy-efficiency programs? **[DO NOT READ, BUT PROMPT IF NECESSARY. RECORD ALL THAT APPLY]**
1. (Television)
 2. (Radio)
 3. (Print media (magazine, newspaper article or advertisement))
 4. (Billboard/outdoor ad)
 5. (Bill insert)
 6. (Direct mail/brochure/postcard)
 7. (Family/friends/word-of-mouth)
 8. (Focus on Energy or Utility website)
 9. (Other website **[SPECIFY: _____]**)
 10. (Email)
 11. (Social Media)
 12. (Focus on Energy or Utility representative)
 13. (Contractor)
 14. (Realtor, home builder)
 15. (Retail stores)
 16. (Home/trade shows)

- 17. (Sporting or community event)
- 18. (Other, [SPECIFY: _____])
- 19. (Do not want to receive information)
- 98. (DON'T KNOW)
- 99. (REFUSED)

B8. *What motivated you to participate in Focus on Energy's Appliance Recycling program? [DO NOT READ; RECORD ALL THAT APPLY]

- 1. (Save energy)
- 2. (Save money / appliance was expensive to run)
- 3. (Convenience of free pick-up and removal)
- 4. (Good for the environment / environmentally safe disposal / recycled)
- 5. (Recommended by a friend/relative)
- 6. (Recommended by a retailer/dealer)
- 7. (Recommended by a contractor)
- 8. (Cash/rebate/incentive payment)
- 9. (Utility sponsorship of the program [SPECIFY THE PROGRAM: _____])
- 10. (Other [SPECIFY: _____])
- 98. (DON'T KNOW)
- 99. (REFUSED)

B9. * How informed do you feel about all the ways you can save energy, including buying and using energy efficient appliances and equipment? Would you say ... [READ LIST]

- 1. Very informed
- 2. Somewhat informed
- 3. Not too informed
- 4. Not at all informed
- 98. (DON'T KNOW)
- 99. (REFUSED)

B10. *On a scale of zero to five where five is a lot of attention and zero is not a lot of attention, how much attention do you pay to the amount of energy; gas or electric, that you use in your home?

- 1. [RECORD ANSWER]
- 98. (DON'T KNOW)
- 99. (REFUSED)

C. Appliance Usage

[IF (REF_QTY=2) OR (FRZ_QTY=2) OR (REF_QTY =1 and FRZ_QTY=1) READ] Although you recycled more than one appliance through the program, please answer the rest of the questions only about [if REF_QTY =1 and FRZ_QTY=1 read: the [APPLIANCE], IF REF_QTY=2 OR FRZ_QTY=2 read: the [CONFIGURATION] [TYPE]

C1. Before you made the decision to remove the **[APPLIANCE]**, in what room was it used/located?
[RECORD ONE RESPONSE; READ LIST IF NEEDED]

1. Kitchen
2. Garage
3. Porch/Patio
4. Basement
5. **[Do not read]** (Other) **[Specify]**
88. (REFUSED)
99. (DON'T KNOW)

C2. **[ASK ALL]** In the year before you removed the **[APPLIANCE]**, how much of the time was it plugged in and running? Was it...? **[READ LIST]**

1. All the time **[Skip to D1]**
2. Part of the time **[If needed, clarify as "certain months of the year" or "special occasions"]**
3. Never **[Skip to D1]**
4. **[Do not read]** (Other) **[Specify]**
88. (REFUSED) **[Skip to D1]**
99. (DON'T KNOW) **[Skip to D1]**

C3. **[Ask if C2=2]** During the year, how many total months do you think it was plugged in and running?

1. **[Record months; range: 1-12]**
88. (REFUSED)
99. (DON'T KNOW)

D. Replacement

D1. Did you replace the **[APPLIANCE]** you recycled through Focus on Energy's program or purchase or add any other **[APPLIANCE]**? **[INTERVIEWER NOTE: If needed for clarification replacement means "Is there another appliance now operating in place of the appliance that was recycled"]**

1. (Yes)
2. (No) **[SKIP TO E1]**
88. (REFUSED) **[SKIP TO E1]**
99. (DON'T KNOW) **[SKIP TO E1]**

- D2. Why did you decide to replace your old **[APPLIANCE]**? **[DO NOT READ LIST, CHECK ALL THAT APPLY]**
1. (Save energy / wanted a more efficient appliance)
 2. (Save money on utility bills)
 3. (Good for the environment)
 4. (Recommended by a friend/relative)
 5. (Recommended by a retailer/dealer)
 6. (Recommended by a contractor)
 7. (Cash/rebate/incentive payment)
 8. (Utility sponsorship of the program)
 9. (Wanted to upgrade: more space, new features, appearance, etc.)
 10. (Old appliance was not working well or at all)
 11. (Was planning to give previous **[APPLIANCE]** away)
 12. (Other) **[SPECIFY: _____]**
 88. (REFUSED)
 99. (DON'T KNOW)
- D3. How old was the **[APPLIANCE]** you had replaced?
1. **[RECORD RESPONSE]**
 88. (REFUSED)
 99. (DON'T KNOW)
- D4. Was the replacement **[APPLIANCE]** new or used?
1. (New)
 2. (Used)
 88. (REFUSED) **[SKIP TO E1]**
 99. (DON'T KNOW) **[SKIP TO E1]**
- D5. **[IF D4 = 2]** What was the approximate age of the replacement **[APPLIANCE]**?
1. **[RECORD QUANTITY]**
 88. (REFUSED)
 99. (DON'T KNOW)
- D6. Was the replacement **[APPLIANCE]** an ENERGY STAR or high-efficiency model?
1. (Yes)
 2. (No) **[SKIP TO D8]**
 88. (REFUSED) **[SKIP TO D8]**
 99. (DON'T KNOW) **[SKIP TO D8]**

- D7. How important was the program in your decision to replace your old **[APPLIANCE]** with an ENERGY STAR or high-efficiency model? Was it ... **[READ LIST]**
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all important
 88. (REFUSED)
 89. (DON'T KNOW)
- D8. Were you already planning to replace your **[APPLIANCE]** before you decided to recycle your existing unit through the Appliance Recycling Program?
1. (Yes) **[SKIP TO E1]**
 2. (No)
 88. (REFUSED)
 99. (DON'T KNOW)
- D9. Let me make sure I understand: you would *not* have replaced your **[APPLIANCE]** with a different **[APPLIANCE]** without the program? Is that correct?
1. (Correct, I would not have replaced it without the program)
 2. (Incorrect, I would have replaced it anyway)
 88. (REFUSED)
 99. (DON'T KNOW)

E. Freeridership

E1. Had you considered getting rid of the **[APPLIANCE]** before you heard about Focus on Energy's Appliance Recycling Program?

[IF NECESSARY, BY "GET RID OF," I MEAN REMOVING THE APPLIANCE FROM YOUR HOME BY ANY MEANS, INCLUDING: SELLING IT, GIVING IT AWAY, HAVING SOMEONE PICK IT UP, OR TAKING IT TO THE DUMP OR A RECYCLING CENTER YOURSELF.]

1. (Yes)
2. (No) **[SKIP TO E3]**
88. (REFUSED)
99. (DON'T KNOW)

E2. Would you have kept your **[APPLIANCE]** had the program not been available?

1. (Yes)
2. (No)
88. (REFUSED)
99. (DON'T KNOW)

E3. **[ASK IF E1=2 OR E2=1 AND C1 = 1]** If you had kept the **[APPLIANCE]**, would you have kept it in the same location you mentioned earlier? That is would it have been located in: **[READ IN ANSWER FROM C1]**?

1. (Yes) **[SKIP TO E7]**
2. (No) **[SKIP TO E7]**
88. (REFUSED) **[SKIP TO E7]**
99. (DON'T KNOW) **[SKIP TO E7]**

E4. **[ASK ONLY IF E2<>1]** How would you have disposed of the unit if the program had not been available? Would you have...**[ALLOW ONLY ONE ANSWER ; PROMPT IF NEEDED, READ LIST IN RANDOM ORDER]**

1. Sold it to a private party either by an ad or to someone you know
2. Sold it to a used appliance dealer
3. Given it away to a private party, such as a friend or neighbor
4. Given it away to a charity organization
5. Left it on the curb with free sign
6. **[DISPLAY THIS RESPONSE ONLY IF D1=1]** Had it removed by the dealer you got your new or replacement **[APPLIANCE]** from
7. Hauled it to the dump yourself [or friend or family member]
8. Hauled to a recycling center yourself [or friend or family member]
9. Hired someone to take it to a dump or recycling center
10. Have it picked up by local waste management company
11. Some other way **[SPECIFY: _____]**
88. (REFUSED)
99. (DON'T KNOW)

[If (E4 = 2 and AGE > 15) or E4 = 4 or E4 = 7 or E4 = 8] then read follow up question E5 along with the corresponding:

[Read only if E4 = 2 and AGE > 15]

Used appliance dealers typically only buy units that are less than 15 years old and are in very good condition.

[Read only if E4 = 4]

Market research suggests many local charities (Goodwill or Vietnam Veterans of America) only accept appliances that are in good working condition.

[Read only if E4 = 7 or 8]

Appliances are heavy and often require a truck, trailer, or large vehicle to relocate. Also, dumps and landfills often require payment to dispose of appliances.

E5. **[ASK IF (E4 = 2 and AGE > 15) or E4 = 4 or E4 = 7 or E4 = 8]** Given this information, would you have **[READ IN ANSWER FROM E4]**, or would you have done something else?

1. (Same thing as E4) **[SKIP TO E7]**
2. (Something else)
88. (REFUSED) **[SKIP TO E7]**
99. (DON'T KNOW)

- E6. **[ASK IF E5=2]** How else would you have disposed of it?
[DO NOT READ; ALLOW ONLY ONE ANSWER BUT DO NOT ALLOW PREVIOUS ANSWER]
1. (Sold it to a private party either by an ad or to someone you know)
 2. (Sold it to a used appliance dealer)
 3. (Given it away to a private party, such as a friend or neighbor)
 4. (Given it away to a charity organization)
 5. (Left it on the curb with free sign)
 6. **[DISPLAY ONLY IF D1=1]** (Had it removed by the dealer you got your new or replacement **[APPLIANCE]** from)
 7. (Hauled it to the dump yourself [or friend or family member])
 8. (Hauled to a recycling center yourself [or friend or family member])
 9. (Hired someone to take it to a dump or recycling center)
 10. (Have it picked up by local waste management company)
 11. (Kept it)
 12. (Some other way) **[SPECIFY: _____]**
 88. (REFUSED)
 99. (DON'T KNOW)
- E7. Would you have participated in the program if the amount of the rebate had been less?
1. (Yes)
 1. (No) **[SKIP TO E9]**
 88. (REFUSED)
 99. (DON'T KNOW)
- E8. Would you have participated in the program with no rebate check at all?
1. (Yes)
 2. (No)
 88. (REFUSED)
 89. (DON'T KNOW)
- E9. Did the contactor who picked up your appliance leave you with any informational materials?
1. (Yes)
 2. (No)
 88. (REFUSED)
 99. (DON'T KNOW)
- E10. **[READ IF E9 = 1]** What type of materials were left when your appliance was picked up?
1. **[RECORD RESPONSE]**
 88. (Don't know)
 99. (Refused)

- E11. Do you have any suggestions for improving the Focus on Energy Appliance Recycling Program? (What do you suggest?)
1. (Suggestions given) **[RECORD RESPONSE]**
 2. (No suggestions)
88. (REFUSED)
99. (DON'T KNOW)

F. LED and CFL Purchases

Now I'd like to ask you about recent light bulb purchases that you've made from retail stores.

- F1. In the last 12 months, approximately how many screw-in CFL bulbs and how many screw-in LED bulbs did you or someone in your household purchase in-store from a retailer? Please try to estimate the total number of **bulbs**, and not packages. Also, please consider only screw-in bulbs purchased from a retail store, and NOT online. **[IF NEEDED: By retail store I mean an in-store, retail location of a Costco, hardware store, grocery store, Walmart, etc. and NOT purchased online]** **[IF NEEDED: CFLs, also known as compact fluorescent light bulbs, are energy saving light bulbs that most often have a "twisted" shape.]** **[IF NEEDED: LEDs, also known as "light-emitting diodes", are a type of lighting that uses multiple tiny bulbs, or diodes, that are wired together on one lamp.](IF "DON'T KNOW," PROBE: Would you say it is it less than or more than five bulbs? [WORK FROM THERE TO GET AN ESTIMATE]**
1. **[RECORD QUANTITY OF SCREW-IN CFL BULBS]**
 2. **[RECORD QUANTITY OF SCREW-IN LED BULBS]**
 98. (Don't know)
 99. (Refused)
- F2. **[ASK IF F1.1>0]** Where are these **[QUANTITY FROM F1.1]** screw-in CFL bulbs being used? Were they purchased to be used in your home or in a business? **["HOME" INCLUDES ANY ASPECT OF A RESIDENTIAL APPLICATION, E.G. INSIDE A HOME, IN A GARAGE, BARN, OUTSIDE A HOME ETC.]** **[MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH APPLICATION THAT APPLIES]**
1. **[Record quantity for my home]**
 2. **[Record quantity for a business application]**
 3. **[Record quantity for Other]**
 98. (Don't know)
 99. (Refused)
- F3. **[ASK IF F2.1>0]** Of the **[QUANTITY FROM F2.1]** screw-in CFL bulbs purchased for your home from a retail outlet in the past 12 months, how many are currently installed? **[NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN CFL BULBS, NOT A RANGE.]**
1. **[Record quantity of screw-in CFL bulbs]**
 98. (Don't know)
 99. (Refused)

F4. **[ASK IF F3.1>0]** From which retail store(s) did you purchase the screw-in CFL bulbs that are currently installed in your home? **[MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH STORE THAT APPLIES, TOTAL QUANTITY SHOULD EQUAL F3 QUANTITY]**

1. (Ace Hardware)
2. (Batteries Plus)
3. (Big Lots)
4. (Blain's Farm & Fleet)
5. (Costco)
6. (Do It Best)
7. (Dollar General)
8. (Dollar Tree)
9. (Express Mart)
10. (Family Dollar)
11. (Festival Foods)
12. (Goodwill)
13. (Gordy's)
14. (Habitat Restore)
15. (Home Depot)
16. (Lowe's)
17. (Menards)
18. (Mill's Fleet Farm)
19. (Miner's)
20. (Sams Club)
21. (True Value)
22. (United Hardware)
23. (Walgreens)
24. (WalMart)
25. (Woodman's)
26. (World of Variety)
27. (Other **[SPECIFY _____]**)
28. (Did not buy from a retail store)
98. (Don't know)
99. (Refused)

- F5. **[ASK IF F1.2>0]** Where are these **[QUANTITY FROM F1.2]** screw-in LED bulbs being used? Were they purchased to be used in your home or in a business? **["HOME" INCLUDES ANY ASPECT OF A RESIDENTIAL APPLICATION, E.G. INSIDE A HOME, IN A GARAGE, BARN, OUTSIDE A HOME ETC.] [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH APPLICATION THAT APPLIES]**
1. **[Record quantity for my home]**
 2. **[Record quantity for a business application]**
 3. **[Record quantity for Other]**
 98. (Don't know)
 99. (Refused)
- F6. **[ASK IF F5.1>0]** Of the **[QUANTITY FROM F5.1]** screw-in LED bulbs purchased for your home from a retail outlet in the past 12 months, how many are currently installed? **[NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN LED BULBS, NOT A RANGE.]**
1. **[Record quantity of screw-in LED bulbs]**
 98. (Don't know)
 99. (Refused)

F7. **[ASK IF F6.1>0]** From which retail store(s) did you purchase the screw-in LED bulbs that are currently installed in your home? **[MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH STORE THAT APPLIES, TOTAL QUANTITY SHOULD EQUAL F6 QUANTITY]**

1. (Ace Hardware)
2. (Batteries Plus)
3. (Big Lots)
4. (Blain's Farm & Fleet)
5. (Costco)
6. (Do It Best)
7. (Dollar General)
8. (Dollar Tree)
9. (Express Mart)
10. (Family Dollar)
11. (Festival Foods)
12. (Goodwill)
13. (Gordy's)
14. (Habitat Restore)
15. (Home Depot)
16. (Lowe's)
17. (Menards)
18. (Mill's Fleet Farm)
19. (Miner's)
20. (Sams Club)
21. (True Value)
22. (United Hardware)
23. (Walgreens)
24. (WalMart)
25. (Woodman's)
26. (World of Variety)
27. (Other **[SPECIFY _____]**)
28. (Did not buy from a retail store)
98. (Don't know)
99. (Refused)

G. Demographics

Now I have just a few final questions.

- G1. *What type of fuel do you use to heat your home?
1. (Natural gas)
 2. (Electricity)
 3. (Propane/Bottled gas)
 4. (Wood)
 5. (Other [SPECIFY: _____])
 98. (DON'T KNOW)
 99. (REFUSED)
- G2. * What type of fuel does your water heater use?
1. (Natural gas)
 2. (Electricity)
 3. (Propane/Bottled gas)
 4. (Wood)
 5. (Other [SPECIFY: _____])
 98. (DON'T KNOW)
 99. (REFUSED)
- G3. *What type of home do you live in? Is it a: [READ LIST]
1. Single-family home, detached house
 2. Attached house (townhouse, row house, or duplex)
 3. Multifamily apartment or condo building with 4 or more units
 4. Mobile/manufactured home
 5. Co-op/retirement community
 6. Other [SPECIFY: _____]
 98. (Don't know)
 99. (Refused)
- G4. Do you or members of your household own this home or do you rent?
1. (Own/buying)
 2. (Rent/lease)
 3. (Occupied without payment of rent)
 4. (Other [SPECIFY: _____])
 98. (Don't know)
 99. (Refused)

- G5. Is your home occupied ... **[READ LIST]**
1. Year round? or
 2. On a seasonal basis or as a vacation home?
 98. (Don't know)
 99. (Refused)
- G6. **[ASK IF G5=2]** During the year, how many total months is your home occupied?
1. **[Record months; range: 1-12; Half a month = 0.5]**
 98. (Don't know)
 99. (Refused)
- G7. * Approximately how many square feet of living space does your home have? Don't include the basement unless it is a space that you consider lived in? **[READ CATEGORIES IF NEEDED]**
1. (Less than 1,000)
 2. (1,000 to less than 1,500)
 3. (1,500 to less than 2,000)
 4. (2,000 to less than 2,500)
 5. (2,500 to less than 3,000)
 6. (3,000 to less than 4,000)
 7. (4,000 or more)
 98. (Don't know)
 99. (Refused)
- G8. *About when was your home first built? **[READ CATEGORIES IF NEEDED]**
1. (Before 1970s)
 2. (1970s)
 3. (1980s)
 4. (1990 – 1994)
 5. (1995 – 1999)
 6. (2000s)
 7. (Other **[SPECIFY: _____]**)
 98. (DON'T KNOW)
 99. (REFUSED)
- G9. *Including yourself, how many people currently live in this household on a full time basis? **[IF NEEDED: Please include everyone who lives in your home whether or not they are related to you and exclude anyone who is just visiting or in the military or children who may be away at college.]**
1. **[RECORD ANSWER]**
 98. (DON'T KNOW)
 99. (Refused)

- G10. **[ASK IF G9>1]** *How many people under the age of 18 live in your home year round?
1. 1
 2. 2
 3. 3
 4. 4
 5. 5
 6. 6
 7. 7 OR MORE
 98. (DON'T KNOW)
 99. (REFUSED)
- G11. * What is the highest level of school that someone in your home has completed? **[READ CATEGORIES, IF NECESSARY]**
1. (Less than ninth grade)
 2. (Ninth to twelfth grade; no diploma)
 3. (High school graduate; includes GED)
 4. (Some college, no degree)
 5. (Associates degree)
 6. (Bachelor's degree)
 7. (Graduate or professional degree)
 98. (DON'T KNOW)
 99. (REFUSED)
- G12. * Which of the following categories best represents your age? Please stop me when I get to the appropriate category.
1. 18-24
 2. 25-34
 3. 35-44
 4. 45-54
 5. 55-64
 6. 65-74
 7. 75 or older
 98. (DON'T KNOW)
 99. (REFUSED)
- G13. * Which category best describes your total household income in 2014 before taxes? **[IF NEEDED: "Please stop me when I get to the appropriate category."]**
1. Less than \$20,000
 2. \$20,000, up to \$50,000
 3. \$50,000, up to \$75,000
 4. \$75,000, up to \$100,000
 5. \$100,000, up to \$150,000
 6. \$150,000 up to \$200,000
 7. \$200,000 or more
 98. (DON'T KNOW)
 99. (REFUSED)

CLOSING SCRIPT: Those are all the questions we have. **Focus on Energy** appreciates your input. Thank you for your time.

Wisconsin Focus on Energy 2015 Express Energy Efficiency Participant Survey

Target Quota = [140 completes]

Topics	Researchable Questions	Survey Questions
Program awareness	How did the customer hear about the Express Energy Efficiency program?	Section B
Direct install measures	How many of each measure did the contractor and customer install? How many items were removed? Why were items removed? Why were items never installed? Where are the items now? How satisfied are customers with the direct install items?	Section C
Energy-saving actions	Has the customer taken any energy-saving actions since participating in the program?	E1-E3
Cross-program participation	Is the customer knowledgeable of other programs? Has the customer participated in other programs?	E4-E8
Program satisfaction	Is the customer satisfied with the overall program processes?	Section F
Cross-sector sales	Has the customer purchases LEDs or CFLs from retail stores recently? Where did they buy the bulbs from? Are the bulbs being used for a residential or business application?	Section G
Customer demographics	What are some general household characteristics?	Section H

General Instructions

- Interviewer instructions are in green **[LIKE THIS]** (the style is “Survey: Interviewer Instructions”).
- CATI programming instructions are in red **[LIKE THIS]** (the style is “Survey: Programming”).
- Items that should not be read by the interviewer are in parentheses like this ().
- Questions from core question list are indicated with an asterisk (*)

Sample Read in Variables:

- Measure1 = CFL
- Measure2 = LED
- Measure3 = FAUCET
- Measure4 = SHOWERHEAD
- Measure5 = PIPEINSULATION
- Measure6 = WHTEMPERATURE
- CFL_Quantity
- LED_Quantity
- FA_Quantity
- SH_Quantity

A. Introduction and Screening

[ASK TO SPEAK WITH LISTED PERSON. IF NO NAME THEN ASK TO SPEAK WITH SOMEONE INVOLVED IN ENERGY DECISIONS FOR THE HOUSEHOLD.]

Hello, my name is **[NAME]** and I am calling on behalf of Focus on Energy, your statewide energy efficiency program. Our records show that you recently had an installation visit through the Express Energy Efficiency program.

[IF NEEDED: YOUR ANSWERS WILL HELP US UNDERSTAND HOW THE PROGRAM IS DOING AND WHERE IT CAN BE IMPROVED. THE SURVEY SHOULD TAKE ABOUT 20 MINUTES. YOUR RESPONSES WILL BE KEPT STRICTLY CONFIDENTIAL.]

[IF CUSTOMER IS WARY OF THE SURVEY, REASSURE THEM THAT YOU ARE NOT SELLING ANYTHING. IF NECESSARY, OFFER JOE FONTAINE (608-266-0910) AS THE PERSON TO CONTACT WITH ANY QUESTIONS ABOUT THE VALIDITY OF THE RESEARCH.]

- A1. Do you recall having someone come to your home who installed energy efficient products such as energy saving light bulbs, low flow showerheads, or faucet aerators, and provided you with information about ways to save energy? **[IF NEEDED: This is also known as an Express Energy Efficiency installation visit, and it would have been provided free of charge for a limited time by focus on energy. You probably signed up on-line.]**
1. Yes
 2. No **[ASK "IS THERE SOMEONE ELSE IN YOUR HOME I COULD SPEAK TO WHO MAY HAVE SIGNED UP FOR THE VISIT OR HAS BEEN INVOLVED IN MAKING WEATHERIZATION IMPROVEMENTS TO YOUR HOME?" IF SO, TRANSFER TO NEW PERSON AND REPEAT INTRO] [IF NO ONE ELSE IS AWARE, THANK AND TERMINATE]**
98. Don't know **[THANK AND TERMINATE]**
99. Refused **[THANK AND TERMINATE]**

B. Program Awareness

B1. *Where did you most recently hear about the Focus on Energy Express Energy Efficiency program? **[DO NOT READ LIST, RECORD ONE ANSWER]**

1. (Bill insert)
2. (Direct mail/brochure/postcard)
3. (Family/friends/word-of-mouth)
4. (Focus on Energy or Utility website)
5. (Social Media such as Twitter, Facebook, Instagram, etc.)
6. (Television)
7. (Radio)
8. (Print media, such as magazine, newspaper article or advertisement)
9. (Billboard/outdoor ad)
10. (Other **[SPECIFY:_____]**)
98. (Don't know)
99. (Refused)

B2. *Are there any other ways you heard about the program? **[DO NOT READ. RECORD ALL THAT APPLY]**

1. (Bill insert)
2. (Direct mail/brochure/postcard)
3. (Family/friends/word-of-mouth)
4. (Focus on Energy or Utility website)
5. (Social Media such as Twitter, Facebook, Instagram, etc.)
6. (Television)
7. (Radio)
8. (Print media, such as magazine, newspaper article or advertisement)
9. (Billboard/outdoor ad)
10. (Other **[SPECIFY:_____]**)
98. (Don't know)
99. (Refused)

B3. *What motivated you to participate in Focus on Energy's Express Energy Efficiency program?

[DO NOT READ LIST; RECORD ALL THAT APPLY]

1. (Save energy)
2. (Save money/appliance was expensive to run)
3. (Good for the environment/environmentally safe disposal/recycled)
4. (Recommend by a friend/relative)
5. (Recommended by a retailer/dealer)
6. (Recommended by a contractor)
7. (Cash/rebate/incentive program)
8. (Utility sponsorship of the program)
9. (Other **[SPECIFY: _____]**)
98. (Don't know)
99. (Refused)

C. Direct Install Measures

Now I would like to ask you about the energy-saving items you received through the program.

[ASK THE FOLLOWING MEASURE-SPECIFIC QUESTIONS ONLY FOR THOSE MEASURES THE PARTICIPANT RECEIVED]

Possible measures: **[MEASURE1, MEASURE2, MEASURE3, MEASURE4, MEASURE5, MEASURE6]**

- CFLs
- LEDs
- Faucet aerators
- Showerheads
- Pipe insulation
- Water temperature turn-down

CFLs (C1 to C13)

[ASK SECTION IF ANY MEASURE = CFLS; OTHERWISE SKIP TO NEXT MEASURE]

C1. Our records indicate that you received **[CFL_QUANTITY]** compact fluorescent light bulbs, also known as CFLs. Is this correct? **[IF NEEDED: THE MOST COMMON TYPE OF COMPACT**

FLUORESCENT BULB IS MADE WITH A GLASS TUBE BENT INTO A SPIRAL, RESEMBLING SOFT-SERVE ICE CREAM, AND IT FITS IN A REGULAR LIGHT BULB SOCKET.]

1. (Yes) **[SKIP TO C3]**
2. (Yes, I received CFLs, but quantity is not correct)
3. (No, I did not receive any CFLs) **[SKIP TO NEXT MEASURE]**
98. (Don't know) **[SKIP TO NEXT MEASURE]**
99. (Refused) **[SKIP TO NEXT MEASURE]**

- C2. **[ASK IF C1 = 2]** How many CFLs did you receive?
1. **C2A. [RECORD NUMBER]**
 98. (Don't know)
 99. (Refused)
- C3. Did the contractor install all CFLs directly into your fixtures or were they left with you to install at a later date?
1. (The contractor installed all the CFLs directly into the light fixtures)
 2. (All the CFLs were left behind for me to install)
 3. (Some were installed directly into the light fixtures and some were left behind to install)
 98. (Don't know)
 99. (Refused)
- C4. **[ASK IF C3 = 1 OR 3]** How many CFLs did the contractor install?
1. **C4A. [RECORD NUMBER]**
 98. (Don't know)
 99. (Refused)
- C5. **[ASK IF C3 = 2 OR 3]** How many CFLs have you or another member of your household installed?
1. **C5A. [RECORD NUMBER]**
 98. (Don't know)
 99. (Refused)
- C6. Have you since removed any of the CFLs from the original fixture where they were installed?
1. (Yes)
 2. (No) **[SKIP TO C10]**
 98. (Don't know) **[SKIP TO C10]**
 99. (Refused) **[SKIP TO C10]**
- C7. How many CFL bulbs did you remove?
1. **C7A. [RECORD NUMBER]**
 98. (Don't know)
 99. (Refused)
- C8. What did you do with this/these **[QUANTITY FROM C7]** CFLs? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (Moved them to a different room in the house **C8_1. [ASK: WHERE WERE THEY MOVED?]**)
 2. (Storing them for future use)
 3. (Threw them away/recycled them)
 4. (Gave them to someone else)
 5. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)

- C9. What are the reasons you removed the bulb(s)? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (Burned out)
 2. (Broke/stopped working)
 3. (Bulb was too bright)
 4. (Bulb was not bright enough)
 5. (Delay in light coming on)
 6. (Did not work with dimmer/three-way switch)
 7. (Didn't fit properly)
 8. (Stuck out of fixture)
 9. (Light color)
 10. (Interference with radio, TV, or other electronic devices)
 11. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
- C10. **[ASK IF C3 = 2 OR 3]** What did you do with any CFLs that were never installed? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (They were all installed)
 2. (Storing them for future use)
 3. (Threw them away/recycled them)
 4. (Gave them to someone else)
 5. (Broken)
 6. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
- C11. How satisfied are you with the CFLs you received? Would you say you are: **[READ LIST]**
1. Very satisfied **[ASK C12]**
 2. Somewhat satisfied **[ASK C12]**
 3. Not too satisfied **[SKIP TO C13]**
 4. Not satisfied at all **[SKIP TO C13]**
 98. (Don't know) **[SKIP TO NEXT SECTION]**
 99. (Refused) **[SKIP TO NEXT SECTION]**

C12. **[IF C11 = 1 OR 2]** Can you explain why you are **[INSERT RESPONSE FROM C11]**? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**

1. (They're better than the bulbs I had)
2. (I like the way they look)
3. (They give good light)
4. (They save energy)
5. (They were free)
6. (I needed new light bulbs anyway)
7. (I didn't have to change a hard-to-reach fixture)
8. (I don't have to change the bulb frequently)
9. (They're just fine or I just like them)
10. (Other **[SPECIFY: _____]**)
98. (Don't know)
99. (Refused)

C13. **[IF C11 = 3 OR 4]** Can you explain why you are **[INSERT RESPONSE FROM C11]**? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**

1. (I don't like the color of the light)
2. (The light is too bright)
3. (The light is too dim)
4. (They flicker)
5. (They take too long to light up)
6. (They don't fit well in my fixtures)
7. (They don't look nice in my fixtures)
8. (They burn out quickly)
9. (I just didn't like them)
10. (Other **[SPECIFY: _____]**)
98. (Don't know)
99. (Refused)

LEDs (C14 to C27)

[ASK SECTION IF ANY MEASURE = LEDS; OTHERWISE SKIP TO C27]

C14. Our records indicate that you received **[LED_QUANTITY]** LED **[SAY "L-E-D"]** light bulbs. Is this correct? **[IF NEEDED: SCREW-BASED LED BULBS ARE MADE FROM MULTIPLE, SMALL LIGHTS, ASSEMBLED INTO A TYPICAL BULB SHAPE THAT FITS IN A REGULAR LIGHT SOCKET. LEDS HAVE HISTORICALLY BEEN USED FOR NIGHTLIGHTS, FLASHLIGHTS, AND HOLIDAY LIGHTS. HOWEVER, THE TECHNOLOGY HAS INCREASINGLY BEEN USED IN TRADITIONAL LAMPS AND FIXTURES.]**

1. (Yes) **[SKIP TO C16]**
2. (Yes, I received LEDs, but quantity is not correct)
3. (No, I did not receive any LEDs) **[SKIP TO C27]**
98. (Don't know) **[SKIP TO C27]**
99. (Refused) **[SKIP TO C27]**

- C15. **[ASK IF C14 = 2]** How many LEDs did you receive?
1. **C15A. [RECORD NUMBER]**
 98. (Don't know)
 99. (Refused)
- C16. Did the contractor install the LEDs directly into your fixtures or were any left with you to install at a later date?
1. (The contractor installed all the LEDs directly into the light fixtures)
 2. (All the LEDs were left behind for me to install)
 3. (Some were installed directly into the light fixtures and some were left behind to install)
 98. (Don't know)
 99. (Refused)
- C17. **[ASK IF C16 = 1 OR 3]** How many LEDs did the contractor install?
1. **C17A. [RECORD NUMBER]**
 98. (Don't know)
 99. (Refused)
- C18. **[ASK IF C16 = 2 OR 3]** How many LEDs have you or someone in your household installed?
1. **C18A. [RECORD NUMBER]**
 98. (Don't know)
 99. (Refused)
- C19. Have you since removed any of the LEDs from the original fixture where they were installed?
1. (Yes)
 2. (No) **[SKIP TO C23]**
 98. (Don't know) **[SKIP TO C23]**
 99. (Refused) **[SKIP TO C23]**
- C20. How many LED bulbs did you remove?
1. **C20A. [RECORD NUMBER]**
 98. (Don't know)
 99. (Refused)
- C21. What did you do with these **[QUANTITY FROM C20]** LEDs? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (Moved them to a different room in the house **C21_1. [ASK: WHERE WERE THEY MOVED?]**)
 2. (Storing them for future use)
 3. (Threw them away/recycled them)
 4. (Gave them to someone else)
 5. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)

- C22. What are the reasons you removed the bulb(s)? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (Burned out)
 2. (Broke/stopped working)
 3. (Bulb was too bright)
 4. (Bulb was not bright enough)
 5. (Didn't fit properly)
 6. (Stuck out of fixture)
 7. (Light color)
 8. (Interference with radio, TV, or other electronic devices)
 9. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
- C23. **[ASK IF C16 = 2 OR 3]** What did you do with any LEDs that were never installed? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (They were all installed)
 2. (Storing them for future use)
 3. (Threw them away/recycled them)
 4. (Gave them to someone else)
 5. (Broken)
 6. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
- C24. How satisfied are you with the LEDs you received? Would you say you are: **[READ LIST]**
1. Very satisfied **[ASK C25]**
 2. Somewhat satisfied **[ASK C25]**
 3. Not too satisfied **[SKIP TO C26]**
 4. Not satisfied at all **[SKIP TO C26]**
 98. (Don't know) **[SKIP TO C27]**
 99. (Refused) **[SKIP TO C27]**

C25. **[IF C24 = 1 OR 2]** Can you explain why you are **[INSERT RESPONSE FROM C24]**? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**

1. (They're better than the bulbs I had)
2. (I like the way they look)
3. (They give good light)
4. (They save energy)
5. (They were free)
6. (I needed new light bulbs anyway)
7. (I didn't have to change a hard-to-reach fixture)
8. (I don't have to change the bulb frequently)
9. (They're just fine or I just like them)
10. (Other **[SPECIFY: _____]**)
98. (Don't know)
99. (Refused)

C26. **[IF C24 = 3 OR 4]** Can you explain why you are **[INSERT RESPONSE FROM C24]**? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**

1. (I don't like the color of the light)
2. (The light is too bright)
3. (The light is too dim)
4. (They flicker)
5. (They don't fit well in my fixtures)
6. (They don't look nice in my fixtures)
7. (They burn out quickly)
8. (I just didn't like them)
9. (Other **[SPECIFY: _____]**)
98. (Don't know)
99. (Refused)

[ASK IF RECEIVED CFLS OR LEDS]

IF C1 = 1 OR C2 = 1 AND C14 <> 1 OR C15 <> 1, SHOW:

How satisfied would you be if you received up to two LEDs?

IF C1 = 1 OR C2 = 1 AND C14 = 1 OR C15 = 1, SHOW:

How satisfied would you be if you received additional LEDs instead of receiving any CFLs?

- C27. How satisfied would you be if you received [IF RECEIVED CFLS AND NO LEDS READ, “up to two LEDs” OR IF RECEIVED CFLS **AND** LEDS, “additional LEDs”] instead of receiving any CFLs? [SCREW-BASED LED BULBS ARE MADE FROM MULTIPLE, SMALL LIGHTS, ASSEMBLED INTO A TYPICAL BULB SHAPE THAT FITS IN A REGULAR LIGHT SOCKET. LEDS HAVE HISTORICALLY BEEN USED FOR NIGHTLIGHTS, FLASHLIGHTS, AND HOLIDAY LIGHTS. HOWEVER, THE TECHNOLOGY HAS INCREASINGLY BEEN USED IN TRADITIONAL LAMPS AND FIXTURES.] Would you be: [READ LIST]
1. More satisfied
 2. Less satisfied
 3. Just as satisfied (no difference)
 4. (Not aware of LEDs)
 98. (Don't know)
 99. (Refused)

Faucet Aerators (C28 to C38)

[ASK SECTION IF ANY MEASURE = FAUCET AERATORS; OTHERWISE SKIP TO NEXT MEASURE]

- C28. Our records indicate that you received [FA_QUANTITY] faucet aerators. Is this correct? [IF NEEDED: THESE ATTACH TO WATER FAUCETS. THEY MAY BE REPLACING OLD ONES IN YOUR KITCHEN OR BATHROOM SINKS.]
1. (Yes) [SKIP TO C30]
 2. (Yes, I received faucet aerators, but quantity is not correct)
 3. (No, I did not receive any faucet aerators) [SKIP TO NEXT MEASURE]
 98. (Don't know) [SKIP TO NEXT MEASURE]
 99. (Refused) [SKIP TO NEXT MEASURE]
- C29. [ASK IF C28 = 2] How many faucet aerators did you receive?
1. C29A. [RECORD NUMBER]
 98. (Don't know)
 99. (Refused)

- C30. Did the contractor install the faucet aerators directly into your faucets or were any left with you to install at a later date?
1. (The contractor installed all the faucet aerators directly into the fixtures)
 2. (All faucet aerators were left behind for me to install)
 3. (Some were installed directly in the fixtures and some were left behind to install)
 98. (Don't know)
 99. (Refused)
- C31. **[ASK IF C30 = 2 OR 3]** How many faucet aerators did you or another member of your household install?
1. **C31A. [RECORD NUMBER]**
 98. (Don't know)
 99. (Refused)
- C32. **[ASK IF C30 = 1 OR 3]** How many faucet aerators did the contractor install during the visit?
1. **C32A. [RECORD NUMBER]**
 98. (Don't know)
 99. (Refused)
- C33. Have you since removed any of the aerators from the original fixture where they were installed?
1. (Yes) **C33A. [RECORD NUMBER]**
 2. (No) **[SKIP TO C36]**
 98. (Don't know) **[SKIP TO C36]**
 99. (Refused) **[SKIP TO C36]**
- C34. What did you do with this/these **[QUANTITY FROM C33]** faucet aerators? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (Moved them to a different room in the house **C34_1. [ASK: WHERE WERE THEY MOVED?]**)
 2. (Storing them for future use)
 3. (Threw them away/recycled them)
 4. (Gave them to someone else)
 5. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
- C35. What are the reasons you removed the aerator(s)? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (Didn't like the flow of water)
 2. (Didn't like how it looked)
 3. (Didn't fit properly)
 4. (Broken)
 5. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
-

C36. **[ASK IF C30 = 1 OR 3]** What did you do with any faucet aerators that were never installed? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**

1. (They were all installed)
2. (Storing them for future use)
3. (Threw them away)
4. (Gave them to someone else)
5. (Broken)
6. (Other **[SPECIFY: _____]**)
98. (Don't know)
99. (Refused)

C37. How satisfied are you with the faucet aerators you received? Would you say you are: **[READ LIST]**

1. Very satisfied
2. Somewhat satisfied
3. Not too satisfied
4. Not satisfied at all
98. (Don't know) **[SKIP TO NEXT SECTION]**
99. (Refused) **[SKIP TO NEXT SECTION]**

C38. Can you explain why you are **[INSERT RESPONSE FROM C37]**? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**

Negative

1. (I do not like the brand or type)
2. (The flow is too weak/slow)
3. (It is at the wrong angle)
4. (I just didn't like it)

Positive

5. (It is the brand or type I prefer)
6. (It has the right pressure/strength)
7. (I needed faucet aerators anyway)
8. (They save energy)
9. (They were free)
10. (My old aerator wasn't working well)
11. (It is just fine or I just like it)
12. (Other **[SPECIFY: _____]**)
98. (Don't know)
99. (Refused)

Energy-Efficient Showerheads (C39 to C49)

[ASK SECTION IF ANY MEASURE = SHOWERHEADS; OTHERWISE SKIP TO NEXT MEASURE]

- C39. Our records indicate that you received **[SH_QUANTITY]** energy-efficient showerheads. Is this correct?
1. (Yes) **[SKIP TO C41]**
 2. (Yes, I received energy-efficient showerheads, but quantity is not correct)
 3. (No, I did not receive any energy-efficient showerheads) **[SKIP TO NEXT MEASURE]**
 98. (Don't know) **[SKIP TO NEXT MEASURE]**
 99. (Refused) **[SKIP TO NEXT MEASURE]**
- C40. **[ASK IF C39 = 2]** How many showerheads did you receive?
1. **C40A. [RECORD NUMBER]**
 98. (Don't know)
 99. (Refused)
- C41. Did the contractor install all of the showerheads directly into your shower or were any left with you to install at a later date?
1. (All showerheads were installed directly in the fixtures)
 2. (All showerheads were left behind for me to install)
 3. (Some were installed directly and some were left behind to install)
 98. (Don't know)
 99. (Refused)
- C42. **[ASK IF C41 = 2 OR 3]** How many showerheads did you or someone in your household install?
1. **C42A. [RECORD NUMBER]**
 98. (Don't know)
 99. (Refused)
- C43. **[ASK IF C41 = 1 OR 3]** How many showerheads did the contractor install during the visit?
1. **C43A. [RECORD NUMBER]**
 98. (Don't know)
 99. (Refused)
- C44. Have you since removed any of the showerheads from the original fixture where they were installed?
1. (Yes) **C44A. [RECORD NUMBER]**
 2. (No) **[SKIP TO C47]**
 98. (Don't know) **[SKIP TO C47]**
 99. (Refused) **[SKIP TO C47]**

- C45. What did you do with these **[QUANTITY FROM C44]** faucet aerators? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (Moved them to a different room in the house **C45A. [ASK: WHERE WERE THEY MOVED?]**)
 2. (Storing them for future use)
 3. (Threw them away/recycled them)
 4. (Gave them to someone else)
 5. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
- C46. What are the reasons you removed the showerhead(s)? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (Didn't like the flow of water)
 2. (Didn't like how it looked)
 3. (Temperature too high)
 4. (Temperature too low)
 5. (Didn't fit properly)
 6. (Broken)
 7. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
- C47. **[ASK IF C41 = 2 OR 3]** What did you do with any showerheads that were never installed? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (They all were installed)
 2. (Storing them for future use)
 3. (Threw them away)
 4. (Gave them to someone else)
 5. (Broken)
 6. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
- C48. How satisfied are you with the showerheads you received? Would you say you are: **[READ LIST]**
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not satisfied at all
 98. (Don't know) **[SKIP TO NEXT SECTION]**
 99. (Refused) **[SKIP TO NEXT SECTION]**

C49. Can you explain why you are **[INSERT RESPONSE FROM C48]**? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**

Negative

1. (I do not like the brand or type)
2. (The flow is too weak/slow)
3. (I just didn't like it)

Positive

4. (It is the brand or type I prefer)
5. (It has the right pressure/strength)
6. (It saves energy)
7. (It was free)
8. (I needed a new showerhead anyway)
9. (My old showerhead wasn't working well)
10. (It is just fine or I just like it)
11. (Other **[SPECIFY: _____]**)
98. (Don't know)
99. (Refused)

Water Heater Pipe Insulation (C50 to C57)

[ASK SECTION IF ANY MEASURE = PIPE INSULATION; OTHERWISE SKIP TO NEXT MEASURE]

C50. Our records indicate that you received water heater pipe insulation. Is this correct?

1. (Yes)
2. (No, I did not receive any water heater pipe insulation) **[SKIP TO NEXT MEASURE]**
98. (Don't know) **[SKIP TO NEXT MEASURE]**
99. (Refused) **[SKIP TO NEXT MEASURE]**

C51. Did the contractor install the pipe insulation directly on to your water heater pipe or was it left with you to install at a later date?

1. (The pipe insulation was installed directly) **[SKIP TO C54]**
2. (The pipe insulation was left behind for me to install)
98. (Don't know)
99. (Refused)

C52. Did you or someone in your household install the pipe insulation?

1. Yes **[SKIP TO C54]**
2. No
98. (Don't know) **[SKIP TO C54]**
99. (Refused) **[SKIP TO C54]**

- C53. **[ASK IF C52 = 2]** What did you do with the pipe insulation that was never installed? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (Storing it for future use)
 2. (Threw it away)
 3. (Gave them to someone else)
 4. (Damaged/torn)
 5. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
- C54. Have you since removed any of the pipe insulation from where it was originally installed?
1. Yes
 2. No **[SKIP TO C56]**
 98. (Don't know) **[SKIP TO C56]**
 99. (Refused) **[SKIP TO C56]**
- C55. Why did you remove the pipe insulation? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (Wasn't helping to insulate enough/wasn't seeing any difference)
 2. (Didn't like how it looked)
 3. (Didn't fit properly)
 4. (Damaged/torn)
 5. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
- C56. How satisfied are you with the pipe insulation you received? Would you say you are: **[READ LIST]**
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not satisfied at all
 98. (Don't know) **[SKIP TO NEXT SECTION]**
 99. (Refused) **[SKIP TO NEXT SECTION]**
- C57. Can you explain why you are **[INSERT RESPONSE FROM C56]**? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
- Negative**
1. (I do not like the type of insulation)
 2. (I did not like the appearance)
 3. (The water is too hot now)
 4. (It is not installed right)
 5. (I just didn't like it)

Positive

- 6. (It has the right insulation type)
- 7. (I needed pipe insulation anyway)
- 8. (It saves energy)
- 9. (It was free)
- 10. (My old insulation was not in place anymore)
- 11. (It is just fine or I just like it)
- 12. (Other [SPECIFY: _____])
- 98. (Don't know)
- 99. (Refused)

Water Heater Temperature Turn-Down (C58 to C65)

[ASK SECTION IF ANY MEASURE = WATER TEMPERATURE TURN-DOWN; OTHERWISE SKIP TO SECTION D]

C58. Our records show that your water heater temperature was turned down. Do you remember this?

- 1. Yes
- 2. The water heater temperature was not turned down **[SKIP TO SECTION D]**
- 98. (Don't know) **[SKIP TO SECTION D]**
- 99. (Refused) **[SKIP TO SECTION D]**

C59. What was the reduced temperature set at? **[INTERVIEWER NOTE: RECORD THE TEMPERATURE IT WAS ORIGINALLY TURNED DOWN TO EVEN IF THEY HAVE SINCE ADJUSTED IT.]**

- 1. **C59A. [RECORD NUMBER]**
- 98. (Don't know)
- 99. (Refused)

C60. Did the contractor turn down your water heater temperature or did they suggest that you turn it down yourself?

- 1. The contractor turned down the water heater temperature **[SKIP TO C63]**
- 2. They asked me to turn down the water heater temperature
- 98. (Don't know)
- 99. (Refused)

C61. **[ASK IF C60 = 2, 98, 99]** Did you turn it down to the suggested temperature?

- 1. (Yes, I turned it down to the suggested temperature)
- 2. (I turned it down but not as much as the contractor suggested)
- 3. (I turned it down even more than the contractor suggested)
- 4. (I did not turn down the temperature at all)
- 98. (Don't know)
- 99. (Refused)

- C62. **[ASK IF C61 = 2, 3, 4]** Why did you decide not to adjust the temperature to the recommended setting?
1. **C62A. [RECORD RESPONSE]** **[SKIP TO SECTION D IF C61=4]**
 98. (Don't know) **[SKIP TO SECTION D C61=4]**
 99. (Refused) **[SKIP TO SECTION D C61=4]**
- C63. Have you adjusted the water heater temperature since?
1. (Yes) **C63A. [ASK: WAS IT TURNED UP OR TURNED DOWN?]**
 - a. (Up)
 - b. (Down)
 2. (No)
 98. (Don't know)
 99. (Refused)
- C64. How satisfied are you with the recommended water heater temperature? Would you say you are: **[READ LIST]**
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not satisfied at all
 98. (Don't know) **[SKIP TO NEXT SECTION]**
 99. (Refused) **[SKIP TO NEXT SECTION]**
- C65. Can you explain why you are **[INSERT RESPONSE FROM C64]**? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
- Negative**
1. (The water is too hot now)
 2. (The water is too cold now)
 3. (I just didn't like it)
- Positive**
4. (It saves energy)
 5. (It was free)
 6. (It is just fine or I just like it)
 7. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)

D. General Measure Satisfaction

- D1. If you received the energy-savings items through the mail instead of having a contractor come to your home to install them for you, would your satisfaction with the Express Energy Efficiency program increase, decrease, or stay the same?
1. (More satisfied)
 2. (Less satisfied)
 3. (The same satisfaction)
 98. (Don't know)
 99. (Refused)

D2. **[REPEAT FOR EACH MEASURE (1-5) THE CUSTOMER DID NOT RECEIVE]**

The Express Energy Efficiency Program offers CFLs, LEDs, faucet aerators, showerheads, and pipe insulation and water heater temperature turn-down to customers. Our records show you did not receive any **[MEASURE THE CUSTOMER DID NOT RECEIVE]**. During your visit, did the contractor offer to install or leave behind this item?

Show measure if FLAG = 0

Measure1 = CFL

Measure2 = LED

Measure3 = FAUCET

Measure4 = SHOWERHEAD

Measure5 = PIPEINSULATION

1. (Yes, the contractor offered to install or leave the item)
2. (No, the contractor did not offer this item) **[SKIP TO SECTION E]**
98. (Don't know) **[SKIP TO SECTION E]**
99. (Refused) **[SKIP TO SECTION E]**

[ASK FOR EACH YES IN D2]

- D3. How many **[MEASURE]** did you receive?

1. (None, I declined them)
2. **D3A. [RECORD RESPONSE]**
98. (Don't know)
99. (Refused)

- D4. **[REPEAT FOR EACH 0= 1]** Why did you decline the **[MEASURE NOTED IN 0]**?

1. **D4A. [RECORD RESPONSE]**
98. (Don't know)
99. (Refused)

[ASK IF MEASURE6=WHTEMP = 0]

D5. During your visit, did the contractor offer to turn down the temperature?

- 1. (Yes)
- 2. (No) **[SKIP TO SECTION E]**
- 98. (Don't know) **[SKIP TO SECTION E]**
- 99. (Refused) **[SKIP TO SECTION E]**

D6. Why did you decline this service?

- 1. **[RECORD RESPONSE]**
- 98. (Don't know)
- 99. (Refused)

E. Cross-Program Marketing

E1. After participating in the program, did you install any additional **[REPEAT FOR EACH PROGRAM MEASURE]** on your own without any incentives? **[YES = 1, NO = 2, 98 = DON'T KNOW, 99 = REFUSED]**

- A: CFLs **E1A. [IF YES, ASK: HOW MANY HAVE YOU INSTALLED? _____]**
- B: LEDs **E1B. [IF YES, ASK: HOW MANY HAVE YOU INSTALLED? _____]**
- C: Faucet aerators **E1C. [IF YES, ASK: HOW MANY HAVE YOU INSTALLED? _____]**
- D: Showerheads **E1D. [IF YES, ASK: HOW MANY HAVE YOU INSTALLED? _____]**
- E: Water heater pipe insulation

E2. Did your installation technician provide you with information on actions you can take to save energy during your Express Energy Efficiency visit? **[IF NEEDED: EXAMPLES INCLUDE TAKING SHORTER SHOWERS, TURNING LIGHTS OFF WHEN YOU LEAVE THE ROOM, UNPLUGGING ELECTRONICS]**

- 1. (Yes)
- 2. (No) **[SKIP TO E4]**
- 98. (Don't know) **[SKIP TO E4]**
- 99. (Refused) **[SKIP TO E4]**

- E3. **[ASK IF E2 = 1]** Have you taken any of these actions?
1. (Yes) **E3A. [ASK: PLEASE TELL ME MORE ABOUT WHAT YOU DID? _____]**
 1. (Taking shorter or fewer showers)
 2. (Turning lights off when you leave the room)
 3. (Unplugging electronics)
 4. (Wash clothes in cold water)
 5. (Adjust thermostats)
 6. (Hang clothes on clothesline)
 7. (Other) [SPECIFY}
 8. (Don't know)
 9. (Refused)
 2. (No)
 98. (Don't know)
 99. (Refused)
- E4. *Are you aware of any other Focus on Energy programs or rebates? **[IF NEEDED: SUCH AS REBATES ON CFL BULBS, ENERGY STAR APPLIANCES, ENERGY-EFFICIENT UPGRADES, OR HOME ENERGY AUDITS]**
1. (Yes)
 2. (No) **[SKIP TO E9]**
 98. (Don't know) **[SKIP TO E9]**
 99. (Refused) **[SKIP TO E9]**
- E5. *Which programs or rebates are you aware of? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (Home Performance with ENERGY STAR)
 2. (New Homes)
 3. (Appliance Recycling)
 4. (Residential Lighting)
 5. (Residential Rewards)
 6. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
- E6. *Have you participated in any other Focus on Energy programs? **[RECORD ALL THAT APPLY; IF NEEDED: SUCH AS REBATES ON CFL BULBS, ENERGY STAR APPLIANCES, ENERGY-EFFICIENT UPGRADES OR HOME ENERGY AUDITS]**
1. (Yes)
 2. (No) **[SKIP TO E8]**
 98. (Don't know) **[SKIP TO E8]**
 99. (Refused) **[SKIP TO E8]**

E7. **[ASK IF E6 = 1]** *Which programs, rebates, or projects? **[DO NOT READ, BUT PROMPT IF NECESSARY; RECORD ALL THAT APPLY]**

1. (Home Performance with ENERGY STAR)
2. (New Homes)
3. (Appliance Recycling)
4. (Residential Lighting)
5. (Residential Rewards)
6. (Other **[SPECIFY: _____]**)
98. (Don't know)
99. (Refused)

E8. Do you plan to participate in any Focus on Energy programs within the next year?

1. (Yes) **E8A. [ASK: WHICH PROGRAMS? _____]**
 1. (Home Performance with ENERGY STAR)
 2. (New Homes)
 3. (Appliance Recycling)
 4. (Residential Lighting)
 5. (Residential Rewards)
 6. (Other **[SPECIFY: _____]**)
 7. (Don't know)
 8. (Refused)
2. (No)
98. (Don't know)
99. (Refused)

E9. *What do you think is the best way for Focus on Energy to inform the public about energy-efficiency programs? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**

1. (Television)
2. (Radio)
3. (Print media, such as magazine, newspaper article or advertisement)
4. (Billboard/outdoor ad)
5. (Bill insert)
6. (Direct mail/brochure/postcard)
7. (Family/friends/word-of-mouth)
8. (Focus on Energy or Utility website)
9. (Social Media such as Twitter, Facebook, or Instagram)
10. (Other **[SPECIFY: _____]**)
11. (Do not want to receive information)
98. (Don't know)
99. (Refused)

F. Program Satisfaction

Now I am going to ask you some questions about your satisfaction with the Express Energy Efficiency Program.

- F1. How satisfied were you with the process of signing up for your visit, including availability of appointments? Would you say you were: **[READ LIST]**
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not satisfied at all
 98. (Don't know)
 99. (Refused)
- F2. **[IF F1= 3 OR 4]** Could you tell me more about why you were not satisfied?
1. **F2A. [RECORD RESPONSE]**
 98. (Don't know)
 99. (Refused)
- F3. How satisfied were you with the technician that visited you? Would you say you were: **[READ LIST]**
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not satisfied at all
 98. (Don't know)
 99. (Refused)
- F4. **[IF F3 = 3 OR 4]** Could you tell me more about why you were not satisfied?
1. **F4A. [RECORD RESPONSE]**
 98. (Don't know)
 99. (Refused)
- F5. How long did your site visit last? Was it: **[READ LIST]**
1. Less than 45 minutes
 2. 45 minutes – 1 and 1/2 hours
 3. More than 1 and 1/2 hours
 98. (Don't know)
 99. (Refused)

G. LED and CFL Purchases

Now I'd like to ask you about recent light bulb purchases that you've made from retail stores.

- G1. In the last 12 months, approximately how many screw-in CFL bulbs and how many screw-in LED bulbs did you or someone in your household purchase in-store from a retailer? Please try to estimate the total number of **bulbs**, and not packages. Also, please consider only screw-in bulbs purchased from a retail store, and NOT online. [IF NEEDED: By retail store I mean an in-store, retail location of a Costco, hardware store, grocery store, Walmart, etc. and NOT purchased online] (IF "DON'T KNOW," PROBE: Would you say it is less than or more than five bulbs? [WORK FROM THERE TO GET AN ESTIMATE])
- G1a. [RECORD QUANTITY OF SCREW-IN CFL BULBS]
- G1b. [RECORD QUANTITY OF SCREW-IN LED BULBS]
98. (Don't know)
99. (Refused)
- G2. [ASK IF G1A>0] Where are these [QUANTITY FROM G1A] screw-in CFL bulbs being used? Were they purchased to be used in your home or in a business? ["HOME" INCLUDES ANY ASPECT OF A RESIDENTIAL APPLICATION, E.G. INSIDE A HOME, IN A GARAGE, BARN, OUTSIDE A HOME ETC.] [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH APPLICATION THAT APPLIES]
- G2a. [Record quantity for my home]
- G2b. [Record quantity for a business application]
- G2c. [Record quantity for Other]
98. (Don't know)
99. (Refused)
- G3. [ASK IF G2A>0] Of the [QUANTITY FROM G2A] screw-in CFL bulbs purchased for your home from a retail outlet in the past 12 months, how many are currently installed? [NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN CFL BULBS, NOT A RANGE.]
- G3a. [Record quantity of screw-in CFL bulbs]
98. (Don't know)
99. (Refused)

- G4. **[ASK IF G3A>0]** From which retail store(s) did you purchase the screw-in CFL bulbs that are currently installed in your home? **[MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH STORE THAT APPLIES, TOTAL QUANTITY SHOULD EQUAL G3 QUANTITY]**
1. (Ace Hardware)
 2. (Batteries Plus)
 3. (Big Lots)
 4. (Blain's Farm & Fleet)
 5. (Costco)
 6. (Do It Best)
 7. (Dollar General)
 8. (Dollar Tree)
 9. (Express Mart)
 10. (Family Dollar)
 11. (Festival Foods)
 12. (Goodwill)
 13. (Gordy's)
 14. (Habitat Restore)
 15. (Home Depot)
 16. (Lowe's)
 17. (Menards)
 18. (Mill's Fleet Farm)
 19. (Miner's)
 20. (Sams Club)
 21. (True Value)
 22. (United Hardware)
 23. (Walgreens)
 24. (WalMart)
 25. (Woodman's)
 26. (World of Variety)
 27. (Other **[SPECIFY _____]**)
 28. (Did not buy from a retail store)
 98. (Don't know)
 99. (Refused)

- G5. **[ASK IF G1B>0]** Where are these **[QUANTITY FROM G1B]** screw-in LED bulbs being used? Were they purchased to be used in your home or in a business? **[“HOME” INCLUDES ANY ASPECT OF A RESIDENTIAL APPLICATION, E.G. INSIDE A HOME, IN A GARAGE, BARN, OUTSIDE A HOME ETC.] [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH APPLICATION THAT APPLIES]**
- G5a. [Record quantity for my home]
 - G5b. [Record quantity for a business application]
 - G5c. [Record quantity for Other]
 - 98. (Don't know)
 - 99. (Refused)
- G6. **[ASK IF G5A>0]** Of the **[QUANTITY FROM G5A]** screw-in LED bulbs purchased for your home from a retail outlet in the past 12 months, how many are currently installed? **[NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN LED BULBS, NOT A RANGE.]**
- G6a. [Record quantity of screw-in LED bulbs]
 - 98. (Don't know)
 - 99. (Refused)

G7. **[ASK IF G6A>0]** From which retail store(s) did you purchase the screw-in LED bulbs that are currently installed in your home? **[MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH STORE THAT APPLIES, TOTAL QUANTITY SHOULD EQUAL G6 QUANTITY]**

1. (Ace Hardware)
2. (Batteries Plus)
3. (Big Lots)
4. (Blain's Farm & Fleet)
5. (Costco)
6. (Do It Best)
7. (Dollar General)
8. (Dollar Tree)
9. (Express Mart)
10. (Family Dollar)
11. (Festival Foods)
12. (Goodwill)
13. (Gordy's)
14. (Habitat Restore)
15. (Home Depot)
16. (Lowe's)
17. (Menards)
18. (Mill's Fleet Farm)
19. (Miner's)
20. (Sams Club)
21. (True Value)
22. (United Hardware)
23. (Walgreens)
24. (WalMart)
25. (Woodman's)
26. (World of Variety)
27. (Other **[SPECIFY _____]**)
28. (Did not buy from a retail store)
98. (Don't know)
99. (Refused)

H. Customer Demographics

The last few questions are for statistical purposes only.

- H1. What type of fuel does your water heater use?
1. (Natural gas)
 2. (Electricity)
 3. (Propane/Bottled gas)
 4. (Wood)
 5. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
- H2. What type of home do you live in? Is it a: **[READ LIST]**
1. Single-family home, detached house
 2. Attached house (townhouse, row house, or duplex)
 3. Multifamily apartment or condo building with 4 or more units
 4. Mobile/manufactured home
 5. Co-op/retirement community
 6. Other **[SPECIFY: _____]**
 98. (Don't know)
 99. (Refused)
- H3. Do you or members of your household own this home or do you rent? **[DO NOT READ LIST; RECORD ONE ANSWER]**
1. (Own/buying)
 2. (Rent/lease)
 3. (Occupied without payment of rent)
 4. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
- H4. What is the highest level of school that you have completed? **[READ CATEGORIES IF NECESSARY]**
1. Less than ninth grade
 2. Ninth to twelfth grade; no diploma
 3. High school graduate (includes GED)
 4. Some college, no degree
 5. Associates degree
 6. Bachelor's degree
 7. Graduate or professional degree
 98. (Don't know)
 99. (Refused)

H5. Which of the following categories best represents your age? Please stop me when I get to the appropriate category. **[READ LIST]**

1. 18-24
2. 25-34
3. 35-44
4. 45-54
5. 55-64
6. 65-74
7. 75 or older
98. (Don't know)
99. [(Refused)

H6. Which category best describes your total household income in 2014 before taxes? Please stop me when I get to the appropriate category. **[READ LIST]**

1. Less than \$20,000
2. \$20,000, up to \$50,000
3. \$50,000, up to \$75,000
4. \$75,000, up to \$100,000
5. \$100,000, up to \$150,000
6. \$150,000, up to \$200,000
7. \$200,000 or more
98. (Don't know)
99. (Refused)

[CLOSING SCRIPT] Those are all the questions we have. Focus on Energy appreciates your input. Thank you very much for your time.

**Focus on Energy 2015 Interview Guide:
Utility Partners
Express Energy Efficiency Program**

Respondent name:

Respondent phone:

Interview date:

Interviewer initials:

Research Questions	Interview Guide Questions
What changes have occurred since CY2015? What changes are planned?	B.a)-B.b)
How does the Home Energy Score offering interact with program processes? How is the offering promoted to customers? What types of training are provided to implementation field staff on providing this offering?	E.c)
How does the Program operate with utility partners? Has the utility partnership process been effective at engaging participants? What improvements could be made to the utility partnership process?	Sections B-F
What are the barriers to participation and measure retention?	B.i), C.g)-C.j), E.d)
What program successes have been achieved?	B.h), C.c), C.f), E.c)
What opportunities exist for program process improvements?	B.f), C.d)

Thank you for making the time to speak with me. For the CY15 evaluation, Cadmus is conducting in-depth interviews with program stakeholders including the utility partners.

The purpose of these interviews is to make sure we have a thorough understanding of the Program this year. We'll also get your perspective on things that are working well or any areas where you have experienced challenges so far.

A. Introduction

- a) To start, can you give me your title, and describe your responsibilities at your organization?
- b) Please describe your organization's role supporting the Express Energy Efficiency program.
- c) Was this the first time the utility participated in the program? If not, when else has the utility participated?

B. Program Design and Implementation

- a) **[If participated previously]** How did your experience in 2014-15 compare with your previous experience? Had there been any changes to the program since your first participation?
- b) **[If participated previously]** Was there anything different about the utility's role?
- c) What was your organization's primary motivation for participating in the Program?
- d) Did the Program meet your expectations?
- e) How would you describe your relationship with CSG/CLEARResult?
- f) Is there anything you would have changed about the program design (how you communicated with CSG/CLEARResult or how the process was run)? How do you feel about the approach of targeting specific regions for defined periods of time?
- g) How do you feel scheduling and implementation was managed in your area? Why do you say that? Do you see opportunities for improving scheduling or implementation in your area?
- h) What would you say worked particularly well about your partnership with the E3 Program in 2014-15? Why is that?
- i) Did participating in the Program present any challenges to your organization?
- j) Is there any aspect of your role in the Program delivery that you would change if you did it again?

C. Marketing and Outreach

- a) What role did your organization play in marketing the program? (Probe: Identifying target audience, determining proper channel, designing materials or messaging)
- b) What support for Program marketing, if any, did you receive from CSG/CLEARResult? (Probe: Information, marketing design, funding.)
- c) Do you feel that marketing in your area was effective? Why or why not?
- d) What could be done to improve it or what marketing strategies do you hope to implement in the future?
- e) What other marketing strategies or tactics could CSG/CLEARResult implement to reach customers with little experience in energy efficiency?

- f) Do you feel like the program has been successful in introducing customers to energy efficiency? Do you think the program has led customers to take more energy efficient actions?
- g) Have you received any feedback on the measures offered through E3? Would you change anything about the measures that are offered to customers?
- h) What are the main barriers to participation for your customers in the Express Energy Efficiency Program?
- i) Have these barriers been the same over time, or as the market has evolved, have any new barriers emerged?
- j) Do you think the current Program has the resources to address these barriers? If not, what resources do you think the Program needs to address these barriers?

D. Data Tracking

- a) Do you track any data from the program? This might include responses to direct mail campaigns or other advertising, participation rates, customer responses or complaints, or other data.
- b) Do you receive any reports from the program?
- c) Generally, are the current data tracking systems and processes meeting your needs for supporting the Program? Why or why not?
- d) Is there any additional data you would like to receive from the program?

E. Customer Response

- a) Do you have any knowledge of how customers receive the program? Do you receive any feedback from customers on the program? In what way do you receive feedback? **[If not, move to next section.]**
- b) How did customers respond to the program?
- c) What do you think customers liked about the program? (Probe: mention of Home Energy Score?)
- d) What did they not like? Were there any serious or common complaints?
- e) **[If participated before]** Was the customer response different in any way than the previous time you participated?

F. Looking Ahead

- a) If the Program were open to you again, would you participate again? Why or why not?

- b) As you may be aware, the program is currently going through the process of being re-bid. While yet to be determined, certain elements of the program's design and delivery may change. With this in mind, what elements of the current program would like to continue in a new program? What elements of the current program would like to see changed? Do you have any suggestions?

- c) Are there specific topics you are interested in learning more about from our evaluation this year?



Date

Name

Address

City, WI ZIP

Dear Name:

We are writing to request your help in a paid research effort. As you may know, Focus on Energy partners with utilities across Wisconsin to help customers cost-effectively achieve greater energy efficiency through financial incentives and technical support. Your participation will help us better plan for Wisconsin's future energy needs and build on the progress we've made over the past 14 years.

Your household was randomly selected to participate in this two-part research effort which will be conducted by Cadmus, a national energy consulting company hired by the Public Service Commission of Wisconsin. Even if you are not interested in the home visits (Part 2), I hope you will complete the short online survey (Part 1). Please be assured that all information collected will be kept anonymous. Here is how you can help:

Part 1

Complete a short online survey regarding energy use. Please accept the enclosed **\$2 bill** as a token of our appreciation. To access your survey:

Go to: www.focusonenergysurvey.com

Your Survey ID is: **W1234**

Or call: **1-877-932-0618**

Part 2

Meet with a technician at your home three times over the next three years. You will earn a total of **\$300** (\$100 after each visit). During the initial visit, a technician from Cadmus will conduct a walk-through and record the types of lighting, appliances and heating and/or cooling equipment you have. The visit should last about 2 hours, but may vary depending on the size of your home.

Your participation may also involve trying new energy efficient products. Any such products will be provided at no cost to you and will earn you additional monetary reward. There will be no attempt to sell you anything at all.

The opportunity to participate is limited. If you are interested, please register immediately. You can register at the end of the online survey (above), or you can call 1-877-932-0618. If you are selected for this part of the study, we will notify you by July 3rd, 2015. If you wish to verify the legitimacy of this study, please call me at 608-266-0910.

Again, even if you are not interested in the home visits (Part 2), I hope you will complete the short online survey (Part 1). Thank you in advance for your help!

Joe Fontaine

Joe Fontaine
Public Service Commission of Wisconsin

Wisconsin Focus on Energy 2015 General Population Survey

Audience: This survey is designed for Wisconsin residential customers. The primary purpose of this survey is to collect information on awareness, satisfaction, and installation of energy efficient lighting, energy efficient equipment purchases and motivations, recruit for an in-home audit study, and questions for those that recycled a refrigerator and freezer outside of the Focus on Energy program. This survey will be administered through telephone calls and online. Approximately two weeks prior to the survey we mailed potential respondents an introduction letter and an opportunity to complete this survey online or telephone. We have removed respondents that have responded either online or via the inbound call from the outbound call list.

Quota: 500 surveys

Topics	Researchable Questions	Survey Questions
Awareness	Are respondents aware of CFL and LED lighting products?	E1, E2, E12
Penetration	What percent of households have one or more CFLs installed? What percent of households have one or more LEDs installed?	E3, E13
Sales to Business Customers	What percent of CFLs and LEDs are going to businesses? What type of business are they going to?	E6, E8, E9, E10, E14, E16, E17, E18
Satisfaction with CFLs and LEDs	How satisfied are residents with their CFLs and LEDs? What do they like or dislike about them? What technology do they prefer?	E5, E11, E19-E24
Focus on Energy Programs	Are respondents aware of the Focus lighting programs? How did they hear about it?	G1, G2, G3
Appliance Recycling	Are respondents aware of the Focus Appliance Recycling Program? If they installed a refrigerator or freezer, why didn't they participate in the program? What did they do with the working appliance? Is the replacement an ENERGY STAR appliance?	F1-F10
Participant Decisions	What actions are residents taking to save energy? Did they receive a rebate from Focus on Energy? How influential was Focus on Energy in their decision to install the equipment?	Section H
Recruitment	Are they interested in participating in on-site study?	Section I
Demographics	How do awareness /activities/ behaviors vary by demographic characteristics?	Section J

- Interviewer instructions are in green.
- CATI programming instructions are in red.
- Response choices in parenthesis should not be read
- Questions with an * are core Focus questions, which were asked in the CY 2013 evaluation and may be included in some program-specific surveys for CY 2015.

[SECTION A IS FOR ONLINE PARTICIPANTS ONLY]

A. Introduction [ONLINE]



Welcome!

Thank you in advance for helping with this important survey.

Please enter your survey ID into the box
and click the arrow below.

If you need any assistance, please call 1-877-932-0615.

[SKIP TO SECTION E]

[SECTION B IS FOR INBOUND PHONE CALLS ONLY]

B. Introduction [INBOUND PHONE CALLS]

- B1. Thank you for contacting us. Focus on Energy is seeking your opinions in an important lighting study among residential customers in Wisconsin. The purpose of this study is to establish customer awareness of lighting options and changes in the lighting market. The results of the study will be used in planning for future energy needs in Wisconsin. **[SKIP TO SECTION E]**

[IF NEEDED: Focus on Energy offers energy-efficiency and renewable energy programs that help customers save money on their utility bills. This survey helps them evaluate and improve their programs.]

[IF NEEDED:] I am not selling anything, we are interested in your opinions to help improve our programs, and understand how to assist customers in saving money on their utility bills. Your response will remain confidential.”]

[IF CUSTOMER IS WARY OF THE SURVEY, REASSURE THEM THAT YOU ARE NOT SELLING ANYTHING. IF NECESSARY Joe Fontaine with the Public Service Commission of Wisconsin, 608-266-0910 CAN BE CONTACTED TO CONFIRM VALIDITY OF THE STUDY.]

[SECTION C IS FOR OUTBOUND PHONE CALLS ONLY]

C. Introduction [OUTBOUND PHONE CALLS]

- C1. Hello, my name is [NAME], calling on behalf of Focus on Energy. We recently sent you a letter about a survey we're conducting. Do you remember receiving that letter? [DO NOT READ]
1. (Yes – I have not had time to complete the survey)
 2. (Yes – I have already submitted the online/mail in survey)
 3. (No)
 99. (Don't know) [ASK TO SPEAK WITH SOMEONE WHO KNOWS AND BEGIN AGAIN.]
 88. (Prefer not to say) [THANK AND TERMINATE]

[IF C1 = 1]

- C2. Great. We would like to ask you a few questions about different types of lighting. The survey should only take between 10 and 15 minutes, and your responses will remain confidential. [SKIP TO E1] [IF NEEDED: Do you have time to answer our questions now or should we schedule a time to call back and complete the survey?]

[IF C1 = 2]

- C3. Great. Thank you so much for your participation in this effort. Your submission had not made it into my system yet. I will take you off this call list. Have a good day. [THANK AND TERMINATE; MARK AS MAILED IN SURVEY; REMOVE FROM CALL LIST]

[IF C1 = 3 OR 99]

- C4. I'm sorry you didn't receive that letter. The letter invited you to respond to a survey Focus on Energy is conducting with Wisconsin residents to help improve their energy efficiency programs. We can do the survey right now on the phone if you are able, and it should only take 10 minutes.

Back-up information, not to be programmed:

[If "No – Not a convenient time," ask if Respondent would like to arrange a more convenient time for us to call them back or if you can leave a message for that person.]

[IF NEEDED:] Focus on Energy is Wisconsin utilities' statewide energy efficiency and renewable energy program.

[IF RESPONDENT ASKS HOW LONG, SAY: "APPROXIMATELY 10 to 15 MINUTES."]

[IF NEEDED:] I am not selling anything, we are interested in your opinions to help improve our programs, and understand how to assist customers in saving money on their utility bills. Your response will remain confidential."]

[IF CUSTOMER IS WARY OF THE SURVEY, REASSURE THEM THAT YOU ARE NOT SELLING ANYTHING. IF NECESSARY Joe Fontaine with the Public Service Commission of Wisconsin, 608-266-0910 CAN BE CONTACTED TO CONFIRM VALIDITY OF THE STUDY.]

[ASK EVERYONE]

D. Familiarity with Focus on Energy

- D1. Before you received the letter, were you familiar with Focus on Energy?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Prefer not to say)

[IF D1=2 OR 4 AND HAVEN'T ALREADY STATED, READ] Focus on Energy offers energy-efficiency programs that help customers save money on their utility bills. This survey helps them evaluate and improve their programs.

[ASK EVERYONE]

E. CFL and LED Usage

- E1. Before today, had you heard of a type of energy efficient light bulb called a “compact fluorescent light bulb”, or CFL, for short?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Prefer not to say)

[ASK IF E1 = 2, 99, OR 88]

- E2. Compact fluorescent light bulbs – also known as CFLs – usually do not look like regular incandescent light bulbs. The most common type of CFL has a spiral shape, resembling soft-serve ice cream, and it fits in a regular light bulb socket. Before today, have you heard of CFLs?
1. (Yes)
 2. (No) **[SKIP TO E12]**
 99. (Don't know) **[SKIP TO E12]**
 88. (Prefer not to say) **[SKIP TO E12]**
- E3. Do you currently have one or more CFLs installed in your home?
1. (Yes) **[SKIP TO E6]**
 2. (No)
 99. (Don't know) **[SKIP TO E6]**
 88. (Prefer not to say) **[SKIP TO E6]**

[ASK IF E3 = NO]

- E4. Have you previously had CFLs installed in your home?
1. (Yes)
 2. (No) **[SKIP TO E6]**
 99. (Don't know) **[SKIP TO E6]**
 88. (Prefer not to say) **[SKIP TO E6]**

[ASK IF E4= YES]

- E5. Why do you no longer have CFLs installed?
1. [RECORD RESPONSE]
 99. (Don't know)
 88. (Prefer not to say)

- E6. Have you purchased any CFLs for either home or business use during the last 12 months?
1. (Yes)
 2. (No) [SKIP TO E11]
 99. (Don't know) [SKIP TO E11]
 88. (Prefer not to say) [SKIP TO E11]

[ASK IF E6 = 1]

- E7. About how many CFLs have you purchased in the last 12 months?
1. [RECORD RESPONSE]
 99. (Don't know) [SKIP TO E11]
 88. (Prefer not to say) [SKIP TO E11]

- E8. Were the [QTY from E7] CFLs you purchased in the last year for use in a home, business, or both?
1. (Home) [SKIP TO E11]
 2. (Business) [SKIP TO E10]
 3. (Some for Home and some for Business)
 99. (Don't know) [SKIP TO E11]
 88. (Prefer not to say) [SKIP TO E11]

[ASK IF E8 = 3]

- E9. About how many of the [QTY from E7] CFLs you purchased were for use in a home and how many were for a business?
1. [RECORD ANSWER] for home
 2. [RECORD ANSWER] for business
 99. (Don't know)
 88. (Prefer not to say)

[ASK IF E8 = 2 OR 3]

- E10. What type of business were these CFLs purchased for? [READ LIST]
1. Warehouse
 2. Office
 3. Medical
 4. Retail
 5. School/Education
 6. Industrial
 7. Grocery
 8. Restaurant/Food Service
 9. Public Assembly/Church
 10. Government
 11. Agricultural
 12. Other (specify)

General Population Survey

- 99. (Don't know)
- 88. (Prefer not to say)

[IF E3 = YES, OR E4= YES; ELSE, SKIP TO E12]

- E11. In general, how satisfied are you with CFLs? Would you say ... [READ LIST]
- 1. Very satisfied
 - 2. Somewhat satisfied
 - 3. Not too satisfied
 - 4. Not at all satisfied
 - 99. (Don't know)
 - 88. (Prefer not to say)

[ASK IF E11=3 OR 4]

- E12. Why would you say you are [INSERT ANSWER FROM E11] with CFLs? [DO NOT READ LIST AND RECORD ALL THAT APPLY] [DISPLAY LIST FOR INBOUND AND OUTBOUND PHONE SURVEY. DO NOT DISPLAY FOR MAIL OR ONLINE SURVEY. ASK AS OPEN END.]
- 1. (Bulbs are too bright)
 - 2. (Bulbs are not bright enough)
 - 3. (Delay in light coming on)
 - 4. (Did not work with dimmer/3-way switch)
 - 5. (Didn't fit properly)
 - 6. (Stuck out of fixture)
 - 7. (Light color)
 - 8. (Too expensive)
 - 9. (Concerned about mercury)
 - 10. (Replaced with LEDs for better efficiency)
 - 11. (Other) [SPECIFY}
 - 99. (Don't know)
 - 88. (Prefer not to say)

- E13. Another type of light bulb that is used in homes is called an L-E-D (SAY THE LETTERS L-E-D). These bulbs have regular screw bases that fit into most sockets. [IF NEEDED: LEDs have historically been used for nightlights, flashlights, and holiday lights. However, we are not asking about these types of LEDs.] . Before today, had you heard of LEDs that can be used in regular, screw based light sockets?
- 1. (Yes)
 - 2. (No) [SKIP TO F1]
 - 99. (Don't know)
 - 88. (Prefer not to say)

[ASK IF E13=1]

- E14. Do you currently have one or more screw-based LED light bulbs installed in your home?
- 1. (Yes)
 - 2. (No)
 - 99. (Don't know)
 - 88. (Prefer not to say)

General Population Survey

- E15. Have you purchased any screw-based LEDs for either for home or business use during the last 12 months?
1. (Yes)
 2. (No) [SKIP TO E20]
 99. (Don't know) [SKIP TO E20]
 88. (Prefer not to say) [SKIP TO E20]

[ASK IF E15 = 1]

- E16. About how many screw-based LEDs have you purchased in the last 12 months?
1. [RECORD ANSWER]
 99. (Don't know) [SKIP TO E20]
 88. (Prefer not to say) [SKIP TO E20]

- E17. Were the [QTY from E16] LEDs you purchased in the last year, for use in a home, business, or both?
1. (Home) [SKIP TO E20]
 2. (Business) [SKIP TO E19]
 3. (Some for Home and some for Business)
 99. (Don't know) [SKIP TO E20]
 88. (Prefer not to say) [SKIP TO E20]

[ASK IF E17 =3]

- E18. About how many of the [QTY from E16] LEDs you purchased in the last year were for use in a home and how many were for a business?
1. [RECORD ANSWER] for home
 2. [RECORD ANSWER] for business
 99. (Don't know)
 88. (Prefer not to say)

[ASK IF E17=2 OR 3]

- E19. What type of business were these LEDs purchased for? [READ LIST]
1. Warehouse
 2. Office
 3. Medical
 4. Retail
 5. School/Education
 6. Industrial
 7. Grocery
 8. Restaurant/Food Service
 9. Public Assembly/Church
 10. Government
 11. Agricultural
 12. Other (specify)
 99. (Don't know)
 88. (Prefer not to say)

[IF E14=YES OR E15=YES]

- E20. In general, how satisfied are you with your LEDs? Would you say... [READ LIST]
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 99. (Don't know)
 88. (Prefer not to say)

[ASK IF E15=YES]

- E21. Why did you purchase LEDs, instead of CFLs or other technologies? [ACCEPT MULTIPLE; DO NOT READ LIST] [DISPLAY LIST FOR INBOUND AND OUTBOUND PHONE SURVEY. DO NOT DISPLAY FOR MAIL OR ONLINE SURVEY. ASK AS OPEN END]
1. (They were on sale)
 2. (To try a new technology)
 3. (I saw / heard an advertisement)
 4. (I don't like CFLs)
 5. (They were on an endcap/special store display)
 6. (Couldn't find the bulb I was looking for)
 7. (LEDs save more energy than CFLs)
 8. (LEDs save more money on utility bills than CFLs)
 9. (Good quality)
 10. (Brightness)
 11. (Long-lasting (do not have to change bulbs often))
 12. (Variety of shapes/sizes available)
 13. (Cost (less expensive than other options))
 14. (looking for wi-fi capable or able to control via phone or tablet)
 15. (Other: Specify)
 16. (Do not like anything about them)
 99. (Don't know)
 88. (Prefer not to say)

[IF E14=YES OR E15=YES]

- E22. What do you like about LEDs? [ACCEPT MULTIPLE; DO NOT READ LIST] [DISPLAY LIST FOR INBOUND AND OUTBOUND PHONE SURVEY. DO NOT DISPLAY FOR MAIL OR ONLINE SURVEY. ASK AS OPEN END]
1. (Save energy)
 2. (Save money on bills)
 3. (Good quality)
 4. (Brightness)
 5. (Long-lasting (do not have to change bulbs often))
 6. (Variety of shapes/sizes available)
 7. (Cost (less expensive than other options))
 8. (Other: Specify)
 9. (Do not like anything about them)
 99. (Don't know)
 88. (Prefer not to say)

[IF E14=YES OR E15=YES]

E23. What do you dislike about LEDs? [ACCEPT MULTIPLE; DO NOT READ LIST] [DISPLAY LIST FOR INBOUND AND OUTBOUND PHONE SURVEY. DO NOT DISPLAY FOR MAIL OR ONLINE SURVEY. ASK AS OPEN END]

1. (Price)
2. (Poor light color)
3. (Poor light output)
4. (Not bright enough)
5. (Too bright)
6. (Slow to turn on/warm up/brighten)
7. (Flicker)
8. (Buzz)
9. (Shorter bulb life than promised)
10. (Other: [Specify])
11. (There is nothing I dislike about them)
99. (Don't know)
88. (Prefer not to say)

[ASK IF E3 OR E4 = Yes AND E14 OR E15= Yes]

E24. Thinking about CFLs and LEDs, would you say that you [READ LIST]

1. Prefer CFLs over LEDs,
2. Prefer LEDs over CFLs,
3. Are not sure which bulb type you prefer, or
4. Depends on the type of fixture or location?
99. (Don't know) [SKIP TO F1]
88. (Prefer not to say) [SKIP TO F1]

E25. Why do you say that?

1. [RECORD RESPONSE]
99. (Don't know)
88. (Prefer not to say)

F. Appliance Disposal

Now we have a few questions about appliances.

F1. Have you discarded, recycled, or gotten rid of at least one *working* refrigerator or free-standing freezer in your home during the past few years?

1. (Yes)
2. (No) [SKIP TO NEXT SECTION]
99. (Don't know) [SKIP TO NEXT SECTION]
88. (Prefer not to say) [SKIP TO NEXT SECTION]

- F2. Focus on Energy's Appliance Recycling Program provides an incentive to remove and recycle inefficient refrigerators and freezers. Did you use that program to get rid of your appliance?
1. (Yes) [SKIP TO NEXT SECTION]
 2. (No)
 99. (Don't know) [SKIP TO NEXT SECTION]
 88. (Prefer not to say) [SKIP TO NEXT SECTION]
- F3. How many [APPLIANCE] did you get?
1. Refrigerators (F3r)
 2. Free standing freezers (F3f)
 99. (Don't know)
 88. (Prefer not to say)
- F4. OMIT (NUMBERING WAS ADJUSTED IN THE ONLINE SURVEY)
- F5. Thinking about the [INSERT REFRIGERATOR OR FREEZER BASED ON ANSWER FROM F4] that you got rid of, what was the condition of this appliance? Would you say...? [READ LIST, MARK ONLY ONE RESPONSE] [IF REFRIGERATOR THEN CODED AS F5R AND IF FREEZER THEN CODED AS F5F]
1. It worked and was in good physical condition
 2. It worked but needed minor repairs such as the door seal or handle
 3. It worked but had some problems such as it wouldn't defrost
 4. It didn't work [SKIP TO NEXT SECTION]
 99. (Don't know) [SKIP TO NEXT SECTION]
 88. (Prefer not to say) [SKIP TO NEXT SECTION]
- F6. How did you get rid of your old appliance? [IF REFRIGERATOR THEN CODED AS F6R AND IF FREEZER THEN CODED AS F6F]
1. Took it to a recycler or scrap dealer
 2. Took it to the dump or threw it away
 3. Sold it to a friend, acquaintance, or relative
 4. Sold it to a used refrigerator/freezer dealer
 5. Sold it via garage sale, estate sale, or newspaper ad
 6. Sold it to the new occupant when you moved
 7. Gave it away to a friend or family member
 8. Left it out on the curb with a "free" sign on it
 9. Left it out on the curb for the city to pick up
 10. Hired someone to pick it up for junking or dumping
 11. Taken away by the Dealer I bought a new one from
 12. Left it behind for a new occupant when you moved
 13. Something else [SPECIFY]
 99. (Don't know)
 88. (Prefer not to say)

[ASK IF F6=1, 2, 10, 11]

F7. How much did you have to pay to get rid of the [INSERT REFRIGERATOR OR FREEZER BASED ON ANSWER TO F4]? [IF REFRIGERATOR THEN CODED AS F7R AND IF FREEZER THEN CODED AS F7F]

1. [RECORD NUMERIC RESPONSE] [ROUND TO NEAREST DOLLAR] [ENTER 0 IF NOTHING]

99. (Don't know)

88. (Prefer not to say)

F8. Did you receive a rebate or incentive to get rid of [REFRIGERATOR OR FREEZER FROM F4]? [IF REFRIGERATOR THEN CODED AS F8R AND IF FREEZER THEN CODED AS F8F]

1. (Yes)

2. (No)

99. (Don't know)

88. (Prefer not to say)

F9. Did you replace the appliance you got rid of?

1. (Yes)

2. (No) [SKIP TO NEXT SECTION]

99. (Don't know) [SKIP TO NEXT SECTION]

88. (Prefer not to say) [SKIP TO NEXT SECTION]

F10. Is the appliance you replaced it with ENERGY STAR labeled? [IF NEEDED: ENERGY STAR products are independently certified to save energy without sacrificing features or functionality. If your appliance was ENERGY STAR labeled this would be indicated on the product tag.]

1. (Yes)

2. (No)

99. (Don't know)

88. (Prefer not to say)

G. Focus on Energy Programs

G1. *Have you heard of the Focus on Energy Residential Lighting Program? This program rebates high efficiency lighting through retailers throughout Wisconsin.

1. (Yes)

2. (No)

99. (Don't know)

88. (Prefer not to say)

G2. Have you heard of the Focus on Energy Home Performance with ENERGY STAR? This program provides a home energy audit and rebates on energy-saving improvements.

1. (Yes)

2. (No)

99. (Don't know)

88. (Prefer not to say)

[ASK IF G1=1 OR G2=1; ELSE SKIP TO NEXT SECTION]

G3. *Where did you most recently hear about the Focus on Energy programs? [DO NOT READ LIST, RECORD ONE ANSWER] [DISPLAY LIST FOR INBOUND AND OUTBOUND PHONE SURVEY. DO NOT DISPLAY FOR ONLINE SURVEY. ASK AS OPEN END]

1. (Television)
2. (Radio)
3. (Print media (magazine, newspaper article or advertisement))
4. (Billboard/outdoor ad)
5. (Bill insert)
6. (Direct mail/brochure/postcard)
7. (Family/friends/word-of-mouth)
8. (Focus on Energy or Utility website)
9. (Other website [SPECIFY: _____])
10. (Email)
11. (Social Media)
12. (Focus on Energy or Utility representative)
13. (Contractor)
14. (Realtor, home builder)
15. (Retail stores)
16. (Home/trade shows)
17. (Sporting or community event)
18. (Other, [SPECIFY: _____])
99. (Don't know)
88. (Prefer not to say)

[ASK EVERYONE]

H. Nonparticipant Spillover

Now, we have we have a few questions about energy efficient improvements or energy efficient equipment that might affect your home's energy use.

Number	Measure	<p>H1. In the past year, did you install any of the following items in your home?</p> <p>Yes=measure number in far left corner</p>	<p>[ASK FOR EACH ITEM WHERE H1=1]</p> <p>H2. Did you receive a rebate from Focus on Energy for this purchase?</p> <p>1=Yes 2=No 3=Don't know 4=Prefer not to say</p>	<p>[ASK FOR EACH ITEM WHERE H1=1]</p> <p>H3.. How influential was information from Focus on Energy in your decision to install this equipment?</p> <p>1= Not at all influential 2= Not very influential 3= Somewhat influential 4= Very influential 5=Don't know 6=Prefer not to say</p>
1	High-efficiency Boiler (a)			
2	High-efficiency Furnace (b)			
3	Ground Source Heat Pump (c)			
4	Heat Pump (d)			
5	ENERGY STAR Clothes Washer (e)			
6	ENERGY STAR Freezer (f)			
7	ENERGY STAR Refrigerator (g)			
8	Attic insulation (h)			
9	Wall insulation (i)			
10	High-Efficiency Water Heater (j)			
11	Water Heater Pipe Insulation (k)			

Number	Measure	<p>H1. In the past year, did you install any of the following items in your home?</p> <p>Yes=measure number in far left corner</p>	<p>[ASK FOR EACH ITEM WHERE H1=1]</p> <p>H2. Did you receive a rebate from Focus on Energy for this purchase?</p> <p>1=Yes 2=No 3=Don't know 4=Prefer not to say</p>	<p>[ASK FOR EACH ITEM WHERE H1=1]</p> <p>H3.. How influential was information from Focus on Energy in your decision to install this equipment?</p> <p>1= Not at all influential 2= Not very influential 3= Somewhat influential 4= Very influential 5=Don't know 6=Prefer not to say</p>
12	High-Efficiency Showerhead (l)			
13	High-Efficiency Faucet aerator (m)			
14	Solar Panels (n)			
15	<p>Any other energy-efficient or renewable equipment or products?</p> <p>[SPECIFY] (o)</p>			
16	Did not install anything			
17	Don't know			
18	Prefer not to say			

I. Demographics

Next are a few questions for statistical purposes only.

11. *What type of home do you live in? Is it a: **[READ LIST]**
1. Single-family home, detached house
 2. Attached house (townhouse, row house, or duplex)
 3. Multifamily apartment or condo building with 4 or more units
 4. Mobile/manufactured home
 5. Co-op/retirement community
 6. Other **[SPECIFY: _____]**
 99. (Don't know)
 88. (Prefer not to say)
12. *Do you or members of your household own this home or do you rent? **[DISPLAY LIST FOR INBOUND AND OUTBOUND PHONE SURVEY. DO NOT DISPLAY FOR ONLINE SURVEY. ASK AS OPEN END]**
1. (Own/buying)
 2. (Rent/lease)
 3. (Occupied without payment of rent)
 4. (Other **[SPECIFY: _____]**)
 99. (Don't know)
 88. (Prefer not to say)
13. Do you plan on moving in the next two to three years?
1. Yes
 2. No
 3. Maybe
 99. (Don't know)
 88. (Prefer not to say)
14. *What is the highest level of school that someone in your home has completed? **[READ CATEGORIES, IF NECESSARY]**
1. Less than ninth grade
 2. Ninth to twelfth grade; no diploma
 3. High school graduate; includes GED
 4. Some college, no degree
 5. Associates degree
 6. Bachelor's degree
 7. Graduate or professional degree
 99. (Don't know)
 88. (Prefer not to say)

15. * Which category best describes your total household income in 2014 before taxes? **[PHONE ONLY: Please stop me when I get to the appropriate category.]**

1. Less than \$20,000
2. \$20,000, up to \$50,000
3. \$50,000, up to \$75,000
4. \$75,000, up to \$100,000
5. \$100,000, up to \$150,000
6. \$150,000 up to \$200,000
7. \$200,000 or more
99. (Don't know)
88. (Prefer not to say)

J. Recruitment

Wisconsin Focus on Energy is conducting a multi-year study to gather information that will be used to evaluate and improve their energy efficiency programs. We are looking for households that are willing and able to allow a trained technician to walk through your home and record the types of lighting, appliance and mechanical products and equipment in your home.

You will earn a total of \$300 (\$100 after each visit) and there will be no attempt to sell you anything at all. The initial visits are going to take place in July and August and should last about 2 hours, depending on the size of your home.

Your participation may also involve trying new energy efficient products. Any such products will be provided at no cost to you and will earn you additional monetary reward. Again, there will be no attempt to sell you anything.

The opportunity to participate is limited. If you are interested, please register on the next screen. If you are selected for this part of the study, we will notify you by July 3rd, 2015. If you wish to verify the legitimacy of this study, please call 608-266-0910.

J1. Would you be interested in being a part of this study?

1. (Yes) **[SKIP TO J3]**
2. (No) If you change your mind please contact us at 877-932-0615 **[SKIP TO CLOSING]**
3. (I have more questions) **[GO TO FAQs BELOW AND THEN ASK AGAIN]**

J2. Below are answers to some frequently asked questions:

What's in it for me and how long will this take?

We are offering a total of \$300 (\$100 after each visit). The visits should last about two hours, depending on the size of your home.

What does the visit involve?

Technicians will walk around your home and count the various types of lighting products you have installed, as well as inventory the homes appliances, electronics, and mechanical equipment.

Who are you?

The Cadmus Group, Inc. and Nexant are consulting firms. We have been hired by Focus on Energy to perform this study.

What is the purpose of this study?

The purpose of the study is to gather information that will be used by Focus on Energy as a guide and will help them improve their energy efficiency programs and help customers save money.

How do I know you are legitimate?

Focus on Energy is sponsoring this program and study. If you would like to contact Focus on Energy to confirm, the contact person is Joe Fontaine with the Public Service Commission of Wisconsin, 608-266-0910.

What is the next step?

If you are selected for the study, we will contact you by July 3rd to schedule a site visit and to answer any remaining questions you may have.

Would you be interested in being a part of this study?

1. (Yes) [SKIP TO J3]
2. (No) If you change your mind, please feel free to contact us at 877-932-0615
[SKIP TO CLOSING]

J3. Great, I just need to get some contact information from you so we can call and schedule a visit. What is your....

1. First and Last Name? [RECORD]
2. Preferred Phone number? [RECORD]
3. Alternate Phone Number [RECORD]
4. Email Address? [RECORD or 88 IF PREFER NOT TO SAY]
5. Home Address 1? [RECORD]
6. Home Address 2? [RECORD]
7. City [RECORD]
8. State [RECORD]
9. ZIP Code [RECORD]

CLOSING SCRIPT:

Thank you very much for your time. Focus on Energy appreciates your input. You may close the browser.

WISCONSIN FOCUS ON ENERGY
Home Performance with ENERGY STAR (Reward Level 1) / Assisted Home
Performance with ENERGY STAR (Reward Level 2)
Participant Survey 2015

Researchable Questions	Question
What are the barriers to expanding customer participation, and how effectively does the Program overcome those barriers?	Section C, Section D
Are Trade Allies actively and effectively promoting the Program?	C1, D1, E3 – E12, G4-G10
Is the Program’s marketing strategy effective? Are trade allies cross-promoting the Residential and Enhanced Rewards programs	C1, D1, E11-E13
What is the level of customer satisfaction with the Program?	Section H
Is the Program successfully capturing all opportunities for energy and demand savings?	Sections G, I, J, K
Are audit reports effectively driving customers to do projects, or to do larger projects?	E5-E9, E11, G9-G13
What is the NTG ratio for insulation and air sealing measures?	Sections J and K
What is the installation rate for all DI measures?	Section I
How does the customer experience differ between Level I and Level II?	All questions – compare HP responses to AHP responses

- Interviewer instructions are in green.
- CATI programming instructions are in red.
- Response choices in parenthesis should not be read
- Questions with an * are core Focus questions

Audience: This survey is for customers who participated in Home Performance with Energy Star Program in 2015.

Quotas: Random sample: 60 for HP Retrofits, 50 HP Audit-Only, and 50 for Assisted Retrofits and Audits (Reward Level II)

Program	PGM	TYPE	Target
Home Performance Retrofit Participants	HP	RTRO	60
Home Performance Audit Only Participants	HP	AO	50
Assisted Home Performance Participants	AHP	RTRO and AO	50
Total			160

Sample Fields:

[MEASURE1], [MEASURE2], etc.
[CFL_QUANTITY]
[LED_QUANTITY]
[FA_QUANTITY]
[SH_QUANTITY]
[PART_DATE]
[PGM]
[TYPE] Either RTRO or AO – retrofit or audit-only
[UTILITY]

A. Introduction

- A1. Hello, my name is [FIRST NAME], and I am calling on behalf of Focus on Energy to follow up with you about your recent participation in Home Performance with ENERGY STAR. Are you the best person to talk to about your household's experience with the program?
1. [IF YES] Thank you. Your answers to these questions are confidential and will only be used for research purposes.
 2. [IF NO] Can I speak to someone in your home who was involved and is familiar with that work?
99. (Don't know) [ASK TO SPEAK WITH SOMEONE ELSE]
88. (Refused) [THANK AND TERMINATE]

[IF CUSTOMER DOES NOT RECALL, SAY: TO REFRESH YOUR MEMORY, THIS WAS THE PROGRAM WHERE AN ENERGY AUDITOR OR CONTRACTOR CAME TO YOUR HOME AND DID A SEVERAL HOUR INSPECTION AND ANALYSIS THAT IDENTIFIED THE BEST WAYS TO INCREASE YOUR HOME’S ENERGY EFFICIENCY. YOU MAY HAVE ALSO INSTALLED INSULATION OR SEALED AND WEATHERIZED YOUR HOME. DOES THIS SOUND FAMILIAR?]

[IF THE RESPONDENT SAYS THAT THEY HAVE ALREADY BEEN CONTACTED BY THE PROGRAM VIA AN EMAIL/ONLINE SURVEY OR A POSTCARD SURVEY, THE FOLLOWING RESPONSE SHOULD BE PROVIDED: “FOCUS ON ENERGY FOLLOWS UP WITH EACH PARTICIPANT TO ENSURE THAT IT HAS MET ITS HIGH CUSTOMER SERVICE STANDARDS THROUGH A BRIEF ONLINE OR POSTCARD QUESTIONNAIRE. THE SURVEY THAT I AM CALLING ABOUT NOW EXPLORES ADDITIONAL QUESTIONS TO HELP IMPROVE THE PROGRAM’S OFFERINGS.”]

[IF TRANSFERRED TO ANOTHER PERSON REPEAT INTRO. IF NO ONE REMEMBERS THE PROGRAM OR IS AVAILABLE THEN THANK AND TERMINATE]

[IF “NO – NOT A CONVENIENT TIME,” ASK IF RESPONDENT WOULD LIKE TO ARRANGE A MORE CONVENIENT TIME FOR US TO CALL THEM BACK.]

[IF RESPONDENT ASKS HOW LONG, SAY: “APPROXIMATELY 20 MINUTES.”]

[IF NEEDED:] DATA GATHERED FROM THESE SURVEYS HELP FOCUS ON ENERGY DESIGN PROGRAMS THAT HELP CUSTOMERS SAVE MONEY ON THEIR UTILITY BILLS BY SAVING ENERGY IN THEIR HOMES.

[ONLY IF ASKED FOR A FOCUS ON ENERGY CONTACT TO VERIFY THE SURVEY AUTHENTICITY, OFFER JOE FONTAINE WITH THE PUBLIC SERVICE COMMISSION OF WISCONSIN, 608-266-0910

[TERMINATION SCRIPT: “THOSE ARE ALL THE QUESTIONS WE HAVE FOR YOU. THANK YOU VERY MUCH FOR YOUR TIME.”]

[TERMINATION SCRIPT: THOSE ARE ALL THE QUESTIONS WE HAVE FOR YOU. THANK YOU VERY MUCH FOR YOUR TIME.”]

B. Verification

B1. I'd like to verify what energy-saving improvements you made through the program. Can you please confirm that a contractor installed the following equipment in your home: **[READ MEASURE(S) FROM SAMPLE DATA]? [ONLY SHOW MEASURES FROM SAMPLE AND RECORD YES OR NO FOR EACH.]**

[1=YES, 2=NO, 99=DON'T KNOW, AND 88=REFUSED] [IF NO TO ALL THEN THANK AND TERMINATE]

1. (Building Shell Insulation)
 - a. [ASK: Was that insulation in the attic, walls, foundation, or the crawlspace? **[IF NEEDED: The crawlspace is sometimes called the sill box. IF RESPONDENT SAYS WATER HEATER PIPES, PLEASE INDICATE OPTION 7, "INSULATION FOR WATER HEATER PIPE", AND DO NOT INDICATE BUILDING SHELL INSULATION.]**
 - i. Attic
 - ii. Wall
 - iii. Foundation
 - iv. Sill box/crawlspace
2. (Air sealing – this might be anywhere in your home where the contractor sealed up areas where air was leaking)
3. (CFLs – these are energy-saving light bulbs usually with a twisted shape)
4. (LEDs – these lightbulbs may look like traditional bulbs but are much heavier)
5. (Faucet aerators – these are attachments to your faucet that save water)
6. (High-efficiency showerheads)
7. (Insulation for water heater pipe)
8. (Water heater)
9. (Water heater turn down)
99. (Don't know)
88. (Refused)

B2. Did you make any other energy-saving improvements as part of the project, aside from the ones I just listed? **[DO NOT READ LIST, RECORD ALL THAT APPLY] [DISPLAY ONLY ANSWERS NOT SELECTED ABOVE]**

1. (Building Shell Insulation)
 - B2a. [ASK: Was that insulation in the attic, walls, foundation, or the crawlspace? **[IF NEEDED: The crawlspace is sometimes called the sill box. IF RESPONDENT SAYS WATER HEATER PIPES, PLEASE INDICATE OPTION 7, "INSULATION FOR WATER HEATER PIPE", AND DO NOT INDICATE BUILDING SHELL INSULATION.]**
 - i. Attic
 - ii. Wall
 - iii. Foundation
 - iv. Sill box/crawlspace
2. (Air sealing – this might be anywhere in your home where the Trade Ally sealed up areas where air was leaking)
3. (CFLs – these are energy-saving light bulbs usually with a twisted shape)
4. (LEDs - these lightbulbs may look like traditional bulbs but are much heavier)
5. (Faucet aerators – these are attachments to your faucet that save water)
6. (High-efficiency showerheads)
7. (Insulation for water heater pipe)
8. (Water heater)

- 9. (HVAC: furnace, boiler, air conditioner, duct sealing)
- 10. (Other [SPECIFY: _____])
- 99. (Don't know)
- 88. (Refused)

B3. **Thank you. Because we value your time, we would like to offer you a \$20 gift card for completing this survey. Do you have 20 minutes to continue?** [IF YES, "THANK YOU FOR AGREEING TO PARTICIPATE." IF NO: "THANK YOU FOR YOUR TIME. HAVE A NICE DAY/EVENING."]

C. Home Performance with ENERGY STAR (Reward Level 2) Awareness

[ASK Section C IF PGM=AHP]

C1. *Where did you most recently hear about the Home Performance with ENERGY STAR program, offered by Focus on Energy? [DO NOT PROMPT - ONE ANSWER ONLY]

- 1. (Television)
- 2. (Radio)
- 3. (Print media (magazine, newspaper article or advertisement))
- 4. (Billboard/outdoor ad)
- 5. (Bill insert)
- 6. (Direct mail/brochure/postcard)
- 7. (Family/friends/word-of-mouth)
- 8. (Focus on Energy or Utility website)
- 9. (Other website [SPECIFY: _____])
- 10. (Email)
- 11. (Social Media)
- 12. (Focus on Energy or Utility representative)
- 13. (Contractor)
- 14. (Realtor, home builder)
- 15. (Retail stores)
- 16. (Home/trade shows)
- 17. (Sporting or community event)
- 18. (Other, [SPECIFY: _____])
- 99. (Don't know)
- 88. (Refused)

C2. Our records show that you received a higher incentive amount because you qualified for Reward Level 2 incentives [IF NEEDED: This reward level is qualified through an income eligibility application]. Before today, were you aware that you received higher incentives?

- 1. (Yes)
- 2. (No)
- 99. (Don't know)
- 88. (Refused)

- C3. **[ASK IF C2=1]** Were you interested in the Home Performance with ENERGY STAR incentives before you learned about the higher incentives you could receive?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)
- C4. How were you informed that you qualified for the higher Reward Level 2 incentives?
1. **[RECORD RESPONSE]**
 99. (DON'T KNOW)
 88. (REFUSED)

[SKIP TO D3]

D. Home Performance with ENERGY STAR (Reward Level I) Awareness

[ASK D1 and D2 IF PGM=HP]

- D1. *Where did you most recently hear about Focus on Energy's Home Performance with ENERGY STAR Program? **[DO NOT READ LIST, RECORD ONE ANSWER]**
1. (Television)
 2. (Radio)
 3. (Print media (magazine, newspaper article or advertisement))
 4. (Billboard/outdoor ad)
 5. (Bill insert)
 6. (Direct mail/brochure/postcard)
 7. (Family/friends/word-of-mouth)
 8. (Focus on Energy or Utility website)
 9. (Other website **[SPECIFY: _____]**)
 10. (Email)
 11. (Social Media)
 12. (Focus on Energy or Utility representative)
 13. (Contractor)
 14. (Realtor, home builder)
 15. (Retail stores)
 16. (Home/trade shows)
 17. (Sporting or community event)
 18. (Other, **[SPECIFY: _____]**)
 99. (Don't know)
 88. (Refused)
- D2. *Are there any other ways you heard about the program? **[DO NOT READ. RECORD ALL THAT APPLY]**
1. (Television)
 2. (Radio)
 3. (Print media (magazine, newspaper article or advertisement))
 4. (Billboard/outdoor ad)
 5. (Bill insert)

6. (Direct mail/brochure/postcard)
7. (Family/friends/word-of-mouth)
8. (Focus on Energy or Utility website)
9. (Other website [**SPECIFY:** _____])
10. (Email)
11. (Social Media)
12. (Focus on Energy or Utility representative)
13. (Contractor)
14. (Realtor, home builder)
15. (Retail stores)
16. (Home/trade shows)
17. (Sporting or community event)
18. (Other, [**SPECIFY:** _____])
99. (Don't know)
88. (Refused)

D3. **[ASK EVERYONE]***What do you think is the best way for Focus on Energy to inform the public about energy-efficiency programs? **[DO NOT READ, BUT PROMPT IF NECESSARY. RECORD ALL THAT APPLY]**

1. (Television)
2. (Radio)
3. (Print media (magazine, newspaper article or advertisement))
4. (Billboard/outdoor ad)
5. (Bill insert)
6. (Direct mail/brochure/postcard)
7. (Family/friends/word-of-mouth)
8. (Focus on Energy or Utility website)
9. (Other website [**SPECIFY:** _____])
10. (Email)
11. (Social Media)
12. (Focus on Energy or Utility representative)
13. (Contractor)
14. (Realtor, home builder)
15. (Retail stores)
16. (Home/trade shows)
17. (Sporting or community event)
18. (Other, [**SPECIFY:** _____])
19. (Do not want to receive information)
99. (Don't know)
88. (Refused)

- D4. *How informed do you feel about all the ways you can save energy, including buying and using energy efficient appliances and equipment? Would you say ... **[READ LIST]**
1. Very informed
 2. Somewhat informed
 3. Not too informed
 4. Not at all informed
 88. (Don't Know)
 99. (Refused)
- D5. *On a scale of zero to five where five is a lot of attention and zero is not a lot of attention, how much attention do you pay to the amount of energy; gas or electric, that you use in your home?
1. **[RECORD ANSWER]**
 99. (Don't Know)
 88. (Refused)

E. Assessment Process

- E1. Thinking back to the time when you were deciding to participate in Home Performance with ENERGY STAR, what were the most important reasons you decided to have a home energy assessment? **[DO NOT READ LIST; INDICATE UP TO THREE]**
1. (Save energy) **[FOLLOW-UP: "Why did you want to save energy?" RECORD RESPONSE]**
 - a. (To save money)
 - b. (To be less wasteful)
 - c. (To be environmentally responsible)
 - d. (Other) [specify]
 2. (Save money / high utility bill)
 3. (Good for the environment /
 4. (To address air quality issues, i.e. allergens, asthma-related)
 5. (To deal with mold or mildew)
 6. (To deal with ice dams or other water damage)
 7. (Home was drafty or uncomfortable)
 8. (General home maintenance)
 9. (To address pest/insect infestation)
 10. (To address safety issues)
 11. (Recommended by a friend/relative)
 12. (Recommended by a retailer/dealer)
 13. (Recommended by a contractor)
 14. **(Focus on Energy** Cash/instant discount/incentive payment)
 15. **[ALLOW ONLY IF PGM = AHP]**(The energy assessment was free)
 16. **(Other utility** bonus incentive)
 17. (Utility sponsorship of the program **[SPECIFY THE PROGRAM: _____]**)
 18. (Other **[SPECIFY: _____]**)
 99. (Don't know) **[SKIP TO E3]**
 88. **(REFUSED) [SKIP TO E3]**

- E2. **[IF MULTIPLE RESPONSES TO E1]** Of those reasons, which one was the most important reason you decided to have a home energy assessment? **[ONLY SHOW ANSWERS FROM E1; SELECT ONLY ONE]** **[READ LIST IF NECESSARY]**
- E3. How did you find the contractor who conducted your home energy assessment? **[DO NOT READ LIST; SELECT ONLY ONE]**
1. (Called Focus on Energy)
 2. (Focus on Energy's website, i.e. Trade Ally Online Directory)
 3. (Contractor came to my door)
 4. (Referral from friend, family member, colleague)
 5. (Referral from another contractor) **[ASK: WHAT TYPE OF CONTRACTOR? _____]**
 6. (Community Event/Fair)
 7. (Radio ad)
 8. (Newspaper ad)
 9. (Online ad **[ASK: WHAT WAS THE SOURCE OF THE ONLINE AD? _____]**)
 10. (Other utility website)
 11. (Online key word search)
 12. (Other **[SPECIFY: _____]**)
 99. (Don't Know)
 88. (Refused)
- E4. Why did you choose the contractor that you did to perform the assessment? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (They were the least expensive/price)
 2. (Listed on Focus on Energy website)
 3. (Only program-eligible contractor available in my area)
 4. (Referral from friend, family member, colleague)
 5. (Referral from other contractor **[ASK: WHAT TYPE OF CONTRACTOR? _____]**)
 6. (Influenced by an advertisement or website)
 7. (Timing)
 8. (They appeared to provide the best quality/value; appeared to be the most trustworthy)
 9. (Knowledge/familiarity with the additional incentives from Xcel Energy or We Energy)
 10. (Other **[SPECIFY: _____]**)
 99. (Don't Know)
 88. (Refused)
- E5. How helpful was the contractor in helping you understand how your home uses energy? Would you say the contractor was ... **[READ LIST]**
1. Very helpful
 2. Somewhat helpful
 3. Not too helpful
 4. Not at all helpful
 99. (Don't know) **[SKIP TO E7]**
 88. (Refused) **[SKIP TO E7]**

- E6. Why do you say that?
1. **[OPEN END RESPONSE]**
 99. (Don't Know)
 88. (Refused)
- E7. After your home energy assessment, did your contractor give you a written report about how your home uses energy, and provide a list of recommended upgrades?
1. (Yes, I got both a report and a list of recommended upgrades)
 2. (I got a report about my house energy use, but no recommended upgrades)
 3. (I got a list of upgrades but no written report about my home energy use) **[SKIP TO E10]**
 4. (No, I received nothing in writing) **[SKIP TO E10]**
 99. (Don't know) **[SKIP TO E10]**
 88. (Refused) **[SKIP TO E10]**
- E8. **[IF E7 =1 OR 2]** How useful was this report in helping you understand how your home uses energy? Would you say it was ... **[READ LIST]**
1. Very useful
 2. Somewhat useful
 3. Not too useful
 4. Not at all useful
 99. (Don't know) **[SKIP TO E10]**
 88. (Refused) **[SKIP TO E10]**
- E9. Why do you say that the report was **[INSERT RESPONSE FROM E8]?**
1. **[OPEN END RESPONSE]**
 99. (Don't Know)
 88. (Refused)
- E10. Did the contractor also tell you about discounts or cash-back rewards that you could get for upgrades through the Home Performance with Energy Star program?
1. Yes
 2. No
 99. (Don't Know)
 88. (Refused)
- E11. **[IF AND UTILITY=1]** Were you aware that in addition to the Focus on Energy incentives, Xcel Energy customers that have either gas heat or electric heat are eligible for bonus matching incentives?
1. Yes
 2. No
 99. (Don't Know)
 88. (Refused)
- E12. Did the contractor or the written assessment report provide you with information about the efficiency of your current furnace and air conditioner?
1. Yes
 2. No
 99. (Don't Know)
 88. (Refused)

- E13. Did the contractor provide you with information about incentives available from Focus on Energy for the purchase of new high-efficiency HVAC equipment through the Residential and Enhanced Rewards programs?
1. Yes
 2. No
 99. (Don't Know)
 88. (Refused)
- E14. Did you receive an incentive from Focus on Energy for the installation of a new furnace, air conditioner or other eligible HVAC equipment through the Residential Rewards or Enhanced Rewards programs?
1. Yes
 2. No
 99. (Don't Know)
 88. (Refused)

F. Program Awareness

- F1. *Are you aware of any other Focus on Energy programs or incentives? **[IF NEEDED: SUCH AS INCENTIVES ON CFL BULBS, ENERGY STAR APPLIANCES, OR RECYCLING OLD APPLIANCES]**
1. (Yes)
 2. (No)
 99. (Don't Know)
 88. (Refused)

[ASK IF F1=1]

- F2. *Which programs or incentives? **[DO NOT READ; RECORD ALL THAT APPLY]**
1. (New Homes) **[DESCRIPTION, DO NOT READ: whole new house built to Focus on Energy specifications]**
 2. (Appliance Recycling) **[DESCRIPTION, DO NOT READ: Incentives for recycling old refrigerators and freezers]**
 3. (Lighting) **[DESCRIPTION, DO NOT READ: CFLs and LEDs discounted at a retail store]**
 4. (Express Energy Efficiency) **[DESCRIPTION, DO NOT READ: installation of many low-cost energy efficient items by a contractor (must say that someone else installed the items for free): CFLs, LEDs, faucet aerators, high efficient showerheads, water heater pipe insulation, water heater temperature set-back]**
 5. (Residential Rewards and Enhanced Rewards) **[DESCRIPTION, DO NOT READ: incentives for furnaces, furnace motors, air conditioners, hot water heaters, smart thermostats, insulation, solar panels, heat pumps, ground source heat pumps, boilers]**
 6. (Other **[SPECIFY: _____]**)
 99. (Don't Know)
 88. (Refused)

- F3. *Have you participated in any other Focus on Energy programs, or received other Focus on Energy incentives? **[RECORD ALL THAT APPLY. IF NEEDED: "SUCH AS INCENTIVES ON CFL BULBS, ENERGY STAR APPLIANCES, OR RECYCLING OLD APPLIANCES."]**
1. (Yes)
 2. (No)
 99. (Don't Know)
 88. (Refused)

[ASK IF F3=1]

- F4. *Which programs or incentives? **[DO NOT READ, BUT PROMPT IF NECESSARY. RECORD ALL THAT APPLY]**
1. (New Homes) **[DESCRIPTION, DO NOT READ: whole new house built to Focus on Energy specifications]**
 2. (Appliance Recycling) **[DESCRIPTION, DO NOT READ: Incentives for recycling old refrigerators and freezers]**
 3. (Lighting) **[DESCRIPTION, DO NOT READ: CFLs and LEDs discounted at a retail store]**
 4. (Express Energy Efficiency) **[DESCRIPTION, DO NOT READ: installation of many low-cost energy efficient items by a contractor (must say that someone else installed the items for free): CFLs, LEDs, faucet aerators, high efficient showerheads, water heater pipe insulation, water heater temperature set-back]**
 5. (Residential Rewards and Enhanced Rewards) **[DESCRIPTION, DO NOT READ: incentives for furnaces, furnace motors, air conditioners, hot water heaters, smart thermostats, insulation, solar panels, heat pumps, ground source heat pumps, boilers]**
 6. (Other **[SPECIFY: _____]**)
 99. (Don't Know)
 88. (Refused)

G. Retrofit Process

- G1. **[IF TYPE=RTRO]** Earlier we discussed that you received incentives for **[READ MEASURES LISTED IN B]**. Regardless of who actually installed the measures, Were these items all the items your contractor recommended, some of the items your contractor recommended, or were none of these recommended by your contractor?
1. (All of the recommendations made by the contractor) **[SKIP TO G5]**
 2. (Some of the recommendations made by the contractor)
 3. (None of my upgrades were recommended by the contractor)
 99. (Don't know) **[SKIP TO G5]**
 88. (Refused) **[SKIP TO G5]**
- G2. **[ASK ALL TYPE=AO; ASK IF TYPE=RTRO AND If G1 = 2, 3]** Are you planning to make any of the remaining contractor-recommended improvements by the end of this year?
1. Yes
 2. No **[SKIP TO G4]**
 99. (Don't know) **[SKIP TO G4]**
 88. (Refused) **[SKIP TO G4]**

- G3. **[IF G2 = 1]** Which ones? **[DO NOT READ LIST; RECORD ANSWER FOR EACH]**
1. (Listed) **[CODE ITEM MENTIONED]**
 2. (Not listed: RECORD RESPONSE)
 99. (Don't Know)
 88. (Refused)
- G3b. ROOF (ATTIC) INSULATION
- G3c. EXTERIOR WALL INSULATION
- G3d. INTERIOR FOUNDATION INSULATION
- G3e. SILL BOX INSULATION (CRAWLSPACE WALL)
- G3f. AIR SEALING
- G3g. CFLS
- G3h. LEDs
- G3i. FAUCET AERATORS
- G3j. SHOWERHEADS
- G3k. INSULATION FOR WATER HEATER PIPE
- G3l. WATER HEATER
- G3m. HVAC: Furnace, boiler, air conditioner, duct sealing
- G4. **[IF TYPE=AO, OR IF, G2= 2, OR G3 = 2]** Why did you decide not to install **[IF G1 = 2, "SOME" OR, IF TYPE=AO OR IF G1 = 3, "ANY"]** OF the measures your contractor recommended? **[RECORD RESPONSE,] [DO NOT READ; RECORD ALL THAT APPLY]**
1. (I did not think the measures were necessary)
 2. (I didn't believe the measures would really save energy/improve my home comfort)
 3. (I couldn't afford the measures)
 4. (I didn't like/trust the contractor)
 5. (I didn't know who to hire to install the measures)
 6. (It was too much hassle/I didn't get around to it)
 7. (Other **[SPECIFY: _____]**)
 99. (Don't Know)
 88. (Refused)
- G5. **[IF TYPE=RTRO]** How important were the assessment results to you in your decision to make insulation or air-sealing improvements? Were the assessment results ... **[READ LIST]**
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all important
 99. (Don't Know)
 88. (Refused)
- G6. **[ASK ALL TYPES]** Did the contractor that performed the assessment also offer installation services, or did they provide assessments only?
1. Assessments only **[IF TYPE=RTRO, SKIP TO G9]**
 2. Assessments and installation services
 99. (Don't Know) **[IF TYPE=RTRO, SKIP TO G9]**
 88. (Refused) **[IF TYPE=RTRO, SKIP TO G9]**

- G7. **[IF TYPE=RTRO AND G6=2]** Did the same contractor that performed the assessment also perform the installation work?
1. Yes **[SKIP TO G9]**
 2. No
99. (Don't know) **[SKIP TO G9]**
88. (Refused) **[SKIP TO G9]**
- G8. **[IF TYPE=RTRO]** Why did you choose the contractor that you did to install the insulation and air-sealing improvements? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**
1. (They were the least expensive/price)
 2. (Listed on Focus on Energy website)
 3. (Only program-eligible contractor available in my area)
 4. (Referral from friend, family member, colleague)
 5. (Referral from other contractor **[ASK: WHAT TYPE OF CONTRACTOR? _____]**)
 6. (Influenced by an advertisement or website)
 7. (Timing)
 8. (They appeared to provide the best quality/value; appeared to be the most trustworthy)
 9. (Knowledge/familiarity with the additional incentives from Xcel Energy or We Energy)
 10. (Other **[SPECIFY: _____]**)
99. (Don't Know)
88. (Refused)
- G9. **[ASK ALL TYPES; ASK ALL PGM=AHP, SKIP TO G12 IF PART DATE BEFORE 3/1/2015 AND PGM = HP]** Did your contractor mention to you that your project needed to reduce your home's energy consumption by 10% in order to be eligible for the Focus on Energy Home Performance with ENERGY STAR incentives?
1. Yes
 2. No
99. (Don't Know)
88. (Refused)
- G10. **[IF TYPE=RTRO AND G9 = 1]** Did this requirement encourage you to do more work than you would have otherwise done, in order to be eligible for the incentive?
1. Yes, I installed more measures in order to be eligible
 2. No, I did the same amount of work I would otherwise have done
99. (Don't Know)
88. (Refused)
- G11. **[IF TYPE=AO AND G9= 1]** Was this requirement a factor in your decision not to install the upgrades your contractor recommended?
3. Yes, it was a factor
 4. No, it was not a factor
99. (Don't Know)
88. (Refused)

[IF TYPE=AO, SKIP TO H1]

- G12. **[IF TYPE = RTRO AND UTILITY=1 AND E11=1]** Did you also take advantage of bonus incentives offered by Xcel Energy for your project? These incentives doubled the incentive available from Focus on Energy.
1. Yes
 2. No
 99. (Don't Know)
 88. (Refused)
- G13. **[G12=1]** If the Xcel Energy incentives had not been available, would you still have completed the project?
1. Yes
 2. No
 99. (Don't Know)
 88. (Refused)
- G14. **[IF PGM = AHP and UTILITY = 2]** Did you also take advantage of the \$150 bonus incentive offered by We Energy for your project?
1. Yes
 2. No
 99. (Don't Know)
 88. (Refused)
- G15. **[G14 = 1]** If the We Energy incentive had not been available, would you still have completed the project?
1. Yes
 2. No
 99. (Don't Know)
 88. Refused)

H. Satisfaction

Thank you. We are about half-way done. Now I have a few questions about your satisfaction with your program experience. How satisfied were you with ... **[REPEAT AS NEEDED]**

- H1. The availability of contractors in your area. Would you say you were... **[READ LIST, REPEAT AS NEEDED]**
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 99. (Don't Know)
 88. (Refused)

- H2. **[ASK IF PGM=AHP]** The application process to qualify for higher Reward Level 2 incentives
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 99. (Don't Know)
 88. (Refused)
- H3. **[IF H2=3 OR 4]** Could you tell me a little more about why you say that? **[RECORD RESPONSE]**
- H4. The quality of the home energy assessment. Would you say you were ... **[READ LIST, REPEAT AS NEEDED]**
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 99. (Don't Know)
 88. (Refused)
- H5. The assessment contractor's ability to answer your questions. Would you say you were ... **[READ LIST, REPEAT AS NEEDED]**
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 99. (Don't Know)
 88. (Refused)
- H6. *How likely would you be to recommend Focus on Energy's Home Performance with Energy Star program to a friend? Use a 0 – 10 scale where 0 means extremely unlikely and 10 means extremely likely.
1. **[RECORD ANSWER]**
 99. (Don't Know)
 88. (Refused)
- H7. *Is there anything you would suggest to improve Focus on Energy's Home Performance with Energy Star program?
1. (None)
 2. (Other **[SPECIFY: _____]**)
 99. (Don't Know)
 88. (Refused)

I. Direct Install Measures

[ASK I1 THROUGH I4 IF PARTICIPANT DID NOT RECEIVE ANY OF THE FOLLOWING MEASURES:

CFLS (CFL)

LEDS (LED)

FAUCET AERATORS (F)

SHOWERHEADS (SH)

INSULATION FOR WATER HEATER PIPE (P)]

11. Did the contractor that performed your assessment offer to install, free of charge, energy-saving items such as CFLs, LEDs, water saving faucet aerators or showerheads, or water heater pipe insulation?
1. Yes **[SKIP TO I3]**
 2. No
 99. (Don't know)
 88. (Refused)
12. Just to clarify, your contractor did not offer you any CFLs, LEDs, water saving faucet aerators or showerheads, or water heater pipe insulation, and you did not receive any of these items during the assessment or installation period?
1. Right, I was not offered any of these items and I didn't receive any of these items **[SKIP TO J]**
 2. I WAS offered some of these items
 99. (Don't know) **[SKIP TO J]**
 88. (Refused) **[SKIP TO J]**
13. Did you accept any of these measures?
1. Yes, I accepted **[NOTE WHICH ITEMS ACCEPTED, THEN MOVE TO APPROPRIATE MEASURE SECTION]**
 2. No
 99. (Don't know) **[SKIP TO J]**
 88. (REFUSED) **[SKIP TO J]**
1. 1.
14. **[IF I3 = 2]** Why did you not accept any of these items? **[RECORD ALL THAT APPLY]**
1. (I already have energy-saving items)
 2. (I already participated in the Express Energy Efficiency Program)
 3. (I don't like the way energy-saving items function)
 4. (I like energy-saving items, but I wanted a different style or model)
 5. (Other **[SPECIFY: _____]**)
 99. (Don't Know)
 88. (Refused)

[THEN, IF I3 = 2, SKIP TO J]

[ASK A.CFL1 THROUGH A.PI6 MEASURE QUESTIONS IF PARTICIPANT RECEIVED AT LEAST ONE OF THE FOLLOWING MEASURES:

CFLS (CFL)

LEDS (LED)

FAUCET AERATORS (F)

SHOWERHEADS (SH)

INSULATION FOR WATER HEATER PIPE (P)]

Now I would like to ask you about the energy-saving items you received during your energy assessment.

CFL

[ASK SECTION (A.CFL1-A.CFL10) IF MEASURE=CFL, ELSE SKIP TO NEXT MEASURE A.LED1)]

CFL1. Our records show that you received **[CFL_QUANTITY]** compact fluorescent light bulbs, also known as CFLs. Is this correct? **[IF NEEDED: THESE ARE THE TWISTY LIGHT BULBS.]**

1. (Yes) **[SKIP TO CFL3]**
2. (Yes, I received CFLs, but quantity is not correct)
3. (No, I did not receive any CFLs) **[SKIP TO NEXT MEASURE]**
99. (Don't know) **[SKIP TO NEXT MEASURE]**
88. (Refused) **[SKIP TO NEXT MEASURE]**

CFL2. How many CFLs did you receive?

1. **CFL2A.[RECORD NUMBER]**
99. (Don't know) **[SKIP TO NEXT MEASURE]**
88. (Refused) **[SKIP TO NEXT MEASURE]**

CFL3. Did the contractor install the CFLs directly into your light fixtures or leave them with you to install yourself?

1. (All the CFLs were installed directly in the light fixtures.) **[SKIP TO CFL6]**
2. (All the CFLs were left behind for me to install)
3. (Some were installed directly into the light fixtures and some were left behind to install)
99. (Don't know) **[SKIP TO NEXT MEASURE]**
88. (Refused) **[SKIP TO NEXT MEASURE]**

CFL4. **[ASK IF CFL3= 2 OR 3]** How many CFLs did the contractor install?

1. **CFL4A.[RECORD NUMBER]**
99. (Don't know)
88. (Refused)

CFL5. How many, if any, of the CFLs have you installed yourself?

1. **CFL5A [RECORD NUMBER]**
99. (Don't Know)
88. (Refused)

CFL6. Have you removed any of the CFLs from the original fixture where they were installed?

1. (Yes)
2. (No) **[SKIP TO CFL10]**
99. (Don't Know) **[SKIP TO CFL10]**
88. (Refused) **[SKIP TO CFL10]**

CFL7. How many of the light bulbs did you remove?

1. **[RECORD NUMBER]**
99. (Don't Know)
88. (Refused)

CFL8. What did you do with these **[QUANTITY FROM CFL7]** CFLs? **[DO NOT READ LIST; RECORD ALL THAT APPLY]**

1. (Moved them to a different room in the house **[ASK: WHERE WERE THEY MOVED? __]**)
2. (Storing them for future use)
3. (Threw them away / recycled them)
4. (Gave them to someone else)
5. (Other **[SPECIFY: _____]**)
99. (Don't Know)
88. (Refused)

CFL9. Why did you remove the CFL(s)? **[DO NOT READ; RECORD ALL THAT APPLY]**

1. (Burned out)
2. (Broke/stopped working)
3. (Bulb was too bright)
4. (Bulb was not bright enough)
5. (Delay in light coming on)
6. (Did not work with dimmer/3-way switch)
7. (Didn't fit properly)
8. (Stuck out of fixture)
9. (Light color)
10. (Interference with radio, TV, other electronic devices)
11. (Other **[SPECIFY: _____]**)
99. (Don't Know)
88. (Refused)

CFL10. **[ASK IF (CFL_QUANTITY OR CFL2) > (CFL4A +CFL5A)]** What did you do with the CFLs that were not installed? **[DO NOT READ; RECORD ALL THAT APPLY]**

1. (Storing them for future use)
2. (Threw them away / recycled them)
3. (Gave them to someone else)
4. (Broken)
5. (Other **[SPECIFY: _____]**)
99. (Don't Know)
88. (Refused)

LEDs

[ASK SECTION (A.LED1 - A.LED10) IF MEASURE=LED, ELSE SKIP TO NEXT MEASURE (A.FA1)]

LED1. Our records show that you received [LED_QUANTITY] LED bulbs. Is this correct? **[IF NEEDED: THESE COME IN SEVERAL SHAPES BUT ARE HEAVIER THAN TRADITIONAL BULBS.]**

1. (Yes) **[SKIP TO LED3]**
2. (Yes, I received LEDs, but quantity is not correct)
3. (No, I did not receive any LEDs) **[SKIP TO NEXT MEASURE]**
99. (Don't know) **[SKIP TO NEXT MEASURE]**
88. (Refused) **[SKIP TO NEXT MEASURE]**

LED2. How many LEDs did you receive?

1. **LED2A.[RECORD NUMBER]**
 - a. (Don't know) **[SKIP TO NEXT MEASURE]**
 - b. (Refused) **[SKIP TO NEXT MEASURE]**

LED3. Did the contractor install the LEDs directly into your light fixtures or leave them with you to install yourself?

1. (All the LEDs were installed directly in the light fixtures.)
2. (All the LEDs were left behind for me to install)
3. (Some were installed directly into the light fixtures and some were left behind to install)
99. (Don't know) **[SKIP TO NEXT MEASURE]**
88. (Refused) **[SKIP TO NEXT MEASURE]**

LED4. **[ASK IF LED3= 2 OR 3]** How many LEDs did the contractor install?

1. **LED4A.[RECORD NUMBER]**
99. (Don't know)
88. (Refused)

LED5. How many, if any, of the LEDs have you installed yourself?

2. **LED5A [RECORD NUMBER]**
99. (Don't Know)
88. (Refused)

LED6. Have you removed any of the LEDs from the original fixture where they were installed?

1. (Yes)
2. (No) **[SKIP TO LED10]**
99. (Don't Know) **[SKIP TO LED10]**
88. (Refused) **[SKIP TO LED10]**

LED7. How many of the light bulbs did you remove?

1. **[RECORD NUMBER]**
99. (Don't Know)
88. (Refused)

LED8. What did you do with these [QUANTITY FROM LED7] LEDs? [DO NOT READ LIST; RECORD ALL THAT APPLY]

1. (Moved them to a different room in the house [ASK: WHERE WERE THEY MOVED? __])
2. (Storing them for future use)
3. (Threw them away / recycled them)
4. (Gave them to someone else)
5. (Other [SPECIFY: _____])
99. (Don't Know)
88. (Refused)

LED9. Why did you remove the LED(s)? [DO NOT READ; RECORD ALL THAT APPLY]

1. (Burned out)
2. (Broke/stopped working)
3. (Bulb was too bright)
4. (Bulb was not bright enough)
5. (Delay in light coming on)
6. (Did not work with dimmer/3-way switch)
7. (Didn't fit properly)
8. (Stuck out of fixture)
9. (Light color)
10. (Interference with radio, TV, other electronic devices)
11. (Other [SPECIFY: _____])
99. (Don't Know)
88. (Refused)

LED10. [ASK IF (LED_QUANTITY OR LED2) > (LED4A + ABOVELED5A)] What did you do with the LEDs that were not installed? [DO NOT READ; RECORD ALL THAT APPLY]

1. (Storing them for future use)
2. (Threw them away / recycled them)
3. (Gave them to someone else)
4. (Broken)
5. (Other [SPECIFY: _____])
99. (Don't Know)
88. (Refused)

FAUCET AERATORS

[ASK SECTION (A.FA1- A.FA8) IF MEASURE = FAUCET AERATOR, ELSE SKIP TO NEXT MEASURE (A.SH1)]

FA1. Our records indicate that you received [FA_QUANTITY] faucet aerators. Is this correct? [IF NEEDED: THESE SMALL ROUND DEVICES WITH HOLES GO ON WATER FAUCETS TO REDUCE WATER FLOW. THEY MAY BE REPLACING OLD ONES IN YOUR KITCHEN OR BATHROOM FAUCETS]

1. (Yes) [SKIP TO A.FA3]
2. (Yes, I received faucet aerators, but quantity is not correct)
3. (No, I did not receive any faucet aerators) [SKIP TO NEXT MEASURE]
99. (Don't know) [SKIP TO NEXT MEASURE]
88. (Refused) [SKIP TO NEXT MEASURE]

FA2. **[ASK IF A.FA1=2]** How many faucet aerators did you receive?

- 1. **[RECORD NUMBER]**
- 99. (Don't know) **[SKIP TO NEXT MEASURE]**
- 88. (Refused) **[SKIP TO NEXT MEASURE]**

FA3. Did the contractor install the faucet aerators directly or leave them with you to install yourself?

- 1. (The faucet aerators were installed directly) **[SKIP TO A.FA5]**
- 2. (The faucet aerators were left behind for me to install)
- 3. (Some were installed directly and some were left behind to install)
- 4. (I did not receive faucet aerators) **[SKIP TO NEXT MEASURE]**
- 99. (Don't know) **[SKIP TO NEXT MEASURE]**
- 88. (Refused) **[SKIP TO NEXT MEASURE]**

FA4. How many faucet aerators did you install yourself?

- 1. **[RECORD NUMBER]**
- 99. (Don't know) **[SKIP TO NEXT MEASURE IF A.FA3 = 2]**
- 88. (Refused) **[SKIP TO NEXT MEASURE IF A.FA3 = 2]**

FA5. **[ASK IF FA3=1 OR 3]** How many faucet aerators did the contractor install during the visit?

- 1. **[RECORD NUMBER] [IF FA4 + FA5= 0, SKIP TO A.FA8]**
- 99. (Don't know) **[SKIP TO NEXT MEASURE]**
- 88. (Refused) **[SKIP TO NEXT MEASURE]**

FA6. Have you removed any of the aerators from the original location where they were installed?

- 1. (Yes **[RECORD NUMBER REMOVED]**)
- 2. (No) **[SKIP TO A.FA8]**
- 99. (Don't know) **[SKIP TO A.FA8]**
- 88. (Refused) **[SKIP TO A.FA8]**

FA7. Why did you remove the aerator(s)? **[DO NOT READ. RECORD ALL THAT APPLY.]**

- 1. (Didn't like the flow of water)
- 2. (Didn't like how it looked)
- 3. (Didn't fit properly)
- 4. (Broken)
- 5. (Other **[SPECIFY: _____]**)
- 99. (Don't Know)
- 88. (Refused)

FA8. **[ASK IF FA_QUANTITY OR A.FA2 IS GREATER THAN A.FA4 + A.FA5]** What did you do with the faucet aerators that were not installed? **[DO NOT READ; RECORD ALL THAT APPLY]**

- 1. (Storing them for future use)
- 2. (Threw them away)
- 3. (Gave them to someone else)
- 4. (Broken)
- 5. (Other **[SPECIFY: _____]**)
- 99. (Don't Know)
- 88. (Refused)

HIGH EFFICIENCY SHOWERHEADS

[ASK SECTION (A.SH1-A.SH9) IF MEASURE=SHOWERHEAD, ELSE SKIP TO NEXT MEASURE(A.PI1)]

SH1. Our records indicate that you received **[SH_QUANTITY]** efficient showerheads. Is this correct?

1. (Yes) **[SKIP TO A.SH3]**
2. (Yes, I received efficient showerheads, but quantity is not correct)
3. (No, I did not receive any efficient showerheads) **[SKIP TO NEXT MEASURE]**
99. (Don't know) **[SKIP TO NEXT MEASURE]**
88. (Refused) **[SKIP TO NEXT MEASURE]**

SH2. **[ASK IF A.SH1 =2]** How many showerheads did you receive?

1. **[RECORD NUMBER]**
99. (Don't know) **[SKIP TO NEXT MEASURE]**
88. (Refused) **[SKIP TO NEXT MEASURE]**

SH3. Did the contractor install the showerheads directly or leave them with you to install yourself?

[RECORD ONE RESPONSE]

1. (The showerheads were installed directly) **[SKIP TO A.SH5]**
2. (The showerheads were left behind for me to install)
3. (Some were installed directly and some were left behind for me to install)
4. (I did not receive showerheads) **[SKIP TO NEXT MEASURE]**
99. (Don't know) **[SKIP TO NEXT MEASURE]**
88. (Refused) **[SKIP TO NEXT MEASURE]**

SH4. Did you install any of the showerheads?

1. Yes **[ASK: HOW MANY? _____]**
2. No
99. (Don't know) **[SKIP TO NEXT MEASURE]**
88. (Refused) **[SKIP TO NEXT MEASURE]**

SH5. **[ASK IF A.SH3 =1 OR 3]** How many showerheads did the contractor install during the visit?

1. **[RECORD NUMBER] [IF A.SH3 = 1 AND QUANTITY = 0, SKIP TO A.SH6]**
99. (Don't know) **[SKIP TO NEXT MEASURE]**
88. (Refused) **[SKIP TO NEXT MEASURE]**

[ASK IF SUM OF A.SH4 AND A.SH5 IS LESS THAN SH_QUANTITY OR A.SH2]

SH6. Why didn't you install the remaining showerhead(s)?

1. (Didn't like the flow of water)
2. (Didn't like how it looked)
3. (Didn't fit properly)
4. (Broken)
5. (Other **[SPECIFY: _____]**)
99. (Don't Know)
88. (Refused)

SH7. Have you removed any of the showerheads from the original location where they were installed?

1. Yes **[ASK: HOW MANY? _____]**
2. No
99. (Don't Know)
88. (Refused)

[ASK IF SH7=1]

SH8. Why did you remove the showerhead(s)? **[DO NOT READ. RECORD ALL THAT APPLY.]**

1. (Didn't like the flow of water)
2. (Didn't like how it looked)
3. (Didn't fit properly)
4. (Broken)
5. (Other **[SPECIFY: _____]**)
99. (Don't Know)
88. (Refused)

[ASK IF SUM OF A.SH4 AND A.SH5 IS LESS THAN SH_QUANTITY OR A.SH2]

SH9. What did you do with the showerheads that were not installed? **[DO NOT READ; RECORD ALL THAT APPLY]**

1. (Storing them for future use)
2. (Threw them away)
3. (Gave them to someone else)
4. (Broken)
5. (Other **[SPECIFY: _____]**)
99. (Don't Know)
88. (Refused)

WATER HEATER PIPE INSULATION

[ASK SECTION (A.PI1-A.PI6) IF MEASURE=PIPE WRAP, ELSE SKIP TO SECTION J]

PI1. Our records indicate that you received water heater pipe insulation. Is this correct?

1. Yes
2. No, I did not receive any water heater pipe insulation **[SKIP TO SECTION J]**
99. 98. (Don't know) **[SKIP TO SECTION J]**
99. 99. (Refused) **[SKIP TO SECTION J]**

PI2. Did the contractor install the pipe insulation directly or leave it with you to install yourself?

1. The pipe insulation was installed directly **[SKIP TO A.PI4]**
2. The pipe insulation was left behind for me to install
3. I did not receive pipe insulation **[SKIP TO SECTION J]**
99. (Don't know) **[SKIP TO SECTION J]**
88. (Refused) **[SKIP TO SECTION J]**

PI3. Did you install the pipe insulation?

1. Yes
2. No **[SKIP TO A.PI6]**
99. (Don't know) **[SKIP TO SECTION J]**
88. (Refused) **[SKIP TO SECTION J]**

PI4. Have you removed any of the pipe insulation from where it was originally installed?

1. Yes
2. No **[SKIP TO SECTION J]**
99. (Don't know) **[SKIP TO SECTION J]**
88. (Refused) **[SKIP TO SECTION J]**

PI5. Why did you remove the pipe insulation? **[DO NOT READ; RECORD ALL THAT APPLY]**

1. (Replaced pipe or water heater)
2. (Wasn't helping to insulate enough / wasn't seeing any difference)
3. (Didn't like how it looked)
4. (Didn't fit properly)
5. (Damaged/torn)
6. (Other **[SPECIFY: _____]**)
99. (Don't Know)
88. (Refused)

PI6. **[ASK IF A.PI3 = 2]** What did you do with the pipe insulation that was not installed? **[DO NOT READ; RECORD ALL THAT APPLY]**

1. (Storing it for future use)
2. (Threw it away)
3. (Gave them to someone else)
4. (Damaged/torn)
5. (Other **[SPECIFY: _____]**)
99. (Don't Know)
88. (Refused)

J. Freeridership

[ASK SECTION J IF PGM=HP and TYPE = RTRO]

Thank you for your help so far. We only have a few minutes left. Now I have some questions about what your plans were for making energy-efficient improvements **before** you found out about this program.

[ASK J1- J5 IF MEASURE=WALL INSULATION, ATTIC INSULATION, FOUNDATION INSULATION, OR SILLBOX INSULATION. THESE QUESTIONS REFER TO ALL INSTALLED INSULATION, NOT ONE SPECIFIC TYPE.]

J1. Before you heard about the Focus on Energy Home Performance with ENERGY STAR program, had you already been **planning to purchase** insulation?

1. (Yes)
2. (No)
99. (Don't Know)
88. (Refused)

- J2. Would you have installed the same amount of insulation without the incentive from Focus on Energy?
1. (Yes)
 2. (No, would have installed less)
 3. (No, would not have installed any at all) **[SKIP TO J5]**
 99. (Don't Know)
 88. (Refused)
- J3. When you say you would have installed insulation without the Focus on Energy program, would you have installed insulation that was at the same level of efficiency?
1. (Yes)
 2. (No)
 99. (Don't Know)
 88. (Refused)
- J4. And, thinking about timing, without the Focus on Energy program, would you have installed the insulation ... **[READ LIST]**
1. At the same time
 2. Later but within the same year
 3. One to two years out
 4. More than two years out
 5. Never
 99. (Don't Know)
 88. (Refused)
- J5. Please tell me how important was the Focus on Energy program was in your decision to install the energy-efficient insulation? Would you say it was ... **[READ LIST]**
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not important at all
 99. (Don't Know)
 88. (Refused)

[ASK J6-J9 IF MEASURE=AIR SEALING]

- J6. **Before** you heard about the Focus on Energy Home Performance with ENERGY STAR program, had you already been **planning to perform** air sealing?
1. (Yes)
 2. (No)
 99. (Don't Know)
 88. (Refused)

- J7. Would you have performed the same amount of air sealing without the incentive from Focus on Energy?
1. (Yes)
 2. (No, would have performed less)
 3. (No, would not have performed air sealing at all) **[SKIP TO NEXT SECTION]**
 99. (Don't Know)
 88. (Refused)
- J8. And, thinking about timing, without the Focus on Energy program, would you have performed the air sealing ... **[READ LIST]**
1. At the same time
 2. Later but within the same year
 3. One to two years out
 4. More than two years out
 5. Never
 99. (Don't Know)
 88. (Refused)
- J9. Please tell me how important was the Focus on Energy program was in your decision to perform the air sealing? Would you say it was ... **[READ LIST]**
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not important at all
 99. (Don't Know)
 88. (Refused)

K. Spillover

[ASK SECTION (K1-K8) IF PGM=HP and TYPE = RTRO]

Now I'd like to talk to you about any energy saving improvements you may have made since participating in the Focus on Energy Home Performance with Energy Star program.

- K1. Since participating in the Focus on Energy Home Performance with Energy Star program, have you installed any other energy-efficient products in your home that you did NOT receive a reward or incentive for? By energy-efficient products, I mean appliances such as ENERGY STAR clothes washers; high efficiency water heaters, insulation or windows, or ENERGY STAR lighting such as CFL and LED light bulbs.
1. (Yes)
 2. (No) **[SKIP TO L1]**
 99. (Don't Know) **[SKIP TO L1]**
 88. (Refused) **[SKIP TO L1]**

K2. What were the products that you installed without getting a reward or incentive? **[DO NOT READ LIST; CLARIFY AS NEEDED TO CODE ANSWER CORRECTLY, RECORD ALL THAT APPLY]**

1. (Gas boiler)
2. (Gas furnace)
3. (Gas tank-less water heater)
4. (Gas storage water heater)
5. (Electric tank-less water heater)
6. (Electric storage water heater)
7. (Insulation; attic) **[ASK: HOW MANY SQUARE FEET?]**
8. (Insulation; floor) **[ASK: HOW MANY SQUARE FEET?]**
9. (Insulation; ceiling) **[ASK: HOW MANY SQUARE FEET?]**
10. (Insulation; other **[SPECIFY: _____]**) **[ASK: HOW MANY SQUARE FEET?]**
11. (Air sealing)
12. (Clothes washer)
13. (Dishwasher)
14. (Windows) **[ASK: HOW MANY SQUARE FEET?]**
15. (Programmable thermostat)
16. (Efficient lighting; CFLs) **[ASK: HOW MANY DID YOU INSTALL?]**
17. (Efficient lighting; LEDs) **[ASK: HOW MANY DID YOU INSTALL?]**
18. (Efficient lighting; Fluorescent) **[ASK: HOW MANY DID YOU INSTALL?]**
19. (Efficient lighting; Fixtures) **[ASK: HOW MANY DID YOU INSTALL?]**
20. (Efficient lighting; other **[SPECIFY: _____]**) **[ASK: HOW MANY DID YOU INSTALL?]**
21. (Refrigerator)
22. (Heat pump water heater)
23. (Room AC) **[ASK: HOW MANY DID YOU INSTALL?]**
24. (Central AC)
25. (Heat Pump; air source)
26. (Heat pump; ground source)
27. (Heat pump; other **[SPECIFY: _____]**)
28. (Other **[SPECIFY: _____]**) **[ASK: HOW MANY DID YOU INSTALL?]**
99. (Don't Know)
88. (Refused)

K3. Please tell me how important your experience with the Focus on Energy program was in your decision to install **[INSERT EACH ONE SELECTED IN K2]**. Was it very important, somewhat important, not too important, or not at all important in your decision to install these energy-efficient product(s)?

1. Very important
2. Somewhat important
3. Not too important
4. Not at all important
99. (Don't Know)
88. (Refused)

[ASK K4 FOR EACH ONE SELECTED IN K2 EXCEPT 12 (CLOTHES WASHER), 13 (DISHWASHER), 14 (WINDOWS), 16-20 (EFFICIENT LIGHTING), 21 (REFRIGERATOR), 22 (HEAT PUMP WATER HEATER), 23 (ROOM AC), OR 28 (OTHER)]

K4. Why didn't you apply for and receive a Cash-back Reward **FOR [INSERT EACH ONE SELECTED IN K2]? [DO NOT READ LIST; RECORD ONE ANSWER FOR EACH]**

1. (Did not know Cash-back Reward was available)
2. (Product did not qualify)
3. (Other **[SPECIFY: _____]**)
99. (Don't Know)
88. (Refused)

K5. Since participating in Focus on Energy's program, have you taken any other actions to reduce energy consumption? **[PROBE WITH: "AN ENERGY EFFICIENCY ACTION COULD BE TURNING DOWN THE TEMPERATURE ON YOUR THERMOSTAT OR YOU WATER HEATER, OR POWERING DOWN APPLIANCES OR COMPUTERS."]**

1. (Yes)
2. (No)
99. (Don't Know)
88. (Refused)

[ASK IF K5 = 1]

K6. Specifically, what actions have you taken? **[DON'T READ LIST; RECORD ALL THAT APPLY]**

1. (Turn down temperature on water heater)
2. (Turn down temperature on furnace)
3. (Take shorter or fewer showers)
4. (Wash clothes only in cold water)
5. (Not leave water running)
6. (Turn off appliances)
7. (Turn off computers)
8. (Turn off lights)
9. (Other **[SPECIFY: _____]**)
99. (Don't Know)
88. (Refused)

K7. Please tell me how important the Focus on Energy Home Performance with Energy Star program was in your decision to **[INSERT EACH ONE SELECTED IN K6]**. Was it very important, somewhat important, not too important, or not at all important in your decision to take these action(s)? **[IF MORE THAN ONE ACTION/HABIT IN K6, "WAS IT THE SAME INFLUENCE FOR EVERY ACTION?"]**

1. Very important
2. Somewhat important
3. Not too important
4. Not at all important
99. (Don't Know)
88. (Refused)

K8. And, over time, have you continued to take these actions to save energy? Let's start with ... **[INSERT EACH ANSWER FROM K6]**. **[IF NEEDED, "HAVE YOU CONTINUED TO TAKE THIS ACTION TO SAVE ENERGY?"]**

1. (Yes)
2. (No)
99. (Don't Know)
88. (Refused)

L. LED and CFL Purchases

Now I'd like to ask you about recent light bulb purchases that you've made from retail stores.

- L1. In the last 12 months, approximately how many screw-in CFL bulbs and how many screw-in LED bulbs did you or someone in your household purchase in-store from a retailer? Please try to estimate the total number of **bulbs**, and not packages. Also, please consider only screw-in bulbs purchased from a retail store, and NOT online. **[IF NEEDED: BY RETAIL STORE I MEAN AN IN-STORE, RETAIL LOCATION OF A COSTCO, HARDWARE STORE, GROCERY STORE, WALMART, ETC. AND NOT PURCHASED ONLINE] (IF "DON'T KNOW," PROBE: WOULD YOU SAY IT IS IT LESS THAN OR MORE THAN FIVE BULBS? [WORK FROM THERE TO GET AN ESTIMATE] [IF NEEDED: CFLs, also known as compact fluorescent light bulbs, are energy saving light bulbs that most often have a "twisted" shape.] [Another type of light bulb that is used in homes is called a light emitting diode or L-E-D [SAY THE LETTERS L-E-D]. These bulbs have regular screw bases that fit into most household sockets but are made of multiple smaller lights. [IF NEEDED: LEDS HAVE HISTORICALLY BEEN USED FOR NIGHTLIGHTS, FLASHLIGHTS, AND HOLIDAY LIGHTS. HOWEVER, WE ARE NOT ASKING ABOUT THESE TYPES OF LEDS.]**
1. **[RECORD QUANTITY OF SCREW-IN CFL BULBS]**
 2. **[RECORD QUANTITY OF SCREW-IN LED BULBS]**
 99. (Don't Know)
 88. (Refused)
- L2. **[ASK IF CFL BULB QUANTITY FROM L1 > 0]** Where are these **[CFL BULB QUANTITY FROM L1]** screw-in CFL bulbs being used? Were they purchased to be used in your home or in a business? **["HOME" INCLUDES ANY ASPECT OF A RESIDENTIAL APPLICATION, E.G. INSIDE A HOME, IN A GARAGE, BARN, OUTSIDE A HOME ETC.] [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH APPLICATION THAT APPLIES]**
1. **[Record quantity for my home]**
 2. **[Record quantity for a business application]**
 3. **[Record quantity for Other]**
 99. (Don't Know)
 88. (Refused)
- L3. **[ASK IF HOME QUANTITY FROM L2 > 0]** Of the **[HOME QUANTITY FROM L2]** screw-in CFL bulbs purchased for your home from a retail outlet in the past 12 months, how many are currently installed? **[NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN CFL BULBS, NOT A RANGE.]**
1. **[Record quantity of screw-in CFL bulbs]**
 99. (Don't Know)
 88. (Refused)

L4. **[ASK IF L3 > 0]** From which retail store(s) did you purchase the screw-in CFL bulbs that are currently installed in your home? **[MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH STORE THAT APPLIES, TOTAL QUANTITY SHOULD EQUAL L3 QUANTITY]**

1. (Ace Hardware)
2. (Batteries Plus)
3. (Big Lots)
4. (Blain's Farm & Fleet)
5. (Costco)
6. (Do It Best)
7. (Dollar General)
8. (Dollar Tree)
9. (Express Mart)
10. (Family Dollar)
11. (Festival Foods)
12. (Goodwill)
13. (Gordy's)
14. (Habitat Restore)
15. (Home Depot)
16. (Lowe's)
17. (Menards)
18. (Mill's Fleet Farm)
19. (Miner's)
20. (Sams Club)
21. (True Value)
22. (United Hardware)
23. (Walgreens)
24. (WalMart)
25. (Woodman's)
26. (World of Variety)
27. (Other **[SPECIFY _____]**)
28. (Did not buy from a retail store)
99. (Don't Know)
88. (Refused)

L5. **[ASK IF LED BULB QUANTITY FROM L1 > 0]** Where are these **[LED QUANTITY FROM L1]** screw-in LED bulbs being used? Were they purchased to be used in your home or in a business? **[“HOME” INCLUDES ANY ASPECT OF A RESIDENTIAL APPLICATION, E.G. INSIDE A HOME, IN A GARAGE, BARN, OUTSIDE A HOME ETC.] [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH APPLICATION THAT APPLIES]**

1. **[Record quantity for my home]**
2. **[Record quantity for a business application]**
3. **[Record quantity for Other]**
99. (Don't Know)
88. (Refused)

- L6. **[ASK IF HOME QUANTITY FROM L5 > 0]** Of the **[HOME QUANTITY FROM L5]** screw-in LED bulbs purchased for your home from a retail outlet in the past 12 months, how many are currently installed? **[NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN LED BULBS, NOT A RANGE.]**
1. **[Record quantity of screw-in LED bulbs]**
 99. (Don't Know)
 88. (Refused)
- L7. **[ASK IF L6 > 0]** From which retail store(s) did you purchase the screw-in LED bulbs that are currently installed in your home? **[MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH STORE THAT APPLIES, TOTAL QUANTITY SHOULD EQUAL L6 QUANTITY]**
1. (Ace Hardware)
 2. (Batteries Plus)
 3. (Big Lots)
 4. (Blain's Farm & Fleet)
 5. (Costco)
 6. (Do It Best)
 7. (Dollar General)
 8. (Dollar Tree)
 9. (Express Mart)
 10. (Family Dollar)
 11. (Festival Foods)
 12. (Goodwill)
 13. (Gordy's)
 14. (Habitat Restore)
 15. (Home Depot)
 16. (Lowe's)
 17. (Menards)
 18. (Mill's Fleet Farm)
 19. (Miner's)
 20. (Sams Club)
 21. (True Value)
 22. (United Hardware)
 23. (Walgreens)
 24. (WalMart)
 25. (Woodman's)
 26. (World of Variety)
 27. (Other **[SPECIFY _____]**)
 28. (Did not buy from a retail store)
 99. (Don't Know)
 88. (Refused)

M. Demographics

Thank you. Now I have a few questions for statistical purposes only. This is the last section.

- M1. *What type of home do you live in? Is it a: **[READ LIST]**
1. Single-family home, detached house
 2. Attached house (townhouse, row house, or duplex)
 3. Multifamily apartment or condo building with 4 or more units
 4. Mobile/manufactured home
 5. Co-op/retirement community
 6. Other **[SPECIFY: _____]**
 99. (Don't Know)
 88. (Refused)
- M2. * Do you or members of your household own this home or do you rent?
1. (Own/buying)
 2. (Rent/lease)
 3. (Occupied without payment of rent)
 4. (Other **[SPECIFY: _____]**)
 99. (Don't Know)
 88. (Refused)
- M3. * Approximately how many square feet of living space does your home have? Don't include the basement unless it is a space that you consider lived in? **[READ CATEGORIES IF NEEDED]**
1. (Less than 1,000)
 2. (1,000 to less than 1,500)
 3. (1,500 to less than 2,000)
 4. (2,000 to less than 2,500)
 5. (2,500 to less than 3,000)
 6. (3,000 to less than 4,000)
 7. (4,000 or more)
 99. (Don't Know)
 88. (Refused)
- M4. *About when was your home first built? **[READ CATEGORIES IF NEEDED]**
1. (Before 1970s)
 2. (1970s)
 3. (1980s)
 4. (1990 – 1994)
 5. (1995 – 1999)
 6. (2000s)
 7. (Other **[SPECIFY: _____]**)
 99. (Don't Know)
 88. (Refused)
- M5. *Including yourself, how many people currently live in this household on a full time basis? **[IF NEEDED: PLEASE INCLUDE EVERYONE WHO LIVES IN YOUR HOME WHETHER OR NOT THEY ARE RELATED TO YOU AND EXCLUDE ANYONE WHO IS JUST VISITING OR IN THE MILITARY OR CHILDREN WHO MAY BE AWAY AT COLLEGE.]**
1. **[RECORD ANSWER]**
 99. (Don't Know)
 88. (Refused)

[ASK IF M5 > 1]

- M6. * How many people under the age of 18 live in your home year round?
1. 1
 2. 2
 3. 3
 4. 4
 5. 5
 6. 6
 7. 7 OR MORE
 99. (Don't Know)
 88. (Refused)
- M7. *What type of fuel do you use to heat your home?
1. (Natural gas)
 2. (Electricity)
 3. (Propane/Bottled gas)
 4. (Wood)
 5. (Other **[SPECIFY: _____]**)
 99. (Don't Know)
 88. (Refused)
- M8. * What type of fuel does your water heater use?
1. (Natural gas)
 2. (Electricity)
 3. (Propane/Bottled gas)
 4. (Wood)
 5. (Other **[SPECIFY: _____]**)
 99. (Don't Know)
 88. (Refused)
- M9. * What is the highest level of school that someone in your home has completed? **[READ CATEGORIES, IF NECESSARY]**
1. (Less than ninth grade)
 2. (Ninth to twelfth grade; no diploma)
 3. (High school graduate; includes GED)
 4. (Some college, no degree)
 5. (Associates degree)
 6. (Bachelor's degree)
 7. (Graduate or professional degree)
 99. (Don't Know)
 88. (Refused)

M10. * Which of the following categories best represents your age? Please stop me when I get to the appropriate category.

1. 18-24
2. 25-34
3. 35-44
4. 45-54
5. 55-64
6. 65-74
7. 75 or older
99. (Don't Know)
88. (Refused)

M11. * Which category best describes your total household income in 2014 before taxes? **[IF NEEDED: "PLEASE STOP ME WHEN I GET TO THE APPROPRIATE CATEGORY."]**

1. Less than \$20,000
2. \$20,000, up to \$50,000
3. \$50,000, up to \$75,000
4. \$75,000, up to \$100,000
5. \$100,000, up to \$150,000
6. \$150,000 up to \$200,000
7. \$200,000 or more
99. (Don't Know)
88. (Refused)

CLOSING SCRIPT: Those are all the questions we have. As a thank you for your time, we would like to send you a \$20 VISA gift card. May I have the name and address where you would like us to send the card? **[ADDRESS MUST BE WITHIN USA]**

[RECORD NAME]

[RECORD ADDRESS]

[RECORD ADDRESS 2]

[RECORD CITY]

[RECORD STATE]

[RECORD ZIP]

Focus on Energy appreciates your input. Thank you for your time.

**Focus on Energy 2015 Interview Guide:
Trade Ally Partners
Home Performance with ENERGY STAR Program**

Respondent name:

Respondent phone:

Interview date:

Interviewer initials:

Research Objectives

Table 1. Research Objectives Map

Research Questions	Interview Guide Questions
Recruitment and Satisfaction	
What about the program motivates trade allies to join?	B9-10
Did the company have any trouble joining the program? Are there barriers to trade ally participation?	B12
Are trade allies satisfied with program implementation? (training, communication, time to receive checks, coop marketing program, etc.	B13-18
What impact does the program have on trade ally business?	B11
Marketing	
Is program marketing effective, including marketing performed by trade allies?	C19-20, C24-27
Do trade allies promote the program in all areas? Even where there are not bonus incentives from utilities?	C22-23
What impact has the 10% rule change had on contractor participation?	D30-31
Do trade allies cross promote HPwES with the residential rewards program?	C23
Customer Experience	
What insights do trade allies have on what barriers exist to customer participation?	C28-29, E37-40
Are trade allies offering all program measures, including direct install measures?	D30-32
What opportunities exist for program process improvements?	F41-43

Introduction

Thank you for making the time to speak with me. Have you participated in an interview like this before? **[If not]** We are interviewing several trade allies in the HPwES program this year, to get a deeper understanding of how your business is interacting with the changing program. We hope to get your perspective on things that are working well and any areas where you have experienced challenges.

While we do not expect to ask you anything sensitive, our policy is to never use your name or the name of your company in our report. Do you have any questions before we begin?

A. Role and Responsibilities

First, I'd like to know about your specific role and responsibilities with regard to the Focus on Energy HPwES program.

1. Please tell me your title and a little about what you do for **[name of company]**.
2. When did your company become a participating contractor for the HPwES program?
3. In what part of the state do you generally work?
4. What services does your firm offer through the program? For example, do you conduct energy audits, or offer comprehensive energy services? Do you install HVAC equipment?
5. If you do not perform audits, do you work with a particular auditor to get leads from the program?
6. Are you familiar with the difference between Level I and Level II paths in the program? **[Record any lack of understanding of Level I and Level II]**
7. Our records show that you have completed:

___X___ Level 1 projects in 2015 and

___X___ Level II projects in 2015

Does that sound about right?

8. What percentage of your company's workflow is done through the home performance program? An estimate is fine.
9. Of that percentage, what proportion are Level I projects, and what proportion are Level II?

B. Recruitment and Implementation

Now I'll ask a few questions about the process to join the program.

10. How did you first learn about the HPwES program?
11. What motivated your company decide to participate?
12. How would you describe the program's impact on your sales volume? Would you characterize the impact as small medium or large?
13. Did your company face any barriers to participation? **[PROBE: in terms of needing additional training, licenses, insurance or any other requirements?]**

14. Have you or anyone in your company attended a training to learn how the program operates, in terms of requirements and eligibility etc.? When did you attend? Can you tell me how that information is shared around your company? How many employees receive training on the program operations?
15. Did anyone participate in any other training, such as the Better Building Conference in March, or a BPI refresher course? [NOTE: According to Paul, most TAs attend the BBC]
16. How well did the training prepare you to understand program process, forms and requirements? To present the program to customers? To use program related software?
17. Is there any additional training or support that you would like the program to offer? If so, what?
18. Are you satisfied with the level of communication you receive from the program implementers? Do you feel well-informed of any program changes? Is there anything the program could do to improve communication?
19. Along those lines, what information have you received regarding the redesign of the program for 2016? Have received any preliminary information on how you are supposed to work within a combined program? [If not: The 2016 program will offer both weatherization and HVAC incentives, and will replace the Residential and Enhanced Rewards programs. Refer to CSG with questions.]
20. Are you satisfied with the time it takes to process your rebate forms, and receive your check? How long does it normally take for you to receive the check? Do you have any suggestions for improving this process?
21. Are you satisfied with the program QA process? Do you have any suggestions for improvement with this part of the program?

C. Marketing and Promotion

Now let's move on to the subject of marketing and promotion.

22. Are you aware of Focus on Energy's efforts to market the HPwES program? If so, what is your perception of their marketing?
23. Do you have any comments on individual marketing pieces supplied by the program?
24. At what point in your sales process would you present the HPwES option to customers? Do you promote the program to all eligible customers?
25. Do you also promote the Residential Rewards program to customers? How do you decide which option to offer customers? [If no, are you aware of the Residential Rewards attic insulation rebate?]
26. Do you promote Level I and Level II? How do you determine whether to present the Level I option or the Level II option?
27. Do you operate in the service territory of We Energy or Xcel Energy? Do you also promote their incentive programs? What is your perception of the importance of these other programs? Would HPwES be as useful on its own?
28. What changes have you made, if any, in the way you source leads or in your sales call approach as a result of participating in the HP program?

29. Do you advertise your company? If so, do you advertise the HPwES program?
30. [If they advertise] Do you use the cooperative marketing program? If yes, does it represent a major part of your marketing budget for the year? If you have not used it, why not? Do you have any suggestions for how to improve the cooperative marketing program?
31. Where do most of your program sales leads come from? [PROBE: Do customers contact you off the program website? Do you receive leads from the Focus on Energy staff/CSG? What percent of your leads come from each source?]
32. What marketing messages do you think work best with customers?
33. What obstacles do you think Level I customers face to participating in the HPwES program?
34. What obstacles do you think Level II customers face?

D. Technical Issues

I'd like to ask you about some of the technical components of the program as well.

35. CSG recently adjusted the eligibility requirements for HPwES. Are you aware of the 10% energy savings minimum, applied to Level II in 2014 and applied to Level I in March 2015?
36. How has this change in requirements affected your promotion of the HPwES program, if at all? Has it impacted the actual performance of installation services?
37. Do you regularly install all the eligible direct install measures (light bulbs, faucet aerators etc.) in the homes of all customers that participate in the HPwES program? If not, why? Are there any challenges with regard to installing these measures?
38. How do you cross-promote any other Focus on Energy programs when talking with homeowners? Which programs do you promote, and in what ways? (leave literature, direct to website, etc.)
39. Are you aware of the Residential Rewards and Enhanced Rewards programs? Have you ever provided services to customers for that program? If so, how often? If not, why not?
40. Have you ever used the Residential Rewards program to help a customer install attic insulation, instead of the HP program? [If yes] Could you describe that a specific example, and why you used Residential Rewards instead of HP?
41. [If not an HVAC contractor] Have you ever referred a customer to a Residential Rewards HVAC contractor? Have you ever received a referral from a Residential Rewards HVAC contractor? Are you partnered with any HVAC companies for referrals or is it case-by-case?
42. Under what circumstances would you / do you use the Residential Rewards program with a customer? Does the program present any barriers for customers?

E. Customer Response

43. Overall, are customers satisfied with the HPwES program? What do you think they're most satisfied with? Least satisfied with?

- 44. Are customers persuaded by the reward levels? In what ways do Level I and Level II customers respond differently to the incentives?
- 45. What is the typical customer response to the direct-install measures? Does this vary between Level I and Level II customers?
- 46. Do customers view the audit and audit report as a helpful tool? How does the audit report impact your sales process, if at all?

F. Wrap-up

- 47. What aspect of the program do you find the most useful to your business?
- 48. Is there anything you would recommend to improve either the Level I or Level II aspects of the program?
- 49. Is there anything we have not discussed that you think we should know about or keep in mind?

Focus on Energy
Multifamily Energy Savings Program
Participant Customer Survey 2015

Researchable Questions		
Key Research Topics	Areas of Investigation	Related Questions
Marketing and Outreach	Program Awareness	C1-C2
	Future communication preferences	L1
	Key factors influencing customers' decision to participate in program	D1-D3
Barriers	Obstacles to installing high-efficiency equipment	E1-E2
	Barriers to participating in the multifamily (MESP/MFDI) programs	C4
Satisfaction	Assess satisfaction with various program components and reasons for dissatisfaction among participants	J1-J12
Program Impacts	Determine net program impacts	G1-I7
	Verify installation and persistence of program measures	F1-F5
Fixed Charge Increases	Understand awareness and impact of recent fixed cost increases for certain utility customers	K1-K5
Firmographics	Determine building and company characteristics of participants	B1-B5

Interviewer instructions are in green.

CATI programming instructions are in red.

Words in parenthesis should not be read to respondent

*Indicates core questions

SAMPLE Variables:

Contact

Site Address

[MEASURE1]

[MEASURE2]

[MEASURE3]

ELECTRIC UTILITY

[MEASURE1QUANTITY]

A. Introduction

- A1. Hello, my name is [NAME] and I am calling on behalf of Wisconsin's Focus on Energy Programs. Focus on Energy wants to learn about your recent participation in the Multifamily Energy Savings Program for the property at [SITE ADDRESS].

[IF NO CONTACT NAME]: May I please speak with the person at [SITE ADDRESS] who was most involved with the property's participation in Focus on Energy's Multifamily Program? [IF CONTACT NAME PROVIDED]: May I please speak with [CONTACT NAME]?

1. (Yes)
2. (Yes, call transferred) [START OVER WITH NEW RESPONDENT]
3. (No, not available) [SCHEDULE CALLBACK]
99. (DON'T KNOW) [ASK TO SPEAK WITH SOMEONE WHO WOULD KNOW AND START AGAIN]
88. (REFUSED) [THANK AND TERMINATE]

Back-up information, not to be programmed:

[If "No – Not available," ask if Respondent would like to arrange a more convenient time for us to call them back or if you can leave a message for that person.]

[IF RESPONDENT ASKS HOW LONG, SAY: "APPROXIMATELY 15 MINUTES."]

[IF NEEDED:] This survey is for research purposes only and this is not a marketing call. Your participation in this study is important so that Focus on Energy can improve the energy efficiency programs it offers to businesses and other organizations.

[Only if asked for a Focus on Energy contact to verify the survey authenticity, offer Joe Fontaine with the Public Service Commission of Wisconsin, 608-266-0910.]

- A2. *Our records show that you installed energy efficient equipment including [MEASURE1], [MEASURE2], and [MEASURE3] at [SITE ADDRESS]. To ensure our records are correct, can you confirm that you installed this/these upgrades earlier this year?
1. (Yes)
 2. (No, wrong year) [RECORD CORRECT YEAR, IF POSSIBLE]
 3. (No, wrong address) [RECORD CORRECT ADDRESS]
 4. (No, wrong measure) [CORRECT BELOW]
 - a. (MEASURE1 IS INCORRECT [Correct: _____]) [CALL THIS VARIABLE C_MEASURE1]
 - b. (MEASURE2 IS INCORRECT [Correct: _____]) [CALL THIS VARIABLE C_MEASURE2]
 - c. (MEASURE3 IS INCORRECT [Correct: _____]) [CALL THIS VARIABLE C_MEASURE3]
 5. (No, I did not install any measures) [THANK AND TERMINATE]
 99. (Don't Know) [Is there someone we could speak with that would know this? Record name and contact information: _____]
 88. (Refused) [THANK AND TERMINATE]

B. Overview

I'd like to ask you about your role in relation to the property at [SITE ADDRESS].

- B1. What is the best way to describe your role at [SITE ADDRESS]? Are you the...? [READ LIST]
1. Property owner
 2. Property manager
 3. Both property owner and manager
 4. Maintenance or facilities supervisor
 5. Other [Specify: _____]
 99. (Don't know)
 88. (Refused)
- B2. What is the total number of apartment units at the property [IF NEEDED, REPEAT ADDRESS]?
1. [RECORD RESPONSE: _____]
 99. (Don't know)
 88. (Refused)
- B3. What is the approximate square footage of the property?
1. [RECORD NUMBER: _____]
 99. DON'T KNOW
 88. REFUSED
- B4. Does the building owner pay for the electricity bill or do your tenants pay their own electric bill directly to the utility?
1. Building owner pays
 2. Tenant pays
 3. Some combination of both
 99. (Don't know)
 88. (Refused)
- B5. Does that also apply to the gas bill?
1. Building owner pays
 2. Tenant pays
 3. Some combination of both
 99. (Don't know)
 88. (Refused)

C. Awareness

- C1. *How did your organization most recently learn about the incentives available for this project? [DO NOT READ LIST; MULTIPLE RESPONSES POSSIBLE] [IF RESPONDENT MENTIONS WEBSITE CLARIFY IF UTILITY OR FOCUS ON ENERGY WEBSITE SO YOU KNOW HOW TO CODE ANSWER ON LIST.]
1. (Contact with Focus on Energy representative through phone, email, or in person)
 2. (Focus on Energy monthly newsletter)
 3. (Focus on Energy website)
 4. (Focus on Energy sponsored workshop or event)
 5. (Focus on Energy printed program materials)
 6. (Contact with utility representative)
 7. (Utility mailing, bill insert, or utility Website)

- 8. (Word of mouth (family, friend, or business colleague)
- 9. (I contacted my contractor or vendor to ask
- 10. (My contractor or vendor let me know about them)
- 11. (Previously participated in program/received an incentive)
- 12. (Through a trade association or professional organization
[SPECIFY: _____])
- 13. (Other [SPECIFY: _____])
- 99. (Don't know)
- 88. (Refused)

C2. Are you aware that Focus on Energy also offers a free Multifamily Direct Install Program for tenant units? [IF NEEDED: This is a program where installation staff come to your property and install free, energy saving equipment such as light bulbs, faucet aerators, and showerheads in your tenant units.]

- 1. Yes
- 2. No [SKIP TO SECTION D]
- 99. (Don't know) [SKIP TO SECTION D]
- 88. (Refused) [SKIP TO SECTION D]

C3. Has the property at [SITE ADDRESS] ever participated in that program?

- 1. Yes [SPECIFY YEAR OF PARTICIPATION: _____] [SKIP TO SECTION D]
- 2. No
- 99. (Don't know) [SKIP TO SECTION D]
- 88. (Refused) [SKIP TO SECTION D]

C4. [IF C3= 2] What are the reasons this property didn't participate in Multifamily Direct Install Program? [DO NOT READ LIST; RECORD ALL THAT APPLY]

- 1. (No cost savings for property manager/owner- tenants pay their own utility bills)
- 2. (Concern whether installation staff would provide high quality products and services)
- 3. (Lack of personnel/staff resources- arranging for staff to allow installers into occupied tenant units to make changes)
- 4. (Difficulty getting approval to participate from others, including property owners)
- 5. (The time and paperwork required)
- 6. (Difficulty finding replacement bulbs/equipment)
- 7. (High cost of replacement bulbs/equipment)
- 8. (Skeptical if program was actually free)
- 9. (Other) [SPECIFY _____]
- 99. (Don't know)
- 88. (Refused)

D. Decision Making

Now I'd like to understand more about how your organization made decisions about this energy efficiency project.

- D1. What sources of information do you use to help you make a decision on purchasing energy-efficient products for your property? [DO NOT READ; RECORD ALL THAT APPLY]
1. (Internal maintenance staff)
 2. (Our regular installation contractor)
 3. (An outside installation contractor we may hire or consult with occasionally)
 4. (Equipment distributors/ wholesalers/ manufacturers/ dealers/ retailers)
 5. (Apartment/trade associations (presentations and newsletters))
 6. (Our electric or gas utility representative or website)
 7. (Focus on Energy representative or website)
 8. (Our own research on the Internet)
 9. (I don't purchase energy-efficient products for my property)
 10. (Other [Specify: _____])
 99. (Don't know)
 88. (Refused)
- D2. *I'm going to read you a short list. Please tell me who, if anyone, was involved in helping you initiate your energy efficiency project. [READ LIST AND MARK 1=YES, 2=NO, 99=DON'T KNOW; 88 REFUSED FOR EACH]
1. Your contractor or vendor
 2. A Focus on Energy "Energy Advisor"
 3. Your utility account manager
- D3. *What factor was most important to your company's decision to make these upgrades energy-efficient? [DO NOT READ LIST; SINGLE RESPONSE]
1. (To save money on energy bills, reduce energy consumption or energy demand)
 2. (To obtain a program or bonus incentive)
 3. (To obtain a tax credit)
 4. (To replace old (but still functioning) equipment)
 5. (To replace broken equipment)
 6. (To enhance performance of our system(s))
 7. (To improve comfort)
 8. (Other [SPECIFY _____])
 99. (Don't know)
 88. (Refused)

E. Barriers

- E1. *I'm going to read you a list of challenges properties may face when purchasing new appliances or considering energy-efficient improvements like adding insulation. Please tell me whether you agree with these statements. The first statement is: [RANDOMIZE, READ STATEMENT; THEN JUST FOR THE FIRST STATEMENT READ THE FOLLOWING: Would you say you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree? [READ LIST AND RECORD 1=STRONGLY AGREE, 2=SOMEWHAT AGREE, 3=NEITHER AGREE NOR DISAGREE, 4=SOMEWHAT DISAGREE, AND 5=STRONGLY DISAGREE; 97= NOT APPLICABLE, 99=DON'T KNOW, AND 88=REFUSED]
- E1a. Making upgrades at our property is an inconvenience.
- E1b. Generally, making energy efficiency upgrades to this property is too costly.
- E1c. Our existing heating and cooling systems work fine, and we don't replace working equipment, even if it is not energy efficient.
- E1d. Proposed capital upgrades must meet a certain return on investment and energy efficiency is not a major consideration when determining the ROI.
- E1e. Decisions about equipment upgrades are made at a corporate office, and we don't have much input at this property.
- E1f. My company has made all the energy efficiency improvements we can without a substantial investment.
- E1g. There is no financial motivation to make energy efficiency improvements, the tenants pay their own energy bills.
- E1h. Without the availability to finance energy efficiency improvements at a low interest rate, it is more difficult for our property to implement upgrades.
- E2. *What could be done to help your company overcome these challenges? [DO NOT READ LIST, ALLOW MULTIPLE RESPONSES]
1. (Nothing)
 2. (Higher incentives)
 3. (Provide upfront rewards)
 4. (Offer low-interest loans)
 5. (Simplify the paperwork)
 6. (Provide better/more information about program [SPECIFY WHAT TYPE OF INFORMATION THEY NEED: _____])
 7. (Provide an energy audit)
 8. (Other [RECORD VERBATIM ANSWER _____])
 99. (Don't know)
 88. (Refused)

F. Verification

- F1. My records show that you installed [MEASURE1], [MEASURE2], and [MEASURE3]. Is all of the energy efficient equipment installed through the program this year still in-place and operating as planned? [USE VARIABLE C_MEASURE1-3 IF ANY WERE CORRECTED IN A2]
1. Yes [SKIP TO SECTION G]
 2. No
 99. (Don't know) [SKIP TO SECTION G]
 88. (Refused) [SKIP TO SECTION G]
- F2. [ASK IF F1=2] Which equipment is no longer installed or operating as planned? [DO NOT READ LIST, SELECT ALL THAT APPLY]
1. [MEASURE1]
 2. [MEASURE2]
 3. [MEASURE3]
 4. (Other) [SPECIFY _____]
 99. (Don't know)
 88. (Refused)
- F3. [ASK F3-F4 IF F1=2] [ASK FOR EACH RESPONSE SELECTED IN F2] How many [RESPONSE FROM F2] did you or your contractor originally install? [OPEN END NUMERIC]
- F4. And how many [RESPONSE FROM F2] are installed and operating now? [OPEN END NUMERIC]
- F5. [ASK IF F1=2] [ASK FOR EACH RESPONSE SELECTED IN F2] Why are the [RESPONSE FROM F2] no longer installed or operating? [OPEN END]

G. Freeridership

[IF D2=1 SKIP TO SECTION H OTHERWISE ASK THIS SECTION - CONTRACTOR DID NOT HELP IN THE DECISION MAKING]

Now I'd like to talk with you a bit more about your decisions to purchase the new [MEASURE1 OR C_MEASURE1]. Even though you may have received incentives for other energy saving equipment, these questions are just about the [MEASURE1 OR C_MEASURE1] that was purchased.

[INTERVIEWER NOTE ABOUT THIS SECTION (don't read to respondent): This section is based on hypothetical behavior so we are asking similar questions to verify that we are gathering the correct responses.]

- G1. First, did your property have specific plans to install the [MEASURE1 OR C_MEASURE1][s] before learning about the incentive?
1. (Yes) [ASK G2]
 2. (No) [SKIP TO G4]
 99. (DON'T KNOW) [SKIP TO G4]
 88. (REFUSED) [SKIP TO G4]

- G2. Prior to learning about the incentive, was the purchase of the [MEASURE1 OR C_MEASURE1][s] included in your property's capital budget?
1. (Yes)
 2. (No) [SKIP TO G4]
 99. (DON'T KNOW) [SKIP TO G4]
 88. (REFUSED) [SKIP TO G4]
- G3. Had your property **ALREADY** ordered or purchased the [MEASURE1 OR C_MEASURE1][s] **BEFORE** your property heard about the Multifamily Energy Savings Program incentive?
1. (Yes)
 2. (No)
 99. (DON'T KNOW)
 88. (REFUSED)
- G4. Would you have purchased and installed the same [MEASURE1 OR C_MEASURE1][s] without the incentive?
1. (Yes) [SKIP TO G7]
 2. (No) [SKIP TO G9]
 99. (DON'T KNOW) [ASK G5]
 88. (REFUSED) [ASK G5]
- G5. Would you have installed **something** without the incentive? [DO NOT READ LIST UNLESS NECESSARY]
1. (Yes, would have installed something) [ASK G6]
 2. (No, would NOT have installed anything) [SKIP TO I1]
 99. (DON'T KNOW) [SKIP TO I1]
 88. (REFUSED) [SKIP TO I1]
- G6. When you say you **would have installed** something, would you have installed something that was just as energy efficient as the [MEASURE1 OR C_MEASURE1][s] you installed?
1. (Yes) [ASK G7]
 2. (No) [ASK G7]
 99. (DON'T KNOW) [ASK G7]
 88. (REFUSED) [ASK G7]
- G7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the incentive, would you have installed the same amount of [MEASURE1 OR C_MEASURE1][s]?
1. (Yes, the same amount) [ASK G8]
 2. (No, would have installed less) [ASK G8]
 3. (No, would have installed more) [ASK G8]
 99. (DON'T KNOW) [ASK G8]
 88. (REFUSED) [ASK G8]

- G8. Without the [INCENTIVE FOR MEASURE1 OR C_MEASURE1], would you have installed the [MEASURE1 OR C_MEASURE1][s]...[READ LIST AND RECORD ONE RESPONSE]
1. Within the same year? [SKIP TO I1]
 2. Within one to two years? [SKIP TO I1]
 3. Within three to five years? [SKIP TO I1]
 4. In more than five years? [SKIP TO I1]
 99. (DON'T KNOW) [SKIP TO I1]
 88. (REFUSED) [SKIP TO I1]
- G9. [ASK G9 TO G12 IF G4 =2 OR G5 = 2] When you say **you would not have installed** the same [MEASURE1 OR C_MEASURE1][s] without the incentive, would you have installed anything at all?
1. (Yes, would have installed something) [ASK G10]
 2. (No, would not have installed anything at all) [SKIP TO I1]
 99. (DON'T KNOW) [ASK G10]
 88. (REFUSED) [ASK G10]
- G10. Without the incentive, would you have installed something that was just as energy efficient as the [MEASURE1 OR C_MEASURE1][s] you installed?
1. (Yes) [ASK G11]
 2. (No) [ASK G11]
 99. (DON'T KNOW) [ASK G11]
 88. (REFUSED) [ASK G11]
- G11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] Without the incentive, would you have installed the same amount of [MEASURE1 OR C_MEASURE1][s]?
1. (Yes, the same amount) [ASK G12]
 2. (No, would have installed less) [ASK G12]
 3. (No, would have installed more) [ASK G12]
 99. (DON'T KNOW) [ASK G12]
 88. (REFUSED) [ASK G12]
- G12. And, would you have installed the same [MEASURE1 OR C_MEASURE1][s]... [READ LIST AND RECORD ONE RESPONSE]
1. In the same year? [SKIP TO I1]
 2. In one to two years? [SKIP TO I1]
 3. In three to five years? [SKIP TO I1]
 4. More than five years out? [SKIP TO I1]
 99. (DON'T KNOW) [SKIP TO I1]
 88. (REFUSED) [SKIP TO I1]

H. Freeridership- Contractor

[ASK EITHER SECTION G OR SECTION H- **NOT BOTH**]

[ASK IF D2=1 – CONTRACTOR HELPED IN THE DECISION MAKING]

Now I'd like to talk with you about the new [MEASURE1 OR C_MEASURE1]. Even though your contractor may have installed other energy efficient equipment, these questions are just about the [MEASURE1 OR C_MEASURE1].

[INTERVIEWER NOTE ABOUT THIS SECTION (don't read to respondent): This section is based on hypothetical behavior so we are asking similar questions to verify that we are gathering the correct responses.]

- H1. At the time that you first started working with your contractor on this project, had you...? [READ LIST AND RECORD ONE FOR EACH: 1=YES OR 2=NO OR 99=DON'T KNOW OR 88=REFUSED]
1. Already been thinking about purchasing [MEASURE1 OR C_MEASURE1]?
 2. Already begun collecting information about [MEASURE1 OR C_MEASURE1]?
 3. Already selected the particular [MEASURE1 OR C_MEASURE1] and were going to purchase it?
 4. Already purchased the [MEASURE1 OR C_MEASURE1]?
 5. Already installed the [MEASURE1 OR C_MEASURE1]?
- H2. Just to make sure I understand, did your property have specific plans to install the [MEASURE1 OR C_MEASURE1][s] before you began working with your contractor?
1. (Yes) [ASK H3]
 2. (No) [SKIP TO H4]
 99. (DON'T KNOW) [SKIP TO H4]
 88. (REFUSED) [SKIP TO H4]
- H3. Before you began working with your contractor, was the purchase of the [MEASURE1 OR C_MEASURE1][s] included in your property's capital budget?
1. (Yes) [ASK:
 - a. Did your contractor help your property make the decision to include the purchase of [MEASURE1 OR C_MEASURE1][s] in your property's capital budget? [ASK H4]
 2. (No) [ASK H4]
 99. (DON'T KNOW) [ASK H4]
 88. (REFUSED) [ASK H4]
- H4. Would you have purchased and installed the same [MEASURE1 OR C_MEASURE1][s] without the assistance from your contractor?
1. (Yes) [SKIP TO H7]
 2. (No) [SKIP TO H9]
 99. (DON'T KNOW) [ASK H5]
 88. (REFUSED) [ASK H5]
- H5. Would you have installed **something** without the involvement of your contractor? [DO NOT READ LIST UNLESS NECESSARY]
1. (Yes, would have installed something) [ASK H6]
 2. (No, would NOT have installed anything) [SKIP TO I1]
 99. (DON'T KNOW) [SKIP TO I1]
 88. (REFUSED) [SKIP TO I1]

- H6. When you say you **would have installed** something, would you have installed something that was just as energy efficient as the [MEASURE1 OR C_MEASURE1][s] you installed?
1. (Yes) [ASK H7]
 2. (No) [ASK H7]
 99. (DON'T KNOW) [ASK H7]
 88. (REFUSED) [ASK H7]
- H7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the involvement of your contractor would you have installed the same number of [MEASURE1 OR C_MEASURE1][s]?
1. (Yes) [ASK H8]
 2. (No) ASK:
 - a. Would you have installed fewer or more of the [MEASURE1 OR C_MEASURE1](S)? [ASK H8]
 99. (DON'T KNOW) [ASK H8]
 88. (REFUSED) [ASK H8]
- H8. Without the assistance from your contractor, would you have installed the [MEASURE1 OR C_MEASURE1][s]...[READ LIST AND RECORD ONE RESPONSE]
1. Within the same year? [SKIP TO I1]
 2. Within one to two years? [SKIP TO I1]
 3. Within three to five years? [SKIP TO I1]
 4. In more than five years? [SKIP TO I1]
 99. (DON'T KNOW) [SKIP TO I1]
 88. (REFUSED) [SKIP TO I1]
- H9. [ASK H9 TO H13 IF H4=2 OR H5= 2] When you say **you would not have installed** the same [MEASURE1 OR C_MEASURE1][s] without the assistance from your contractor, would you have installed anything at all?
1. (Yes) [ASK H10]
 2. (No) [SKIP TO I1]
 99. (DON'T KNOW) [ASK H10]
 88. (REFUSED) [ASK H10]
- H10. Without the assistance from your contractor, **would you have installed** something that was just as energy efficient as the [MEASURE1 OR C_MEASURE1][s] you installed?
1. (Yes) [ASK H11]
 2. (No) [ASK H11]
 99. (DON'T KNOW) [ASK H11]
 88. (REFUSED) [ASK H11]
- H11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] Without the assistance from your contractor, would you have installed the same [MEASURE1 OR C_MEASURE1][s]?
1. (Yes) [ASK H12]
 2. (No) ASK:
 - b. Would you have installed fewer or more of the [MEASURE1 OR C_MEASURE1][S]? [ASK H12]
 99. (DON'T KNOW) [ASK H12]
 88. (REFUSED) [ASK H12]

H12. And, would you have installed the same [MEASURE1 OR C_MEASURE1][s] . . . [READ LIST AND RECORD ONE RESPONSE]

1. In the same year? [ASK H13]
2. In one to two years? [ASK H13]
3. In three to five years? [ASK H13]
4. More than five years out? [ASK H13]
99. (DON'T KNOW) [ASK H13]
88. (REFUSED) [ASK H13]

H13. If the assistance or information from your contractor had not been available, would you have done anything differently on this project?

1. (Yes) [ASK H14]
2. (No) [SKIP TO I1]
99. (DON'T KNOW) [SKIP TO I1]
88. (REFUSED) [SKIP TO I1]

H14. What would you have done differently? [RECORD OPEN ENDED RESPONSE]

I. Spillover

[ASK EVERYONE SECTION I]

I1. Since making these energy-efficiency upgrades has your company installed any other energy-efficient products in your facility that you did **NOT** receive an incentive for? By energy-efficient products, I mean appliances such as ENERGY STAR clothes washers; high efficiency water heaters, insulation or windows, or ENERGY STAR lighting such as LED lightbulbs.

1. (Yes) [ASK I2]
2. (No) [SKIP TO SECTION J]
99. (DON'T KNOW) [SKIP TO SECTION J]
88. (REFUSED) [SKIP TO SECTION J]

I2. Are these products also installed at the same location as the upgrades we have been talking about or at a different location?

1. (Same location)
2. (Different location)
99. (DON'T KNOW)
88. (REFUSED)

I3. What were the other energy-efficient products that you installed without getting an incentive? [DO NOT READ LIST; MARK ALL THAT APPLY; 99=DON'T KNOW, 88=REFUSED, -96=N/A] [If the customer says they bought something but have not installed it, the equipment has to be installed and operating for us to count it towards spillover.]

1. (CFLs)
2. (LEDs)
3. (Fluorescent tubes (T5s, T8s, etc.))
4. (Efficient lighting controls (occupancy sensors, daylighting, timers))
5. (High efficiency motors)
6. (Air source heat pumps)
7. (Ground source heat pumps)

- 8. (Central AC)
- 9. (VSD (variable speed drive))
- 10. (Boiler)
- 11. (Compressed air regulator)
- 12. (Gas furnaces)
- 13. (Exit signs)
- 14. (Refrigeration equipment (refrigerators, freezers))
- 15. (Other) [SPECIFY: _____]
- 99. (DON'T KNOW) [SKIP TO SECTION J]
- 88. (REFUSED) [SKIP TO SECTION J]

14. [REPEAT FOR EACH ITEM MENTIONED IN I3] How many [INSERT ITEM FROM I3] did you install?
[RECORD NUMBER _____, 99 FOR DON'T KNOW, 88 FOR REFUSED, AND -96 FOR N/A]

15. [REPEAT FOR EACH ITEM MENTIONED IN I3] Please tell me how important [IF D2≠2 READ, “the incentive for the [MEASURE1]” OR IF D2=2 READ, “assistance from your contractor”] was in your decision to install [ANSWER FROM I3]”? Was it...?: [READ LIST EMPHASIZE EACH ANSWER OPTION AND PAUSE IN BETWEEN EACH OPTION.]

- 1. Very important,
- 2. Somewhat important,
- 3. Not too important, or
- 4. Not at all important
- 99. (Don't know)
- 88. (Refused)

16. [ASK FOR ALL MENTIONED IN I3] Did you receive an incentive for installing [INSERT ANSWER FROM I3]? [DO NOT READ ANSWER LIST]

- 1. (Yes)
- 2. (No)
- 3. (Item did not qualify)
- 4. (Contractor or vendor received the incentive)
- 99. (Don't know)
- 88. (Refused)

17. [ASK IF I2=2] What is the address of the location where you installed [INSERT EACH ITEM FROM I3]?
[99 FOR DON'T KNOW AND 88 FOR REFUSED]

ENTER STREET ADDRESS:

ENTER CITY:

ENTER STATE:

ENTER ZIP CODE:

J. Satisfaction and Application Ease

Next, I have a few questions for you about your experience participating in the Multifamily Energy Savings Program.

- J1. *Did you receive an incentive check in the mail for the upgrades, or did your contractor provide a discount on the cost of the project?
1. (Rebate in the mail)
 2. (Contractor discount)
 99. (Don't know)
 88. (Refused)
- J2. *Did your organization complete the application for the financial incentive or did the energy advisor, contractor, vendor, or someone else do that for you?
1. (We completed the application)
 2. (Contractor/vendor completed the application)
 3. (Energy Advisor completed the application)
 4. (Other) [SPECIFY]
 99. (Don't know)
 88. (Refused)
- J3. [ASK IF J2=1] *Thinking about the application you submitted, how easy would you say this paperwork was to complete? Would you say: [READ LIST]
1. Very easy,
 2. Easy,
 3. Somewhat challenging, or
 4. Very challenging?
 99. (Don't know)
 88. (Refused)
- J4. [ASK IF J3= 3 or 4] *Why do you say that? [OPEN END]
- J5. [ASK IF J1=1] *Thinking about the incentive you received in the mail, how satisfied were you with the time it took to receive the check? Would you say: [READ LIST]
1. Very satisfied,
 2. Somewhat satisfied,
 3. Not too satisfied, or
 4. Not satisfied at all?
 99. (Don't know)
 88. (Refused)
- J6. [ASK IF J5=3 or 4] *About how long did it take to arrive? [READ LIST]
1. 1-3 weeks
 2. 4-6 weeks
 3. 7-8 weeks
 4. Over 8 weeks?
 99. (Don't know)
 88. (Refused)

- J7. *Did you ever visit the Focus on Energy website to learn about energy efficient upgrades and ways to save energy or to download forms?
1. (Yes) [SPECIFY WHEN THEY MOST RECENTLY ACCESSED THE WEBSITE- MONTH AND YEAR]
 2. (No) [SKIP TO J11]
 99. (Don't know) [SKIP TO J11]
 88. (Refused) [SKIP TO J11]
- J8. [ASK IF J7=1] *How easy was it to find what you were looking for? Would you say it was: [READ LIST]
1. Very easy,
 2. Easy,
 3. Somewhat challenging, or
 4. Very challenging?
 99. (Don't know)
 88. (Refused)
- J9. [ASK IF J7=1] *How would you rate the quality of information on the Focus on Energy website? Would you say the information was: [READ LIST]
1. Very helpful,
 2. Somewhat helpful,
 3. Not too helpful, or
 4. Not helpful at all?
 99. (Don't know)
 88. (Refused)
- J10. [ASK IF J9=3 or 4] *Why do you say that? [OPEN END]
- J11. *What would you say are the main benefits your company has experienced as a result of the energy efficiency upgrades we've discussed? [DO NOT READ LIST; RECORD ALL THAT APPLY; PROBE FOR MULTIPLE RESPONSES]
1. (The incentive)
 2. (Using less energy, reducing energy consumption or energy demand)
 3. (Saving money on our utility bills; lower energy bills)
 4. (Increased occupant comfort)
 5. (Better aesthetics/better or brighter lighting)
 6. (Saving money on maintenance costs)
 7. (Other [SPECIFY: _____])
 8. (NO BENEFITS)
 99. (DON'T KNOW)
 88. (Refused)

- J12. *Is there anything that Focus on Energy could have done to improve your overall experience with the Multifamily Energy Savings program? [DO NOT READ THE LIST, RECORD ALL THAT APPLY]
1. (Better/more communication [SPECIFY: Who would you like more communication from?_____])
 2. (Quicker response time [SPECIFY: Who would you like a quicker response time from?__])
 3. (Larger selection of eligible equipment [ASK: What energy-efficient equipment should Focus on Energy offer incentives for?_____])
 4. (Increasing the incentive amount)
 5. (Simplify the application process)[ASK: In what way should it be simplified?_____?]
 6. (Allow me to fill out the applications online)
 7. (Simplify the website)[ASK: In what way?_____]
 8. (Provide quicker approval on applications)
 9. (Send incentive check out faster)
 10. (Provide more face-time with my Energy Advisor (this may include more frequent visits))
 11. (Other [SPECIFY:_____])
 12. (No, nothing)
 99. (DON'T KNOW)
 88. (REFUSED)

K. Fixed Charges

[ASK IF UTILITY= WE Energies (1), WPS (2), OR MG&E (3) **AND** B4 OR B5= 1]

- K1. *Were you aware of the recent fixed cost increases put in place by your utility last year? [IF NEEDED: these changes impacted the fixed monthly customer charge on your electric bill].
1. (Yes)
 2. (No) [SKIP TO SECTION L]
 99. (Don't know) [SKIP TO SECTION L]
 88. (Refused) [SKIP TO SECTION L]
- K2. [ASK K2-K5 IF K1=1] *Did these changes impact your decision to make the energy-efficient upgrades we've been discussing?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)
- K3. [ASK IF K2=1] *How so?
1. [OPEN END]
 99. (Don't know)
 88. (Refused)

K4. *How likely are these higher fixed costs to impact your future investments in energy efficiency?

Would you say: [READ LIST]

1. Very likely
2. Somewhat likely
3. Not too likely
4. Not likely at all?
99. (Don't know) [SKIP TO SECTION L]
88. (Refused) [SKIP TO SECTION L]

K5. *Why do you say that? [OPEN END]

L. Closing

L1. *In the future, how would you like to stay informed about opportunities to save energy and money in Wisconsin? [DO NOT READ LIST; MULTIPLE RESPONSES POSSIBLE]

1. (Contact with Focus on Energy representative through phone, email, or in person)
2. (Focus on Energy monthly newsletter)
3. (Focus on Energy Website)
4. (Focus on Energy workshop, event)
5. (Contact with utility representative)
6. (Utility mailing, bill insert, utility Website)
7. (Contractor or vendor through phone, email, or in person)
8. (Through a trade association or professional organization)
9. (Other [SPECIFY: _____])
99. (DON'T KNOW)
88. (REFUSED)

L2. *Do you have any other comments about your experience with the Multifamily Energy Savings Program you would like to share?

[RECORD RESPONSE: _____; 99 FOR DON'T KNOW, 88 FOR REFUSED]

Thank you. We appreciate your help with this survey. You may also be contacted for an on-site visit if you have not been contacted already. Have a nice day.

**Wisconsin Focus on Energy
New Homes
Participant Customer Survey 2015**

Researchable Questions	Question
What are the reasons participants choose to buy a Program home? What barriers do they face when purchasing a Program home?	B11-B15, C1-C9, D2, D4
Are customers satisfied with the Program?	E1-E6
What is the level of Program and Focus on Energy awareness among participants?	B1-B4, B8-B10
What is the best way for Focus on Energy to inform customers about opportunities?	B7
What kinds of measure packages are installed; Do participants leave measures installed; Do participants install additional measures?	D1, D3
Do participants participate in other Focus on Energy programs?	B5-B6
LED and CFL purchases	Section H
What is the level of energy efficiency awareness among participants?	F2, G1-G4
Demographic questions	F1, I1-I8

Interviewer instructions are in green.

CATI programming instructions are in red.

List items that shouldn't be read are in parenthesis.

Audience: This survey is for participants.

[Variables from sample]

[CONTACT NAME]

[CONTACT PHONE]

**Survey questions labeled with a "*" are core questions that will be asked across all Focus on Energy phone surveys, where appropriate.*

A. Introduction

- A1. Hello, I'm [INSERT NAME] calling on behalf of Focus on Energy, Wisconsin's statewide energy efficiency program. May I speak with [CONTACT NAME]? OR [IF NO NAME] May I speak with someone who is knowledgeable about the purchase of your home?
1. (Yes, that is me)
 2. (Yes, person is coming to phone)
 3. (No, person is not able to come to phone right now) [SCHEDULE CALLBACK]
 98. (Don't know) [ASK TO SPEAK WITH SOMEONE WHO KNOWS AND BEGIN AGAIN]
 99. (Refused) [THANK AND TERMINATE]

- A2. [IF NEW PERSON READ: “Hello, I’m [INSERT NAME] calling on behalf of Focus on Energy, Wisconsin’s statewide energy efficiency program.”] We are talking with Wisconsin home owners about new homes and Focus on Energy is actively seeking your feedback about your experience and satisfaction with buying a Focus on Energy certified new home. [IF NEEDED: Your input as well as that of other Focus on Energy home owners will be used to make improvements to the program. The survey will take about 15 minutes.]
1. (Yes)
 2. (No) [SCHEDULE CALLBACK]
 98. (Don’t know) [THANK AND TERMINATE]
 99. (Refused) [THANK AND TERMINATE]

Back-up information, not to be programmed:

[If “No – Not a convenient time,” ask if Respondent would like to arrange a more convenient time for us to call them back or if you can leave a message for that person.]

[NOTE TO INTERVIEWER: If the respondent says that they have already been contacted by the program via an email/online survey or a postcard survey, the following response should be provided: “Focus on Energy follows up with each participant to ensure that it has met its high customer service standards through a brief online or postcard questionnaire. The survey that I am calling about now explores additional questions to help improve the program’s offerings.”]

[IF NEEDED:] This survey is for research purposes only and this is not a marketing call. This is the primary way for Focus on Energy to provide input into the New Homes certification program. Your participation in this study is important so that Focus on Energy can include your perspectives in how their energy efficiency programs are offered.

[IF RESPONDENT ASKS HOW LONG, SAY: “APPROXIMATELY 20 MINUTES.”]

[IF CUSTOMER IS WARY OF THE SURVEY, REASSURE THEM THAT YOU ARE NOT SELLING ANYTHING. IF NECESSARY OFFER JOE FONTAINE WITH THE PUBLIC SERVICE COMMISSION OF WISCONSIN, 608-266-0910 AS THE PERSON TO CONTACT WITH ANY QUESTIONS ABOUT THE VALIDITY OF THE RESEARCH.]

B. AWARENESS

- B1. *Where did you most recently hear about Focus on Energy New Homes program? [SELECT ONLY ONE. DO NOT READ, BUT PROMPT IF NECESSARY.]
1. (Television)
 2. (Radio)
 3. (Print media; magazine, newspaper article or advertisement)
 4. (Billboard/outdoor ad)
 5. (Bill insert)
 6. (Direct mail/brochure/postcard)
 7. (Family/friends/word-of-mouth)
 8. (Focus on Energy or Utility Website)
 9. (Other Website [SPECIFY: _____])
 10. (Email)
 11. (Social media)
 12. (Focus on Energy or utility representative)

- 13. (Contractor)
- 14. (Realtor)
- 15. (Home builder)
- 16. (Retail stores)
- 17. (Home/trade shows)
- 18. (Sporting or community event)
- 19. (Other [SPECIFY: _____])
- 98. (Don't know)
- 99. (Refused)

B2. *Are there any other ways you heard about the program? [DO NOT READ. RECORD ALL THAT APPLY]

- 1. (Television)
- 2. (Radio)
- 3. (Print media (magazine, newspaper article or advertisement))
- 4. (Billboard/outdoor ad)
- 5. (Bill insert)
- 6. (Direct mail/brochure/postcard)
- 7. (Family/friends/word-of-mouth)
- 8. (Focus on Energy or Utility website)
- 9. (Other website [SPECIFY: _____])
- 10. (Email)
- 11. (Social Media)
- 12. (Focus on Energy or Utility representative)
- 13. (Contractor)
- 14. (Realtor)
- 15. (Home builder)
- 16. (Retail stores)
- 17. (Home/trade shows)
- 18. (Sporting or community event)
- 19. (Other, [SPECIFY: _____])
- 20. (No other ways)
- 98. (Don't know)
- 99. (Refused)

B3. *Are you aware of any other Focus on Energy programs or rebates? [IF NEEDED: "Such as rebates on CFL bulbs, ENERGY STAR Appliances, or energy-efficient upgrades or home energy audits.]

- 1. (Yes)
- 2. (No) [SKIP TO B7]
- 98. (Don't know) [SKIP TO B7]
- 99. (Refused) [SKIP TO B7]

- B4. *Which programs or rebates are you aware of? [DO NOT READ; RECORD ALL THAT APPLY] [IF RESPONDENT CAN NAME A TECHNOLOGY BUT NOT A PROGRAM REFER TO PROGRAM DESCRIPTIONS PROVIDED, OTHERWISE CODE AS 6. OTHER]
1. (Home Performance with ENERGY STAR) [DESCRIPTION, DO NOT READ: Must say they received an energy audit of their home and that they received an audit report. Program also provides free installation of CFLs, faucet aerators, showerheads, as well as rebates for adopting recommendations on the audit report]
 2. (Appliance Recycling) [DESCRIPTION, DO NOT READ: Rebates for recycling old refrigerators and freezers]
 3. (Lighting) [DESCRIPTION, DO NOT READ: CFLs and LEDs discounted at a retail store]
 4. (Express Energy Efficiency) [DESCRIPTION, DO NOT READ: installation of many low-cost energy efficient items by a contractor (must say that someone else installed the items for free): CFLs, faucet aerators, high efficient showerheads, water heater pipe insulation, water heater temperature set-back]
 5. (Residential Rewards and Enhanced Rewards) [DESCRIPTION, DO NOT READ: rebates for furnaces, furnace motors, air conditioners, hot water heaters, insulation, smart thermostats, solar panels, heat pumps, ground source heat pumps, boilers]
 6. (Other [SPECIFY: _____])
 98. (Don't know)
 99. (Refused)
- B5. *Have you participated in any other Focus on Energy programs? [IF NEEDED: "Such as rebates on CFL bulbs, ENERGY STAR Appliances, or energy-efficient upgrades or home energy audits.]
1. (Yes)
 2. (No)
 98. (Don't know)
 99. (Refused)
- B6. *Which programs or rebates did you participate in? [DO NOT READ, BUT PROMPT IF NECESSARY. RECORD ALL THAT APPLY] [IF RESPONDENT CAN NAME A TECHNOLOGY BUT NOT A PROGRAM, CODE AS 6. OTHER]
1. (Home Performance with ENERGY STAR) [DESCRIPTION, DO NOT READ: Must say they received an energy audit of their home and that they received an audit report. Program also provides free installation of CFLs, faucet aerators, showerheads, as well as rebates for adopting recommendations on the audit report]
 2. (Appliance Recycling) [DESCRIPTION, DO NOT READ: Rebates for recycling old refrigerators and freezers]
 3. (Lighting) [DESCRIPTION, DO NOT READ: CFLs and LEDs discounted at a retail store]
 4. (Express Energy Efficiency) [DESCRIPTION, DO NOT READ: installation of many low-cost energy efficient items by a contractor (must say that someone else installed the items for free): CFLs, faucet aerators, high efficient showerheads, water heater pipe insulation, water heater temperature set-back]
 5. (Residential Rewards and Enhanced Rewards) [DESCRIPTION, DO NOT READ: rebates for furnaces, furnace motors, air conditioners, hot water heaters, insulation, smart thermostats, solar panels, heat pumps, ground source heat pumps, boilers]
 6. (Other [SPECIFY: _____])
 98. (Don't know)

99. (Refused)

B7. *What do you think is the best way for Focus on Energy to inform the public about energy-efficiency programs? **[DO NOT READ, BUT PROMPT IF NECESSARY. RECORD ALL THAT APPLY]**

1. (Television)
2. (Radio)
3. (Print media (magazine, newspaper article or advertisement))
4. (Billboard/outdoor ad)
5. (Bill insert)
6. (Direct mail/brochure/postcard)
7. (Family/friends/word-of-mouth)
8. (Focus on Energy or Utility website)
9. (Other website **[SPECIFY: _____]**)
10. (Email)
11. (Social Media)
12. (Focus on Energy or Utility representative)
13. (Contractor)
14. (Realtor, home builder)
15. (Retail stores)
16. (Home/trade shows)
17. (Sporting or community event)
18. (Other, **[SPECIFY: _____]**)
19. (Do not want to receive information)
98. (Don't know)
99. (Refused)

Thank you, next I'd like to ask you specifically about new home certification.

B8. Before this call had you ever seen or heard of the Focus on Energy new home certification?

1. (Yes) **[SKIP TO B10]**
2. (No)
98. (Don't know)
99. (Refused)

B9. The Focus on Energy new home certification is for homes built in Wisconsin that are at least 10% more efficient than a home built to code. Had you seen or heard of such certification before now?

1. (Yes)
2. (No) **[SKIP TO C1]**
98. (Don't know) **[SKIP TO C1]**
99. (Refused) **[SKIP TO C1]**

- B10. Before a home can be certified as a Focus on Energy home, it would need to be tested for energy efficiency and has to be at least 10% more energy efficient than a standard home. To the best of your knowledge, is your new home a Focus on Energy certified home? [IF NEEDED if customer is unsure – Focus on Energy is Wisconsin utilities’ statewide energy efficiency and renewable resource program.]
1. (Yes, pretty sure this is a Focus on Energy Certified home)
 2. (No) [SKIP TO C1]
 98. (Don’t know) [SKIP TO C1]
 99. (Refused) [SKIP TO C1]
- B11. How did you first learn that your home was a Focus on Energy certified home? [DO NOT READ LIST. RECORD ALL THAT APPLY]
1. (Focus on Energy label on the home – either on a plaque, closing papers, or on a Home Certificate?)
 2. (A letter stating that the home participated in the Focus on Energy New Home program)
 3. (The builder told me it was a Focus on Energy New Home)
 4. (Was not notified; there are no indicators)
 5. (Another method [SPECIFY: _____])
 98. (Don’t know)
 99. (Refused)

[DO NOT ASK IF B11=4]

- B11a. Did you also learn that your home was a Focus on Energy certified home through...[READ LIST. RECORD YES OR NO FOR EACH WHERE 1=YES, 2=NO, 98=DON’T KNOW, AND 99=REFUSED] [ONLY DISPLAY ANSWERS NOT SELECTED IN B11]
1. Focus on Energy label on the home – either on a plaque, closing papers, or on a Home Energy Rating Certificate?
 2. A letter stating that the home participated in the Focus on Energy New Home program
 3. [DO NOT ASK IF B11=3] The builder told me it was a Focus on Energy New Home
 4. Another method [SPECIFY: _____]
 98. (Don’t know)
 99. (Refused)

[DO NOT ASK IF B11=4 OR NO TO B11a PARTS 1, 2, 3 AND 4]

- B12. At what point in the home-buying process did you become aware of Focus on Energy certified homes? Did you become aware... [READ LIST AND RECORD ONE RESPONSE]
1. Before starting the home search or building process
 2. During the home search/building process
 3. After purchasing the home
 4. Or some other time [SPECIFY: _____]
 5. (Not aware of Focus on Energy New Homes)
 98. (Don’t know)
 99. (Refused)

[DO NOT ASK IF B11=3, 4, 5, 98 or 99 or B11a IS 3, 4, 98, OR 99]

- B13. Did any of the following parties, mention as a selling point, that some homes are Focus on Energy certified? As I read each one, please say yes or no. [RECORD 1 FOR YES, 2 FOR NO, 98 FOR DON'T KNOW, AND 99 FOR REFUSED]
1. The builder or the builder's sales agent
 2. The realtor
 3. Some other source [SPECIFY: _____]
 98. (Don't know)
 99. (Refused)

[ASK IF B13=1]

- B14. How knowledgeable was the builder or builder's salesperson about the Focus on Energy certification or installed energy-efficient appliances and/or products? Would you say... [READ LIST]
1. Very knowledgeable
 2. Somewhat knowledgeable
 3. Not too knowledgeable
 4. Not at all knowledgeable
 98. (Don't know)
 99. (Refused)

[ASK IF B13=1]

- B15. How important was the builder or builder's salesperson in your decision to buy your specific home? Would you say... [READ LIST]
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all important
 98. (Don't know)
 99. (Refused)

C. Decision Making

- C1. Which of the following statements best describes your involvement in the design and building of your new home? [READ ENTIRE LIST AND RECORD ONE RESPONSE]
1. We had the home custom built to our specifications. [GO TO C2]
 2. We selected from a number of home designs that the builder offered and made SOME changes to a standard design. [SKIP TO C3]
 3. We selected from a number of home designs that the builder offered and made a FEW or NO changes to the standard design. [SKIP TO C3]
 4. We bought a model home or a home that was already built [SKIP TO C5]
 98. (Don't know) [SKIP TO C5]
 99. (Refused) [SKIP TO C5]

[ASK IF C1=1 and IF B9 and B10=1, 98, 99]

- C2. How difficult was it to find a builder who could construct a Focus on Energy-certified home? Would you say it was very difficult, somewhat difficult, not too difficult, or not difficult at all?
1. Very difficult
 2. Somewhat difficult
 3. Not too difficult
 4. Not difficult at all
 98. (Don't know)
 99. (Refused)

[ASK IF C1=1, 2, OR 3]

- C3. Did you experience any delays in the construction of your home that were caused by any of the following? [READ LIST; RECORD ALL THAT APPLY; PROBE FOR MULTIPLE RESPONSES]
1. Shortage of subcontractors such as framers, electricians or plumbers?
 2. Shortage of building materials?
 3. (Other [Specify _____])
 4. No delays
 98. (Don't know)
 99. (Refused)

- C4. How long did it take to build your new home?
1. Three to four months
 2. Five to six months
 3. More than six months
 98. (Don't know)
 99. (Refused)

[ASK EVERYONE]

- C5. When looking for a new home, what were the most important aspects that you considered? [DO NOT READ LIST; RECORD ALL THAT APPLY]
1. (Price)
 2. (Location)
 3. (Energy efficiency)
 4. (Quality of home construction)
 5. (Schools/neighborhood)
 6. (Size of home)
 7. (Home layout/floor plan)
 8. (Builder reputation)
 9. (Other [SPECIFY: _____])
 98. (Don't know)
 99. (Refused)

[ASK IF B10=1]

C6. What were your primary reasons for buying/building a Focus on Energy certified home? [DO NOT READ LIST; RECORD ALL THAT APPLY; PROBE FOR MULTIPLE RESPONSES]

1. (Higher quality home / better constructed)
2. ("Green" / environmentally friendly)
3. (Save energy)
4. (Lower energy/utility bills)
5. (Reduced draftiness)
6. (Better indoor air quality / healthier)
7. (Home is more valuable / resale value)
8. (More comfortable / better temperature regulation)
9. (Peace of mind / Knowing my builder builds a quality home)
10. (Other [SPECIFY: _____])
98. (Don't know)
99. (Refused)

[ASK IF B10=1]

C7. How important of a factor was your home's Focus on Energy certification in your decision to buy/build this particular home rather than another home? Would you say... [READ LIST]

1. Very important [SKIP TO C9]
2. Somewhat important [SKIP TO C9]
3. Not too important [GO TO C8]
4. Not at all important [GO TO C8]
98. (Don't know) [SKIP TO C9]
99. (Refused) [SKIP TO C9]

[ASK IF C7=3 OR 4]

C8. Why was the Focus on Energy new home certification not an important factor?

1. [RECORD ANSWER: _____]
98. (Don't know)
99. (Refused)

[ASK EVERYONE]

C9. How likely is it that you would have purchased this home if it were not a Focus on Energy certified home? Would you ...

1. Definitely have purchased
2. Probably have purchased
3. Might or might not have purchased
4. Probably not have purchased
5. Definitely not have purchased
98. (Don't know)
99. (Refused)

D. Energy-Efficient Equipment

Now I have a few questions about the appliances in your new home.

- D1. To the best of your knowledge, which of the following high efficiency products and features are installed in your new home? [READ EACH AND RECORD 1 FOR YES AND 2 FOR NO, 98 FOR DON'T KNOW, AND 99 FOR REFUSED]
- D1a. ENERGY STAR Lighting such as CFLs or LEDs
 - D1b. Energy-efficient windows
 - D1c. High efficiency insulation
 - D1d. High efficiency rim and band joist spray foam insulation
 - D1e. Energy efficient furnace
 - D1f. Energy efficient boiler
 - D1g. Energy efficient water heater: [IF NEEDED READ: Indirect water heater; also known as a sidearm or boilermate water heater; Storage water heater; Electric water heater; Tankless water heater; also known as an on-demand water heater]
 - D1h. Renewable energy system
 - D1i. Overall more air-tight construction

[ASK FOR EACH "YES" IN D1]

- D2. For each of the high efficiency features installed in your new home, who was the primary decision-maker for selecting them?
- 1. (Homeowner researched and selected the products)
 - 2. (Builder/architect offered homeowner a list of products to choose from)
 - 3. (Builder/architect selected the model without homeowner involvement)
 - 98. (Don't know)
 - 99. (Refused)
-
- D2a. Energy Efficient Lighting
 - D2b. Energy-efficient windows
 - D2c. High efficiency insulation
 - D2d. High efficiency rim and band joist spray foam insulation
 - D2e. Energy efficient furnace
 - D2f. Energy efficient boiler
 - D2g. Energy efficient water heater
 - D2h. Renewable energy system

- D3. After moving into the home, did you: [READ LIST: RECORD 1 FOR YES, 2 FOR NO, 98 FOR DON'T KNOW, AND 99 FOR REFUSED]
- 1. Replace any existing energy efficient appliances or products?
D3a. [ASK IF D3.1=1] Please describe what you replaced. [RECORD RESPONSE]
 - 2. Install any additional energy-efficient appliances or products?
D3b. [ASK IF D3.2=1] Please describe what you installed. [RECORD RESPONSE]

[ASK IF D3.1=1 OR D3.2=1]

- D4. How important was the Focus on Energy New Homes program in your decision to add energy-efficient appliances or products to your home? Was it ... [READ LIST]
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all important
 98. (Don't know)
 99. (Refused)

E. Satisfaction

Thank you. Next I'd like to ask you about your satisfaction with different aspects of the program.

- E1. Overall how satisfied are you with the Focus on Energy New Homes program? Would you say you are... [READ LIST]
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 98. (Don't know)
 99. (Refused)
- E2. Do you have any suggestions or comments about the program?
1. [RECORD ANSWER: _____]
 98. (Don't know)
 99. (Refused)

[ONLY ASK IF B10=1]

- E3. Did you interact with Focus on Energy staff when you selected and purchased your certified Focus on Energy home?
1. (Yes)
 2. (No) [SKIP TO E5]
 98. (Don't know) [SKIP TO E5]
 99. (Refused) [SKIP TO E5]
- E4. How satisfied are you with the Focus on Energy Staff who assisted you? Would you say you are..."] [READ LIST]
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 98. (Don't know)
 99. (Refused)

- E5. How satisfied are you with the energy-efficient product(s) installed in your home? Would you say you are... [READ LIST]
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 98. (Don't know)
 99. (Refused)
- E6. How likely are you to initiate another energy-efficiency improvement in the next 12 months? Would you say you are... [READ LIST]
1. Very likely
 2. Somewhat likely
 3. Not too likely
 4. Not at all likely
 98. (Don't know)
 99. (Refused)

F. Home Value

- F1. Approximately how much did your home cost? Stop me when I read the correct category [READ LIST]
1. Below \$150,000
 2. \$150,00 to less than \$200,000
 3. \$200,000 to less than \$300,000
 4. \$300,000 to less than \$400-000
 5. \$400,000 to less than \$500,000
 6. More than \$500,000
 98. (Don't know)
 99. (Refused)

[ASK IF B10=1]

- F2. Do you think the price was much higher, somewhat higher, about the same, somewhat lower, or much lower than an identical non-Focus on Energy home? [RECORD ONE RESPONSE]
1. Much higher
 2. Somewhat higher
 3. About the same
 4. Somewhat lower
 5. Much lower
 98. (Don't know)
 99. (Refused)

G. Perceptions of Energy Efficient Homes

- G1. *How informed do you feel about all the ways you can save energy, including buying and using energy efficient appliances and products? Would you say ... [READ LIST]
1. Very informed
 2. Somewhat informed
 3. Not too informed
 4. Not at all informed
 98. (Don't know)
 99. (Refused)
- G2. *On a scale of zero to five where five is a lot of attention and zero is not a lot of attention, how much attention do you pay to the amount of energy; gas or electric, that you use in your home?
1. [RECORD ANSWER]
 98. (Don't know)
 99. (Refused)
- G3. Please indicate your level of agreement with the following statements. Would you say you... [READ LIST] that [INSERT STATEMENT]?
1. Agree strongly
 2. Agree somewhat
 3. Neither agree nor disagree
 4. Disagree somewhat
 5. Disagree strongly
 98. (Don't know)
 99. (Refuse)
- G3a. [ASK IF C1= 4, 98, 99] Focus on Energy homes are difficult to find.
- G3b. Focus on Energy homes are more comfortable than standard homes.
- G3c. Most new homes are energy-efficient even if they are not Focus on Energy certified.
- G3d. Focus on Energy homes provide additional quality.
- G3e. Focus on Energy homes have better resale value.
- G3f. It's hard to understand the benefits of Focus on Energy homes.
- G3g. Focus on Energy homes have lower energy bills.
- G4. As a result of purchasing a Focus on Energy home, would you say your familiarity with energy efficiency has increased significantly, increased somewhat, decreased somewhat, decreased significantly?
1. Increased significantly
 2. Increased somewhat
 3. Decreased somewhat
 4. Decreased significantly
 98. (Don't know)
 99. (Refused)

H. LED and CFL Purchases

Now I'd like to ask you about recent light bulb purchases that you've made from retail stores.

- H1. In the last 12 months, approximately how many screw-in CFL bulbs and how many screw-in LED bulbs did you or someone in your house purchase in-store from a retailer? Please try to estimate the total number of **bulbs**, and not packages. Also, please consider only screw-in bulbs purchased from a retail store, and NOT online. [IF NEEDED: By retail store I mean an in-store, retail location of a Costco, hardware store, grocery store, Walmart, etc. and NOT purchased online] (IF "DON'T KNOW," PROBE: Would you say it is less than or more than five bulbs? [WORK FROM THERE TO GET AN ESTIMATE] [INDICATE WHETHER THEY PURCHASED CFLS AND LEDS AND HOW MANY THEY PURCHASED OF EACH.]) [IF NEEDED: CFLs, also known as compact fluorescent light bulbs, are energy saving light bulbs that most often have a "twisted" shape.] [Another type of light bulb that is used in homes is called a light emitting diode or L-E-D [SAY THE LETTERS L-E-D]. These bulbs have regular screw bases that fit into most household sockets but are made of multiple smaller lights. [IF NEEDED: LEDS HAVE HISTORICALLY BEEN USED FOR NIGHTLIGHTS, FLASHLIGHTS, AND HOLIDAY LIGHTS. HOWEVER, WE ARE NOT ASKING ABOUT THESE TYPES OF LEDS.]
1. (RECORD Quantity of screw-in CFL bulbs)
 2. (RECORD Quantity of screw-in LED bulbs)
 98. (Don't know)
 99. (Refused)

[ASK IF H1.1>0]

- H2. Where are these [QUANTITY FROM H1.1] screw-in CFL bulbs being used? Were they purchased to be used in your home or in a business? ["HOME" INCLUDES ANY ASPECT OF A RESIDENTIAL APPLICATION, E.G. INSIDE A HOME, IN A GARAGE, BARN, OUTSIDE A HOME ETC.] [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH APPLICATION THAT APPLIES]
1. (RECORD QUANTITY For my home)
 2. (RECORD QUANTITY For a business application)
 3. (RECORD QUANTITY for Other)
 98. (Don't know)
 99. (Refused)

[ASK IF H2.1>0]

- H3. Of the [QUANTITY FROM H2.1] screw-in CFL bulbs purchased for your home from a retail outlet in the past 12 months, how many are currently installed?
[NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN CFL BULBS, NOT A RANGE.]
1. [RECORD QUANTITY _____]
 98. (Don't know)
 99. (Refused)

[ASK IF H3>0]

H4. From which retail store(s) did you purchase the screw-in CFL bulbs that are currently installed in your home? [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH STORE THAT APPLIES, TOTAL QUANTITY SHOULD EQUAL H3 QUANTITY]

1. (Ace Hardware)
2. (Batteries Plus)
3. (Big Lots)
4. (Blain's Farm & Fleet)
5. (Costco)
6. (Do It Best)
7. (Dollar General)
8. (Dollar Tree)
9. (Express Mart)
10. (Family Dollar)
11. (Festival Foods)
12. (Goodwill)
13. (Gordy's)
14. (Habitat Restore)
15. (Home Depot)
16. (Lowe's)
17. (Menards)
18. (Mill's Fleet Farm)
19. (Miner's)
20. (Sam's Club)
21. (True Value)
22. (United Hardware)
23. (Walgreens)
24. (WalMart)
25. (Woodman's)
26. (World of Variety)
27. (Other [SPECIFY _____])
28. (Did not buy from a retail store)
98. (Don't know)
99. (Refused)

[ASK IF H1.2>0]

H5. Where are these [QUANTITY FROM H1.2] screw-in LED bulbs being used? Were they purchased to be used in your home or in a business? [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH APPLICATION THAT APPLIES]

1. (RECORD QUANTITY For my home)
2. (RECORD QUANTITY For a business application)
3. (RECORD QUANTITY For Other)
98. (Don't know)
99. (Refused)

[ASK IF H5.1>0]

H6. Of the [QUANTITY FROM H5.1] screw-in LED bulbs purchased for your home from a retail outlet in the past 12 months, how many are currently installed?

[NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN LED BULBS, NOT A RANGE.]

1. [RECORD QUANTITY _____]
98. (Don't know)
99. (Refused)

[ASK IF H6>0]

H7. From which retail store(s) did you purchase the screw-in LED bulbs that are currently installed in your home? [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH STORE THAT APPLIES, TOTAL QUANTITY SHOULD EQUAL H6 QUANTITY]

1. (Ace Hardware)
2. (Batteries Plus)
3. (Big Lots)
4. (Blain's Farm & Fleet)
5. (Costco)
6. (Do It Best)
7. (Dollar General)
8. (Dollar Tree)
9. (Express Mart)
10. (Family Dollar)
11. (Festival Foods)
12. (Goodwill)
13. (Gordy's)
14. (Habitat Restore)
15. (Home Depot)
16. (Lowe's)
17. (Menards)
18. (Mill's Fleet Farm)
19. (Miner's)
20. (Sam's Club)
21. (True Value)
22. (United Hardware)
23. (Walgreens)
24. (WalMart)
25. (Woodman's)
26. (World of Variety)
27. (Other [SPECIFY _____])
28. (Did not buy from a retail store)
98. (Don't know)
99. (Refused)

I. Demographics

Now I have a few questions for statistical purposes only.

11. *Approximately how many square feet of living space does your home have? Don't include the basement unless it is a space that you consider lived in. [READ CATEGORIES IF NEEDED]
1. (Less than 1,000 square feet)
 2. (1,000 to less than 1,500 square feet)
 3. (1,500 to less than 2,000 square feet)
 4. (2,000 to less than 2,500 square feet)
 5. (2,500 to less than 3,000 square feet)
 6. (3,000 to less than 4,000 square feet)
 7. (4,000 square feet or greater)
 98. (Don't know)
 99. (Refused)
12. *What type of fuel do you use to heat your home? [READ LIST IF NEEDED]
1. (Natural gas)
 2. (Electricity)
 3. (Propane/bottled gas)
 4. (Wood)
 5. (Other [SPECIFY: _____])
 98. (Don't know)
 99. (Refused)
13. *What type of fuel does your water heater use? [READ LIST IF NEEDED]
1. (Natural gas)
 2. (Electricity)
 3. (Propane/bottled gas)
 4. (Wood)
 5. (Other [SPECIFY: _____])
 98. (Don't know)
 99. (Refused)
14. *Including yourself, how many people currently live in this household on a full time basis? [IF NEEDED: Please include everyone who lives in your home whether or not they are related to you and exclude anyone who is just visiting or in the military or children who may be away at college.]
1. [RECORD ANSWER]
 98. (Don't know)
 99. (Refused)

[ASK IF I4>1]

15. * How many people under the age of 18 live in your home year round?
1. 1
 2. 2
 3. 3
 4. 4
 5. 5
 6. 6
 7. 7 OR MORE
 0. (none)
 98. (Don't know)
 99. (Refused)
16. *Which of the following categories best represents your age? Please stop me when I get to the appropriate category.
1. 18-24
 2. 25-34
 3. 35-44
 4. 45-54
 5. 55-64
 6. 65-74
 7. 75 or older
 98. (Don't know)
 99. (Refused)
17. *What is the highest level of school that someone in your home has completed? [READ CATEGORIES, IF NECESSARY.]
1. (Less than ninth grade)
 2. (Ninth to twelfth grade; no diploma)
 3. (High school graduate (includes GED))
 4. (Some college, no degree)
 5. (Associates degree)
 6. (Bachelor's degree)
 7. (Graduate or professional degree)
 98. (Don't know)
 99. (Refused)

18. *Which category best describes your total household income in 2014 before taxes? [IF NEEDED: "Please stop me when I get to the appropriate category."]
1. Less than \$20,000
 2. \$20,000, up to \$50,000
 3. \$50,000, up to \$75,000
 4. \$75,000, up to \$100,000
 5. \$100,000, up to \$150,000
 6. \$150,000, up to \$200,000
 7. \$200,000 or more
 98. (Don't know)
 99. (Refused)

CLOSING SCRIPT:

Those are all the questions we have. **Focus on Energy** appreciates your input. Thank you for your time.

Focus on Energy New Homes 2015 Interview Guide for Participant Builders

Research Questions	Interview Guide Questions
What changes have occurred since CY2014?	Q19-21
What percent of program homes would have been built to the same level of efficiency in the Program’s absence? (These questions address freeridership and are only asked as a back-up to the billing analysis method of determining NTG.)	Q10-Q11
How effectively is the Program engaging with builders in CY2015?	Q34-42
How have housing market changes (downturn and recovery) affected the Program?	Q24-Q29
What factors drive builder and homebuyer participation?	Q15-Q18, Q30-Q33
What program successes have been achieved?	Q34-Q42
What opportunities exist for program process improvements?	Q22-Q23

- Interviewer instructions are in green **[LIKE THIS]**.
- Skip patterns are in red **[LIKE THIS]**.
- Items that should not be read by the interviewer are in parentheses like this ().

Business name _____

Respondent name _____

Date _____

Interviewer _____

Introduction

Hello, my name is **[NAME]** from Cadmus. We are conducting a study on behalf of Wisconsin Focus on Energy, utilities’ statewide energy efficiency and renewable resource program. We are talking to builders about their experience providing services for Focus on Energy’s New Homes Program.

Screening

1. Does your company participate in Focus on Energy's New Homes Program?
 1. Yes
 2. No (Thank and Terminate)
 3. Don't know
 4. Refused

2. Are you the person responsible for making decisions regarding Focus on Energy New Homes at your company? [IF NEEDED: Focus on Energy is a statewide program overseen by the Wisconsin Public Service Commission to encourage energy efficiency.]
 1. (Yes)
 2. (No, but person can come to phone) [START OVER AT 1 WITH NEW RESPONDENT]
 3. (No, not available [SCHEDULE CALLBACK]
 98. (DON'T KNOW) [ASK TO SPEAK WITH SOMEONE WHO WOULD KNOW AND START AGAIN]
 99. (REFUSED) [THANK AND TERMINATE]

3. The interview will take approximately 15-20 minutes of your time. Do you have time right now for us to complete the interview?
 1. If yes: Thank you. Your individual answers will be kept confidential and only summary information will be shared with Focus on Energy.
 2. If no: What would be the best time for me to call back and talk with you?

Back-up information:

[IF NEEDED:] I am not selling anything, we are interested in your opinions to help improve our programs, and understand how to assist customers in saving money on their utility bills. Your response will remain confidential.]

[IF CUSTOMER IS WARY OF THE SURVEY, REASSURE THEM THAT YOU ARE NOT SELLING ANYTHING. IF NECESSARY Joe Fontaine with the Public Service Commission of Wisconsin, 608-266-0910 CAN BE CONTACTED TO CONFIRM VALIDITY OF THE STUDY.]

4. Does your company build homes other than single family homes?
 1. (Yes) (Record what other types)
 2. (No)

5. In 2015, how many total homes have you built in Wisconsin (Focus on Energy, and all non-qualified homes)?
 1. [Record answer _____]

6. And of those homes you built in 2015, what percentage were Focus on Energy Homes?
 1. [Record answer _____]

7. And were the remaining homes you built based on Wisconsin state 2009 IECC code?
 1. Yes
 2. No

8. [IF 7=NO] What percentage were Wisconsin state code homes?
 1. [Record answer _____]

Building Energy-Efficient Homes (Freeridership)

9. How important is Focus on Energy's New Homes Program in your decision to build energy efficient homes?
 1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all Important

10. If Focus on Energy did not offer the New Homes Program, would you build the same number of energy-efficient homes, fewer homes, or more homes?
 1. The same amount
 2. Fewer
 3. More

11. [If Q10=1] If you would build the same number of energy-efficient homes without the Program, to what standard would you build? *Note: From this response, we need to understand if the builder would build homes to the same standard (Focus on Energy) or to a different efficiency standard like Wisconsin code (2006 IECC) or ENERGY STAR.*
 1. [Record answer _____]

Building Practices

12. Has your company changed construction practices in the last 3 years?
 1. Yes
 2. No
 3. Don't Know

13. [If Q12=1] Can you describe the change in construction practice?
 1. [Record answer _____]

14. [If Q12=1] Which of the changes, if any, resulted from your participation in the Focus on Energy New Homes program?
 1. [Record answer _____]

Participation

15. How important were inquiries from customers regarding the Focus on Energy Program in your decision to participate? Would you say: **[READ LIST]**
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all Important
16. How important was the opportunity to differentiate your homes from other builders' homes in your decision to participate? **[REPEAT LIST IF NECESSARY]**
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all important
17. How important were the Program's monetary incentives in your decision to participate? **[REPEAT LIST IF NECESSARY]**
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all important
18. Other than the reasons we've mentioned, for what other reasons do you choose to participate in the Focus on Energy Program?
1. **[Record answer _____]**

Program Design

19. How has the program changed in the last 12 months?
1. **[Record answer _____]**
 2. (It hasn't changed) **[SKIP TO Q 22]**
 3. (Don't know)
 4. (Refused)
20. Did the changes to the program make it easier for your *company* to participate?
1. (Yes) In what way? **[Record answer _____]**
 2. (No) Why is that? **[Record answer _____]**
 3. (Don't know)
 4. (Refused)

21. Did the changes to the program make it easier for your *customers* to participate?

1. (Yes) In what way? [Record answer _____]
2. (No) Why is that? [Record answer _____]
3. (Don't know)
4. (Refused)

22. What about the Focus on Energy New Homes Program works well?

[Record answer _____]

23. In what ways could the program be improved?

1. (No improvement needed)
2. [Record answer _____]
3. (Don't know)
4. (Refused)

Market Impact

24. Has your company been impacted by outside market forces such as a labor shortage, materials shortage, a change in demand for new homes or any other forces in the last 3 years?

1. (Yes)
2. (No) [SKIP TO Q30]
3. (Don't Know)
4. (Refused)

25. [If Q24=1] Can you describe the forces?

[Record answer _____]

26. [If Q24=1] Please describe the impact these forces have had on your company? [IF NEEDED: For example a decrease in number of homes built, difficulty hiring qualified staff, layoffs, or delays.]

[Record answer _____]

27. [Ask if Q24= 1] Have those outside market forces remained the same, or have they lessened or im 2015? [IF NEEDED: Such as a labor shortage, materials shortage, a change in demand for new homes or another force.]

1. (Yes)
2. (No) [SKIP TO Q30]
3. (Don't Know)
4. (Refused)

28. **[If Q27=1]** Can you describe the changes in those market forces in 2015?

[Record answer _____]

29. **[If Q27=1]** Please describe the impact these forces have had on your company in 2015?

[Record answer _____]

Marketing and Outreach

Now I'd like to talk about how the New Homes Program is marketed to home buyers.

30. How frequently do buyers ask about energy efficiency when they visit your model homes?

1. Very frequently
2. Occasionally
3. Not very often
4. Not at all
5. (Don't know)
6. (Refused)

31. About what percentage of buyers in Wisconsin would you say are familiar with the Focus on Energy New Homes Program?

[Record answer _____]

32. Have you changed the way you market Tier 1-4 incentives for Focus on Energy homes? **(If needed: Tier 1 homes are 10 - 19.9% more efficient than code; Tier 2 homes are 20-29.9% more efficient than code; Tier 3 homes are 30 - 39.9% more efficient than code; Tier 4 homes are 40-100% more efficient than code.)**

1. (Yes)
2. (No)
3. Other **[Record answer _____]**

33. **[If Q32=1]** What is different about how you market them?

[Record answer _____]

Program Satisfaction

34. Have you received any sales training from Wisconsin Energy Conservation Corporation (WECC) and Focus on Energy or the Building Performance Contractor (BPCs)?

1. (Yes)
 - i. Approximately when did you take the training?
2. (No) **[SKIP TO Q37]**

35. How satisfied are you with the sales training you received? Would you say you are: [READ LIST, probe for why rating was given]

1. Very satisfied
2. Somewhat satisfied
3. Not too satisfied
4. Not at all satisfied

36. How could the sales training be improved?

1. [Record answer [_____]]

37. Overall how satisfied are you with the New Homes program?

0. Not at all satisfied
- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
10. Extremely satisfied
98. (Don't know)
99. (Refused)

38. Please tell us more about your experience or any suggestions you have for improvement?

1. [RECORD ANSWER:_____]
98. (Don't know)
99. (Refused)

39. How satisfied are you with the Focus on Energy Staff who assisted you?

0. Not at all satisfied
- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
10. Extremely satisfied
98. (Don't know)
99. (Refused)

40. How satisfied are you with the amount of the rebate or discount you received?

- 0. Not at all satisfied
- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10. Extremely satisfied
- 98. (Don't know)

41. How likely are you to initiate another energy-efficiency improvement in the next 12 months?

- 0. Not at all likely
- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10. Extremely likely
- 11. Already Have
- 98. (Don't know)

42. On occasion, Focus on Energy staff may follow up with some survey respondents. Please indicate your preference”?

- 1. Okay to contact
- 2. Please do not contact

Thank you for your time. Do you have anything you'd like to add regarding the Focus on Energy Homes Program?

**Wisconsin Focus on Energy
Renewable Rewards Program
Participant Telephone Survey 2015**

This survey is designed for customers who received an incentive for purchasing and installing a solar PV systems through the Renewable Rewards Program.

Topics	Researchable Questions	Question Numbers
Motivation	Why did customer choose to install PV system?	B1
Program awareness	How did the customer hear about the Cash-Back Reward?	B2
Satisfaction	Are customers satisfied with the program, their PV system, and their installer?	C1-C5
Financing	What other incentives did customers use to pay for their PV systems?	D1
Financing	How are customers paying for their portion of PV system costs?	D1-D6
Financing	What are customers' interest in solar loan and third party ownership options?	D7-D13
Costs	What additional costs, if any, did program participants pay for their PV installations beyond what was paid directly to the installer?	E1-E2
Costs	Have customers experienced maintenance issues related to their PV systems?	E3-E6
Costs	Are customers likely to require roof replacement during the life of their PV system?	E7-E9
Freeridership	Assess freeridership	F1-F9
Participant spillover	Assess participant spillover	G1-G8
Demographics	What are the general household characteristics of Residential and Enhanced Rewards participants? What type of heating and cooling systems do customers have in their home?	H1-H13

Target Quota: 70

- Interviewer instructions are in green.
- CATI programming instructions are in red.
- Response choices in parenthesis should not be read
- Questions with an * are core Focus questions

A. Introduction

- A1. Hello, my name is [FIRST NAME], and I am calling on behalf of Focus on Energy. Can I please speak with [CUSTOMER NAME]? [IF CUSTOMER UNAVAILABLE SCHEDULE A CALLBACK] Focus on Energy is actively seeking your opinions about your recent experience with Focus on Energy's Renewable Rewards Program. Our records show that you received a Cash-Back Reward from Focus on Energy for purchasing a solar photovoltaic (PV) system. Is that correct?
1. (Yes)
 99. (No/Don't know) [ASK TO SPEAK WITH SOMEONE WHO KNOWS AND BEGIN AGAIN. IF PERSON DOESN'T RECOGNIZE PROGRAM SAY: "You may remember receiving a \$300-\$2,400 Cash-back Reward from Focus on Energy for installing a solar PV system. Does this sound familiar now?"] [THANK AND TERMINATE IF DON'T REMEMBER AND NO ONE ELSE IN HOUSEHOLD KNOWS.]
 88. (Refused) [THANK AND TERMINATE]
- A2. Great, would you be willing to participate in a short survey to help Focus on Energy evaluate and improve their programs? All your answers will be kept confidential.
1. (Continue)
 2. (No) [THANK AND TERMINATE]
 99. (Don't know) [THANK AND TERMINATE]
 88. (Refused) [THANK AND TERMINATE]

Back-up information, not to be programmed:

[If "No – Not a convenient time," ask if Respondent would like to arrange a more convenient time for us to call them back or if you can leave a message for that person.]

[IF RESPONDENT ASKS HOW LONG, SAY: "APPROXIMATELY 20 MINUTES."]

[IF NEEDED: I am not selling anything, we are interested in your opinions to help improve our programs, and understand how to assist customers in saving money on their utility bills. Your response will remain confidential."]

[IF NEEDED: If the respondent says that they have already been contacted by the program via an email/online survey or a postcard survey, the following response should be provided: "Focus on Energy follows up with each participant to ensure that it has met its high customer service standards through a brief online or postcard questionnaire. The survey that I am calling about now explores additional questions to help improve the program's offerings."]

[IF CUSTOMER IS WARY OF THE SURVEY, REASSURE THEM THAT YOU ARE NOT SELLING ANYTHING. IF NECESSARY OFFER JOE FONTAINE WITH THE PUBLIC SERVICE COMMISSION OF WISCONSIN (608-266-0910) AS THE PERSON TO CONTACT WITH ANY QUESTIONS ABOUT THE VALIDITY OF THE RESEARCH.]

[TERMINATION SCRIPT: Those are all the questions we have for you. Thank you very much for your time."]

B. Awareness and Motivation

- B1. What was your primary motivation for installing a solar PV system? [DO NOT READ LIST, RECORD ONE ANSWER]
1. (Financial savings/reducing energy bills)
 2. (Helping the environment)
 3. (Other, [SPECIFY: _____])
- B2. *Where did you most recently hear about Focus on Energy's Renewable Rewards program? [DO NOT READ LIST, RECORD ONE ANSWER]
1. (Television)
 2. (Radio)
 3. (Print media (magazine, newspaper article or advertisement))
 4. (Billboard/outdoor ad)
 5. (Bill insert)
 6. (Direct mail/brochure/postcard)
 7. (Family/friends/word-of-mouth)
 8. (Focus on Energy or Utility website)
 9. (Other website [SPECIFY: _____])
 10. (Email)
 11. (Social Media)
 12. (Focus on Energy or Utility representative)
 13. (Contractor)
 14. (Realtor, home builder)
 15. (Retail stores)
 16. (Home/trade shows)
 17. (Sporting or community event)
 18. (Other, [SPECIFY: _____])
 99. (Don't know)
 88. (Refused)

C. Application Process and Installation

- C1. How satisfied are you with the Cash-Back application process? Would you say you are ... [READ LIST]
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 99. (Don't know)
 88. (Refused)
- [ASK IF C1=1-4]
- C2. Why are you [INSERT ANSWER FROM C1] with the application process? [DO NOT READ LIST; RECORD ALL THAT APPLY]
1. (Difficulty filling out the application [ASK: What was difficult? _____])
 2. (Application processing took too long [ASK: How long did it take? _____])
 3. (Other [SPECIFY: _____])
 99. (Don't know)
 88. (Refused)

[ASK EVERYONE]

- C3. Do you have any suggestions to improve the application process?
1. [RECORD RESPONSE]
 2. (No suggestions)
 99. (Don't know)
 88. (Refused)

[ASK EVERYONE]

- C4. Thinking about just the installation of your PV system, how would you describe your satisfaction with your system installer? Would you say you are...[READ LIST]
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 99. (Don't know)
 88. (Refused)

[ASK IF C4 = 3 OR 4]

- C5. Can you tell me more about why you were [INSERT ANSWER FROM C4] with your PV system installer? [PROBE-was the project completed on time?]
1. [RECORD RESPONSE]
 99. (Don't know)
 88. (Refused)

D. Ownership and Financing

These next questions are designed to provide us with an understanding of how you paid for your new PV system. This information will help the program with planning future customer offerings. As a reminder, the information you share will be kept confidential.

- D1. There are a variety of incentives available for solar PV system owners. Other than the Renewable Rewards program that you already indicated you received, which of the following other incentives did you also receive? [Read list and indicate all chosen by respondent]
1. Federal Investment Tax Credit
 2. Renewable Energy Sales Tax Exemption
 3. Residential Renewable Energy Tax Credit
 4. Utility incentive (other than Renewable Rewards) [PROBE: _____]
 5. Other [SPECIFY: _____]
 6. I did not receive any incentives beside the Renewable Rewards
 99. (Don't know)
 88. (Refused)

- D2. Please explain how you paid for your portion of the PV system costs? Did you pay for it with ... [READ EACH AND RECORD ALL THAT APPLY] [FOR EACH ONE SELECTED, ASK, "Of the out of pocket costs, after considering any incentives you may be receiving, what portion do you expect to pay using [INSERT EACH SELECTED]" **[Read List and record percentages]**
1. Cash or Debit **[RECORD]**
 2. Home Equity Loan **[RECORD]**
 3. Credit card **[RECORD]**
 4. Another form of credit **[RECORD]**
 5. (Other, **[RECORD]**)
 99. (Don't know)
 88. (Refused)

[ASK IF D2=2, 3, 4, OR 5, OTHERWISE SKIP TO D7]

- D3. Great, we know many people use some form of credit to pay for their PV systems, as these are large expenditures. I'd like to hear more about the loan you used. If you are willing to share some information with us, what is your annual interest rate on the loan?
1. **[RECORD RESPONSE]**
 99. (Don't know)
 88. (Refused)

- D4. Thanks, what is the term of your loan, in years?
1. **[RECORD YEARS]**
 97. (Not applicable)
 99. (Don't know)
 88. (Refused)

- D5. Did you obtain your loan or line of credit through a bank where you are already a customer, or did you seek credit from another institution that you do not normally do business with?
1. From a bank where I am already a customer
 2. Another institution where I am not already a customer
 3. (Other **[SPECIFY: _____]**)
 97. (Not applicable)
 99. (Don't know)
 88. (Refused)

- D6. **[ASK D6 IF D5 = 2, OTHERWISE SKIP TO D7]** What factors led you to choose this other institution instead of working through your regular bank? **[READ AND INDICATE ALL CHOICES]**
1. Lower interest rate
 2. Better terms
 3. Unable to obtain loan from usual bank
 4. Alternative bank offered special program(s) that were attractive
 5. Other **[RECORD]**
 99. (Don't know)
 88. (Refused)

- D7. Have you ever heard about solar loans, a special loan product specifically for people purchasing PV systems?
- 1. Yes
 - 2. No
 - 99. (Don't know)
 - 88. (Refused)
- D8. Solar loan programs are typically structured so that the loan payments are less than, or equal to, your expected energy savings. If Focus on Energy had offered a solar loan program instead of a Renewable Rewards incentive when you decided to purchase a PV system, how likely would you have been to participate in that program?
- 1. Very Likely
 - 2. Somewhat Likely
 - 3. Somewhat Unlikely
 - 4. Very Unlikely
 - 99. (Don't know)
 - 88. (Refused)
- D9. Would you have installed a larger PV system if there had been other financing option, such as a solar loan instead of a Renewable Rewards incentive, available to you?
- 1. Yes
 - 2. No
 - 99. (Don't know)
 - 88. (Refused)
- D10. **[ASK D10 IF D9 = 1, OTHERWISE SKIP TO D11]** On a percentage basis, can you please estimate how much larger of a system you would have installed if the solar loan was available?
- 1. **[RECORD PERCENTAGE]**
 - 99. (Don't know)
 - 88. (Refused)
- D11. Another option for installing PV on your home is to lease the system from a third party owner. In that case the third party owner owns, maintains, and operates the system and you would either buy the electricity generated or pay a fixed lease payment. Though you wouldn't own the system, most customers realize financial savings compared to purchasing utility-supplied power. How likely would you be to sign a lease agreement for a third party owned PV system on your home?
- 1. Very Likely
 - 2. Somewhat Likely
 - 3. Somewhat Unlikely
 - 4. Very Unlikely
 - 99. (Don't know)
 - 88. (Refused)

- D12. If a third party ownership option had been available when you purchased your PV system, would you have installed a larger PV system?
1. Yes
 2. No
 99. (Don't know)
 88. (Refused)
- D13. **[ASK D13 IF D12 = 1, OTHERWISE SKIP TO D14]** Please indicate, on a percentage basis, how much larger of a system you would likely have installed.
1. **[RECORD PERCENTAGE]**
 99. (Don't know)
 88. (Refused)
- D14. Assuming the economics were comparable, would you prefer to own your own PV system, or lease it from a third party?
1. Own my own system **[Say: "and why do you say that" RECORD:_____]**
 2. Lease it from a third party **[Say: "and why do you say that" RECORD:_____]**
 99. (Don't know)
 88. (Refused)

E. Costs of Ownership

These next questions are about the costs you paid related to your PV system, but not necessarily paid directly to your installer. We are trying to gather data on costs related to installing your new PV system, particularly costs that you might have paid in addition to what you paid your solar installer.

- E1. Is your system roof-mounted?
1. Yes
 2. No
 99. (Don't know)
 88. (Refused)
- E2. **[ASK IF E1= 1, OTHERWISE SKIP TO E4]** Did you make any improvements or upgrades to your roof as part of the process for installing your PV system? Can you describe what you had done?
1. Complete replacement **[SPECIFY:_____]**
 2. Adding new shingles **[SPECIFY:_____]**
 3. Structural reinforcement **[SPECIFY:_____]**
 4. Other types of work **[SPECIFY:_____]**
 5. I did not have any roofing work done
 99. (Don't know)
 88. (Refused)

- E3. **[ASK IF E2=5, OTHERWISE SKIP TO E4]** Can you tell me how many years ago your roof was last replaced?
1. [RECORD RESPONSE IN YEARS]
 99. (Don't know)
 88. (Refused)
- E4. Can you tell me about how much you spent on the following typical types of additional costs associated with installing a PV system? [READ LIST] [IF NEEDED: The information you share will be kept confidential]
1. Permit and inspection fees [RECORD \$: _____]
 2. Site preparation such as landscaping or tree removal [RECORD \$: _____]
 3. Roof replacement, repair, or upgrades [RECORD \$: _____]
 4. Electrical system upgrades [RECORD \$: _____]
 5. Engineer and surveying services [RECORD \$: _____]
 6. Other [RECORD: _____]
 99. (Don't know)
 88. (Refused)
- E5. Can you give me a few details about the **[INSERT ALL RESPONSES FROM E4 WHERE \$ >0]** work you had done in conjunction with your PV installation?
1. [RECORD RESPONSE]
 99. (Don't know)
 88. (Refused)
- E6. Since your PV system was installed, have you had any unscheduled maintenance or downtime on your PV system?
1. Yes
 2. No
 99. (Don't know)
 88. (Refused)
- E7. **[ASK IF E6 = 1, OTHERWISE SKIP TO SECTION F]** Which system component, or components, have you had issues with? [Read list and record all that apply]
1. PV modules [SAY "please describe the issue": _____]
 2. Racking [SAY "please describe the issue": _____]
 3. Roof penetrations/mounting (including leaks, if applicable) [SAY "please describe the issue": _____]
 4. Array wiring [SAY "please describe the issue": _____]
 5. Disconnects or combiners [SAY "please describe the issue": _____]
 6. Microinverter [SAY "please describe the issue": _____]
 7. DC optimizer [SAY "please describe the issue": _____]
 8. String inverter [SAY "please describe the issue": _____]
 9. Monitoring system [SAY "please describe the issue": _____]
 10. Other [SAY "please describe the issue": _____]
 99. (Don't know)
 88. (Refused)

- E8. What would you estimate is the total amount of time your system was partially, or fully, inoperable since its installation?
1. [RECORD RESPONSE, SPECIFY UNITS (HOURS, DAYS, MONTHS)]
 99. (Don't know)
 88. (Refused)

F. Freeridership

I'd like to find out what your plans were for installing a PV system **before** you found out about the Focus on Energy Renewable Rewards program.

- F1. **Before** you heard anything about the Focus on Energy Renewable Rewards program, had you already purchased or installed your PV system?
1. (Yes)
 2. (No) [SKIP TO F3]
 99. (Don't know) [SKIP TO F3]
 88. (Refused) [SKIP TO F3]
- F2. So just to be clear, you installed your PV system before you heard anything about the Focus on Energy Renewable Rewards program. Is that correct?
1. (Yes, that's correct) [SKIP TO G1]
 2. (No, that's not correct)
 99. (Don't know)
 88. (Refused)
- F3. **Before** you heard about the program, had you already been **planning to install** a PV system?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)
- F4. Would you have installed the same PV system without the Cash-back Reward from Focus on Energy?
1. (Yes) [SKIP TO F7]
 2. (No)
 99. (Don't know)
 88. (Refused)
- F5. What would you have done differently if the Renewable Rewards program had not been available to you?
1. I would have installed a larger PV system
 2. I would have installed a smaller PV system
 3. I would not have installed a PV system at all [SKIP TO F8]
 99. (Don't know) [SKIP TO F9]
 88. (Refused) [SKIP TO F9]

- F6. How much [RESPONSE FROM F5: SMALLER/LARGER] would your system have been, as a percentage?
- F7. And, thinking about timing, without the Focus on Energy Cash-back Reward, would you have installed the PV system... [READ LIST]
1. At the same time [SKIP TO F9]
 2. Within the same year [SKIP TO F9]
 3. One to two years out [SKIP TO F9]
 4. More than two years out [SKIP TO F9]
 5. Never
 99. (Don't know) [SKIP TO F9]
 88. (Refused) [SKIP TO F9]
- F8. So just to confirm, you would not have installed a PV system at all, without a Focus on Energy Cash-back Reward. Is that correct?
1. (Yes) [SKIP TO G1]
 2. (No)
 99. (Don't know)
 88. (Refused)
- F9. Please tell me how important the Focus on Energy Cash-back Reward was in your decision to install your PV system. Would you say it was ... [READ LIST]
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all important
 99. (Don't know)
 88. (Refused)

G. Spillover

Now I'd like to talk to you about any energy saving improvements you may have made since installing the PV system and receiving a Cash-Back reward from Focus on Energy.

- G1. Since installing the PV system and receiving a Cash-Back reward from Focus on Energy, have you installed any other energy-efficient products in your home that you did NOT receive a Cash-back Reward for? By energy-efficient products, I mean appliances such as ENERGY STAR clothes washers; high efficiency water heaters, insulation or windows, or ENERGY STAR lighting such as CFL light bulbs.
1. (Yes)
 2. (No) [SKIP TO G5]
 99. (Don't know) [SKIP TO G5]
 88. (Refused) [SKIP TO G5]

G2. What were the products that you installed without getting a Cash-back Reward? [DO NOT READ LIST; CLARIFY AS NEEDED TO CODE ANSWER CORRECTLY, RECORD ALL THAT APPLY]

1. (Gas boiler)
2. (Gas furnace)
3. (Gas tank-less water heater)
4. (Gas storage water heater)
5. (Electric tank-less water heater)
6. (Electric storage water heater)
7. (Insulation; attic) [ASK: How many square feet?]
8. (Insulation; floor) [ASK: How many square feet?]
9. (Insulation; ceiling) [ASK: How many square feet?]
10. (Insulation; other [SPECIFY: _____]) [ASK: How many square feet?]
11. (Air sealing)
12. (Clothes washer)
13. (Dishwasher)
14. (Windows) [ASK: How many square feet?]
15. (Programmable thermostat)
16. (Efficient lighting; CFLs) [ASK: How many did you install?]
17. (Efficient lighting; LEDs) [ASK: How many did you install?]
18. (Efficient lighting; Fluorescent) [ASK: How many did you install?]
19. (Efficient lighting; Fixtures) [ASK: How many did you install?]
20. (Efficient lighting; other [SPECIFY: _____]) [ASK: How many did you install?]
21. (Refrigerator)
22. (Heat pump water heater)
23. (Room AC) [ASK: How many did you install?]
24. (Central AC)
25. (Heat Pump; air source)
26. (Heat pump; ground source)
27. (Heat pump; other [SPECIFY: _____])
28. (Smart power strip)
29. (Other [SPECIFY: _____]) [ASK: How many did you install?]
99. (Don't know)
88. (Refused)

G3. Please tell me how important your experience with the Focus on Energy program was in your decision to install [INSERT EACH ONE SELECTED IN G2]. Was it very important, somewhat important, not too important, or not at all important in your decision to install these energy-efficient product(s)?

1. Very important
2. Somewhat important
3. Not too important
4. Not at all important
99. (Don't know)
88. (Refused)

[ASK G4 FOR EACH ONE SELECTED IN G2 EXCEPT 12 (clothes washer), 13 (dishwasher), 14 (windows), 16-20 (Efficient lighting), 21 (refrigerator), 22 (heat pump water heater), 23 (room AC), OR 29 (other).]

- G4. Why didn't you apply for and receive a Cash-back Reward for [INSERT EACH ONE SELECTED IN G2]? [DO NOT READ LIST; RECORD ONE ANSWER FOR EACH]
1. (Did not know Cash-back Reward was available)
 2. (Product did not qualify)
 3. (Other [SPECIFY: _____])
 99. (Don't know)
 88. (Refused)
- G5. Since receiving the Focus on Energy Cash-Back Reward for installing your PV system, have you taken any other actions to reduce energy consumption? [PROBE WITH: "An energy efficiency action could be turning down the temperature on your thermostat or you water heater, or powering down appliances or computers."]
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

[ASK IF G5=1]

- G6. Specifically, what actions have you taken? [DON'T READ LIST; RECORD ALL THAT APPLY]
1. (Turn down temperature on water heater)
 2. (Turn down temperature on furnace)
 3. (Take shorter or fewer showers)
 4. (Wash clothes only in cold water)
 5. (Not leave water running)
 6. (Turn off appliances)
 7. (Turn off computers)
 8. (Turn off lights)
 9. (Other [SPECIFY: _____])
 99. (Don't know)
 88. (Refused)
- G7. Please tell me how important the Focus on Energy Cash-Back Reward for PV systems was in your decision to [INSERT EACH ONE SELECTED IN G6]. Was it very important, somewhat important, not too important, or not at all important in your decision to take these action(s)? [IF MORE THAN ONE ACTION/HABIT IN G6, "Was it the same influence for every action?"]
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all important
 99. (Don't know)
 88. (Refused)
- G8. And, over time, have you continued to take these actions to save energy? Let's start with ... [INSERT EACH ANSWER FROM G6]. [IF NEEDED, "Have you continued to take this action to save energy?"]
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

- G9. Has your participation in the Renewable Rewards program led you to install any additional renewable energy measures? If so, can you tell me what you installed? [READ RESPONSES]
1. Additional solar PV system [Ask how many kW installed]
 2. Small wind system [Ask how many kW installed]
 3. Solar hot water system [Ask how many collectors]
 4. Small hydroelectric system [Ask how many kW installed]
 5. Other [SPECIFY:_____]
 6. No new renewable energy systems installed
 99. (Don't know)
 88. (Refused)

- G10. [ASK IF G9 = 1-5, OTHERWISE SKIP TO G11] Please tell me how important the Focus on Energy Cash-Back Reward for PV systems was in your decision to [INSERT EACH ONE SELECTED IN G9]. Was it very important, somewhat important, not too important, or not at all important in your decision to take these action(s)? [IF MORE THAN ONE ACTION/HABIT IN G6, "Was it the same influence for every action?"]
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all important
 99. (Don't know)
 88. (Refused)

- G11. [ASK IF G9 =6, OTHERWISE SKIP TO SECTION H] Do you intend to install any more renewable energy technology at your home? How likely are you to install each of the following technologies within the next 5 years? [RECORD: Very likely, somewhat likely, not too likely, unlikely]
1. Solar PV
 2. Small wind
 3. Solar hot water
 4. Small hydroelectric
 5. Other [SPECIFY:_____]
 99. (Don't know)
 88. (Refused)

[ASK FOR EACH ITEM LISTED IN G11 1 OR 2 THAT RESPONDED VERY LIKELY OR SOMEWHAT LIKELY] How many kilowatts of nameplate capacity do you think you will install?

H. Demographics and Household Information

We are almost finished. These last few questions are for analytical purposes only.

H1. What is the primary type of heating system in your home? [READ LIST IF NEEDED, RECORD ONE RESPONSE]

1. Central forced air furnace
2. Air-source heat pump
3. Ground-source heat pump
4. Hot water boiler
5. Steam boiler
6. Radiant floor heating
7. Baseboard heat
8. Portable heaters [SPECIFY NUMBER OF HEATERS: _____]
9. Other [SPECIFY: _____]
10. None (no heating system)
99. (Don't know)
88. (Refused)

H2. *What type of fuel do you use to heat your home?

1. (Natural gas)
2. (Electricity)
3. (Propane/Bottled gas)
4. (Wood)
5. (Other [SPECIFY: _____])
99. (Don't know)
88. (Refused)

H3. What is the primary type of cooling system in your home? [READ LIST IF NEEDED, RECORD ONE RESPONSE]

1. Central air conditioner
2. Air-source heat pump
3. Ground-source heat pump
4. Room air conditioners [SPECIFY NUMBER OF UNITS: _____]
5. Ductless mini-split air conditioner
6. Evaporative cooler (Swamp cooler)
7. Portable fans
8. Whole-house fan
9. Ceiling fans
10. Other [SPECIFY: _____]
11. None (no cooling system)
99. (Don't know)
88. (Refused)

H4. What type of fuel do you use for water heating in your home?

1. (Natural gas)
2. (Electricity)
3. (Propane/Bottled gas)
4. (Other [SPECIFY: _____])
99. (Don't know)
88. (Refused)

These last few questions are for statistical purposes only.

- H5. *What type of home do you live in? Is it a: [READ LIST]
1. Single-family home, detached house
 2. Attached house (townhouse, row house, or duplex)
 3. Multifamily apartment or condo building with 4 or more units
 4. Mobile/manufactured home
 5. Co-op/retirement community
 6. Other [SPECIFY: _____]
 99. (Don't know)
 88. (Refused)
- H6. * Do you or members of your household own this home or do you rent?
1. (Own/buying)
 2. (Rent/lease)
 3. (Occupied without payment of rent)
 4. (Other [SPECIFY: _____])
 99. (Don't know)
 88. (Refused)
- H7. * Approximately how many square feet of living space does your home have? Don't include the basement unless it is a space that you consider lived in. [READ CATEGORIES IF NEEDED]
1. (Less than 1,000)
 2. (1,000 to less than 1,500)
 3. (1,500 to less than 2,000)
 4. (2,000 to less than 2,500)
 5. (2,500 to less than 3,000)
 6. (3,000 to less than 4,000)
 7. (4,000 or more)
 99. (Don't know)
 88. (Refused)
- H8. *About when was your home first built? [READ CATEGORIES IF NEEDED]
1. (Before 1970s)
 2. (1970s)
 3. (1980s)
 4. (1990 – 1994)
 5. (1995 – 1999)
 6. (2000s)
 7. (Other [SPECIFY: _____])
 99. (Don't know)
 88. (Refused)

- H9. *Including yourself, how many people currently live in this household on a full time basis? [IF NEEDED: Please include everyone who lives in your home whether or not they are related to you and exclude anyone who is just visiting or in the military or children who may be away at college.]
1. [RECORD ANSWER]
 99. (Don't know)
 88. (Refused)

[ASK IF H9>1]

- H10. * How many people under the age of 18 live in your home year round?
1. 1
 2. 2
 3. 3
 4. 4
 5. 5
 6. 6
 7. 7 OR MORE
 99. (Don't know)
 88. (Refused)

- H11. * What is the highest level of school that someone in your home has completed? [READ CATEGORIES, IF NECESSARY]
1. (Less than ninth grade)
 2. (Ninth to twelfth grade; no diploma)
 3. (High school graduate; includes GED)
 4. (Some college, no degree)
 5. (Associates degree)
 6. (Bachelor's degree)
 7. (Graduate or professional degree)
 99. (Don't know)
 88. (Refused)

- H12. * Which of the following categories best represents your age? Please stop me when I get to the appropriate category.
1. 18-24
 2. 25-34
 3. 35-44
 4. 45-54
 5. 55-64
 6. 65-74
 7. 75 or older
 99. (Don't know)
 88. (Refused)

- H13. * Which category best describes your total household income in 2014 before taxes? [IF NEEDED: "Please stop me when I get to the appropriate category."]
1. Less than \$20,000
 2. \$20,000, up to \$50,000
 3. \$50,000, up to \$75,000
 4. \$75,000, up to \$100,000
 5. \$100,000, up to \$150,000
 6. \$150,000 up to \$200,000
 7. \$200,000 or more
 99. (Don't know)
 88. (Refused)

CLOSING SCRIPT: Those are all the questions we have. **Focus on Energy** appreciates your input. Thank you for your time.

**Wisconsin Focus on Energy
Residential and Enhanced Rewards
Participant Telephone Survey 2015**

This survey is designed for customers who received an incentive for purchasing energy efficient or renewable measure through the Residential and Enhanced Rewards Program.

Topics	Researchable Questions	Question Numbers
Program awareness	How did the customer hear about the Residential and Enhanced Rewards program? What is the best way to inform customers about energy-efficiency programs?	B1-B2, B7
Cross-program awareness and participation	Are customers knowledgeable of any other Focus on Energy programs? Have they participated in any other Focus on Energy Programs?	B3-B6
Customer experience, purchasing decisions, and barriers	Are customers satisfied with the program? Why did they decide to participate? What opportunities for improvement exist? What challenges do customers face in saving energy at home?	C1-C3, D1-D5
Furnace fan usage	What advice, if any, do contractors give customers regarding efficient furnace fan usage? How do customers use furnace fans (efficient and standard)?	E1-E5
Freeridership	Assess freeridership	F1-F11
Participant spillover	Assess participant spillover	G1-G8
Energy attitudes	How informed are customers of ways to save energy? How much attention to customers pay to the amount of energy they use?	H1-H2
Smart thermostats	What kind of thermostat(s) do customers currently have installed in their home?	H5
Cross-sector bulb sales	Assess cross-sector bulb sales: Has the customer purchases LEDs or CFLs from retail stores recently? Where did they buy the bulbs from? Are the bulbs being used for a residential or business application?	I1-I7
Demographics	What are the general household characteristics of Residential and Enhanced Rewards participants	H3-H4, J1-J9

Target Quotas: 70 Residential Rewards, 70 Enhanced Rewards

Residential and Enhanced Rewards Program Participant Survey

Measure List	Measure Name	Measure Number	"A, an, or some"
Air Source Heat Pump, >= 16 SEER	Air Source Heat Pump	RR1	an
Boiler, 95%+ AFUE, With DHW, NG	Boiler with direct hot water heater	RR2	a
ECM, Furnace, New or Replacement	Efficient Furnace Motor (or ECM)	RR3	an
Furnace And A/C, ECM, 95% + AFUE, >= 16 SEER	Furnace with efficient motor and air conditioning	RR4	a
Furnace And A/C, ECM, 95% + AFUE, >= 16 SEER, Enhanced Rewards	Furnace with efficient motor and air conditioning	RR5	a
Ground Source Heat Pump, Electric Back-up	Ground Source Heat Pump	RR6	a
Ground Source Heat Pump, NG Back-up	Ground Source Heat Pump	RR7	a
Hot Water Boiler, 95%+ AFUE	Hot Water Boiler	RR8	a
Insulation and Air Sealing, Attic, R-11 to R-38	Attic insulation and air sealing	RR9	some
Insulation, Attic, R-19 to R-38	Attic insulation	RR10	some
LP or Oil Furnace with ECM, 90%+ AFUE (Existing)	Furnace with efficient motor	RR11	a
NG Furnace with ECM, 95%+ AFUE (Existing)	Furnace with efficient motor	RR12	a
NG Furnace with ECM, 95+ AFUE (Existing), Enhanced Rewards	Furnace with efficient motor	RR13	a
NG Furnace with ECM, 97%+ AFUE	Furnace with efficient motor	RR14	a
NG Furnace with ECM, 97+ AFUE, Enhanced Rewards	Furnace with efficient motor	RR15	a
NG Furnace, 95% AFUE	Efficient furnace	RR16	an
Water Heater, Indirect	Indirect Water Heater	RR18	an

- Interviewer instructions are in green.
- CATI programming instructions are in red.
- Response choices in parenthesis should not be read
- Questions with an * are core Focus questions

A. Introduction

- A1. Hello, my name is [FIRST NAME], and I am calling on behalf of Focus on Energy. Can I please speak with [CUSTOMER NAME]? [IF CUSTOMER UNAVAILABLE SCHEDULE A CALLBACK] Focus on Energy is actively seeking your opinions about your recent experience with Focus on Energy's [INSERT PROGRAM NAME] Program. Our records show that you received a cash-back Reward from Focus on Energy for purchasing ["a, an, or some"] [INSERT MEASURE NAME] through the [INSERT PROGRAM NAME] program. Is that correct?
1. (Yes)
 99. (No/Don't know) [ASK TO SPEAK WITH SOMEONE WHO KNOWS AND BEGIN AGAIN. IF PERSON DOESN'T RECOGNIZE PROGRAM SAY, [IF RESIDENTIAL REWARDS: "You may remember receiving a Cash-back Reward from Focus on Energy for installing energy efficient equipment in your home such as attic insulation, heating and cooling equipment, or renewable equipment. Does this sound familiar now?"] [IF ENHANCED REWARDS: "You may remember receiving a Cash-back Reward from Focus on Energy for installing energy efficient heating equipment in your home. Does this sound familiar now?"] [THANK AND TERMINATE IF DON'T REMEMBER AND NO ONE ELSE IN HOUSEHOLD KNOWS.]
 88. (Refused) [THANK AND TERMINATE]
- A2. Great, would you be willing to participate in a short survey to help Focus on Energy evaluate and improve their programs? All your answers will be kept confidential.
1. (Continue)
 2. (No) [THANK AND TERMINATE]
 99. (Don't know) [THANK AND TERMINATE]
 88. (Refused) [THANK AND TERMINATE]

Back-up information, not to be programmed:

[NOTE TO INTERVIEWER: If the respondent says that they have already been contacted by the program via an email/online survey or a postcard survey, the following response should be provided: "Focus on Energy follows up with each participant to ensure that it has met its high customer service standards through a brief online or postcard questionnaire. The survey that I am calling about now explores additional questions to help improve the program's offerings."]

[If "No – Not a convenient time," ask if Respondent would like to arrange a more convenient time for us to call them back or if you can leave a message for that person.]

[IF RESPONDENT ASKS HOW LONG, SAY: "APPROXIMATELY 20 MINUTES."]

[IF NEEDED: I am not selling anything, we are interested in your opinions to help improve our programs, and understand how to assist customers in saving money on their utility bills. Your response will remain confidential."]

[IF CUSTOMER IS WARY OF THE SURVEY, REASSURE THEM THAT YOU ARE NOT SELLING ANYTHING. IF NECESSARY OFFER JOE FONTAINE WITH THE PUBLIC SERVICE COMMISSION OF WISCONSIN (608-266-0910) AS THE PERSON TO CONTACT WITH ANY QUESTIONS ABOUT THE VALIDITY OF THE RESEARCH.]

[TERMINATION SCRIPT: Those are all the questions we have for you. Thank you very much for your time."]

INTERVIEWER NOTES:

Home Performance with ENERGY STAR: Must say they received an energy audit of their home and that they received an audit report. Program also provides free installation of CFLs, faucet aerators, showerheads, as well as rebates for adopting recommendations on the audit report

New Homes: whole new house built to Focus on Energy specifications

Appliance Recycling: Rebates for recycling old refrigerators and freezers

Lighting: CFLs and LEDs discounted at a store

Express Energy Efficiency: installation of many low-cost energy efficient items by a contractor (must say that someone else installed the items for free): CFLs, faucet aerators, high efficient showerheads, water heater pipe insulation, water heater temperature set-back

Residential Rewards and Enhanced Rewards: rebates for furnaces, furnace motors, air conditioners, hot water heaters, insulation, solar panels, heat pumps, ground source heat pumps, boilers

B. Awareness

B1. *Where did you most recently hear about the Focus on Energy [INSERT PROGRAM NAME] program? [DO NOT READ LIST, RECORD ONE ANSWER]

1. (Television)
2. (Radio)
3. (Print media (magazine, newspaper article or advertisement))
4. (Billboard/outdoor ad)
5. (Bill insert)
6. (Direct mail/brochure/postcard)
7. (Family/friends/word-of-mouth)
8. (Focus on Energy or Utility website)
9. (Other website [SPECIFY: _____])
10. (Email)
11. (Social Media)
12. (Focus on Energy or Utility representative)
13. (Contractor)
14. (Realtor, home builder)
15. (Retail stores)
16. (Home/trade shows)
17. (Sporting or community event)
18. (Other, [SPECIFY: _____])
99. (Don't know)
88. (Refused)

B2. *Are there any other ways you heard about the program? [DO NOT READ. RECORD ALL THAT APPLY]

1. (Television)
2. (Radio)
3. (Print media (magazine, newspaper article or advertisement))
4. (Billboard/outdoor ad)
5. (Bill insert)
6. (Direct mail/brochure/postcard)

- 7. (Family/friends/word-of-mouth)
- 8. (Focus on Energy or Utility website)
- 9. (Other website [SPECIFY: _____])
- 10. (Email)
- 11. (Social Media)
- 12. (Focus on Energy or Utility representative)
- 13. (Contractor)
- 14. (Realtor, home builder)
- 15. (Retail stores)
- 16. (Home/trade shows)
- 17. (Sporting or community event)
- 18. (Other, [SPECIFY: _____])
- 19. (No other ways)
- 99. (Don't know)
- 88. (Refused)

B3. *Are you aware of any other Focus on Energy programs or rebates? [IF NEEDED: SUCH AS REBATES ON CFL BULBS, ENERGY STAR APPLIANCES, OR ENERGY-EFFICIENT UPGRADES, OR HOME ENERGY AUDITS]

- 1. (Yes)
- 2. (No)
- 99. (Don't know)
- 88. (Refused)

[ASK IF B3=1]

B4. *Which programs or rebates? [DO NOT READ; RECORD ALL THAT APPLY]

- 1. (Home Performance with ENERGY STAR)
- 2. (New Homes)
- 3. (Appliance Recycling)
- 4. (Lighting)
- 5. (Express Energy Efficiency)
- 6. (Other [SPECIFY: _____])
- 99. (Don't know)
- 88. (Refused)

INTERVIEWER NOTES:

Home Performance with ENERGY STAR: Must say they received an energy audit of their home and that they received an audit report. Program also provides free installation of CFLs, faucet aerators, showerheads, as well as rebates for adopting recommendations on the audit report

New Homes: whole new house built to Focus on Energy specifications

Appliance Recycling: Rebates for recycling old refrigerators and freezers

Lighting: CFLs and LEDs discounted at a store

Express Energy Efficiency: installation of many low-cost energy efficient items by a contractor (must say that someone else installed the items for free): CFLs, faucet aerators, high efficient showerheads, water heater pipe insulation, water heater temperature set-back

Residential Rewards and Enhanced Rewards: rebates for furnaces, furnace motors, air conditioners, hot water heaters, insulation, solar panels, heat pumps, ground source heat pumps, boilers

- B5. *Have you participated in any other Focus on Energy programs? [IF NEEDED: “Such as rebates on CFL bulbs, ENERGY STAR appliances, or energy-efficient upgrades or home energy audits.]
1. (Yes)
 2. (No)
 99. (Don’t know)
 88. (Refused)

[ASK IF B5=1]

- B6. *Which programs or rebates? [DO NOT READ, BUT PROMPT IF NECESSARY. RECORD ALL THAT APPLY]
1. (Home Performance with ENERGY STAR)
 2. (New Homes)
 3. (Appliance Recycling)
 4. (Lighting)
 5. (Express Energy Efficiency)
 6. (Other [SPECIFY: _____])
 99. (Don’t know)
 88. (Refused)

INTERVIEWER NOTES:

Home Performance with ENERGY STAR: Must say they received an energy audit of their home and that they received an audit report. Program also provides free installation of CFLs, faucet aerators, showerheads, as well as rebates for adopting recommendations on the audit report

New Homes: whole new house built to Focus on Energy specifications

Appliance Recycling: Rebates for recycling old refrigerators and freezers

Lighting: CFLs and LEDs discounted at a store

Express Energy Efficiency: installation of many low-cost energy efficient items by a contractor (must say that someone else installed the items for free): CFLs, faucet aerators, high efficient showerheads, water heater pipe insulation, water heater temperature set-back

Residential Rewards and Enhanced Rewards: rebates for furnaces, furnace motors, air conditioners, hot water heaters, insulation, solar panels, heat pumps, ground source heat pumps, boilers

- B7. *What do you think is the best way for Focus on Energy to inform the public about energy-efficiency programs? [DO NOT READ, BUT PROMPT IF NECESSARY. RECORD ALL THAT APPLY]
1. (Television)
 2. (Radio)
 3. (Print media (magazine, newspaper article or advertisement))
 4. (Billboard/outdoor ad)
 5. (Bill insert)
 6. (Direct mail/brochure/postcard)
 7. (Family/friends/word-of-mouth)
 8. (Focus on Energy or Utility website)
 9. (Other website [SPECIFY: _____])
 10. (Email)
 11. (Social Media)
 12. (Focus on Energy or Utility representative)
 13. (Contractor)
 14. (Realtor, home builder)

- 15. (Retail stores)
- 16. (Home/trade shows)
- 17. (Sporting or community event)
- 18. (Other, [SPECIFY: _____])
- 19. (Do not want to receive information)
- 99. (Don't know)
- 88. (Refused)

C. Participation Decisions

I'd like to ask you about factors that influenced your decisions to install the [INSERT MEASURE NAME] through the program.

- C1. *What motivated you to participate in Focus on Energy's [INSERT PROGRAM NAME] program? [DO NOT READ; RECORD ALL THAT APPLY]
- 1. (Save energy)
 - 2. (Save money / appliance was expensive to run)
 - 3. (Good for the environment / environmentally safe disposal / recycled)
 - 4. (Recommended by a friend/relative)
 - 5. (Recommended by a retailer/dealer)
 - 6. (Recommended by a contractor)
 - 7. (Cash/rebate/incentive payment)
 - 8. (Utility sponsorship of the program [SPECIFY THE PROGRAM: _____])
 - 9. (Other [SPECIFY: _____])
 - 98. (Don't know)
 - 88. (Refused)
- C2. What challenges, if any, make saving energy difficult in your home? [DO NOT READ, BUT PROMPT IF NECESSARY. RECORD ALL THAT APPLY.]
- 1. (Have an older (leaky/non-efficient) home)
 - 2. (Can't control energy use by other household members)
 - 3. (Don't know what to do (information))
 - 4. (Don't have money to invest in energy-efficient improvements)
 - 5. (Have already done what we can and know to do)
 - 6. (Health or comfort issues require higher energy use)
 - 7. (Need energy for a home business or hobby)
 - 8. (Hasn't been a priority)
 - 9. (Have energy using equipment/appliances in need of repair)
 - 10. (Other [SPECIFY: _____])
 - 11. (No challenges/nothing)
 - 99. (Don't know)
 - 88. (Refused)

- C3. Is the [INSERT MEASURE NAME] currently installed in your home?
1. (Yes)
 2. (No) [ASK: WHY NOT? _____]
 99. (Don't know)
 88. (Refused)

D. Satisfaction

Now I would like to ask you some questions about your satisfaction with the program.

- D1. [ASK D1 FOR BOTH PROGRAMS, BUT FOR ENHANCED REWARDS, FIRST READ: For this question, I am asking specifically about the application for the heating equipment. I will ask about the separate income eligibility application shortly.] How satisfied are you with the [INSERT PROGRAM NAME] program Cash-back application process? Would you say you are ... [READ LIST]
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 99. (Don't know)
 88. (Refused)

[ASK IF D1=3 OR 4]

- D2. Why are you [INSERT ANSWER FROM D1] with the application process? [DO NOT READ LIST; RECORD ALL THAT APPLY]
1. (Difficulty filling out the application [ASK: What was difficult? _____])
 2. (Application processing took too long [ASK: How long did it take? _____])
 3. (Other [SPECIFY: _____])
 99. (Don't know)
 88. (Refused)

[ASK IF ENHANCED REWARDS ONLY]

- D3. Specifically regarding the Enhanced Rewards Income Eligibility Application process, how satisfied are you with that? Would you say you are... [READ LIST] [IF NEEDED: You would have completed the Enhanced Rewards Income Eligibility Application and submitted a recent tax return or your last three paystubs to verify your income.]
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 99. (Don't know)
 88. (Refused)

[ASK IF D3 = 3 OR 4]

D4. Why are you [INSERT ANSWER FROM D3] with the Income Eligibility application process? [DO NOT READ LIST; RECORD ALL THAT APPLY]

1. (Difficulty filling out the application [ASK: What was difficult? _____])
2. (Application processing took too long [ASK: How long did it take? _____])
3. (Difficulty providing proof of income [ASK: What was difficult? _____])
4. (Other [SPECIFY: _____])
99. (Don't know)
88. (Refused)

D5. How likely is it you would recommend this program to a friend? Use a 0 – 10 scale where 0 means extremely unlikely and 10 means extremely likely.

[RECORD RESPONSE (0-10)]

99. (Don't know)
88. (Refused)

E. Fan Use

[ASK THIS SECTION ONLY IF MEASURE = RR3, RR4, RR5, RR11, RR12, RR13, RR14, OR RR15, OTHERWISE SKIP TO SECTION F]

Now I'd like to ask a few questions about how you use your furnace fan.

E1. At the time of installation, did your contractor give you any instructions on what fan setting to use?

1. (Yes)
2. (No)
99. (Don't know)
88. (Refused)

[ASK IF E1=1]

E2. What instructions did your contractor give? Did the contractor instruct you to ... [READ ENTIRE LIST AND RECORD ONE ANSWER]

1. Leave the fan in AUTO setting
2. Leave the fan in ON setting
3. Something else [SPECIFY: _____]
99. (Don't know)
88. (Refused)

E3. How do you normally use the fan now? Do you ... [READ ENTIRE LIST AND RECORD ONE ANSWER]

1. Leave the fan in AUTO setting
2. Leave the fan in ON setting
3. Something else [SPECIFY: _____]
99. (Don't know)
88. (Refused)

- E4. **Prior to the installation of your new furnace [IF MEASURE NAME = RR3, READ: motor], did you...?**
1. Leave the fan in AUTO setting
 2. Leave the fan in ON setting
 3. Something else [SPECIFY: _____]
 99. (Don't know)
 88. (Refused)
- E5. **[DO NOT ASK IF MEASURE NAME = Furnace with efficient motor and air conditioning] Do you have a central air conditioner in your home?**
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

F. Freeridership

I'd like to find out what your plans were for making energy-efficient improvements to your home **before** you found out about the Focus on Energy [INSERT PROGRAM NAME] program.

- F1. **Before** you heard anything about the Focus on Energy [INSERT PROGRAM NAME] program, had you already purchased or installed your [INSERT MEASURE NAME]?
1. (Yes)
 2. (No) [SKIP TO F2]
 99. (Don't know) [SKIP TO F2]
 88. (Refused) [SKIP TO F2]
- F2. So just to be clear, you installed your [INSERT MEASURE NAME] before you heard anything about the Focus on Energy Residential Rewards program. Is that correct?
1. (Yes, that's correct) [SKIP TO G1]
 2. (No, that's not correct)
 99. (Don't know)
 88. (Refused)
- F3. **Before** you heard about the Focus on Energy [INSERT PROGRAM NAME] program, had you already been **planning to purchase** ["a, an or some"] [INSERT MEASURE NAME]?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)
- F4. Would you have installed the same [INSERT MEASURE NAME] without the Cash-back Reward from Focus on Energy?
1. (Yes) [SKIP TO F6]
 2. (No)
 99. (Don't know)
 88. (Refused)

- F5. So I understand, without the Focus on Energy Cash-back Reward, would you have installed a different [INSERT MEASURE NAME] or would you have decided to install nothing?
1. (I would have installed a different measure)
 2. (I would have decided to install nothing) [SKIP TO F8]
 99. (Don't know) [SKIP TO F10]
 88. (Refused) [SKIP TO F10]
- F6. [IF MEASURE NAME = Solar panels, solar hot water heaters, or ground source heat pump, SKIP TO F7] When you say you would have installed ["a, an or some"] [INSERT MEASURE NAME] without the Focus on Energy Cash-back Reward from Focus on Energy, would you have installed one that was at the same level of efficiency, [IF MEASURE NAME = Attic Insulation, add: "that is, insulation installed with the same R-value"]?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)
- F7. And, thinking about timing, without the Focus on Energy Cash-back Reward, would you have installed the [INSERT MEASURE NAME]... [READ LIST]
1. At the same time [SKIP TO F10]
 2. Within the same year [SKIP TO F10]
 3. One to two years out [SKIP TO F10]
 4. More than two years out [SKIP TO F10]
 5. Never [SKIP TO F8]
 99. (Don't know) [SKIP TO F10]
 88. (Refused) [SKIP TO F10]
- F8. So just to confirm, you would not have installed ["a, an or some"] [INSERT MEASURE NAME] at all, without a Focus on Energy Cash-back Reward. Is that correct?
1. (Yes) [SKIP TO F11]
 2. (No)
 99. (Don't know)
 88. (Refused)
- F9. [IF MEASURE NAME = Solar panels, solar hot water heaters, or ground source heat pump, SKIP TO F10] Without the Focus on Energy Cash-back Reward, would you have installed ["a, an or some"] [INSERT MEASURE NAME], but [one/some] that was not as energy-efficient [IF MEASURE NAME = Attic Insulation, add: "that is, has a lower R-value"]?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

- F10. And with respect to timing, would you have installed the [INSERT MEASURE NAME]... [READ LIST]
1. At the same time
 2. Within the same year
 3. One to two years out
 4. More than two years out
 5. Never
 99. (Don't know)
 88. (Refused)
- F11. Please tell me how important the Focus on Energy Cash-back Reward was in your decision to purchase the [INSERT MEASURE NAME]. Would you say it was ... [READ LIST]
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all important
 99. (Don't know)
 88. (Refused)

G. Spillover

Now I'd like to talk to you about any energy saving improvements you may have made since participating in the Focus on Energy [INSERT PROGRAM NAME] program.

- G1. Since participating in the Focus on Energy [INSERT PROGRAM NAME] program, have you installed any other energy-efficient products in your home that you did NOT receive a Cash-back Reward for? By energy-efficient products, I mean appliances such as ENERGY STAR clothes washers; high efficiency water heaters, insulation or windows, or ENERGY STAR lighting such as CFL light bulbs.
1. (Yes)
 2. (No) [SKIP TO G5]
 99. (Don't know) [SKIP TO G5]
 88. (Refused) [SKIP TO G5]
- G2. What were the products that you installed without getting a Cash-back Reward? [DO NOT READ LIST; CLARIFY AS NEEDED TO CODE ANSWER CORRECTLY, RECORD ALL THAT APPLY]
1. (Gas boiler)
 2. (Gas furnace)
 3. (Gas tank-less water heater)
 4. (Gas storage water heater)
 5. (Electric tank-less water heater)
 6. (Electric storage water heater)
 7. (Insulation; attic or ceiling) [ASK: How many square feet?]
 8. (Insulation; floor) [ASK: How many square feet?]
 9. (Insulation; walls) [ASK: How many square feet?]
 10. (Insulation; other [SPECIFY: _____]) [ASK: How many square feet?]
 11. (Air sealing)
 12. (Clothes washer)
 13. (Dishwasher)

- 14. (Windows) [ASK: How many square feet?]
- 15. (Programmable thermostat)
- 16. (Efficient lighting; CFLs) [ASK: How many did you install?]
- 17. (Efficient lighting; LEDs) [ASK: How many did you install?]
- 18. (Efficient lighting; Fluorescent) [ASK: How many did you install?]
- 19. (Efficient lighting; Fixtures) [ASK: How many did you install?]
- 20. (Efficient lighting; other [SPECIFY: _____]) [ASK: How many did you install?]
- 21. (Refrigerator)
- 22. (Heat pump water heater)
- 23. (Room AC) [ASK: How many did you install?]
- 24. (Central AC)
- 25. (Heat Pump; air source)
- 26. (Heat pump; ground source)
- 27. (Heat pump; other [SPECIFY: _____])
- 28. (Other [SPECIFY: _____]) [ASK: How many did you install?]
- 99. (Don't know)
- 88. (Refused)

G3. Please tell me how important your experience with the Focus on Energy program was in your decision to install [INSERT EACH ONE SELECTED IN G2]. Was it very important, somewhat important, not too important, or not at all important in your decision to install these energy-efficient product(s)?

- 1. Very important
- 2. Somewhat important
- 3. Not too important
- 4. Not at all important
- 99. (Don't know)
- 88. (Refused)

[ASK G4 FOR EACH ONE SELECTED IN G2 EXCEPT 12 (clothes washer), 13 (dishwasher), 14 (windows), 16-20 (Efficient lighting), 21 (refrigerator), 22 (heat pump water heater), 23 (room AC), OR 28 (other).]

G4. Why didn't you apply for and receive a Cash-back Reward for [INSERT EACH ONE SELECTED IN G2)?

[DO NOT READ LIST; RECORD ONE ANSWER FOR EACH]

- 1. (Did not know Cash-back Reward was available)
- 2. (Product did not qualify)
- 3. (Other [SPECIFY: _____])
- 99. (Don't know)
- 88. (Refused)

- G5. Since participating in Focus on Energy's program, have you taken any other actions to reduce energy consumption? [PROBE WITH: "An energy efficiency action could be turning down the temperature on your thermostat or you water heater, or powering down appliances or computers."]
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

[ASK IF G5=1]

- G6. Specifically, what actions have you taken? [DON'T READ LIST; RECORD ALL THAT APPLY]

1. (Turn down temperature on water heater)
2. (Turn down temperature on furnace)
3. (Take shorter or fewer showers)
4. (Wash clothes only in cold water)
5. (Not leave water running)
6. (Turn off appliances)
7. (Turn off computers)
8. (Turn off lights)
9. (Other [SPECIFY: _____])
99. (Don't know)
88. (Refused)

- G7. Please tell me how important the Focus on Energy [INSERT PROGRAM NAME] program was in your decision to [INSERT EACH ONE SELECTED IN G6]. Was it very important, somewhat important, not too important, or not at all important in your decision to take these action(s)? [IF MORE THAN ONE ACTION/HABIT IN G6, "Was it the same influence for every action?"]

1. Very important
2. Somewhat important
3. Not too important
4. Not at all important
99. (Don't know)
88. (Refused)

- G8. And, over time, have you continued to take these actions to save energy? Let's start with ... [INSERT EACH ANSWER FROM G6]. [IF NEEDED, "Have you continued to take this action to save energy?"]

1. (Yes)
2. (No)
99. (Don't know)
88. (Refused)

H. Energy Attitudes

- H1. *How informed do you feel about all the ways you can save energy, including buying and using energy efficient appliances and equipment? Would you say ... [READ LIST]
1. Very informed
 2. Somewhat informed
 3. Not too informed
 4. Not at all informed
 99. (Don't know)
 88. (Refused)
- H2. * On a scale of zero to five where five is a lot of attention and zero is not a lot of attention, how much attention do you pay to the amount of energy, gas or electric, that you use in your home? [RECORD RESPONSE (0-5)]
99. (Don't know)
 88. (Refused)
- H3. *What type of fuel do you use to heat your home? [RECORD ALL THAT APPLY]
1. (Natural gas)
 2. (Electricity)
 3. (Propane/Bottled gas)
 4. (Wood)
 5. (Other [SPECIFY: _____])
 99. (Don't know)
 88. (Refused)
- H4. * What type of fuel does your water heater use?
1. (Natural gas)
 2. (Electricity)
 3. (Propane/Bottled gas)
 4. (Wood)
 5. (Other [SPECIFY: _____])
 99. (Don't know)
 88. (Refused)
- H5. What types of thermostats do you currently have installed in your home? [READ LIST IF NEEDED, RECORD ALL THAT APPLY]
1. Manual thermostat [Record Quantity: _____]
 2. Programmable thermostat [Record Quantity: _____]
 3. Wi-Fi enabled thermostat (does not have occupancy sensors or geofencing to detect when you are away from home)
 4. Smart or learning thermostat with occupancy sensors or geofencing to detect when you are away from home)[Record Quantity: _____]
 99. (Don't know)
 88. (Refused)

- H6. [IF H5 = 2] Is your programmable thermostat currently programmed? [READ LIST IF NEEDED, RECORD ALL THAT APPLY]
- 1. (Yes)
 - 2. (No)
 - 99. (Don't know)
 - 88. (Refused)

I. LED and CFL Purchases

We are almost finished. These next questions are about recent light bulb purchases that you've made from retail stores.

- I1. In the last 12 months, approximately how many screw-in CFL bulbs and how many screw-in LED bulbs did you or someone in your household purchase in-store from a retailer? Please try to estimate the total number of **bulbs**, and not packages. Also, please consider only screw-in bulbs purchased from a retail store, and NOT online. [IF NEEDED: By retail store I mean an in-store, retail location of a Costco, hardware store, grocery store, Walmart, etc. and NOT purchased online] [IF "DON'T KNOW," PROBE: Would you say it is less than or more than five bulbs? [WORK FROM THERE TO GET AN ESTIMATE] [IF NEEDED: CFLs, also known as compact fluorescent light bulbs, are energy saving light bulbs that most often have a "twisted" shape.] [Another type of light bulb that is used in homes is called a light emitting diode or L-E-D [SAY THE LETTERS L-E-D]. These bulbs have regular screw bases that fit into most household sockets but are made of multiple smaller lights. [IF NEEDED: LEDS HAVE HISTORICALLY BEEN USED FOR NIGHTLIGHTS, FLASHLIGHTS, AND HOLIDAY LIGHTS. HOWEVER, WE ARE NOT ASKING ABOUT THESE TYPES OF LEDS.].]
- I1a. [RECORD QUANTITY OF SCREW-IN CFL BULBS]
 - I1b. [RECORD QUANTITY OF SCREW-IN LED BULBS]
 - 99. (Don't know)
 - 88. (Refused)

[ASK IF I1a > 0]

- I2. Where are these [QUANTITY FROM I1a] screw-in CFL bulbs being used? Were they purchased to be used in your home or in a business? ["HOME" INCLUDES ANY ASPECT OF A RESIDENTIAL APPLICATION, E.G. INSIDE A HOME, IN A GARAGE, BARN, OUTSIDE A HOME ETC.] [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH APPLICATION THAT APPLIES]
- I2a. [Record quantity for my home]
 - I2b. [Record quantity for a business application]
 - I2c. [Record quantity for Other]
 - 99. (Don't know)
 - 88. (Refused)

[ASK IF I2a > 0]

13. Of the [QUANTITY FROM I2a] screw-in CFL bulbs purchased for your home from a retail outlet in the past 12 months, how many are currently installed? [NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN CFL BULBS, NOT A RANGE.]
- I3a. [RECORD QUANTITY OF SCREW IN BULBS]
99. (Don't know)
88. (Refused)

[ASK IF I3a > 0]

14. From which retail store(s) did you purchase the screw-in CFL bulbs that are currently installed in your home? [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH STORE THAT APPLIES, TOTAL QUANTITY SHOULD EQUAL I3a QUANTITY]
1. (Ace Hardware)
 2. (Batteries Plus)
 3. (Big Lots)
 4. (Blain's Farm & Fleet)
 5. (Costco)
 6. (Do It Best)
 7. (Dollar General)
 8. (Dollar Tree)
 9. (Express Mart)
 10. (Family Dollar)
 11. (Festival Foods)
 12. (Goodwill)
 13. (Gordy's)
 14. (Habitat Restore)
 15. (Home Depot)
 16. (Lowe's)
 17. (Menards)
 18. (Mill's Fleet Farm)
 19. (Miner's)
 20. (Sams Club)
 21. (True Value)
 22. (United Hardware)
 23. (Walgreens)
 24. (WalMart)
 25. (Woodman's)
 26. (World of Variety)
 27. (Other [SPECIFY _____])
 28. (Did not buy from a retail store)
 99. (Don't know)
 88. (Refused)

[ASK IF I1b > 0]

15. Where are these [QUANTITY FROM I1b] screw-in LED bulbs being used? Were they purchased to be used in your home or in a business? ["HOME" INCLUDES ANY ASPECT OF A RESIDENTIAL APPLICATION, E.G. INSIDE A HOME, IN A GARAGE, BARN, OUTSIDE A HOME ETC.] [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH APPLICATION THAT APPLIES]
- I5a. [Record quantity for my home]
 - I5b. [Record quantity for a business application]
 - I5c. [Record quantity for Other]
 - 99. (Don't know)
 - 88. (Refused)

[ASK IF I5a > 0]

16. Of the [QUANTITY FROM I5a] screw-in LED bulbs purchased for your home from a retail outlet in the past 12 months, how many are currently installed? [NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN LED BULBS, NOT A RANGE.]
- I6a. [Record quantity of screw-in LED bulbs]
 - 99. (Don't know)
 - 88. (Refused)

[ASK IF I6a > 0]

17. From which retail store(s) did you purchase the screw-in LED bulbs that are currently installed in your home? [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH STORE THAT APPLIES, TOTAL QUANTITY SHOULD EQUAL I6a QUANTITY]
- 1. (Ace Hardware)
 - 2. (Batteries Plus)
 - 3. (Big Lots)
 - 4. (Blain's Farm & Fleet)
 - 5. (Costco)
 - 6. (Do It Best)
 - 7. (Dollar General)
 - 8. (Dollar Tree)
 - 9. (Express Mart)
 - 10. (Family Dollar)
 - 11. (Festival Foods)
 - 12. (Goodwill)
 - 13. (Gordy's)
 - 14. (Habitat Restore)
 - 15. (Home Depot)
 - 16. (Lowe's)
 - 17. (Menards)
 - 18. (Mill's Fleet Farm)
 - 19. (Miner's)
 - 20. (Sams Club)
 - 21. (True Value)
 - 22. (United Hardware)
 - 23. (Walgreens)
 - 24. (WalMart)
 - 25. (Woodman's)

- 26. (World of Variety)
- 27. (Other [SPECIFY _____])
- 28. (Did not buy from a retail store)
- 99. (Don't know)
- 88. (Refused)

J. Demographics

These last few questions are for statistical purposes only.

- J1. *What type of home do you live in? Is it a: [READ LIST]
 - 1. Single-family home, detached house
 - 2. Attached house (townhouse, row house, or duplex)
 - 3. Multifamily apartment or condo building with 4 or more units
 - 4. Mobile/manufactured home
 - 5. Co-op/retirement community
 - 6. Other [SPECIFY: _____]
 - 99. (Don't know)
 - 88. (Refused)

- J2. * Do you or members of your household own this home or do you rent?
 - 1. (Own/buying)
 - 2. (Rent/lease)
 - 3. (Occupied without payment of rent)
 - 4. (Other [SPECIFY: _____])
 - 99. (Don't know)
 - 88. (Refused)

- J3. * Approximately how many square feet of living space does your home have? Don't include the basement unless it is a space that you consider lived in. [READ CATEGORIES IF NEEDED]
 - 1. (Less than 1,000)
 - 2. (1,000 to less than 1,500)
 - 3. (1,500 to less than 2,000)
 - 4. (2,000 to less than 2,500)
 - 5. (2,500 to less than 3,000)
 - 6. (3,000 to less than 4,000)
 - 7. (4,000 or more)
 - 99. (Don't know)
 - 88. (Refused)

J4. *About when was your home first built? [READ CATEGORIES IF NEEDED]

1. (Before 1970s)
2. (1970s)
3. (1980s)
4. (1990 – 1994)
5. (1995 – 1999)
6. (2000s)
7. (Other [SPECIFY: _____])
99. (Don't know)
88. (Refused)

J5. *Including yourself, how many people currently live in this household on a full time basis? [IF NEEDED: Please include everyone who lives in your home whether or not they are related to you and exclude anyone who is just visiting or in the military or children who may be away at college.]

1. [RECORD ANSWER]
99. (Don't know)
88. (Refused)

[ASK IF J5>1]

J6. * How many people under the age of 18 live in your home year round?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7 OR MORE
99. (Don't know)
88. (Refused)

J7. * What is the highest level of school that someone in your home has completed? [READ CATEGORIES, IF NECESSARY]

1. (Less than ninth grade)
2. (Ninth to twelfth grade; no diploma)
3. (High school graduate; includes GED)
4. (Some college, no degree)
5. (Associates degree)
6. (Bachelor's degree)
7. (Graduate or professional degree)
99. (Don't know)
88. (Refused)

- J8. * Which of the following categories best represents your age? Please stop me when I get to the appropriate category.
1. 18-24
 2. 25-34
 3. 35-44
 4. 45-54
 5. 55-64
 6. 65-74
 7. 75 or older
 99. (Don't know)
 88. (Refused)

[SKIP IF ENHANCED REWARDS]

- J9. * Which category best describes your total household income in 2014 before taxes? **[IF NEEDED: "Please stop me when I get to the appropriate category."]**
1. Less than \$20,000
 2. \$20,000, up to \$50,000
 3. \$50,000, up to \$75,000
 4. \$75,000, up to \$100,000
 5. \$100,000, up to \$150,000
 6. \$150,000 up to \$200,000
 7. \$200,000 or more
 99. (Don't know)
 88. (Refused)

CLOSING SCRIPT: Those are all the questions we have. **Focus on Energy** appreciates your input. Thank you for your time.

**Focus on Energy Residential and Enhanced Rewards Program
2015 Participating Trade Ally Interview**

Researchable Issues	Item
Collect company participation information	B1-B7
Assess trade ally experience and satisfaction with the Program	C3-C9, D1-D5, G1-G5, G8
Assess reasons for participation	C2
Assess program marketing strategies	C1, D7-D17
Identify opportunities for improvements to program processes	D6, G6-G7, G9, H1
Document interest in partnering with HPwES contractor	D18 -D20
Document trade ally reports of standard customer education regarding furnace fan usage and percentage of time ECMs are installed outside of the program	E1-E5
Assess contractor perceptions of smart thermostats regarding installation, need for training, barriers, service, and ease of use	F1-F4

A. Introduction

Hello, my name is [NAME]. I am calling from the Cadmus Group on behalf of Wisconsin’s Focus on Energy Programs. Focus on Energy is currently evaluating the Residential and Enhanced Rewards Program and as a part of this evaluation we are collecting information from participating contractors on program delivery, marketing, and satisfaction.

May I speak with the owner or manager of your company who is most familiar with Focus on Energy? **[IF TRANSFERRED, REPEAT INTRODUCTION]**

[IF RESPONDENT EXPRESSES CONCERN: I assure you I am not selling anything. This call is for research purposes only. Your responses will be aggregated with the other and your identity will be kept confidential.]

[IF NEEDED: This interview should take about 15 minutes]

- A1. Are you familiar with the Focus on Energy Residential and Enhanced Rewards Program?
1. (Yes) **[SKIP TO A3]**
 2. (No)
 98. (Don’t know)
 99. (Refused)

- A2. The Residential and Enhanced Rewards Program is offered through Focus on Energy and provides cash-back rewards for heating and cooling equipment and attic insulation. Higher rewards are available for income qualified participants. When a customer purchases energy efficient equipment and submits an application for a Residential Rewards Program rebate, the contractor is listed on the application. You are listed on an application as the contractor who provided services for at least one project for the Program in 2014. Does that sound familiar now?
1. (Yes)
 2. (No) **[THANK AND TERMINATE]**
 98. (Don't know) **[THANK AND TERMINATE]**
 99. (Refused) **[THANK AND TERMINATE]**
- A3. Our records indicate that you participated in the Residential and Enhanced Rewards Program in 2014. Is that correct?
1. (Yes)
 2. (No) **[THANK AND TERMINATE]**
 98. (Don't know) **[THANK AND TERMINATE]**
 99. (Refused) **[THANK AND TERMINATE]**
- A4. Is now a good time to talk?
1. Yes
 2. No **[SCHEDULE TIME TO CALL BACK]**

B. *Company Overview and Participation*

First, I'd like to ask you a few questions about your company. Please note that your answers will be kept strictly confidential.

- B1. What services does your company offer, not including services offered by subcontractors? **[DO NOT READ, RECORD ALL THAT APPLY]**
1. Audit/assessment services
 2. Heating and air conditioning
 3. Water heating
 4. Renewables **[SPECIFY: _____]**
 5. Weatherization
 6. Other **[SPECIFY: _____]**
 98. (Don't know)
 99. (Refused)

- B2. How many employees does your company have in Wisconsin, not including subcontractors?
[RECORD NUMBER: _____]
98. (Don't know)
99. (Refused)
- B3. How long has your company been participating in a Focus on Energy HVAC program?
1. [RECORD NUMBER: _____]
98. (Don't know)
99. (Refused)
- B4. In the past five years, has the percentage of your customers purchasing Focus-eligible equipment changed? [PROBE FOR WHETHER PERCENTAGE INCREASED OR DECREASED]
1. (Yes, increased)
2. (Yes, decreased)
3. (No)
98. (Don't know)
99. (Refused)

[ASK IF B4 = 1]

- B5. What do you attribute this increase to?
1. [RECORD VERBATIM: _____]
98. (Don't know)
99. (Refused)
- B6. As you probably know, beginning in 2014 Focus on Energy began marketing the Residential Rewards Program and the Enhanced Rewards Program to customers as one program, which is called the Residential and Enhanced Rewards Program. Have you participated in both the Residential Rewards and Enhanced Rewards components of the Program?
1. (Yes)
2. (No, Residential Rewards only)
3. (No, Enhanced Rewards only)
98. (Don't know)
99. (Refused)

For the rest of this interview, I will be referring to the Program as the Residential and Enhanced Rewards Program. [IF ONLY PARTICIPATED IN ONE PROGRAM] Since you have only participated in the [Residential Reward/Enhanced Rewards] component, please answer the questions with that program in mind.

- B7. Approximately what percentage of customers that you worked with in the past year received a rebate from the Residential and Enhanced Rewards program?
[RECORD NUMBER: _____]
98. (Don't know)
99. (Refused)

C. *Awareness and Motivation*

- C1. How did your company first become aware of the Residential Rewards or the Enhanced Rewards Program? **[DO NOT READ LIST]**
1. (Participated in previous/legacy program [Heating and Cooling Assistance])
 2. (Focus on Energy or Utility Website)
 3. (Other Website **[SPECIFY: _____]**)
 4. (Social Media)
 5. (Launch event)
 6. (Fact sheets)
 7. (Email)
 8. (Colleague)
 9. (Trade organization / trade shows)
 10. (Family / friends / word-of-mouth)
 11. (Focus on Energy staff or representative)
 12. (Utility staff)
 13. (Customer)
 14. (Realtor, home builder)
 15. (Retail stores)
 16. (Sporting or community event)
 17. (Didn't know about it)
 18. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
- C2. What are the main reasons you or your company decided to participate? **[DO NOT READ; RECORD MULTIPLE RESPONSES]**?
1. (Created additional business opportunities/got my name out)
 2. (Asked by Focus on Energy)
 3. (Asked by utility)
 4. (Competitive advantage)
 5. (Customers asked about it)
 6. (Other **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)
- C3. Have you signed up with Focus on Energy to be listed as a trade ally on the "Find it with Focus" website?
1. (Yes)
 2. (No)
 98. (Don't know)
 99. (Refused)

[ASK IF C3=2]

- C4. What are the main reasons you have not become a registered Focus on Energy trade ally? **[DO NOT READ LIST; RECORD MULTIPLE RESPONSES]**
1. (Time required to apply)
 2. (Don't sell qualified equipment)
 3. (No incentive to participate)
 4. (Geographic limits)
 5. (Do not participate often enough in the program to be worth registering)
 6. (Bad experience as participating contractor previously **[Probe: What happened? _____]**)
 7. (No customer interest in qualified energy efficiency equipment)
 8. (Didn't know I could become a registered trade ally)
 9. (Didn't know how to become a registered trade ally)
 98. (Don't know)
 99. (Refused)

[ASK IF C3 = 1]

- C5. The Residential and Enhanced Rewards Program now offers registered trade allies an Instant Discount Option where trade allies can give customers a credit equal to the amount of the pending cash-back reward and display the credit on the sales invoice. Focus on Energy will then send the payment directly to the trade ally, instead of the customer. Before our call today, were you aware of this Instant Discount Option?
1. (Yes)
 2. (No)
 98. (Don't know)
 99. (Refused)

[ASK IF C5 = 1]

- C6. Have you participated in the Instant Discount Option?
1. (Yes)
 2. (No)
 98. (Don't know)
 99. (Refused)

[ASK IF C5 = 1]

- C7. Have there been any challenges with the Instant Discount Option?
1. (Yes)
 2. (No)
 98. (Don't know)
 99. (Refused)

[ASK IF C5 = 1]

- C8. How satisfied are you with the Instant Discount Option? Would you say you are...?
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not satisfied at all
 98. (Don't know)
 99. (Refused)

[ASK IF C8 = 3 OR 4]

- C9. What are you dissatisfied with?
- [RECORD VERBATIM: _____]**
98. (Don't know)
 99. (Refused)

D. Program Delivery and Marketing

Now, I would like to ask you a few questions about the application and other program materials.

- D1. Do you help your customers fill out the Residential and Enhanced Rewards application?
1. (Yes)
 2. (No)
 98. (Don't know)
 99. (Refused)

[ASK IF D1 = 1]

- D2. How easy is the application to fill out? Would you say it is...?
1. Very easy
 2. Somewhat easy
 3. Not too easy
 4. Not easy at all
 98. (Don't know)
 99. (Refused)

[ASK IF D1 = 1]

- D3. Have you used the online application?
1. (Yes)
 2. (No)
 98. (Don't know)
 99. (Refused)

[ASK ALL]

- D4. Do you recommend the online application to your customers?
1. (Yes)
 2. (No)
 98. (Don't know)
 99. (Refused)

[ASK IF D4 = 1 OR 2]

- D5. Why or why not?
- [RECORD VERBATIM: _____]**
98. (Don't know)
 99. (Refused)

[ASK ALL]

- D6. Do you have any suggestions on how to make the application process easier?
1. (Yes **[SPECIFY: _____]**)
 2. (No)
 98. (Don't know)
 99. (Refused)

- D7. Do you promote the Residential and Enhanced Rewards Program to your customers?
1. (Yes)
 2. (No) **[SKIP TO D11]**
 98. (Don't know)
 99. (Refused)

- D8. How often do you promote the program to your customers who are installing heating and cooling equipment? Would you say...?
1. Always
 2. Sometimes
 3. Rarely
 4. Never
 98. (Don't know)
 99. (Refused)

[ASK IF D8 = 3 OR 4]

- D9. Why don't you promote the program more often?
- [RECORD VERBATIM: _____]**
98. (Don't know)
 99. (Refused)

D10. What marketing media do you use to promote the program? **[PROBE USING LIST IF NEEDED, RECORD MULTIPLE RESPONSES]**

1. Print mailings
2. Emails
3. Flyers
4. Newspaper ads
5. Social media
6. Website/Online ad
7. Word-of-mouth
8. Other **[SPECIFY: _____]**
98. (Don't know)
99. (Refused)

D11. Do you recall receiving a marketing toolbox from the program this year? **[IF NEEDED, THE MARKETING TOOLBOX MAY HAVE CONTAINED PROGRAM OVERVIEW UPDATES AND OTHER MARKETING MATERIALS]**

1. (Yes) **[PROBE FOR DETAILS ON TYPES OF MATERIALS]**
2. (No)
98. (Don't know)
99. (Refused)

[ASK IF D11 = 1]

D12. How often do you use these materials to promote the program? Would you say...?

1. Always
2. Sometimes
3. Rarely
4. Never
98. (Don't know)
99. (Refused)

[ASK IF D12 = 1, 2, OR 3]

D13. How useful are the materials in helping you to promote program? Would you say they are...?

1. Very useful
2. Somewhat useful
3. Not too useful
4. Not at all useful
98. (Don't know)
99. (Refused)

[ASK IF D12 = 2, 3 OR 4]

D14. Why don't you use the materials [more often]?

[RECORD VERBATIM: _____]

- 98. (Don't know)
- 99. (Refused)

D15. What could be done to improve the materials?

1. **([RECORD VERBATIM: _____])**

- 2. (Nothing)
- 98. (Don't know)
- 99. (Refused)

D16. Have you ever received a lead for a project from a Focus on Energy Home Performance with Energy Star contractor?

- 1. (Yes)
- 2. (No)
- 98. (Don't know)
- 99. (Refused)

D17. Have you ever referred a job to a Focus on Energy Home Performance with Energy Star contractor?

- 1. (Yes)
- 2. (No)
- 98. (Don't know)
- 99. (Refused)

[ASK ALL]

D18. Would you be interested in partnering with Home Performance with ENERGY STAR contractors for regular referrals if Focus on Energy offered a Whole House Program that provided rebates for improvements to, for example, insulation, air sealing, and HVAC?

- 1. (Yes)
- 2. (No)
- 98. (Don't know)
- 99. (Refused)

[ASK ALL]

D19. What challenges or opportunities do you think partnering with Home Performance with Energy Star contractors might present?

[RECORD VERBATIM: _____]

- 98. (Don't know)
- 99. (Refused)

[ASK ALL]

- D20. What could the program do to facilitate effective coordination between you and Home Performance with Energy Star contractors?
1. (Yes)
 2. (No)
 98. (Don't know)
 99. (Refused)

[ASK THIS SECTION IF B1 = HEATING AND AIR CONDITIONING]

E. Furnace Fan Usage

These next few questions are about furnace fan usage.

- E1. First, have you or your company installed furnaces with Electronically Commutated Motors (ECMs) or replaced less efficient furnace motors with an ECM?
1. (Yes)
 2. (No)
 98. (Don't know)
 99. (Refused)
- E2. At the time of installation, do you give any instructions to your customers on how often to run the fan?
1. (Yes)
 2. (No)
 98. (Don't know)
 99. (Refused)

[ASK IF E2 = 1]

- E3. What instructions do you give? **[READ LIST, RECORD ONE RESPONSE]**
1. (Run the fan all the time, even when not heating or cooling the home)
 2. (Run the fan occasionally, even when not heating or cooling the home)
 3. (Run the fan only when heating or cooling the home)
 4. (Something else **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)

[ASK IF E2 = 1]

- E4. Does this differ from the instructions you give to customers who install furnaces without an ECM?
1. (Yes)
 2. (No)
 98. (Don't know)
 99. (Refused)

[ASK IF E4 = 1]

- E5. What instructions you give to customers who install furnaces without an ECM on how often to run the fan? **[READ LIST, RECORD ONE RESPONSE]**
1. (Run the fan all the time, even when not heating or cooling the home)
 2. (Run the fan occasionally, even when not heating or cooling the home)
 3. (Run the fan only when heating or cooling the home)
 4. (Something else **[SPECIFY: _____]**)
 98. (Don't know)
 99. (Refused)

F. Smart Thermostats

Now, I have some questions about smart thermostats.

- F1. Does your company currently offer smart thermostats, such as Nest or Lyric, to your customers?
1. (Yes)
 2. (No) **[SKIP TO F3]**
 98. (Don't know)
 99. (Refused)
- F2. I'd like to hear about your experiences so far with smart thermostats.
- F2a. Do you typically install smart thermostats for your customers, or leave the smart thermostat for the customer to install?
1. Install for customer
 2. Leave for customer to install
- F2b. How easy is the installation process [for you OR for the customer]? **([RECORD VERBATIM: _____])**
- F2c. How are your customers reacting to them? Is it easy for customers to learn how to use them? **([RECORD VERBATIM: _____])**
- F2d. Are you facing any barriers that prevents you from selling or installing smart thermostats? **([RECORD VERBATIM: _____])**
- F3. **[IF F1 = 2]** Why doesn't your company currently provide smart thermostats to customers? **[PROBE FOR ease of installation, need for installation training, barriers, and ease of use]**
1. **([RECORD VERBATIM: _____])**
 2. (No experience with smart thermostats)
 98. (Don't know)
 99. (Refused)

- F4. When you install a thermostat at a customer's home, what percentage of the time do you install smart thermostats, programmable thermostats, and standard thermostats?
- a. Smart thermostats: [RECORD %: _____]
 - b. Programmable thermostats: [RECORD %: _____]
 - c. Standard thermostats: [RECORD %: _____]
98. (Don't know)
99. (Refused)

G. Satisfaction

We are almost finished. These last few questions are about your experience and satisfaction with the program.

- G1. How satisfied are you with your experience participating in the Residential and Enhanced Rewards Program? Would you say you are...?
- 1. Very satisfied
 - 2. Somewhat satisfied
 - 3. Not too satisfied
 - 4. Not at all satisfied
98. (Don't know)
99. (Refused)

[ASK IF G1 = 3 OR 4]

- G2. Why do you say that?
- [RECORD VERBATIM: _____]
98. (Don't know)
99. (Refused)
- G3. How satisfied are you with the amount of contact you receive from Focus on Energy? Would you say you are...?
- 1. Very satisfied
 - 2. Somewhat satisfied
 - 3. Not too satisfied
 - 4. Not at all satisfied
98. (Don't know)
99. (Refused)

[ASK IF G3 = 3 OR 4]

- G4. Why do you say that? [PROBE FOR WHETHER THEY WOULD PREFER MORE OR LESS CONTACT]
- [RECORD VERBATIM: _____]
98. (Don't know)
99. (Refused)

- G5. How helpful is your affiliation with Focus on Energy at generating business? Would you say it is...?
1. Very helpful
 2. Somewhat helpful
 3. Not too helpful
 4. Not at all helpful
 98. (Don't know)
 99. (Refused)
- G6. Have you faced any challenges with the Residential and Enhanced Rewards Program?
1. (Yes, [SPECIFY: _____])
 2. (No)
 98. (Don't know)
 99. (Refused)
- G7. Have there been any problems or complaints from your customers about the Residential and Enhanced Rewards Program?
1. (Yes, [SPECIFY: _____])
 2. (No)
 98. (Don't know)
 99. (Refused)
- G8. What would you say are the main barriers to customer participation in the Program? **[DO NOT READ LIST, RECORD MULTIPLE RESPONSES]**
1. (Higher cost of energy-efficient equipment)
 2. (Lack of awareness of the benefits of energy-efficient equipment)
 3. (Lack of awareness of the program)
 4. (Application process takes too long)
 5. (Application too difficult)
 6. (Required equipment documentation difficult to provide)
 7. (Income eligibility application takes too long)
 8. (Income eligibility documentation difficult to provide)
 9. (Other [SPECIFY: _____])
 98. (Don't know)
 99. (Refused)
- G9. Do you have any suggestions on how Focus on Energy can improve the Program for you or your customers?
1. (Yes, [SPECIFY: _____])
 2. (No)
 98. (Don't know)
 99. (Refused)

H. Wrap-Up

H1. Those are all of the questions I have. Do you have any additional comments or suggestions to improve the program?

1. (Yes, [SPECIFY: _____])
2. (No)
98. (Don't know)
99. (Refused)

Thank you for your time!

Nonresidential Programs

- Agriculture, Schools and Government Program Participant Survey
- Business Incentive Program Participant Survey
- Business Incentive Program Property Manager Discussion Guide
- Chain Stores and Franchises Program Participant Survey
- Design Assistance Program Participant Survey
- Large Energy Users Program Participant Survey
- Large Energy Users Program Key Account Manager Interview Guide
- Multifamily Direct Install Program Tenant Leave-Behind Survey
- Nonresidential General Population Survey
- Nonresidential Online Trade Ally Survey
- RECIP Participant Interview Guide
- RECIP Trade Ally Interview Guide
- Small Business Program Participant Survey
- Small Business Program Utility Energy-Efficiency Manager Interview Guide

**Focus on Energy Nonresidential Programs
Agriculture, Schools and Government Program
Participant Customer Survey 2015**

Researchable Questions		
Key Research Topics	Areas of Investigation	Related Questions
Screening	Project initiation process	A4, A8-A9
Marketing and Outreach	Program Awareness	A5, B1-B3
	Future communication preferences	A6-A7
	Key factors influencing customers' decision to participate in program	C1-C3
Barriers	Obstacles to installing high-efficiency equipment	D1-D3
Satisfaction	Assess satisfaction with various program components and reasons for dissatisfaction among participants	E1-E11
Measure Verification	Assess program measure persistence	F1 - F5
Freeridership and Spillover	Assess net savings	G1 - G12, H1 - H14, I1 - I7
Fixed Charge Increases	Understand awareness and impact of recent fixed cost increases for certain utility customers	J1-J5
Firmographics	Determine building and company characteristics of participants	K1-K4

Interviewer instructions are in green.

CATI programming instructions are in red.

Words in parenthesis should not be read to respondent

*Indicates core questions

SAMPLE Variables:

COMPANY CATEGORY IN SURVEY

SECTOR

MEASURE1

MEASURE2

MEASURE3

ADDRESS

CONTACT NAME

MEASURE1_QUANTITY

MEASURE1 INCENTIVE

UTILITY

Property Usage Category	Sector	Company Category in Survey
Agriculture	Agriculture	Business
Education	Schools & Government	School
Food Sales	Schools & Government	Business
Food Service	Agriculture	Business
Health Care (Inpatient)	Schools & Government	Facility
Lodging	Schools & Government	Business
Manufacturing	Agriculture	Business
Office	Schools & Government	Business
Other	Any Sector	Business
Public Assembly	Schools & Government	Business
Public Order and Safety	Schools & Government	Business
Religious Worship	Schools & Government	Facility
Service	Schools & Government	Business
Skilled Nursing	Schools & Government	Facility
Unknown	Agriculture	Business
Water and Waste Water	Schools & Government	Business

A. Introduction

- A1. Hello, may I speak with [CONTACT?] OR [IF NO NAME] May I speak with the person who handles energy decisions for your [COMPANY CATEGORY IN SURVEY]? [IF NOT AT THIS LOCATION, ASK FOR PHONE NUMBER AND NAME AT CORRECT LOCATION AND CALL RESPONDENT]
1. (Yes) [CONTINUE WITH RESPONDENT ON PHONE]
 88. (REFUSED) [THANK AND TERMINATE]

Back-up information, not to be programmed:

[If “No – Not available,” ask if Respondent would like to arrange a more convenient time for us to call them back or if you can leave a message for that person.]

[IF RESPONDENT ASKS HOW LONG, SAY: “APPROXIMATELY 20 MINUTES.”]

[IF NEEDED:] This survey is for research purposes only and this is not a marketing call. Your participation in this study is important so that Focus on Energy can improve the energy efficiency programs it offers to businesses and other organizations.

NOTE TO INTERVIEWER: If the respondent says that they have already been contacted by the program via an email/online survey or a postcard survey, the following response should be provided: *“Focus on Energy follows up with each participant to ensure that it has met its high customer service standards through a brief online or postcard questionnaire. The survey that I am calling about now explores additional questions to help improve the program’s offerings.”*

[Only if asked for a Focus on Energy contact to verify the survey authenticity, offer Joe Fontaine with the Public Service Commission of Wisconsin, 608-266-0910.]

- A2. Hello, I am [INSERT NAME] calling with a short survey on behalf of Wisconsin's Focus on Energy, program. Are you the person responsible for making equipment decisions regarding energy efficiency at your [COMPANY CATEGORY IN SURVEY]? [IF NEEDED: Focus on Energy is a statewide program funded by Wisconsin utilities to encourage energy efficiency.]
1. (Yes)
 2. (No, but person can come to phone) [START OVER AT A2 WITH NEW RESPONDENT]
 3. (No, not available [SCHEDULE CALLBACK])
 99. (DON'T KNOW) [ASK TO SPEAK WITH SOMEONE WHO WOULD KNOW AND START AGAIN]
 88. (REFUSED) [THANK AND TERMINATE]
- A3. *Our records show that you installed energy efficient equipment including [MEASURE1] [MEASURE2], and [MEASURE3] at [INSERT ADDRESS]. To ensure our records are correct, can you confirm that you received an incentive for this/these upgrades earlier this year?
1. (Yes)
 2. (No, wrong year) [Record correct year, if possible]
 3. (No, wrong address) [RECORD CORRECT ADDRESS]
 4. (No, wrong measure) [CORRECT BELOW]
 - a. (MEASURE1 IS INCORRECT [Correct: _____]) [CALL THIS VARIABLE C_MEASURE1]
 - b. (MEASURE2 IS INCORRECT [Correct: _____]) [CALL THIS VARIABLE C_MEASURE2]
 - c. (MEASURE3 IS INCORRECT [Correct: _____]) [CALL THIS VARIABLE C_MEASURE3]
 5. (No, I did not install any measures) [THANK AND TERMINATE]
 99. (Don't Know) [Is there someone we could speak with that would know this? Record name and contact information: _____]
 88. (Refused) [THANK AND TERMINATE]
- A4. *I'm going to read you a short list. Please tell me who, if anyone, was involved in helping you initiate your energy efficiency project. [READ LIST AND MARK 1= YES, 2=NO, 99=DON'T KNOW; 88 REFUSED FOR EACH]
1. Your contractor or vendor
 2. A Focus on Energy "Energy Advisor"
 3. Your utility account manager
 99. DON'T KNOW
 88. REFUSED
- A5. *How did your organization learn about the incentives available for this project from Focus on Energy? [DO NOT READ LIST; RECORD ONE ANSWER] [IF RESPONDENT MENTIONS WEBSITE CLARIFY IF UTILITY OR FOCUS ON ENERGY WEBSITE SO YOU KNOW HOW TO CODE ANSWER ON LIST.]
1. (Contact with Energy Advisor or Focus on Energy representative through phone, email, or in person)
 2. (Focus on Energy monthly newsletter)
 3. (Focus on Energy website)
 4. (Focus on Energy sponsored workshop or event)
 5. (Focus on Energy printed program materials)

- 6. (Contact with utility representative)
- 7. (Utility mailing, bill insert, or utility Website)
- 8. (Word of mouth (family, friend, or business colleague))
- 9. (Contacted by a contractor or vendor through phone, email or in person)
- 10. (Previously participated in program/received an incentive)
- 11. (Through a trade association or professional organization
[SPECIFY: _____])
- 12. (Advertisement [SPECIFY TYPE: _____])
- 13. (Other [SPECIFY: _____])
- 99. (Don't know)
- 88. (Refused)

A6. How does your organization prefer to learn about Focus on Energy incentives and programs? [DO NOT READ LIST; MULTIPLE RESPONSES POSSIBLE] [IF RESPONDENT MENTIONS WEBSITE CLARIFY IF UTILITY OR FOCUS ON ENERGY WEBSITE SO YOU KNOW HOW TO CODE ANSWER ON LIST.]

- 1. (Contact with Focus on Energy representative through phone, email, or in person)
- 2. (Focus on Energy monthly newsletter)
- 3. (Focus on Energy website)
- 4. (Focus on Energy sponsored workshop or event)
- 5. (Focus on Energy printed program materials)
- 6. (Contact with utility representative)
- 7. (Utility mailing, bill insert, or utility Website)
- 8. (Word of mouth (family, friend, or business colleague))
- 9. (Contacted by a contractor or vendor through phone, email or in person)
- 10. (Previously participated in program/received an incentive)
- 11. (Through a trade association or professional organization
[SPECIFY: _____])
- 12. (Other [SPECIFY: _____])
- 99. (Don't know)
- 88. (Refused)

A7. [IF A6=1] How often do you prefer to hear from the Focus on Energy representatives regarding project incentives and program offerings? [READ LIST]

- 1. Once a week
- 2. Bi-monthly
- 3. Once a month
- 4. Another time [SPECIFY: _____]
- 99. (Don't know)
- 88. (Refused)

A8. *Did you receive a rebate check in the mail for the upgrades, or did your contractor provide a discount on the cost of the project?

- 1. (Rebate in the mail)
- 2. (Contractor discount)
- 99. (Don't know)
- 88. (Refused)

- A9. *Did your organization complete the application for the financial incentive or did the Energy Advisor, contractor, vendor, or someone else do that for you?
1. (We completed the application)
 2. (Contractor/vendor completed the application)
 3. (Energy Advisor completed the application)
 4. (Someone else) [SPECIFY: _____]
 99. (Don't know)
 88. (Refused)

B. Awareness

[SKIP B1 IF A9=1 or 3]

- B1. *Focus on Energy offers incentives to businesses for making energy-efficiency upgrades. Contractors, or vendors, or Focus on Energy staff can provide businesses with information and assistance to complete the upgrades. Had you heard about the Focus on Energy incentives available to businesses before today?
1. (Yes)
 2. (No) [SKIP TO NEXT SECTION]
 99. (Don't know) [SKIP TO NEXT SECTION]
 88. (Refused) [SKIP TO NEXT SECTION]

[ASK B2-B3 IF SECTOR= AGRICULTURE]

- B2. Have you heard any radio advertisements for the Focus on Energy incentives?
1. (Yes)
 2. (No)
 88. (Don't know)
 99. (Refused)
- B3. Have you seen any newspaper advertisements for the Focus on Energy incentives?
1. (Yes)
 2. (No)
 88. (Don't know)
 99. (Refused)

C. Decision Making

Now I'd like to understand more about how your organization made decisions about this energy efficiency project.

- C1. *What factor was most important to your organization’s decision to make these energy-efficient upgrades? [DO NOT READ LIST; SINGLE RESPONSE]
1. (To save money on energy bills, reduce energy consumption or energy demand)
 2. (To obtain a program or bonus incentive)
 3. (To obtain a tax credit)
 4. (To replace old (but still functioning) equipment)
 5. (To replace broken equipment)
 6. (To enhance performance of our system(s))
 7. (To improve comfort)
 8. (Other [SPECIFY _____])
 99. (DON’T KNOW)
 88. (Refused)
- C2. Has your organization made energy-efficient upgrades using Focus on Energy incentives in the past? [DO NOT READ LIST; SINGLE RESPONSE]
1. (Yes)
 2. (No)
 99. (DON’T KNOW)
 88. (Refused)
- C3. [IF C2=1] Why did your organization decide to make more energy efficiency investments? [DO NOT READ LIST; SINGLE RESPONSE]
1. (Positive experience with Focus on Energy)
 2. (Positive relationship with Energy Advisor)
 3. (To continue planned energy efficiency upgrades that could not be conducted all at once)
 4. (To save money on energy bills, reduce energy consumption or energy demand)
 5. (To obtain a program or bonus incentive)
 6. (To obtain a tax credit)
 7. (To replace old (but still functioning) equipment)
 8. (To replace broken equipment)
 9. (To enhance performance of our system(s))
 10. (To improve comfort)
 11. (Other [SPECIFY _____])
 99. (DON’T KNOW)
 88. (Refused)

D. Barriers

D1. *What would you say are the main benefits your [COMPANY CATEGORY IN SURVEY] has experienced as a result of the energy efficiency upgrades we've discussed? [DO NOT READ LIST; RECORD ALL THAT APPLY; PROBE FOR MULTIPLE RESPONSES]

1. (The incentive)
2. (Using less energy, reducing energy consumption or energy demand)
3. (Saving money on our utility bills; lower energy bills)
4. (Increased occupant comfort)
5. (Better aesthetics/better or brighter lighting)
6. (Saving money on maintenance costs)
7. (Other [SPECIFY: _____])
8. (NO BENEFITS)
99. (DON'T KNOW)
88. (Refused)

D2. I'm going to read you a list of scenarios that [COMPANY CATEGORY IN SURVEY] face when purchasing new appliances or considering energy-efficient improvements like adding insulation. Please tell me whether you agree with these statements. The first statement is: [RANDOMIZE, READ STATEMENT; THEN JUST FOR THE FIRST STATEMENT READ THE FOLLOWING: Would you say you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree?

[READ LIST AND RECORD 1=STRONGLY AGREE, 2=SOMEWHAT AGREE, 3=NEITHER AGREE NOR DISAGREE, 4=SOMEWHAT DISAGREE, AND 5=STRONGLY DISAGREE; 97= NOT APPLICABLE, 99=DON'T KNOW, AND 88=REFUSED]

D2a. Making upgrades at our facility is an inconvenience.

D2b. Generally, making energy efficiency upgrades to this facility is too costly.

D2c. Our existing heating and cooling systems work fine, and we don't replace working equipment, even if it is not energy efficient.

D2d. My [COMPANY CATEGORY IN SURVEY] leases space, so does not want to invest in energy efficiency upgrades.

D2e. Proposed capital upgrades must meet a certain return on investment and energy efficiency is not a major consideration when determining the ROI.

D2f. Decisions about equipment upgrades are made by a separate department, such as a school board, and we don't have much input at this facility.

D2g. My [COMPANY CATEGORY IN SURVEY] has made all the energy efficiency improvements we can without a substantial investment

- D3. *What could be done to help your [COMPANY CATEGORY IN SURVEY] overcome these challenges?[DO NOT READ LIST, ALLOW MULTIPLE RESPONSES]
1. (Nothing)
 2. (Higher incentives)
 3. (Provide upfront rewards)
 4. (Offer low-interest loans)
 5. (Simplify the paperwork)
 6. (Provide better/more information about program [SPECIFY WHAT TYPE OF INFORMATION THEY NEED:_____])
 7. (Provide an energy audit)
 8. (Other [RECORD VERBATIM ANSWER_____])
 99. (DON'T KNOW)
 88. (REFUSED)

E. Satisfaction and Application Ease

[ASK IF A4=3]

Next, I have a few questions for you about the Energy Advisor who helped you on the project.

- E1. How helpful was the Energy Advisor during the project process? Would you say they were...
1. Very helpful
 2. Somewhat helpful
 3. Not too helpful
 4. Not helpful at all
 99. (Don't know)
 88. (Refused)

[ASK IF E1=1, 2, 3 or 4]

- E2. Why do you say that? [OPEN END]

Now I have a few questions for you about your application.

[ASK IF A9=1]

- E3. *Thinking about the application you submitted, how easy would you say this paperwork was to complete? Would you say: [READ LIST]
1. Very easy,
 2. Easy,
 3. Somewhat challenging, or
 4. Very challenging?
 99. (Don't know)
 88. (Refused)

[ASK IF E3=1, 2, 3 or 4]

- E4. *Why do you say that? [OPEN END]

[ASK IF A8=1]

- E5. *Thinking about the rebate you received in the mail, how satisfied were you with the time it took to receive the check? Would you say: [READ LIST]
1. Very satisfied,
 2. Somewhat satisfied,
 3. Not too satisfied, or
 4. Not satisfied at all?
 99. (Don't know)
 88. (Refused)

[ASK IF E5=1, 2, 3 or 4]

- E6. *About how long did it take to arrive? [READ LIST]
1. 1-3 weeks
 2. 4-6 weeks
 3. 7-8 weeks
 4. Over 8 weeks?
 99. (Don't know)
 88. (Refused)

- E7. *Is there anything that [IF A9 OR 3=1 THEN READ, "Focus on Energy" IF B1=2 THEN READ "the contractor"] could have done to improve your overall experience with the Agriculture, Schools, and Government program? [DO NOT READ THE LIST, RECORD ALL THAT APPLY]
1. (Better/more communication [SPECIFY: Who would you like more communication from? _____])
 2. (Quicker response time [SPECIFY: Who would you like a quicker response time from? ___])
 3. (Larger selection of eligible equipment [ASK: What energy-efficient equipment should Focus on Energy offer incentives for? _____])
 4. (Increasing the incentive amount)
 5. (Simplify the application process)
 6. (Allow me to fill out the applications online)
 7. (Simplify the website)[ASK: In what way? _____]
 8. (Provide quicker approval on applications)
 9. (Send incentive check out faster)
 10. (Provide more face-time with my Energy Advisor (this may include more frequent visits))
 11. (Other [SPECIFY: _____])
 12. (No, nothing)
 99. (DON'T KNOW)
 88. (REFUSED)

- E8. *Did you ever visit the Focus on Energy website to learn more information or to download forms?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

[ASK IF E8=1]

- E9. *How easy was it to find what you were looking for? Would you say it was: [READ LIST]
1. Very easy,
 2. Easy,
 3. Somewhat challenging, or
 4. Very challenging?
99. (Don't know)
88. (Refused)

[ASK IF E8=1]

- E10. *How would you rate the quality of information on the Focus on Energy website? Would you say the information was: [READ LIST]
1. Very helpful,
 2. Somewhat helpful,
 3. Not too helpful, or
 4. Not helpful at all?
99. (Don't know)
88. (Refused)

[ASK IF E10=3 or 4]

- E11. *Why do you say that? [OPEN END]

F. Verification

- F1. Is all of the energy efficient equipment installed through the program still in-place and operating as planned? My records show that you installed [MEASURE1 OR C_MEASURE1], [MEASURE2 OR C_MEASURE2], and [MEASURE3 OR C_MEASURE3].
1. (Yes)
 2. (No)
99. (Don't know)
88. (Refused)

[ASK IF F1=2]

- F2. Which equipment is no longer installed or operating as planned?
1. [MEASURE1 OR C_MEASURE1]
 2. [MEASURE2 OR C_MEASURE2]
 3. [MEASURE3 OR C_MEASURE3]
88. (Don't know)
99. (Refused)

[ASK F3-F4 IF F1=2] [ASK FOR EACH RESPONSE SELECTED IN F2]

- F3. How many [RESPONSE FROM F2] did you or your contractor originally install?
[OPEN END NUMERIC]
- F4. And how many [RESPONSE FROM F2] are installed and operating now?
[OPEN END NUMERIC]

[ASK IF F1=2] [ASK FOR EACH RESPONSE SELECTED IN F2]

- F5. Why are the [RESPONSE FROM F2] no longer installed or operating?
[OPEN END]

G. Freeridership (No Contractor Help)

[ASK EITHER SECTION G OR SECTION H]

[IF A4=1 SKIP TO SECTION H. OTHERWISE ASK THIS SECTION - CONTRACTOR DID NOT HELP IN THE DECISION MAKING]

Now I'd like to talk with you a bit more about your decisions to purchase the new [MEASURE1 OR C_MEASURE1]. Even though you may have received incentives for other energy saving equipment, these questions are just about the [MEASURE1 OR C_MEASURE1] that was purchased.

[INTERVIEWER NOTE ABOUT THIS SECTION (don't read to respondent): This section is based on hypothetical behavior so we are asking similar questions to verify that we are gathering the correct responses.]

- G1. First, did your organization have specific plans to install the [MEASURE1 OR C_MEASURE1][s] before learning about the incentive?
1. (Yes) [ASK G2]
 2. (No) [SKIP TO G4]
 99. (DON'T KNOW) [SKIP TO G4]
 88. (REFUSED) [SKIP TO G4]
- G2. Prior to learning about the incentive, was the purchase of the [MEASURE1 OR C_MEASURE1][s] included in your organization's capital budget?
1. (Yes)
 2. (No) [ASK G4]
 3. (Not Applicable) [ASK G4]
 99. (DON'T KNOW) [ASK G4]
 88. (REFUSED) [ASK G4]
- G3. Had your organization **ALREADY** ordered or purchased the [MEASURE1 OR C_MEASURE1][s] **BEFORE** your organization heard about the Agricultural, Schools and Government program incentive?
1. (Yes)
 2. (No)
 99. (DON'T KNOW)
 88. (REFUSED)
- G4. Would you have purchased and installed the same [MEASURE1 OR C_MEASURE1][s] without the incentive?
1. (Yes) [SKIP TO G7]
 2. (No) [SKIP TO G9]
 99. (DON'T KNOW) [ASK G5]
 88. (REFUSED) [ASK G5]

- G5. Would you have installed **something** without the incentive? [DO NOT READ LIST UNLESS NECESSARY]
1. (Yes, would have installed something) [ASK G6]
 2. (No, would NOT have installed anything) [SKIP TO G10]
 99. (DON'T KNOW) [SKIP TO I1]
 88. (REFUSED) [SKIP TO I1]
- G6. When you say you **would have installed** something, would you have installed something that was just as energy efficient as the [MEASURE1 OR C_MEASURE1][s] you installed?
1. (Yes) [ASK G7]
 2. (No) [ASK G7]
 99. (DON'T KNOW) [ASK G7]
 88. (REFUSED) [ASK G7]
- G7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the incentive, would you have installed the same amount of [MEASURE1 OR C_MEASURE1][s]?
1. (Yes, the same amount) [ASK G8]
 2. (No, would have installed less) [ASK G8]
 3. (No, would have installed more) [ASK G8]
 99. (DON'T KNOW) [ASK G8]
 88. (REFUSED) [ASK G8]
- G8. Without the [INCENTIVE FOR MEASURE1 OR C_MEASURE1], would you have installed the [MEASURE1 OR C_MEASURE1][s]...[READ LIST AND RECORD ONE RESPONSE]
1. Within the same year? [SKIP TO I1]
 2. Within one to two years? [SKIP TO I1]
 3. Within three to five years? [SKIP TO I1]
 4. In more than five years? [SKIP TO I1]
 99. (DON'T KNOW) [SKIP TO I1]
 88. (REFUSED) [SKIP TO I1]
- [ASK G9 TO G12 IF G4 =2 OR G5 = 2]
- G9. When you say **you would not have installed** the same [MEASURE1 OR C_MEASURE1][s] without the incentive, would you have installed anything at all?
1. (Yes, would have installed something) [ASK G10]
 2. (No, would not have installed anything at all) [SKIP TO I1]
 99. (DON'T KNOW) [ASK G10]
 88. (REFUSED) [ASK G10]
- G10. Without the incentive, would you have installed something that was just as energy efficient as the [MEASURE1 OR C_MEASURE1][s] you installed?
1. (Yes) [ASK G11]
 2. (No) [ASK G11]
 99. (DON'T KNOW) [ASK G11]
 88. (REFUSED) [ASK G11]

- G11. **[ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1]** Without the incentive, would you have installed the same amount of **[MEASURE1 OR C_MEASURE1][s]**?
1. (Yes, the same amount) **[ASK G12]**
 2. (No, would have installed less) **[ASK G12]**
 3. **(No, would have installed more) [ASK G12]**
 99. (DON'T KNOW) **[ASK G12]**
 88. (REFUSED) **[ASK G12]**
- G12. And, would you have installed the same **[MEASURE1 OR C_MEASURE1][s]**. . . **[READ LIST AND RECORD ONE RESPONSE]**
1. In the same year? **[SKIP TO I1]**
 2. In one to two years? **[SKIP TO I1]**
 3. In three to five years? **[SKIP TO I1]**
 4. More than five years out? **[SKIP TO I1]**
 99. (DON'T KNOW) **[SKIP TO I1]**
 88. (REFUSED) **[SKIP TO I1I1]**

H. +Freeridership -(contractor)

[ASK EITHER SECTION G OR SECTION H]

[ASK SECTION H IF ANY A4=1 – CONTRACTOR HELPED IN THE DECISION MAKING]

Now I'd like to talk with you about the new **[MEASURE1 OR C_MEASURE1]**. Even though your contractor may have installed other energy efficient equipment, these questions are just about the **[MEASURE1 OR C_MEASURE1]**.

[INTERVIEWER NOTE ABOUT THIS SECTION (don't read to respondent): This section is based on hypothetical behavior so we are asking similar questions to verify that we are gathering the correct responses.]

- H1. At the time that you first started working with your contractor on this project, had you...? **[READ LIST AND RECORD ONE FOR EACH: 1=YES OR 2=NO OR 99=DON'T KNOW OR 88=REFUSED]**
1. Already been thinking about purchasing **[MEASURE1 OR C_MEASURE1]**?
 2. Already begun collecting information about **[MEASURE1 OR C_MEASURE1]**?
 3. Already selected the particular **[MEASURE1 OR C_MEASURE1]** and were going to purchase it?
 4. Already purchased the **[MEASURE1 OR C_MEASURE1]**?
 5. Already installed the **[MEASURE1 OR C_MEASURE1]**?
- H2. Just to make sure I understand, did your organization have specific plans to install the **[MEASURE1 OR C_MEASURE1][s]** before you began working with your contractor?
1. (Yes) **[ASK H3]**
 2. (No) **[SKIP TO H4]**
 99. (DON'T KNOW) **[SKIP TO H4]**
 88. (REFUSED) **[SKIP TO H4]**

- H3. Before you began working with your contractor, was the purchase of the **[MEASURE1 OR C_MEASURE1]**[s] included in your organization's capital budget?
1. (Yes) ASK:
 - d. Did your contractor help your organization make the decision to include the purchase of **[MEASURE1 OR C_MEASURE1]**[s] in your organization's capital budget? **[ASK H4]**
 2. (No) **[ASK H4]**
 99. (DON'T KNOW) **[ASK H4]**
 88. (REFUSED) **[ASK H4]**
- H4. Would you have purchased and installed the same **[MEASURE1 OR C_MEASURE1]**[s] without the assistance from your contractor?
1. (Yes) **[SKIP TO H7]**
 2. (No) **[SKIP TO H9]**
 99. (DON'T KNOW) **[ASK H5]**
 88. (REFUSED) **[ASK H5]**
- H5. Would you have installed **something** without the involvement of your contractor? **[DO NOT READ LIST UNLESS NECESSARY]**
1. (Yes, would have installed something) **[ASK H6]**
 2. (No, would NOT have installed anything) **[SKIP TO H9]**
 99. (DON'T KNOW) **[SKIP TO I1]**
 88. (REFUSED) **[SKIP TO I1]**
- H6. When you say you **would have installed** something, would you have installed something that was just as energy efficient as the **[MEASURE1 OR C_MEASURE1]**[s] you installed?
1. (Yes) **[ASK H7]**
 2. (No) **[ASK H7]**
 99. (DON'T KNOW) **[ASK H7]**
 88. (REFUSED) **[ASK H7]**
- H7. **[ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1]** And without the involvement of your contractor would you have installed the same number of **[MEASURE1 OR C_MEASURE1]**[s]?
1. (Yes) **[ASK H8]**
 2. (No) **[ASKH7.2a]**
 - e. Would you have installed fewer or more of the **[MEASURE1 OR C_MEASURE1]**(S)? **[ASK H8]**
 99. (DON'T KNOW) **[ASK H8]**
 88. (REFUSED) **[ASK H8]**
- H8. Without the assistance from your contractor, would you have installed the **[MEASURE1 OR C_MEASURE1]**[s]...**[READ LIST AND RECORD ONE RESPONSE]**
1. Within the same year? **[SKIP TO I1]**
 2. Within one to two years? **[SKIP TO I1]**
 3. Within three to five years? **[SKIP TO I1]**
 4. In more than five years? **[SKIP TO I1]**
 99. (DON'T KNOW) **[SKIP TO I1]**
 88. (REFUSED) **[SKIP TO I1]**

[ASK H9 TO H13 IF H4=2 OR H5= 2]

- H9. When you say **you would not have installed** the same [MEASURE1 OR C_MEASURE1][s] without the assistance from your contractor, would you have installed anything at all?
1. (Yes) [ASK H10]
 2. (No) [SKIP TO I1]
 99. (DON'T KNOW) [ASK H10]
 88. (REFUSED) [ASK H10]
- H10. Without the assistance from your contractor, **would you have installed** something that was just as energy efficient as the [MEASURE1 OR C_MEASURE1][s] you installed?
1. (Yes) [ASK H11]
 2. (No) [ASK H11]
 99. (DON'T KNOW) [ASK H11]
 88. (REFUSED) [ASK H11]
- H11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] Without the assistance from your contractor, would you have installed the same [MEASURE1 OR C_MEASURE1][s]?
1. (Yes) [ASK H12]
 2. (No) [ASKH11.2A]
 - f. Would you have installed fewer or more of the [MEASURE1 OR C_MEASURE1][S]? [ASK H12]
 99. (DON'T KNOW) [ASK H12]
 88. (REFUSED) [ASK H12]
- H12. And, would you have installed the [MEASURE1 OR C_MEASURE1][s]. . . [READ LIST AND RECORD ONE RESPONSE]
1. In the same year? [ASK H13]
 2. In one to two years? [ASK H13]
 3. In three to five years? [ASK H13]
 4. More than five years out? [ASK H13]
 99. (DON'T KNOW) [ASK H13]
 88. (REFUSED) [ASK H13]
- H13. If the assistance or information from your contractor had not been available, would you have done anything differently on this project?
1. (Yes) [ASK H14]
 2. (No) [SKIP TO I1]
 99. (DON'T KNOW) [SKIP TO I1]
 88. (REFUSED) [SKIP TO I1]
- H14. What would you have done differently?
[RECORD OPEN ENDED RESPONSE]

[ASK EVERYONE SECTION I]

I. +Spillover

11. Since making these energy-efficiency upgrades has your company installed any other energy-efficient products in your facility that you did **NOT** receive an incentive for? By energy-efficient products, I mean high efficiency lighting such as T8s and LEDs; high efficiency motors and variable speed drives; high efficiency air conditioners and heat pumps, efficient heating or water heating equipment, etcetera.
1. (Yes) [ASK I2]
 2. (No) [SKIP TO SECTION J]
 99. (DON'T KNOW) [SKIP TO SECTION J]
 88. (REFUSED) [SKIP TO SECTION J]
12. Are these products also installed at [ADDRESS] or at a different location?
1. (Same location)
 2. (Different location)
 99. (DON'T KNOW)
 88. (REFUSED)
13. What were the other energy-efficient products that you installed without getting an incentive? [DO NOT READ LIST; MARK ALL THAT APPLY; 99=DON'T KNOW, 88=REFUSED, -96=N/A] [If the customer says they bought something but have not installed it, the equipment has to be installed and operating for us to count it towards spillover.]
1. CFLs
 2. LEDs
 3. Fluorescent tubes (T5s, T8s, etc.)
 4. Efficient lighting controls (occupancy sensors, daylighting, timers)
 5. High efficiency motors
 6. Air source heat pumps
 7. Ground source heat pumps
 8. Central AC
 9. VSD (variable speed drive)
 10. Boiler
 11. Compressed air regulator
 12. Gas furnaces
 13. Exit signs
 14. Refrigeration equipment (refrigerators, freezers)
 15. Other [SPECIFY:_____]
 99. DON'T KNOW
 88. REFUSED
14. [REPEAT FOR EACH ITEM MENTIONED IN I3] How many [INSERT ITEM FROM I3] did you install? [RECORD NUMBER _____, 99 FOR DON'T KNOW, 88 FOR REFUSED, AND -96 FOR N/A]

15. [REPEAT FOR EACH ITEM MENTIONED IN I3] Please tell me how important the [IF A8=1 READ, “incentive for [INSERT MEASURE1 OR C_MEASURE1] was” OR IF A8=2 READ, “discount from your contractor for [MEASURE1] OR C_MEASURE1 was”] in your decision to install [INSERT ITEM FROM I3]. Was it:

[EMPHASIZE EACH ANSWER OPTION AND PAUSE IN BETWEEN EACH OPTION.]

1. Very important,
 2. Somewhat important,
 3. Not too important, or
 4. Not at all important ?
 99. [DO NOT READ] DON'T KNOW
 88. [DO NOT READ] REFUSED
16. [ASK FOR ALL MENTIONED IN I3] To confirm, did you receive an incentive for installing [INSERT ANSWER FROM I3]? [DO NOT READ ANSWER LIST]
1. (Yes)
 2. (No)
 3. (Item did not qualify)
 4. (Contractor or vendor received the incentive)
 99. DON'T KNOW
 88. REFUSED
17. [ASK IF I2=2] What is the address of the location where you installed [INSERT EACH ITEM FROM I3]? [99 FOR DON'T KNOW AND 88 FOR REFUSED]
- ENTER STREET ADDRESS:
- ENTER CITY:
- ENTER STATE:
- ENTER ZIP CODE:

J. Fixed Charges

[ASK IF UTILITY= WE Energies (1), WPS (2), OR MG&E (3)]

- J1. *Were you aware of the recent fixed cost increases put in place by your utility last year? [IF NEEDED: these changes impacted the fixed monthly customer charge on your electric bill]
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)
- [ASK J2-J4 IF J1=1]
- J2. *Did these changes impact your decision to make the energy-efficient upgrades we've been discussing?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

[ASK IF J2=1]

- J3. *How so?
- 1. [OPEN END]
 - 99. (Don't know)
 - 88. (Refused)
- J4. *How likely are these higher fixed costs to impact your future investments in energy efficiency?
Would you say: [READ LIST]
- 1. Very likely
 - 2. Somewhat likely
 - 3. Not too likely
 - 4. Not likely at all?
 - 99. (Don't know)
 - 88. (Refused)
- J5. *Why do you say that? [OPEN END]

K. Firmographics

Finally, I would like to ask you some questions about your company.

- K1. *What industry is your organization in? [CODE ONE RESPONSE BELOW; DON'T READ UNLESS NECESSARY]
- 1. (Agriculture, Mining)
 - 2. (Communications)
 - 3. (Construction)
 - 4. (Education)
 - 5. (Finance, Insurance, Real Estate)
 - 6. (Food Service (restaurants))
 - 7. (Government)
 - 8. (Health Care)
 - 9. (Manufacturing)
 - 10. (Nonprofit / churches / schools)
 - 11. (Retail, Wholesale)
 - 12. (Transportation)
 - 13. (Hotel/motels)
 - 14. (Other [SPECIFY: _____])
 - 99. (DON'T KNOW)
 - 88. (Refused)

[ASK IF K1=1]

K2. How would you classify your farm type? [CODE ONE RESPONSE BELOW; DON'T READ UNLESS NECESSARY]

1. (Dairy)
2. (Livestock)
3. (Crop Production)
4. (Grain Processing)
5. (Greenhouse)
6. (Vegetable Storage)
7. (Other [SPECIFY: _____])
99. (DON'T KNOW)
(Refused)

K3. *Does your organization lease or own the facility?

1. (Lease)
2. (Own)
3. (Other [SPECIFY: _____])
99. (DON'T KNOW)
88. (REFUSED)

K4. *How many people are employed at this location?

1. [RECORD NUMBER: _____]
99. DON'T KNOW
88. REFUSED

L. Closing

L1. *Do you have any other comments about energy efficiency decisions and purchases you would like to share?

[RECORD RESPONSE: _____; 99 FOR DON'T KNOW, 88 FOR REFUSED]

Thank you. We appreciate your help with this survey. You may also be contacted for an on-site visit if you have not been contacted already. Have a nice day.

Focus on Energy Business Incentive Program
Participant Customer Survey 2015

Researchable Questions		
Key Research Topics	Areas of Investigation	Related Questions
Screening	Project initiation process	A4-A7
Marketing and Outreach	Program Awareness	B1
	Future communication preferences	L1
	Key factors influencing customers' decision to participate in program	C1
Barriers	Obstacles to installing high-efficiency equipment	D1-D3
Satisfaction	Assess satisfaction with various program components and reasons for dissatisfaction among participants	E1-E9
Fixed Charge Increases	Understand awareness and impact of recent fixed cost increases for certain utility customers	J1-J5
Firmographics	Determine building and company characteristics of participants	K1-4
Decision Making	Understand decision making processes and how they relate to corporate structure	C1-C3
Freeridership and Spillover	Assess net savings	G1-I7

Interviewer instructions are in green.

CATI programming instructions are in red.

Words in parenthesis should not be read to respondent

*Indicates core questions

SAMPLE Variables:

[CONTACT]

[MEASURE1]

[MEASURE2]

[MEASURE3]

[UTILITY]

[MEASURETYPE] Indicates quota

Prescriptive/Hybrid = 70 completes

Custom = 34 completes

Total = 104

A. Introduction

- A1. Hello, may I speak with [PRIMARY APPLICATION CONTACT] OR [IF NO NAME] May I speak with the person who handles energy decisions for your company? [IF NOT AT THIS LOCATION, ASK FOR PHONE NUMBER AND NAME AT CORRECT LOCATION AND CALL RESPONDENT]
1. (Yes) [CONTINUE WITH RESPONDENT ON PHONE]
 88. (REFUSED) [THANK AND TERMINATE]

Back-up information, not to be programmed:

[If “No – Not available,” ask if Respondent would like to arrange a more convenient time for us to call them back or if you can leave a message for that person.]

[IF RESPONDENT ASKS HOW LONG, SAY: “APPROXIMATELY 20 MINUTES.”]

[IF NEEDED:] This survey is for research purposes only and this is not a marketing call. Your participation in this study is important so that Focus on Energy can improve the energy efficiency programs it offers to businesses and other organizations.

[Only if asked for a Focus on Energy contact to verify the survey authenticity, offer Joe Fontaine with the Public Service Commission of Wisconsin, 608-266-0910.]

[Only if respondent says they already did an online survey: Thank you for your responses to that survey. This another Focus on Energy study that you have been selected for, that asks a few more questions about your experience with the program and your decision-making. If you have a few more spare minutes, we would greatly appreciate your responses!]

- A2. Hello, I am [INSERT NAME] calling with a short survey on behalf of Wisconsin’s Focus on Energy, program. Are you the person responsible for making equipment decisions regarding energy efficiency at your company? [IF NEEDED: Focus on Energy is a statewide utility-funded program to encourage energy efficiency.]
1. (Yes)
 2. (No, but person can come to phone) [START OVER AT A2 WITH NEW RESPONDENT]
 3. (No, not available [SCHEDULE CALLBACK]
 99. (DON’T KNOW) [ASK TO SPEAK WITH SOMEONE WHO WOULD KNOW AND START AGAIN]
 88. (REFUSED) [THANK AND TERMINATE]

- A3. *Our records show that you installed energy efficient equipment including [MEASURE1], [MEASURE2], and [MEASURE3] at [INSERT ADDRESS]. To ensure our records are correct, can you confirm that you received an incentive for this/these upgrades earlier this year?
1. (Yes)
 2. (No, wrong year) [Record correct year, if possible]
 3. (No, wrong address) [RECORD CORRECT ADDRESS]
 4. (No, wrong measure) [CORRECT BELOW]
- (MEASURE1 IS INCORRECT [Correct: _____]) [CALL THIS VARIABLE C_MEASURE1]
(MEASURE2 IS INCORRECT [Correct: _____]) [CALL THIS VARIABLE C_MEASURE2]
(MEASURE3 IS INCORRECT [Correct: _____]) [CALL THIS VARIABLE C_MEASURE3]
5. (No, I did not install any measures) [THANK AND TERMINATE]
 99. (Don't Know) [Is there someone we could speak with that would know this? Record name and contact information: _____]
 88. (Refused) [THANK AND TERMINATE]

[THANK AND TERMINATE TEXT: Those are all of our questions. Thanks for your help. Have a nice day.]

- A4. *I'm going to read you a short list. Please tell me who, if anyone, was involved in helping you initiate your energy efficiency project. [READ LIST AND MARK 1= YES, 2=NO, 99=DON'T KNOW; 88 REFUSED FOR EACH]
1. Your contractor or vendor
 2. a Focus on Energy "Energy Advisor"
 3. Your utility account manager
- A5. *How did your organization learn about the incentives available for this project? [DO NOT READ LIST; MULTIPLE RESPONSES POSSIBLE] [IF RESPONDENT MENTIONS WEBSITE CLARIFY IF UTILITY OR FOCUS ON ENERGY WEBSITE SO YOU KNOW HOW TO CODE ANSWER ON LIST.]
1. (Contact with Focus on Energy representative through phone, email, or in person)
 2. (Focus on Energy monthly newsletter)
 3. (Focus on Energy website)
 4. (Focus on Energy sponsored workshop or event)
 5. (Focus on Energy printed program materials)
 6. (Contact with utility representative)
 7. (Utility mailing, bill insert, or utility Website)
 8. (Word of mouth (family, friend, or business colleague)
 9. (I contacted my contacted by a contractor/vendor to ask)
 10. (My contractor/vendor let me know about them)
 11. (Previously participated in program/received an incentive)
 12. (Through a trade association or professional organization [SPECIFY: _____])
 13. (National Rebate Administrator)
 14. (Other [SPECIFY: _____])
 99. (Don't know)
 88. (Refused)

- A6. *Did you receive a rebate check in the mail for the upgrades, or did your contractor provide a discount on the cost of the project?
1. (Rebate in the mail)
 2. (Contractor discount)
 99. (Don't know)
 88. (Refused)
- A7. *Did your organization complete the application for the financial incentive or did the Energy Advisor, contractor, vendor, or someone else do that for you?
1. (We completed the application)
 2. (Contractor/vendor completed the application)
 3. (Energy Advisor completed the application)
 4. (Someone else) [SPECIFY: _____]
 99. (Don't know)
 88. (Refused)

B. Awareness

[SKIP IF A7=1 or 3]

- B1. *Focus on Energy offers incentives to businesses for making energy-efficiency upgrades. Contractors, or vendors, or Focus on Energy staff can provide businesses with information and assistance to complete the upgrades. Had you heard about the Focus on Energy incentives available to businesses before today?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

C. Decision Making

Now I'd like to understand more about how your organization made decisions about this energy efficiency project.

- C1. *What factor was most important to your company's decision to make these energy-efficient upgrades? [DO NOT READ LIST; SINGLE RESPONSE]
1. (To save money on energy bills, reduce energy consumption or energy demand)
 2. (To obtain a program or bonus incentive)
 3. (To obtain a tax credit)
 4. (To replace old (but still functioning) equipment)
 5. (To replace broken equipment)
 6. (To enhance performance of our system(s))
 7. (To improve comfort)
 8. (Other [SPECIFY _____])
 99. (DON'T KNOW)
 88. (Refused)

- C2. How important is energy efficiency when making capital upgrades or improvements? Is it ... [READ LIST]
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all important
 5. (DON'T KNOW)
 6. (Refused)
- C3. [ASK IF C2 = 3 or 4] Can you please tell me why energy efficiency is not an important factor in making upgrades?
1. [RECORD ANSWER _____-]
 99. (DON'T KNOW)
 88. (Refused)

D. Barriers

- D1. *What would you say are the main benefits your company has experienced as a result of the energy efficiency upgrades we've discussed? [DO NOT READ LIST; RECORD ALL THAT APPLY; PROBE FOR MULTIPLE RESPONSES]
1. (The incentive)
 2. (Using less energy, reducing energy consumption or energy demand)
 3. (Saving money on our utility bills; lower energy bills)
 4. (Increased occupant comfort)
 5. (Better aesthetics/better or brighter lighting)
 6. (Saving money on maintenance costs)
 7. (Other [SPECIFY: _____])
 8. (NO BENEFITS)
 99. (DON'T KNOW)
 88. (Refused)
- D2. I'm going to read you a list of scenarios that companies experience when purchasing upgraded lighting or considering energy-efficient improvements like variable speed drives or compressed air. Please tell me whether you agree with these statements. The first statement is: [RANDOMIZE, READ STATEMENT; THEN JUST FOR THE FIRST STATEMENT READ THE FOLLOWING: Would you say you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree? [READ LIST AND RECORD 1=STRONGLY AGREE, 2=SOMEWHAT AGREE, 3=SOMEWHAT DISAGREE, AND 4=STRONGLY DISAGREE; 97= NOT APPLICABLE, 99=DON'T KNOW, AND 88=REFUSED]
- D2a. Making upgrades at our facility is an inconvenience.
 - D2b. Generally, making energy efficiency upgrades to this facility is too costly.
 - D2c. Our existing heating and cooling systems work fine, and we don't replace working equipment even if it is not energy efficient.
 - D2d. My company leases space, so does not want to invest in energy efficiency upgrades.
 - D2e. Proposed capital upgrades must meet a certain return on investment and energy efficiency is not a major consideration when determining the ROI.
 - D2f. Decisions about equipment upgrades are made at a corporate office, and we don't have much input at this facility.

D2g. My company has made all the energy efficiency improvements we can without a substantial investment

- D3. *What could be done to help your company overcome challenges with energy-efficiency improvements? [DO NOT READ LIST, ALLOW MULTIPLE RESPONSES]
1. (Nothing)
 2. (Higher incentives)
 3. (Provide upfront rewards)
 4. (Offer low-interest loans)
 5. (Simplify the paperwork)
 6. (Provide better/more information about program [SPECIFY WHAT TYPE OF INFORMATION THEY NEED: _____])
 7. (Provide an energy audit)
 8. (Other [RECORD VERBATIM ANSWER _____])
 99. (DON'T KNOW)
 88. (REFUSED)

E. Satisfaction and Application Ease

Next, I have a few questions for you about your application.

[ASK IF A7=1]

- E1. *Thinking about the application you submitted, how easy would you say this paperwork was to complete? Would you say: [READ LIST]
1. Very easy,
 2. Easy,
 3. Somewhat challenging, or
 4. Very challenging?
 99. (Don't know)
 88. (Refused)

[ASK IF E1=3 or 4]

- E2. *Why do you say that? [OPEN END]

[ASK IF A6=1]

- E3. *Thinking about the rebate you received in the mail, how satisfied were you with the time it took to receive the check? Would you say: [READ LIST]
1. Very satisfied,
 2. Somewhat satisfied,
 3. Not too satisfied, or
 4. Not satisfied at all?
 99. (Don't know)
 88. (Refused)

- E4. *About how long did it take to arrive? [READ LIST]
1. 1-3 weeks
 2. 4-6 weeks
 3. 7-8 weeks
 4. Over 8 weeks?
 99. (Don't know)
 88. (Refused)
- E5. *Is there anything that [IF A7=1, 3, 4 THEN READ, "Focus on Energy" IF B1=2 THEN READ "the contractor"] could have done to improve your overall experience with the Business Incentive program? [DO NOT READ THE LIST, RECORD ALL THAT APPLY]
1. (Better/more communication [SPECIFY: Who would you like more communication from?_____])
 2. (Quicker response time [SPECIFY: Who would you like a quicker response time from?__])
 3. (Larger selection of eligible equipment [ASK: What energy-efficient equipment should Focus on Energy offer incentives for?_____])
 4. (Increasing the incentive amount)
 5. (Simplify the application process)[ASK: In what way?_____]
 6. (Allow me to fill out the applications online)
 7. (Simplify the website)[ASK: In what way?_____]
 8. (Provide quicker approval on applications)
 9. (Send incentive check out faster)
 10. (Provide more face-time with my Energy Advisor (this may include more frequent visits))
 11. (Other [SPECIFY:_____])
 12. (No, nothing)
 99. (DON'T KNOW)
 88. (REFUSED)
- E6. [SKIP IF E5=7] *Did you ever visit the Focus on Energy website to learn more information or to download forms?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

[ASK IF E6=1 or E5=7]

- E7. *How easy was it to find what you were looking for on the website? Would you say it was: [READ LIST]
1. Very easy,
 2. Easy,
 3. Somewhat challenging, or
 4. Very challenging?
 99. (Don't know)
 88. (Refused)

[ASK IF E6=1 or E5=7]

- E8. *How would you rate the quality of information on the Focus on Energy website? Would you say the information was: [READ LIST]
1. Very helpful,
 2. Somewhat helpful,
 3. Not too helpful, or
 4. Not helpful at all?
 99. (Don't know)
 88. (Refused)

[ASK IF E8=3 or 4]

- E9. *Why do you say that? [OPEN END]

F. Verification

- F1. Is all of the energy efficient equipment installed through the program this year still in-place and operating as planned? My records show that you installed [MEASURE1], [MEASURE2], and [MEASURE3].
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

[ASK IF F1=2]

- F2. Which equipment is no longer installed or operating as planned? [DO NOT READ LIST, SELECT ALL THAT APPLY]
1. [MEASURE1]
 2. [MEASURE2]
 3. [MEASURE3]
 4. (Other) [SPECIFY]
 99. (Don't know)
 88. (Refused)

[ASK F3-F4 IF F1=2] [ASK FOR EACH RESPONSE SELECTED IN F2]

- F3. How many [RESPONSE FROM F2] did you or your contractor originally install?
[OPEN END NUMERIC]
- F4. And how many [RESPONSE FROM F2] are installed and operating now?
[OPEN END NUMERIC]

[ASK IF F1=2] [ASK FOR EACH RESPONSE SELECTED IN F2]

- F5. Why are the [RESPONSE FROM F2] no longer installed or operating?
[OPEN END]

G. +Freeridership

[IF A4.1=1 SKIP TO SECTION H OTHERWISE ASK THIS SECTION - CONTRACTOR DID NOT HELP IN THE DECISION MAKING]

Now I'd like to talk with you a bit more about your decisions to purchase the new [MEASURE1 OR C_MEASURE1]. Even though you may have received incentives for other energy saving equipment, these questions are just about the [MEASURE1 OR C_MEASURE1] that was purchased.

[INTERVIEWER NOTE ABOUT THIS SECTION (don't read to respondent): This section is based on hypothetical behavior so we are asking similar questions to verify that we are gathering the correct responses.]

- G1. First, did your organization have specific plans to install the [MEASURE1 OR C_MEASURE1][s] before learning about the **incentive**?
1. (Yes) [ASK G2]
 2. (No) [SKIP TO G4]
 99. (DON'T KNOW) [SKIP TO G4]
 88. (REFUSED) [SKIP TO G4]
- G2. Prior to learning about the incentive, was the purchase of the [MEASURE1 OR C_MEASURE1][s] included in your organization's capital budget?
1. (Yes)
 2. (No) [ASK G4]
 99. (DON'T KNOW) [ASK G4]
 88. (REFUSED) [ASK G4]
- G3. Had your organization **ALREADY** ordered or purchased the [MEASURE1 OR C_MEASURE1][s] **BEFORE** your organization heard about the Business Incentive Program incentive??
1. (Yes)
 2. (No)
 99. (DON'T KNOW)
 88. (REFUSED)
- G4. Would you have purchased and installed the same [MEASURE1 OR C_MEASURE1][s] without the incentive?
1. (Yes) [SKIP TO G7]
 2. (No) [SKIP TO G9]
 99. (DON'T KNOW) [ASK G5]
 88. (REFUSED) [ASK G5]

- G5. Would you have installed **something** without the incentive? [DO NOT READ LIST UNLESS NECESSARY]
1. (Yes, would have installed something) [ASK G6]
 2. (No, would NOT have installed anything) [SKIP TO G10]
 99. (DON'T KNOW) [SKIP TO I1]
 88. (REFUSED) [SKIP TO I1]
- G6. When you say you **would have installed** something, would you have installed something that was just as energy efficient as the [MEASURE1 OR C_MEASURE1][s] you installed?
1. (Yes) [ASK G7]
 2. (No) [ASK G7]
 99. (DON'T KNOW) [ASK G7]
 88. (REFUSED) [ASK G7]
- G7. And without the incentive, would you have installed the same amount of [MEASURE1 OR C_MEASURE1][s]?
1. (Yes, the same amount) [ASK G8]
 2. (No, would have installed less) [ASK G8]
 3. (No, would have installed more) [ASK G8]
 99. (DON'T KNOW) [ASK G8]
 88. (REFUSED) [ASK G8]
- G8. Without the [INCENTIVE FOR MEASURE1 OR C_MEASURE1], would you have installed the [MEASURE1 OR C_MEASURE1][s]...[READ LIST AND RECORD ONE RESPONSE]
1. Within the same year? [SKIP TO I1]
 2. Within one to two years? [SKIP TO I1]
 3. Within three to five years? [SKIP TO I1]
 4. In more than five years? [SKIP TO I1]
 99. (DON'T KNOW) [SKIP TO I1]
 88. (REFUSED) [SKIP TO I1]
- [ASK G9 TO G12 IF G4 = 2 OR G5 = 2]
- G9. When you say **you would not have installed** the same [MEASURE1 OR C_MEASURE1][s] without the incentive, would you have installed anything at all?
1. (Yes, would have installed something) [ASK G10]
 2. (No, would not have installed anything at all) [SKIP TO I1]
 99. (DON'T KNOW) [ASK G10]
 88. (REFUSED) [ASK G10]
- G10. Without the incentive, would you have installed something that was just as energy efficient as the [MEASURE1 OR C_MEASURE1][s] you installed?
1. (Yes) [ASK G11]
 2. (No) [ASK G11]
 99. (DON'T KNOW) [ASK G11]
 88. (REFUSED) [ASK G11]

- G11. Without the incentive, would you have installed the same amount of [MEASURE1 OR C_MEASURE1][s]?
1. (Yes, the same amount) [ASK G12]
 2. (No, would have installed less) [ASK G12]
 3. (No, would have installed more) [ASK G12]
 99. (DON'T KNOW) [ASK G12]
 88. (REFUSED) [ASK G12]
- G12. And, would you have installed the same [MEASURE1 OR C_MEASURE1][s]. . . [READ LIST AND RECORD ONE RESPONSE]
1. In the same year? [SKIP TO I1]
 2. In one to two years? [SKIP TO I1]
 3. In three to five years? [SKIP TO I1]
 4. More than five years out? [SKIP TO I1]
 99. (DON'T KNOW) [SKIP TO I1]
 88. (REFUSED) [SKIP TO I1]

H. +Freeridership – (contractor)

[ASK EITHER SECTION G OR SECTION H]

[ASK IF ANY A4.1=1 – CONTRACTOR HELPED IN THE DECISION MAKING]

Now I'd like to talk with you about the new [MEASURE1 OR C_MEASURE1]. Even though your contractor may have installed other energy efficient equipment, these questions are just about the [MEASURE1 OR C_MEASURE1].

[INTERVIEWER NOTE ABOUT THIS SECTION (don't read to respondent): This section is based on hypothetical behavior so we are asking similar questions to verify that we are gathering the correct responses.]

- H1. At the time that you first started working with your contractor on this project, had you...? [READ LIST AND RECORD ONE FOR EACH: 1=YES OR 2=NO OR 99=DON'T KNOW OR 88=REFUSED]
1. Already been thinking about purchasing [MEASURE1 OR C_MEASURE1]?
 2. Already begun collecting information about [MEASURE1 OR C_MEASURE1]?
 3. Already selected the particular [MEASURE1 OR C_MEASURE1] and were going to purchase it?
 4. Already purchased the [MEASURE1 OR C_MEASURE1]?
 5. Already installed the [MEASURE1 OR C_MEASURE1]?
 6. Already heard about Focus on Energy?
- H2. Just to make sure I understand, did your organization have specific plans to install the [MEASURE1 OR C_MEASURE1][s] before you began working with your contractor?
1. (Yes) [ASK H3]
 2. (No) [SKIP TO H4]
 99. (DON'T KNOW) [SKIP TO H4]
 88. (REFUSED) [SKIP TO H4]

- H3. Before you began working with your contractor, was the purchase of the **[MEASURE1 OR C_MEASURE1]**[s] included in your organization's capital budget?
1. (Yes) ASK:
 - D2h. Did your contractor help your organization make the decision to include the purchase of **[MEASURE1 OR C_MEASURE1]**[s] in your organization's capital budget? **[ASK H4]**
 2. (No) **[ASK H4]**
 99. (DON'T KNOW) **[ASK H4]**
 88. (REFUSED) **[ASK H4]**
- H4. Would you have purchased and installed the same **[MEASURE1 OR C_MEASURE1]**[s] without the assistance from your contractor?
1. (Yes) **[SKIP TO H7]**
 2. (No) **[SKIP TO H9]**
 99. (DON'T KNOW) **[ASK H5]**
 88. (REFUSED) **[ASK H5]**
- H5. Would you have installed **something** without the involvement of your contractor? **[DO NOT READ LIST UNLESS NECESSARY]**
1. (Yes, would have installed something) **[ASK H6]**
 2. (No, would NOT have installed anything) **[SKIP TO H9]**
 99. (DON'T KNOW) **[SKIP TO I1]**
 88. (REFUSED) **[SKIP TO I1]**
- H6. When you say you **would have installed** something, would you have installed something that was just as energy efficient as the **[MEASURE1 OR C_MEASURE1]**[s] you installed?
1. (Yes) **[ASK H7]**
 2. (No) **[ASK H7]**
 99. (DON'T KNOW) **[ASK H7]**
 88. (REFUSED) **[ASK H7]**
- H7. And without the involvement of your contractor would you have installed the same number of **[MEASURE1 OR C_MEASURE1]**[s]?
1. (Yes) **[ASK H8]**
 2. (No) **[ASKH7.2a]**
 - D2i. Would you have installed fewer or more of the **[MEASURE1 OR C_MEASURE1]**(S)? **[ASK H8]**
 99. (DON'T KNOW) **[ASK H8]**
 88. (REFUSED) **[ASK H8]**
- H8. Without the assistance from your contractor, would you have installed the **[MEASURE1 OR C_MEASURE1]**[s]...**[READ LIST AND RECORD ONE RESPONSE]**
1. Within the same year? **[SKIP TO I1]**
 2. Within one to two years? **[SKIP TO I1]**
 3. Within three to five years? **[SKIP TO I1]**
 4. In more than five years? **[SKIP TO I1]**
 99. (DON'T KNOW) **[SKIP TO I1]**
 88. (REFUSED) **[SKIP TO I1]**

[ASK H9 TO H13 IF H4=2 OR H5= 2]

- H9. When you say **you would not have installed** the same [MEASURE1 OR C_MEASURE1][s] without the assistance from your contractor, would you have installed anything at all?
1. (Yes) [ASK H10]
 2. (No) [SKIP TO I1]
 99. (DON'T KNOW) [ASK H10]
 88. (REFUSED) [ASK H10]
- H10. Without the assistance from your contractor, **would you have installed** something that was just as energy efficient as the [MEASURE1 OR C_MEASURE1][s] you installed?
1. (Yes) [ASK H11]
 2. (No) [ASK H11]
 99. (DON'T KNOW) [ASK H11]
 88. (REFUSED) [ASK H11]
- H11. Without the assistance from your contractor, would you have installed the same [MEASURE1 OR C_MEASURE1][s]?
1. (Yes) [ASK H12]
 2. (No) [ASKH11.2A]
 - D2j. Would you have installed fewer or more of the [MEASURE1 OR C_MEASURE1][S]? [ASK H12]
 99. (DON'T KNOW) [ASK H12]
 88. (REFUSED) [ASK H12]
- H12. And, would you have installed the same [MEASURE1 OR C_MEASURE1][s]. . . [READ LIST AND RECORD ONE RESPONSE]
1. In the same year? [ASK H13]
 2. In one to two years? [ASK H13]
 3. In three to five years? [ASK H13]
 4. More than five years out? [ASK H13]
 99. (DON'T KNOW) [ASK H13]
 88. (REFUSED) [ASK H13]
- H13. If the assistance or information from your contractor had not been available, would you have done anything differently on this project?
1. (Yes) [ASK H14]
 2. (No) [SKIP TO I1]
 99. (DON'T KNOW) [SKIP TO I1]
 88. (REFUSED) [SKIP TO I1]
- H14. What would you have done differently?
[RECORD OPEN ENDED RESPONSE]

[ASK EVERYONE SECTION I]

I. **+Spillover**

11. Since making these energy-efficiency upgrades has your company installed any other energy-efficient products in your facility that you did **NOT** receive an incentive for? By energy-efficient products, I mean high efficiency lighting such as LEDs; high efficiency motors and variable speed drives; high efficiency air conditioners and heat pumps, efficient heating or water heating equipment, et cetera.
1. (Yes) [ASK I2]
 2. (No) [SKIP TO SECTION J]
 99. (DON'T KNOW) [SKIP TO SECTION J]
 88. (REFUSED) [SKIP TO SECTION J]
12. Are these products also installed at the same location as the upgrades we have been talking about or at a different location?
1. (Same location)
 2. (Different location)
 99. (DON'T KNOW)
 88. (REFUSED)
13. What were the other energy-efficient products that you installed without getting an incentive? [DO NOT READ LIST; MARK ALL THAT APPLY; 99=DON'T KNOW, 88=REFUSED, -96=N/A] [If the customer says they bought something but have not installed it, the equipment has to be installed and operating for us to count it towards spillover.]
1. (CFLs)
 2. (LEDs)
 3. (Fluorescent tubes (T5s, T8s, etc.))
 4. (Efficient lighting controls (occupancy sensors, daylighting, timers))
 5. (High efficiency motors)
 6. (Air source heat pumps)
 7. (Ground source heat pumps)
 8. (Central AC)
 9. (VSD (variable speed drive))
 10. (Boiler)
 11. (Compressed air regulator)
 12. (Gas furnaces)
 13. (Exit signs)
 14. (Refrigeration equipment (refrigerators, freezers))
 15. (Other) [SPECIFY: _____]
 99. (DON'T KNOW)
 88. (REFUSED)
14. [REPEAT FOR EACH ITEM MENTIONED IN I3] How many [INSERT ITEM FROM I3] did you install? [RECORD NUMBER _____, 99 FOR DON'T KNOW, 88 FOR REFUSED, AND -96 FOR N/A]

15. [REPEAT FOR EACH ITEM MENTIONED IN I3] Please tell me how important [[IF A6=1 READ, “the incentive for the MEASURE1” OR IF A5=2 READ, “assistance from your contractor”] was in your decision to install [ANSWER FROM I3]”] Was it:

[EMPHASIZE EACH ANSWER OPTION AND PAUSE IN BETWEEN EACH OPTION.]

1. Very important,
2. Somewhat important,
3. Not too important, or
4. Not at all important ?
99. (Don’t know)
88. (Refused)

16. [ASK FOR ALL MENTIONED IN I3] Did you receive an incentive for installing [INSERT ANSWER FROM I3]? [DO NOT READ ANSWER LIST]

1. (Yes)
2. (No)
3. (Item did not qualify)
4. (Contractor or vendor received the incentive)
99. (Don’t know)
88. (Refused)

17. [ASK IF I2=2] What is the address of the location where you installed [INSERT EACH ITEM FROM I3]? [99 FOR DON’T KNOW AND 88 FOR REFUSED]

ENTER STREET ADDRESS:

ENTER CITY:

ENTER STATE:

ENTER ZIP CODE:

J. Fixed Charges

[ASK IF UTILITY= WE Energies, WPS, OR MG&E]

- J1. *Were you aware of the recent fixed cost increases put in place by your utility last year? [IF NEEDED: these changes impacted the fixed monthly customer charge on your electric bill].

1. (Yes)
2. (No)
99. (Don’t know)
88. (Refused)

[ASK J2-J4 IF J1=1]

- J2. *Did these changes impact your decision to make the energy-efficient upgrades we’ve been discussing?

1. (Yes)
2. (No)
99. (Don’t know)
88. (Refused)

[ASK IF J2=1]

- J3. *How so?
1. [OPEN END]
 99. (Don't know)
 88. (Refused)
- J4. *How likely are these higher fixed costs to impact your future investments in energy efficiency?
Would you say: [READ LIST]
1. Very likely
 2. Somewhat likely
 3. Not too likely
 4. Not likely at all?
 99. (Don't know)
 88. (Refused)
- J5. *Why do you say that? [OPEN END]

K. Firmographics

Finally, I would like to ask you some questions about your company.

- K1. *What industry is your company in? [CODE ONE RESPONSE BELOW; DON'T READ UNLESS NECESSARY]
1. (Agriculture, Mining)
 2. (Communications)
 3. (Construction)
 4. (Education)
 5. (Finance, Insurance, Real Estate)
 6. (Food Service (restaurants))
 7. (Government)
 8. (Health Care)
 9. (Manufacturing)
 10. (Nonprofit / churches / schools)
 11. (Retail, Wholesale)
 12. (Transportation)
 13. (Hotel/motels)
 14. (Other [SPECIFY: _____])
 98. (DON'T KNOW)
 99. (Refused)
- K2. How many locations does your company operate in Wisconsin?
1. [RECORD NUMBER: _____]
 98. DON'T KNOW
 99. REFUSED

- K3. *Does your organization lease or own the facility or facilities?
1. (Lease)
 2. (Own)
 3. (Other [SPECIFY:_____])
 4. (DON'T KNOW)
 5. (REFUSED)

- K4. *How many people are employed at this location?
1. [RECORD NUMBER:_____]
 98. DON'T KNOW
 99. REFUSED

L. Closing

- L1. *In the future, how would you like to stay informed about opportunities to save energy and money in Wisconsin? [DO NOT READ LIST; MULTIPLE RESPONSES POSSIBLE]
1. (Contact with Focus on Energy representative through phone, email, or in person)
 2. (Focus on Energy monthly newsletter)
 3. (Focus on Energy Website)
 4. (Focus on Energy workshop, event)
 5. (Contact with utility representative)
 6. (Utility mailing, bill insert, utility Website)
 7. (Contractor or vendor through phone, email, or in person)
 8. (Through a trade association or professional organization)
 9. (Other [SPECIFY:_____])
 99. (DON'T KNOW)
 88. (REFUSED)
- L2. *Do you have any other comments about energy efficiency decisions and purchases you would like to share?
[RECORD RESPONSE: _____; 99 FOR DON'T KNOW, 88 FOR REFUSED]

Thank you. We appreciate your help with this survey. You may also be contacted for an on-site visit if you have not been contacted already. Have a nice day.

Focus on Energy Nonresidential Programs 2015 Business Incentive Program Property Manager Discussion Guide

[Preface for reviewers and sponsor. This will not be read to the group.]

Focus on Energy's Business Incentive Program offers customized incentives to customers who install energy efficient upgrades in commercial facilities, such as office buildings and retail centers. Focus on Energy is interested in hearing from commercial property managers and learning more about how it could work with these property managers and operators to increase sales of energy-efficient facility improvements through the Business Incentive Program. To gather this kind of intelligence, Cadmus will conduct focus groups with commercial property managers and operators in Wisconsin. These groups will explore awareness of Focus on Energy programs, decision-making processes and motivations for making building improvements, and opportunities for overcoming barriers and encouraging energy-efficient improvements. Focus on Energy will use the insights from these focus groups to inform potential enhancements to its Business Incentive Program and encourage greater participation.

For these groups, we will target property managers and building owners/operators who 1) manage or operate office buildings, small shopping centers, and/or retail stores in Wisconsin and 2) are involved in building improvement or renovation decisions for the properties they manage or operate. Cadmus will conduct a total of two groups in Brookfield, Wisconsin on October 29, 2015.

Objectives

The main objectives of the focus groups are to:

1. Assess property manager awareness of Focus on Energy programs.
2. Explore the decision making process for making building improvements in commercial buildings.
3. Gauge property manager motivations for making energy-efficient upgrades.
4. Identify key barriers to making energy-efficient improvements in commercial buildings and opportunities for overcoming these barriers, including effective ways to encourage energy-efficient improvements to commercial customers.

Participant Discussion Guide

We will use this guide to frame the focus group discussion, but it is not meant to be a verbatim script. As with all focus groups, the results are qualitative and in-depth, but cannot be used to represent all members of the commercial property manager population in Wisconsin.

[Content for group participants]

Pre-Group Activity (questionnaire to be filled out prior to the group start)

As you wait for the group discussion to begin, please complete the following questions about the commercial buildings you own or manage.

1. How many commercial buildings do you own or manage in Wisconsin? *[Record number]*

2. What is the approximate total square footage of the commercial properties you own or manage in Wisconsin? *[Record number]*

3. In which Wisconsin metropolitan areas does your company own or manage commercial properties? *[Circle all that apply]*
 - a) Milwaukee-Racine-Waukesha
 - b) Madison-Baraboo
 - c) Appleton-Oshkosh-Neenah
 - d) Green Bay-Shawano
 - e) Wausau-Merrill
 - f) Eau Claire-Menomonie
 - g) Other: _____

4. On a scale of 1 to 10, how much of a priority are energy efficiency improvements in the commercial buildings you own or manage? *[Circle only one]*

Very low priority 1	2	3	4	Neutral 5	6	7	8	9	Very high priority 10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. How important is energy efficiency to the tenants leasing space in the commercial buildings you own or manage? *[Circle only one]*
 - a) Very important
 - b) Somewhat important
 - c) Not very important
 - d) Not at all important
 - e) Don't know

6. How often do potential tenants identify a property's energy efficiency as an important factor when selecting a commercial space to lease? *[Circle only one]*
- a) Frequently
 - b) Sometimes
 - c) Rarely
 - d) Never
 - e) Don't know

Warm Up (5 min)

Thanks for coming today! We're glad you're here, and we really appreciate that you could take some time to share your ideas with us.

- Please turn off any cell phones if you haven't already.
- Bathrooms are located...**[GIVE DIRECTIONS]**
- We're here to learn about your opinions, so please remember there are no right or wrong answers.
- Our discussion will take about 90 minutes.
- As you may remember from the invitation call, we'll be talking about your experience with owning or managing commercial properties, such as office buildings, retail stores, and shopping centers. You all have been invited here today because of your individual experiences and we want to hear from everyone about those experiences and gather your opinions and advice. We want to hear your opinions, no matter how much you feel you know about the topics we discuss.
- We'll be recording the session today, but this is for our research purposes only. Your name will not be attached to any quotes if we use them in our reports.
- This room has a two-way mirror and some of our clients are observing this group.
- Any questions before we begin?

Introduction (5 minutes)

1. All of you were asked to participate in this focus group because you manage or operate commercial buildings in Wisconsin. Let's start with introductions.

As we go around the table, please introduce yourself, tell us your role at your company, and what types of commercial properties you manage (office buildings, retail stores, something else).

Decision-Making Process for Building Improvements (25 min)

First, I'd like you all to tell me about how decisions are made at the commercial properties you manage regarding whole-building and/or common area improvements.

2. What are the most common building improvement concerns at the properties you manage? *[Probe for specific types of improvement needs: HVAC, windows, lighting, etc.]*
 - a. How are you typically made aware of improvement needs at your facilities? *[Probe: tenants, annual maintenance, etc.]*
3. How are your properties evaluated for potential improvement needs? *[Probe: What is the process for assessing facility needs? Is there a typical schedule or timeframe where a building is specifically evaluated for property improvements?]*
 - a. If the need for a building improvement is identified in one facility, are similar facilities simultaneously looked at for similar needs? *[Probe: why or why not? Are similar improvement projects funded all at once, or on a facility-by-facility basis?]*
4. What factors are considered when deciding whether or not to make major building improvements? *[Probe for specifics: budget, time, emergency needs, energy-efficiency, etc.]*
 - a. What type of improvements typically receive highest priority? *[Probe for specific types of improvement needs: HVAC, windows, lighting, cosmetic upgrades, etc.]* What makes you say that?
 - b. What type of improvements typically receive lowest priority? *[Probe for specific types of improvement needs: HVAC, windows, lighting, cosmetic upgrades, etc.]* Why?
5. Which parties are involved in deciding whether or not building improvements will be made? *[probe for decision-makers within property management firms, REITs, building owners, tenants]* What are their roles in the decision-making process?
 - a. What role, if any, do contractors play in the decision-making process?
 - b. Which party ultimately gives final approval for making building improvements for whole building or common area improvements?
 - i. Which party ultimately gives final approval for making improvements in a tenant space?
 - c. What is the process for moving forward with building improvement projects once final approval has been given?
6. What type of building improvements are typically the responsibility of the property manager/owner? What improvements are most commonly the responsibility of tenants? *[Probe: who is typically responsible for paying for building upgrades?]*

7. What are the most common lease structures for office building tenants? What about for small retail and shopping centers? [*Probe for different lease types: Gross lease; Net lease (single net, double net, triple net); Modified gross lease; How do you decide which type of lease structure to offer potential tenants?*]
 - a. How do different lease structures impact the process of deciding whether or not to make major building improvements? Do the decision-making parties change by lease structure? [*Reference process/parties noted during response to Q5-Q6*]
 - b. How does the lease term impact decisions on whether or not to invest in upgrades for a tenant? [*Probe: How does longevity of energy efficiency improvements (measure life) factor into decision making?*]
 - c. What lease structures are most conducive to making building improvements?

Barriers and Motivations to Making Energy-Efficient Improvements (25 min)

Now, I'd like to talk specifically about improvements made to increase the energy efficiency of the commercial buildings you manage.

8. Regarding Q4 in the pre-group activity, how many of you rated energy efficiency improvements as a high priority in the buildings you manage? [*Ask for a show of hands*] Why did you give that rating?
 - a. How many rated energy efficiency improvements as a lower priority? [*Ask for a show of hands*] Why did you give that rating?
9. What drives your company to make energy efficiency improvements in the buildings you manage?
 - a. Does your company have energy efficiency goals or plans? Do any of the buildings you manage have energy efficiency goals or plans? [*Probe: why or why not?*]
 - ii. **(If yes)** What are they? What strategies exist to meet these goals/plans?
10. How, if at all, does your company evaluate energy usage in the buildings you manage? [*Probe: What type of comparison does your company conduct? What is the comparison based on (i.e., annual usage or monthly usage)? Does your compare usage across facilities or identify an average usage rate per square foot?*]
 - a. **(If so)** How often does your company review energy usage in your facilities?
 - b. **(If no)** What about your tenants, how, if at all, do they evaluate their energy usage in the spaces they lease from your company?

11. What are your company's highest priorities for reducing energy usage in the commercial buildings you manage? *[Probe: What types of projects are you most likely to pursue? For what types of energy-efficient improvements are the most funds typically allocated?]*
 - a. How does your company discuss potential energy efficiency options with your tenants? *[Probe: what type of situation make this conversation beneficial/appropriate?]*
 - b. In what situations does energy efficiency building improvements make financial sense for both the tenant and owner/manager?
12. Regarding Q6 in the pre-group activity, how often do potential tenants identify a property's energy efficiency as an important factor when selecting a space to lease? What makes you say that?
 - a. Are customers within certain building types more inclined than others to request energy-efficient property improvements? *[Probe for specific customer/building types: office, retail, restaurant, etc.]* Why do you think that is?
 - b. Would you say tenant demand for energy efficiency improvements has changed at all over the past five years? Would you say demand has increased, decreased, or stayed the same? *[Probe: what are your reasons for saying that?]*
13. What value, if any, do you see in making energy efficient upgrades at the properties you manage? What makes you say that?
14. **(HANDOUT EXERCISE- Moderator will distribute handouts with the question written out so that respondents can record their thoughts)**

Please complete the following sentence: "The top three challenges my company faces in making energy-efficient improvements to the commercial buildings we manage are..."

Moderator steps out of room to check in with observers) *[Note: Moderator will write on white board and probe respondents to rank upon return; Probe: Which one of these challenges presents the greatest barrier to making energy efficient upgrades at the facilities you manage?]*
15. How do these challenges differ when discussing energy efficiency improvements specific to common areas/whole building vs. tenant spaces?

Awareness of Focus on Energy Programs (15 min)

16. Before you received the call that invited you to participate in this group, had anyone heard of Focus on Energy's rebate programs for energy-efficient equipment and upgrades in commercial buildings?
 - a. **(For those who are aware)** How did you first hear about the rebate program(s)?

- i. What have you heard about Focus on Energy's commercial programs? *[Probe for specific program details]*
 - b. **(For those who are aware)** Have you ever received a rebate through one of Focus on Energy's programs for a building you manage or operate? Have you ever worked with a building owner or tenant who received a rebate through one of Focus on Energy's commercial rebate programs?
 - c. **(For those with prior experience with a Focus on Energy program)** Can you briefly describe your experience working with the program? *[Probe: How were you involved in the program (e.g. informed tenant or building owner about the rebate; completed rebate application; worked with contractor to install rebated equipment)?]*
 - i. How satisfied were you with your overall experience working with the program? *[Probe: what worked well? What should be improved?]*
 - d. **(For those aware but did not participate)** Have you considered applying for a Focus on Energy rebate to make energy-efficient upgrades in your buildings? Why or why not?
17. **(For all respondents)** What challenges do you face/foresee in using Focus on Energy rebates to make energy-efficient upgrades in the buildings you manage?

Opportunities for Encouraging Energy Efficient Improvements (10 min)

18. What can Focus on Energy do to make it easier for you to make energy-efficient upgrades in the buildings you manage?
19. Where do you typically look to find information about making facility improvements, whether energy-efficient or not? *[Probe: contractors, associations, internet resources]*
- a. What organizations do you belong to that provide you with industry updates?
20. How can Focus on Energy work with property managers, owners, and tenants to inform them about energy efficiency opportunities and rebates?
- a. What kind of communication/support/education would be most beneficial for Focus on Energy to provide to encourage greater participation in its commercial programs? *[Probe: frequency, channel, from whom?]*
 - i. Who are the best parties to receive information about Focus on Energy rebates/programs for commercial facilities? *[Probe for property managers, owners, tenants, someone else?]*

Wrap-up (5 minutes)

21. Thinking about everything we have discussed this evening, what do you think is the most important thing Focus on Energy can do to encourage greater participation in its rebate offerings for commercial facilities?

- a. **(If there is time left in the group)** Does anyone have any other comments they would like to share before we end tonight's discussion?

Thank you for sharing your opinions and taking the time to participate, your input is greatly appreciated. Please do not forget to pick up your incentive on your way out.

**Focus on Energy Chain Stores and Franchises Program
Participant Customer Survey 2015**

Researchable Questions		
Key Research Topics	Areas of Investigation	Related Questions
Screening	Project initiation process	A4-A7
Marketing and Outreach	Program Awareness	B1
	Future communication preferences	M1
	Key factors influencing customers' decision to participate in program	C1
Barriers	Obstacles to installing high-efficiency equipment	D1-D3
Satisfaction	Assess satisfaction with various program components and reasons for dissatisfaction among participants	E1-E9
Fixed Charge Increases	Understand awareness and impact of recent fixed cost increases for certain utility customers	K1-K5
Firmographics	Determine building and company characteristics of participants	L1-4
Decision Making	Understand decision making processes and how they relate to corporate structure	C1-C5
Freeridership and Spillover	Assess net savings	G1-J7

Interviewer instructions are in green.

CATI programming instructions are in red.

Words in parenthesis should not be read to respondent

*Indicates core questions

SAMPLE Variables:

[CONTACT]

[DIRECT INSTALL]

[MEASURE1]

[MEASURE2]

[MEASURE3]

[UTILITY]

A. Introduction

- A1. Hello, may I speak with [CONTACT] OR [IF NO NAME] May I speak with the person who handles energy decisions for your company? [IF NOT AT THIS LOCATION, ASK FOR PHONE NUMBER AND NAME AT CORRECT LOCATION AND CALL RESPONDENT]
1. (Yes) [CONTINUE WITH RESPONDENT ON PHONE]
 88. (REFUSED) [THANK AND TERMINATE]

Back-up information, not to be programmed:

[If “No – Not available,” ask if Respondent would like to arrange a more convenient time for us to call them back or if you can leave a message for that person.]

[IF RESPONDENT ASKS HOW LONG, SAY: “APPROXIMATELY 20 MINUTES.”]

[IF NEEDED:] This survey is for research purposes only and this is not a marketing call. Your participation in this study is important so that Focus on Energy can improve the energy efficiency programs it offers to businesses and other organizations.

[Only if asked for a Focus on Energy contact to verify the survey authenticity, offer Joe Fontaine with the Public Service Commission of Wisconsin, 608-266-0910.]

- A2. Hello, I am [INSERT NAME] calling with a short survey on behalf of Wisconsin’s Focus on Energy, program. Are you the person responsible for making equipment decisions regarding energy efficiency at your company? [IF NEEDED: Focus on Energy is a statewide program overseen by the Wisconsin Public Service Commission to encourage energy efficiency.]
1. (Yes)
 2. (No, but person can come to phone) [START OVER AT A2 WITH NEW RESPONDENT]
 3. (No, not available [SCHEDULE CALLBACK]
 99. (DON’T KNOW) [ASK TO SPEAK WITH SOMEONE WHO WOULD KNOW AND START AGAIN]
 88. (REFUSED) [THANK AND TERMINATE]

- A3. *Our records show that you installed energy efficient equipment including [MEASURE1], [MEASURE2], and [MEASURE3] at [INSERT ADDRESS]. To ensure our records are correct, can you confirm that you installed this/these upgrades earlier this year?

1. (Yes)
 2. (No, wrong year) [Record correct year, if possible]
 3. (No, wrong address) [RECORD CORRECT ADDRESS]
 4. (No, wrong measure) [CORRECT BELOW]
- (MEASURE1 IS INCORRECT [Correct: _____]) [CALL THIS VARIABLE C_MEASURE1]
(MEASURE2 IS INCORRECT [Correct: _____]) [CALL THIS VARIABLE C_MEASURE2]
(MEASURE3 IS INCORRECT [Correct: _____]) [CALL THIS VARIABLE C_MEASURE3]
5. (No, I did not install any measures) [THANK AND TERMINATE]
 99. (Don’t Know) [Is there someone we could speak with that would know this? Record name and contact information:_____]
 88. (Refused) [THANK AND TERMINATE]

[THANK AND TERMINATE TEXT: Those are all of our questions. Thanks for your help. Have a nice day.]

- A4. *I'm going to read you a short list. Please tell me who, if anyone, was involved in helping you initiate your energy efficiency project. [READ LIST AND MARK 1= YES, 2=NO, 99=DON'T KNOW; 88 REFUSED FOR EACH]
1. Your contractor or vendor
 2. A National Rebate Administrator
 3. A Focus on Energy "Energy Advisor"
 4. Your utility account manager
- A5. *How did your organization learn about the incentives available for this project? [DO NOT READ LIST; MULTIPLE RESPONSES POSSIBLE] [IF RESPONDENT MENTIONS WEBSITE CLARIFY IF UTILITY OR FOCUS ON ENERGY WEBSITE SO YOU KNOW HOW TO CODE ANSWER ON LIST.]
1. (Contact with Focus on Energy representative through phone, email, or in person)
 2. (Focus on Energy monthly newsletter)
 3. (Focus on Energy website)
 4. (Focus on Energy sponsored workshop or event)
 5. (Focus on Energy printed program materials)
 6. (Contact with utility representative)
 7. (Utility mailing, bill insert, or utility Website)
 8. (Word of mouth (family, friend, or business colleague)
 9. (I contacted my contacted by a contractor/vendor to ask)
 10. (My contractor/vendor let me know about them)
 11. (Previously participated in program/received an incentive)
 12. (Through a trade association or professional organization [SPECIFY: _____])
 13. (National Rebate Administrator)
 14. (Other [SPECIFY: _____])
 99. (Don't know)
 88. (Refused)
- A6. *Did you receive a rebate check in the mail for the upgrades, or did your contractor provide a discount on the cost of the project?
1. (Rebate in the mail)
 2. (Contractor discount)
 99. (Don't know)
 88. (Refused)
- A7. *Did your organization complete the application for the financial incentive or did the Energy Advisor, contractor, vendor, or someone else do that for you?
1. (We completed the application)
 2. (Contractor/vendor completed the application)
 3. (Energy Advisor completed the application)
 4. (National Rebate Administrator completed the application)
 5. (Someone else) [SPECIFY: _____]
 99. (Don't know)
 88. (Refused)

B. Awareness

[SKIP IF A7=1 or 3]

- B1. *Focus on Energy offers incentives to businesses for making energy-efficiency upgrades. Contractors, or vendors, or Focus on Energy staff can provide businesses with information and assistance to complete the upgrades. Had you heard about the Focus on Energy incentives available to businesses before today?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

C. Decision Making

Now I'd like to understand more about how your organization made decisions about this energy efficiency project.

- C1. *What factor was most important to your company's decision to make these energy-efficient upgrades? [DO NOT READ LIST; SINGLE RESPONSE]

1. (To save money on energy bills, reduce energy consumption or energy demand)
2. (To obtain a program or bonus incentive)
3. (To obtain a tax credit)
4. (To replace old (but still functioning) equipment)
5. (To replace broken equipment)
6. (To enhance performance of our system(s))
7. (To improve comfort)
8. (Other [SPECIFY _____])
99. (DON'T KNOW)
88. (Refused)

- C2. As a chain or franchise business, how involved is the corporate headquarters in making decisions about energy-efficiency upgrades at your facility? [READ LIST]

1. Very involved
2. Somewhat involved
3. Not too involved
4. Not at all involved
98. (DON'T KNOW)
99. (Refused)

[SKIP IF C2=4]

- C3. As a chain or franchise business, do you require corporate approval before committing to an energy-efficiency upgrade at your facility?

1. (Yes)
2. (No)
3. (Other [SPECIFY _____])
98. (DON'T KNOW)
99. (Refused)

- C4. How important is energy efficiency when making capital upgrades or improvements? Is it ... [READ LIST]
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all important
 5. (DON'T KNOW)
 6. (Refused)
- C5. [ASK IF C4 = 3 or 4] Can you please tell me why energy efficiency is not an important factor in making upgrades?
1. [RECORD ANSWER _____-]
 99. (DON'T KNOW)
 88. (Refused)

D. Barriers

- D1. *What would you say are the main benefits your company has experienced as a result of the energy efficiency upgrades we've discussed? [DO NOT READ LIST; RECORD ALL THAT APPLY; PROBE FOR MULTIPLE RESPONSES]
1. (The incentive)
 2. (Using less energy, reducing energy consumption or energy demand)
 3. (Saving money on our utility bills; lower energy bills)
 4. (Increased occupant comfort)
 5. (Better aesthetics/better or brighter lighting)
 6. (Saving money on maintenance costs)
 7. (Other [SPECIFY: _____])
 8. (NO BENEFITS)
 99. (DON'T KNOW)
 88. (Refused)
- D2. I'm going to read you a list of challenging scenarios that companies experience when purchasing new appliances or considering energy-efficient improvements like adding insulation. Please tell me whether you agree with these statements. The first statement is: [RANDOMIZE, READ STATEMENT; THEN JUST FOR THE FIRST STATEMENT READ THE FOLLOWING: Would you say you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree? [READ LIST AND RECORD 1=STRONGLY AGREE, 2=SOMEWHAT AGREE, 3=SOMEWHAT DISAGREE, AND 4=STRONGLY DISAGREE; 97= NOT APPLICABLE, 99=DON'T KNOW, AND 88=REFUSED]
- D2a. Making upgrades at our facility is an inconvenience.
 - D2b. Generally, making energy efficiency upgrades to this facility is too costly.
 - D2c. Our existing heating and cooling systems work fine, and we don't replace working equipment even if it is not energy efficient.
 - D2d. My company leases space, so does not want to invest in energy efficiency upgrades.
 - D2e. Proposed capital upgrades must meet a certain return on investment and energy efficiency is not a major consideration when determining the ROI.
 - D2f. Decisions about equipment upgrades are made at a corporate office, and we don't have much input at this facility.

D2g. My company has made all the energy efficiency improvements we can without a substantial investment

- D3. *What could be done to help your company overcome challenges with energy-efficiency improvements? [DO NOT READ LIST, ALLOW MULTIPLE RESPONSES]
1. (Nothing)
 2. (Higher incentives)
 3. (Provide upfront rewards)
 4. (Offer low-interest loans)
 5. (Simplify the paperwork)
 6. (Provide better/more information about program [SPECIFY WHAT TYPE OF INFORMATION THEY NEED: _____])
 7. (Provide an energy audit)
 8. (Other [RECORD VERBATIM ANSWER _____])
 99. (DON'T KNOW)
 88. (REFUSED)

E. Satisfaction and Application Ease

Next, I have a few questions for you about your application.

[ASK IF 7=1]

- E1. *Thinking about the application you submitted, how easy would you say this paperwork was to complete? Would you say: [READ LIST]
1. Very easy,
 2. Easy,
 3. Somewhat challenging, or
 4. Very challenging?
 99. (Don't know)
 88. (Refused)

[ASK IF E1=3 or 4]

- E2. *Why do you say that? [OPEN END]

[ASK IF 6=1]

- E3. *Thinking about the rebate you received in the mail, how satisfied were you with the time it took to receive the check? Would you say: [READ LIST]
1. Very satisfied,
 2. Somewhat satisfied,
 3. Not too satisfied, or
 4. Not satisfied at all?
 99. (Don't know)
 88. (Refused)

[ASK IF A6=1]

E4. *About how long did it take to arrive? [READ LIST]

1. 1-3 weeks
2. 4-6 weeks
3. 7-8 weeks
4. Over 8 weeks?
99. (Don't know)
88. (Refused)

[ASK EVERYONE]

E5. *Is there anything that [IF A7=1 OR 3 OR 5 or 99 or 88 THEN READ, "Focus on Energy" IF A7=2 THEN READ "the contractor" AND IF A7=4 READ, "the national rebate administrator"] could have done to improve your overall experience with the Chain Stores and Franchises program? [DO NOT READ THE LIST, RECORD ALL THAT APPLY]

1. (Better/more communication [SPECIFY: Who would you like more communication from? _____])
2. (Quicker response time [SPECIFY: Who would you like a quicker response time from? ___])
3. (Larger selection of eligible equipment [ASK: What energy-efficient equipment should Focus on Energy offer incentives for? _____])
4. (Increasing the incentive amount)
5. (Simplify the application process)
6. (Allow me to fill out the applications online)
7. (Simplify the website)[ASK: In what way? _____]
8. (Provide quicker approval on applications)
9. (Send incentive check out faster)
10. (Provide more face-time with my Energy Advisor (this may include more frequent visits))
11. (Other [SPECIFY: _____])
12. (No, nothing)
99. (DON'T KNOW)
88. (REFUSED)

E6. *Did you ever visit the Focus on Energy website to learn more information or to download forms?

1. (Yes)
2. (No)
99. (Don't know)
88. (Refused)

[ASK IF 0=1]

E7. *How easy was it to find what you were looking for? Would you say it was: [READ LIST]

1. Very easy,
2. Easy,
3. Somewhat challenging, or
4. Very challenging?
99. (Don't know)
88. (Refused)

[ASK IF E6=1]

- E8. *How would you rate the quality of information on the Focus on Energy website? Would you say the information was: [READ LIST]
1. Very helpful,
 2. Somewhat helpful,
 3. Not too helpful, or
 4. Not helpful at all?
 99. (Don't know)
 88. (Refused)

[ASK IF E8=3 or 4]

- E9. *Why do you say that? [OPEN END]

F. Verification

- F1. Is all of the energy efficient equipment installed through the program this year still in-place and operating as planned? My records show that you installed [MEASURE1], [MEASURE2], and [MEASURE3].
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

[ASK IF F1=2]

- F2. Which equipment is no longer installed or operating as planned? [DO NOT READ LIST, SELECT ALL THAT APPLY]
1. [MEASURE1]
 2. [MEASURE2]
 3. [MEASURE3]
 4. (Other) [SPECIFY]
 99. (Don't know)
 88. (Refused)

[ASK F3-F4 IF F1=2] [ASK FOR EACH RESPONSE SELECTED IN F2]

- F3. How many [RESPONSE FROM F2] did you or your contractor originally install?
[OPEN END NUMERIC]
- F4. And how many [RESPONSE FROM F2] are installed and operating now?
[OPEN END NUMERIC]

[ASK IF F1=2] [ASK FOR EACH RESPONSE SELECTED IN F2]

- F5. Why are the [RESPONSE FROM F2] no longer installed or operating?
[OPEN END]

G. +Freeridership (Non-DI)

[ASK IF CUSTOMER ≠ DIRECTINSTALL]

[IF A4.1=1 OR A4.2=1 OR A4.3=1 SKIP TO SECTION H OTHERWISE ASK THIS SECTION - CONTRACTOR DID NOT HELP IN THE DECISION MAKING]

Now I'd like to talk with you a bit more about your decisions to purchase the new [MEASURE1 OR C_MEASURE1]. Even though you may have received incentives for other energy saving equipment, these questions are just about the [MEASURE1 OR C_MEASURE1] that was purchased.

[INTERVIEWER NOTE ABOUT THIS SECTION (don't read to respondent): This section is based on hypothetical behavior so we are asking similar questions to verify that we are gathering the correct responses.]

- G1. First, did your organization have specific plans to install the [MEASURE1 OR C_MEASURE1][s] before learning about the incentive?
1. (Yes) [ASK G2]
 2. (No) [SKIP TO G4]
 99. (DON'T KNOW) [SKIP TO G4]
 88. (REFUSED) [SKIP TO G4]
- G2. Prior to learning about the incentive, was the purchase of the [MEASURE1 OR C_MEASURE1][s] included in your organization's capital budget?
1. (Yes)
 2. (No) [ASK G4]
 99. (DON'T KNOW) [ASK G4]
 88. (REFUSED) [ASK G4]
- G3. Had your organization **ALREADY** ordered or purchased the [MEASURE1 OR C_MEASURE1][s] **BEFORE** your organization heard about the Chain Stores and Franchises program incentive??
1. (Yes)
 2. (No)
 99. (DON'T KNOW)
 88. (REFUSED)
- G4. Would you have purchased and installed the same [MEASURE1 OR C_MEASURE1][s] without the incentive?
1. (Yes) [SKIP TO G7]
 2. (No) [SKIP TO G9]
 99. (DON'T KNOW) [ASK G5]
 88. (REFUSED) [ASK G5]

- G5. Would you have installed **something** without the incentive? [DO NOT READ LIST UNLESS NECESSARY]
1. (Yes, would have installed something) [ASK G6]
 2. (No, would NOT have installed anything) [SKIP TO G10]
 99. (DON'T KNOW) [SKIP TO J1]
 88. (REFUSED) [SKIP TO J1]
- G6. When you say you **would have installed** something, would you have installed something that was just as energy efficient as the [MEASURE1 OR C_MEASURE1][s] you installed?
1. (Yes) [ASK G7]
 2. (No) [ASK G7]
 99. (DON'T KNOW) [ASK G7]
 88. (REFUSED) [ASK G7]
- G7. [ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1] And without the incentive, would you have installed the same amount of [MEASURE1 OR C_MEASURE1][s]?
1. (Yes, the same amount) [ASK G8]
 2. (No, would have installed less) [ASK G8]
 3. (No, would have installed more) [ASK G8]
 99. (DON'T KNOW) [ASK G8]
 88. (REFUSED) [ASK G8]
- G8. Without the [INCENTIVE FOR MEASURE1 OR C_MEASURE1], would you have installed the [MEASURE1 OR C_MEASURE1][s]...[READ LIST AND RECORD ONE RESPONSE]
1. Within the same year? [SKIP TO J1]
 2. Within one to two years? [SKIP TO J1]
 3. Within three to five years? [SKIP TO J1]
 4. In more than five years? [SKIP TO J1]
 99. (DON'T KNOW) [SKIP TO J1]
 88. (REFUSED) [SKIP TO J1]
- [ASK G9 TO G12 IF G4 = 2 OR G5 = 2]
- G9. When you say **you would not have installed** the same [MEASURE1 OR C_MEASURE1][s] without the incentive, would you have installed anything at all?
1. (Yes, would have installed something) [ASK G10]
 2. (No, would not have installed anything at all) [SKIP TO J1]
 99. (DON'T KNOW) [ASK G10]
 88. (REFUSED) [ASK G10]
- G10. Without the incentive, would you have installed something that was just as energy efficient as the [MEASURE1 OR C_MEASURE1][s] you installed?
1. (Yes) [ASK G11]
 2. (No) [ASK G11]
 99. (DON'T KNOW) [ASK G11]
 88. (REFUSED) [ASK G11]

- G11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] Without the incentive, would you have installed the same amount of [MEASURE1 OR C_MEASURE1][s]?
1. (Yes, the same amount) [ASK G12]
 2. (No, would have installed less) [ASK G12]
 3. (No, would have installed more) [ASK G12]
 99. (DON'T KNOW) [ASK G12]
 88. (REFUSED) [ASK G12]
- G12. And, would you have installed the same [MEASURE1 OR C_MEASURE1][s]. . . [READ LIST AND RECORD ONE RESPONSE]
1. In the same year? [SKIP TO J1]
 2. In one to two years? [SKIP TO J1]
 3. In three to five years? [SKIP TO J1]
 4. More than five years out? [SKIP TO J1]
 99. (DON'T KNOW) [SKIP TO J1]
 88. (REFUSED) [SKIP TO J1]

H. +Freeridership – (Non-DI, contractor)

[ASK EITHER SECTION G OR SECTION H]

[ASK IF CUSTOMER ≠ DIRECTINSTALL AND IF ANY A4.1 OR A4.2 OR A4.3=1 – CONTRACTOR HELPED IN THE DECISION MAKING]

Now I'd like to talk with you about the new [MEASURE1 OR C_MEASURE1]. Even though your contractor may have installed other energy efficient equipment, these questions are just about the [MEASURE1 OR C_MEASURE1].

[INTERVIEWER NOTE ABOUT THIS SECTION (don't read to respondent): This section is based on hypothetical behavior so we are asking similar questions to verify that we are gathering the correct responses.]

- H1. At the time that you first started working with your contractor on this project, had you...? [READ LIST AND RECORD ONE FOR EACH: 1=YES OR 2=NO OR 99=DON'T KNOW OR 88=REFUSED]
1. Already been thinking about purchasing [MEASURE1 OR C_MEASURE1]?
 2. Already begun collecting information about [MEASURE1 OR C_MEASURE1]?
 3. Already selected the particular [MEASURE1 OR C_MEASURE1] and were going to purchase it?
 4. Already purchased the [MEASURE1 OR C_MEASURE1]?
 5. Already installed the [MEASURE1 OR C_MEASURE1]?
- H2. Just to make sure I understand, did your organization have specific plans to install the [MEASURE1 OR C_MEASURE1][s] before you began working with your contractor?
1. (Yes) [ASK H3]
 2. (No) [SKIP TO H4]
 99. (DON'T KNOW) [SKIP TO H4]
 88. (REFUSED) [SKIP TO H4]

- H3. Before you began working with your contractor, was the purchase of the **[MEASURE1 OR C_MEASURE1]**[s] included in your organization's capital budget?
1. (Yes) ASK:
 - D2h. Did your contractor help your organization make the decision to include the purchase of **[MEASURE1 OR C_MEASURE1]**[s] in your organization's capital budget? **[ASK H4]**
 2. (No) **[ASK H4]**
 99. (DON'T KNOW) **[ASK H4]**
 88. (REFUSED) **[ASK H4]**
- H4. Would you have purchased and installed the same **[MEASURE1 OR C_MEASURE1]**[s] without the assistance from your contractor?
1. (Yes) **[SKIP TO H7]**
 2. (No) **[SKIP TO H9]**
 99. (DON'T KNOW) **[ASK H5]**
 88. (REFUSED) **[ASK H5]**
- H5. Would you have installed **something** without the involvement of your contractor? **[DO NOT READ LIST UNLESS NECESSARY]**
1. (Yes, would have installed something) **[ASK H6]**
 2. (No, would NOT have installed anything) **[SKIP TO H9]**
 99. (DON'T KNOW) **[SKIP TO J1]**
 88. (REFUSED) **[SKIP TO J1]**
- H6. When you say you **would have installed** something, would you have installed something that was just as energy efficient as the **[MEASURE1 OR C_MEASURE1]**[s] you installed?
1. (Yes) **[ASK H7]**
 2. (No) **[ASK H7]**
 99. (DON'T KNOW) **[ASK H7]**
 88. (REFUSED) **[ASK H7]**
- H7. **[ASK FOR MEASURE WITH ACTUAL UNIT GREATER THAN 1]** And without the involvement of your contractor would you have installed the same number of **[MEASURE1 OR C_MEASURE1]**[s]?
1. (Yes) **[ASK H8]**
 2. (No) **[ASKH7.2a]**
 - D2i. Would you have installed fewer or more of the **[MEASURE1 OR C_MEASURE1]**(S)? **[ASK H8]**
 99. (DON'T KNOW) **[ASK H8]**
 88. (REFUSED) **[ASK H8]**
- H8. Without the assistance from your contractor, would you have installed the **[MEASURE1 OR C_MEASURE1]**[s]...**[READ LIST AND RECORD ONE RESPONSE]**
1. Within the same year? **[SKIP TO J1]**
 2. Within one to two years? **[SKIP TO J1]**
 3. Within three to five years? **[SKIP TO J1]**
 4. In more than five years? **[SKIP TO J1]**
 99. (DON'T KNOW) **[SKIP TO J1]**
 88. (REFUSED) **[SKIP TO J1]**

[ASK H9 TO H13 IF H4=2 OR H5= 2]

- H9. When you say **you would not have installed** the same [MEASURE1 OR C_MEASURE1][s] without the assistance from your contractor, would you have installed anything at all?
1. (Yes) [ASK H10]
 2. (No) [SKIP TO J1]
 99. (DON'T KNOW) [ASK H10]
 88. (REFUSED) [ASK H10]
- H10. Without the assistance from your contractor, **would you have installed** something that was just as energy efficient as the [MEASURE1 OR C_MEASURE1][s] you installed?
1. (Yes) [ASK H11]
 2. (No) [ASK H11]
 99. (DON'T KNOW) [ASK H11]
 88. (REFUSED) [ASK H11]
- H11. [ASK FOR MEASURE WITH ACTUAL UNITS GREATER THAN 1] Without the assistance from your contractor, would you have installed the same [MEASURE1 OR C_MEASURE1][s]?
1. (Yes) [ASK H12]
 2. (No) [ASK H11.2A]
D2j. Would you have installed fewer or more of the [MEASURE1 OR C_MEASURE1][S]? [ASK H12]
 99. (DON'T KNOW) [ASK H12]
 88. (REFUSED) [ASK H12]
- H12. And, would you have installed the [MEASURE1 OR C_MEASURE1][s]. . . [READ LIST AND RECORD ONE RESPONSE]
1. In the same year? [ASK H13]
 2. In one to two years? [ASK H13]
 3. In three to five years? [ASK H13]
 4. More than five years out? [ASK H13]
 99. (DON'T KNOW) [ASK H13]
 88. (REFUSED) [ASK H13]
- H13. If the assistance or information from your contractor had not been available, would you have done anything differently on this project?
1. (Yes) [ASK H14]
 2. (No) [SKIP TO J1]
 99. (DON'T KNOW) [SKIP TO J1]
 88. (REFUSED) [SKIP TO J1]
- H14. What would you have done differently?
[RECORD OPEN ENDED RESPONSE]

I. +Freeridership (DI)

[ASK IF CUSTOMER = DIRECTINSTALL]

Now I'd like to talk with you a bit more about the [MEASURE1 OR C_MEASURE1] that was installed by a Focus on Energy representative. Even though you may have received incentives for other energy saving equipment, these questions are just about the [MEASURE1 OR C_MEASURE1] that was installed.

11. Approximately how many [MEASURE1 OR C_MEASURE1]s, if any, did you have installed in your facilities prior to your participation in the Focus on Energy program?
 1. [RECORD #]
 99. (DON'T KNOW)
 88. (REFUSED)

12. My records show that you had [QUANTITY MEASURE 1] [MEASURE1 OR C_MEASURE1] installed through the Focus on Energy Chain Stores and Franchises program. Is that correct?
 1. (Yes) [ASK I3]
 2. (No) [ASK: "What is the correct number?"] [RECORD #] [IF #>0, ASK I3]
 99. (DON'T KNOW) [SKIP TO I4]
 88. (REFUSED) [SKIP TO I4]

13. How many of those [MEASURE1 OR C_MEASURE1]s are still being used? [RECORD #]

14. If you had not received any free [MEASURE1 OR C_MEASURE1]s from Focus on Energy, how many [MEASURE1 OR C_MEASURE1]s, if any, would you have purchased for your facilities in the near future?
 1. [RECORD #] [ASK I5]
 99. (DON'T KNOW) [SKIP TO SECTION J]
 88. (REFUSED) [SKIP TO SECTION J]

15. And when would you have purchased [MEASURE1 OR C_MEASURE1]s on your own? Would it have been... [READ LIST]
 1. At the same time that you got the free upgrades from the program
 2. Within a few months
 3. Within a year
 4. More than a year later
 99. (DON'T KNOW)
 88. (REFUSED)

[ASK EVERYONE SECTION J]

J. +Spillover

- J1. Since making these energy-efficiency upgrades has your company installed any other energy-efficient products in your facility that you did **NOT** receive an incentive for? By energy-efficient products, I mean high efficiency lighting such as T5s; high efficiency motors and variable speed drives; high efficiency air conditioners and heat pumps, efficient heating or water heating equipment, et cetera.
1. (Yes) [ASK J2]
 2. (No) [SKIP TO SECTION K]
 99. (DON'T KNOW) [SKIP TO SECTION K]
 88. (REFUSED) [SKIP TO SECTION K]
- J2. Are these products also installed at the same location as the upgrades we have been talking about or at a different location?
1. (Same location)
 2. (Different location)
 99. (DON'T KNOW)
 88. (REFUSED)
- J3. What were the other energy-efficient products that you installed without getting an incentive? [DO NOT READ LIST; MARK ALL THAT APPLY; 99=DON'T KNOW, 88=REFUSED, -96=N/A] [If the customer says they bought something but have not installed it, the equipment has to be installed and operating for us to count it towards spillover.]
1. (CFLs)
 2. (LEDs)
 3. (Fluorescent tubes (T5s, T8s, etc.))
 4. (Efficient lighting controls (occupancy sensors, daylighting, timers))
 5. (High efficiency motors)
 6. (Air source heat pumps)
 7. (Ground source heat pumps)
 8. (Central AC)
 9. (VSD (variable speed drive))
 10. (Boiler)
 11. (Compressed air regulator)
 12. (Gas furnaces)
 13. (Exit signs)
 14. (Refrigeration equipment (refrigerators, freezers))
 15. (Other) [SPECIFY: _____]
 99. (DON'T KNOW)
 88. (REFUSED)
- J4. [REPEAT FOR EACH ITEM MENTIONED IN J3] How many [INSERT ITEM FROM J3] did you install? [RECORD NUMBER _____, 99 FOR DON'T KNOW, 88 FOR REFUSED, AND -96 FOR N/A]

- J5. [REPEAT FOR EACH ITEM MENTIONED IN J3] Please tell me how important [[IF A6=1 READ, “the incentive for the MEASURE1” OR IF A5=2 READ, “assistance from your contractor”] was in your decision to install [ANSWER FROM J3]”]Was it:

[EMPHASIZE EACH ANSWER OPTION AND PAUSE IN BETWEEN EACH OPTION.]

1. Very important,
2. Somewhat important,
3. Not too important, or
4. Not at all important?
99. (Don’t know)
88. (Refused)

- J6. [ASK FOR ALL MENTIONED IN J3] To confirm, did you receive an incentive for installing [INSERT ANSWER FROM J3]? [DO NOT READ ANSWER LIST]

1. (Yes)
2. (No)
3. (Item did not qualify)
4. (Contractor or vendor received the incentive)
99. (Don’t know)
88. (Refused)

- J7. [ASK IF J2=2] What is the address of the location where you installed [INSERT EACH ITEM FROM J3]? [99 FOR DON’T KNOW AND 88 FOR REFUSED]

ENTER STREET ADDRESS:

ENTER CITY:

ENTER STATE:

ENTER ZIP CODE:

K. Fixed Charges

[ASK IF UTILITY= WE Energies, WPS, OR MG&E]

- K1. *Were you aware of the recent fixed cost increases put in place by your utility last year? [IF NEEDED: these changes impacted the fixed monthly customer charge on your electric bill].

1. (Yes)
2. (No)
99. (Don’t know)
88. (Refused)

[ASK K2-K4 IF K1=1]

- K2. *Did these changes impact your decision to make the energy-efficient upgrades we’ve been discussing?

1. (Yes)
2. (No)
99. (Don’t know)
88. (Refused)

[ASK IF K2=1]

- K3. *How so?
1. [OPEN END]
 99. (Don't know)
 88. (Refused)

[ASK IF K1=1]

- K4. *How likely are these higher fixed costs to impact your future investments in energy efficiency?
Would you say: [READ LIST]
1. Very likely
 2. Somewhat likely
 3. Not too likely
 4. Not likely at all?
 99. (Don't know)
 88. (Refused)

[ASK K1=1 AND K4=1-4]

- K5. *Why do you say that? [OPEN END]

L. Firmographics

Finally, I would like to ask you some questions about your company.

- L1. *What industry is your company in? [CODE ONE RESPONSE BELOW; DON'T READ UNLESS NECESSARY]
1. (Agriculture, Mining)
 2. (Communications)
 3. (Construction)
 4. (Education)
 5. (Finance, Insurance, Real Estate)
 6. (Food Service (restaurants))
 7. (Government)
 8. (Health Care)
 9. (Manufacturing)
 10. (Nonprofit / churches / schools)
 11. (Retail, Wholesale)
 12. (Transportation)
 13. (Hotel/motels)
 14. (Other [SPECIFY: _____])
 98. (DON'T KNOW)
 99. (Refused)
- L2. How many locations does your company operate in Wisconsin?
1. [RECORD NUMBER: _____]
 98. DON'T KNOW
 99. REFUSED

L3. *Does your organization lease or own the facility or facilities?

1. (Lease)
2. (Own)
3. (Other [SPECIFY:_____])
4. (DON'T KNOW)
5. (REFUSED)

L4. Is your organization a franchise owner or a corporate branch?

1. (Franchise owner)
2. (Corporate branch)
3. (Other [SPECIFY:_____])
98. (DON'T KNOW)
99. (Refused_

L5. *How many people are employed at this location?

1. [RECORD NUMBER:_____]
98. DON'T KNOW
99. REFUSED

M. Closing

M1. *In the future, how would you like to stay informed about opportunities to save energy and money in Wisconsin? [DO NOT READ LIST; MULTIPLE RESPONSES POSSIBLE]

1. (Contact with Focus on Energy representative through phone, email, or in person)
2. (Focus on Energy monthly newsletter)
3. (Focus on Energy Website)
4. (Focus on Energy workshop, event)
5. (Contact with utility representative)
6. (Utility mailing, bill insert, utility Website)
7. (Contractor or vendor through phone, email, or in person)
8. (Through a trade association or professional organization)
9. (Other [SPECIFY:_____])
99. (DON'T KNOW)
88. (REFUSED)

M2. *Do you have any other comments about energy efficiency decisions and purchases you would like to share?

[RECORD RESPONSE:_____; 99 FOR DON'T KNOW, 88 FOR REFUSED]

Thank you. We appreciate your help with this survey. You may also be contacted for an on-site visit if you have not been contacted already. Have a nice day.

**Focus on Energy Design Assistance Program
Participant Customer Survey 2015**

Researchable Questions		
Key Research Topics	Areas of Investigation	Related Questions
Screening	Project initiation process	Section A
Awareness and Operations	Awareness of program, Decision making processes	Section B, Section C
Barriers	Obstacles to installing high-efficiency equipment	Section D
Satisfaction	Assess satisfaction with various program components and reasons for dissatisfaction among participants	Section E
Fixed Charge Increases	Understand awareness and impact of recent fixed cost increases for certain utility customers	Section F
Freeridership and Spillover	Assessing attribution	Section G, Section H
Firmographics	Determine building and company characteristics of participants	I1

Interviewer instructions are in green.

Words in parenthesis should not be read to respondent

*Indicates core questions

[Quotas]

SAMPLE Variables:

[CONTACT]

[ACTUAL CALCULATED INCENTIVE AMOUNT]

[ADDRESS]

[UTILITY]

This survey will be conducted by a Cadmus analyst. Both Design Teams and participants will participate in the call, which will be scheduled ahead of time.

A. Introduction

- A1. *Our records show that you completed a new construction project at [INSERT ADDRESS] and received [ACTUAL CALCULATED INCENTIVE AMOUNT]. To ensure our records are correct, can you confirm that you received an incentive for this project earlier this year?
1. (Yes)
 2. (No, wrong Amount) [Record correct amount, if possible]
 3. (No, wrong address) [RECORD CORRECT ADDRESS]
 4. (No, I did not install any measures) [THANK AND TERMINATE]
 99. (Don't Know) [Is there someone we could speak with that would know this? Record name and contact information:_____]
 88. (Refused) [THANK AND TERMINATE]

B. Awareness & Decision Making

- B1. *How did your organization learn about the incentives available for this project from Focus on Energy? [DO NOT READ LIST; MULTIPLE RESPONSES POSSIBLE] [IF RESPONDENT MENTIONS WEBSITE CLARIFY IF UTILITY OR FOCUS ON ENERGY WEBSITE SO YOU KNOW HOW TO CODE ANSWER ON LIST.]
1. (Contact with Focus on Energy representative through phone, email, or in person)
 2. (Focus on Energy monthly newsletter)
 3. (Focus on Energy website)
 4. (Focus on Energy sponsored workshop or event)
 5. (Focus on Energy printed program materials)
 6. (Contact with utility representative)
 7. (Utility mailing, bill insert, or utility Website)
 8. (Word of mouth (family, friend, or business colleague)
 9. (Contacted by a contractor or vendor through phone, email or in person)
 10. (Building design professional)
 11. (Previously participated in program/received an incentive)
 12. (Through a trade association or professional organization [SPECIFY:_____])
 13. (Other [SPECIFY:_____])
 99. (Don't know)
 88. (Refused)
- B2. *What factor was most important to your company's decision to implement a more efficient design plan for this new construction project? [DO NOT READ LIST; SINGLE RESPONSE]
1. (To save money on energy bills, reduce energy consumption or energy demand)
 2. (To obtain a program or bonus incentive)
 3. (To obtain a tax credit)
 4. (To enhance performance of our system(s))
 5. (To improve comfort)
 6. (Other [SPECIFY _____])
 99. (DON'T KNOW)
 88. (Refused)

[FOR OWNERS]

- B3. Before you enrolled in the Design Assistance program, had your organization sought out modeling assistance when designing new buildings, or was the advanced level of analysis new because of your participation in the program?
1. Yes, I had received similar assistance to the DA program in the past
 2. No, this was the first time
 99. (Don't know)
 88. (Refused)
- B4. How much of a priority was it to maximize the energy efficiency of your building? Would you say it was a...
1. Top priority
 2. Very important
 3. Neutral
 4. Only when convenient
 5. Not at all
 99. (Don't know)
 88. (Refused)
- B5. Does your organization have a corporate sustainability policy such as LEED certification or ENERGY STAR certification that new construction buildings must meet?
1. Yes **[FOLLOW UP: What was the policy?]**
 2. No
 99. (Don't know)
 88. (Refused)

C. Design Team operations- Design Teams only

- C1. For a typical project that isn't receiving help from an energy efficiency program, when in the design process do you typically *start* discussing energy efficiency, if at all?
1. [OPEN ENDED]
 99. (Don't Know)
 99. (Refused)
- C2. Do you feel that the program is reaching customers early enough in the design process to influence decisions around whole building energy efficiency?
1. Yes
 2. No
 99. (Don't Know)
 88. (Refused)
- C3. **[IF C2=2]** What can be improved to help the program reach customers earlier?
1. [OPEN ENDED]

D. Barriers- Customers only

D1. *What would you say are the main benefits your company has experienced as a result of the Design Assistance program? [DO NOT READ LIST; RECORD ALL THAT APPLY; PROBE FOR MULTIPLE RESPONSES]

1. (The incentive)
2. (Using less energy, reducing energy consumption or energy demand)
3. (Saving money on our utility bills; lower energy bills)
4. (Increased occupant comfort)
5. (Better aesthetics/better or brighter lighting)
6. (Saving money on maintenance costs)
7. (Other [SPECIFY: _____])
8. (NO BENEFITS)
99. (DON'T KNOW)
88. (Refused)

D2. What do you see as the biggest barriers to developing and building energy efficient buildings?

1. Upfront costs
2. Integrating energy modeling into the design process
3. (Other [RECORD VERBATIM ANSWER _____])
99. (Don't Know)
88. Refused

D3. *What could be done to help your company overcome these challenges?[DO NOT READ LIST, ALLOW MULTIPLE RESPONSES]

1. (Nothing)
2. (Higher incentives)
3. (Provide upfront rewards)
4. (Offer low-interest loans)
5. (Simplify the paperwork)
6. (Provide better/more information about program [SPECIFY WHAT TYPE OF INFORMATION THEY NEED: _____])
7. (Provide an energy audit)
8. (Other [RECORD VERBATIM ANSWER _____])
99. (DON'T KNOW)
88. (REFUSED)

E. Satisfaction and Application Ease

Next, I have a few questions for you about the enrollment and incentives process.

E1. *Did you ever visit the Focus on Energy website to learn about the program or to download information?

1. (Yes)
2. (No)
99. (Don't know)
88. (Refused)

[ASK IF E1=1]

- E2. *How easy was it to find what you were looking for? Would you say it was: [READ LIST]
1. Very easy,
 2. Easy,
 3. Somewhat challenging, or
 4. Very challenging?
 99. (Don't know)
 88. (Refused)

[ASK IF E1=1]

- E3. *How would you rate the quality of information on the Focus on Energy website? Would you say the information was: [READ LIST]
1. Very helpful,
 2. Somewhat helpful,
 3. Not too helpful, or
 4. Not helpful at all?
 99. (Don't know)
 88. (Refused)
- E4. *Why do you say that? [OPEN END]
- E5. Did you use the Enrollment Wizard on the Focus on Energy website when enrolling in the program?
1. Yes
 2. No
 99. (Don't Know)
 88. (Refused)

- E6. [ASK IF E5= 1] How would you rate the usability of the Enrollment Wizard? Would you say: [READ LIST]
1. Very easy to use,
 2. Easy to use,
 3. Somewhat challenging to use,
 4. Very challenging to use, or
 5. I did not personally use the Enrollment Wizard
 99. (Don't know)
 88. (Refused)

- E7. *Why do you say that? [OPEN END]

- E8. Thinking about the incentive agreement, how easy would you say this paperwork was to complete? Would you say: [READ LIST]
1. Very easy,
 2. Easy,
 3. Somewhat challenging, or
 4. Very challenging?
 99. (Don't know)
 88. (Refused)

- E9. *Why do you say that? [OPEN END]
- E10. *Thinking about the rebate you received in the mail, how satisfied were you with the time it took to receive the check? Would you say: [READ LIST]
1. Very satisfied,
 2. Somewhat satisfied,
 3. Not too satisfied, or
 4. Not satisfied at all?
 99. (Don't know)
 88. (Refused)
- E11. *About how long did it take to arrive once you had completed your project? [READ LIST]
1. 1-3 weeks¹
 2. 4-6 weeks
 3. 7-8 weeks
 4. Over 8 weeks?
 99. (Don't know)
 88. (Refused)
- E12. How satisfied were you with your interactions with Design Assistance Program Implementer? Were you..
1. Very satisfied,
 2. Somewhat satisfied,
 3. Not too satisfied, or
 4. Not satisfied at all?
 99. (Don't know)
 88. (Refused)
- E13. [IF E12= 3 OR 4] *Why do you say that? [OPEN END]
- E14. [FOR DESIGN TEAMS] How satisfied were you with the Design Assistance energy modeling assistance that you received from the Weidt Group? Were you
1. Very satisfied,
 2. Somewhat satisfied,
 3. Not too satisfied, or
 4. Not satisfied at all?
 99. (Don't know)
 88. (Refused)
- E15. [IF E14= 3 OR 4] *Why do you say that? [OPEN END]
- E16. [FOR BOTH] And how would you rate your satisfaction with the program, overall?
1. Very satisfied,
 2. Somewhat satisfied,
 3. Not too satisfied, or
 4. Not satisfied at all?
 99. (Don't know)
 88. (Refused)

- E17. *Is there anything that Focus on Energy could have done to improve your overall experience with the Design Assistance Program? [Record verbatim comments] [DO NOT READ THE LIST, RECORD ALL THAT APPLY]
1. (Better/more communication [SPECIFY: Who would you like more communication from?_____])
 2. (Quicker response time [SPECIFY: Who would you like a quicker response time from?__])
 3. (Larger selection of eligible equipment [ASK: What energy-efficient equipment should Focus on Energy offer incentives for?_____])
 4. (Increasing the incentive amount)
 5. (Simplify the application process)
 6. (Allow me to fill out the applications online)
 7. (Simplify the website)[ASK: In what way?_____]
 8. (Provide quicker approval on applications)
 9. (Send incentive check out faster)
 10. (Provide more face-time with my Energy Advisor (this may include more frequent visits))
 11. (Other [SPECIFY:_____])
 12. (No, nothing)
 99. (Don't Know)
 88. (Refused)

F. Fixed Charges

[ASK IF UTILITY= WE Energies, WPS, OR MG&E]

- F1. *Were you aware of the recent fixed cost increases put in place by your utility last year?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

[ASK F2-F4 IF F1=1]

- F2. *Did these changes impact your decision to make the energy-efficient upgrades we've been discussing?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

[ASK IF F2=1]

- F3. *How so?
1. [OPEN END]
 99. (Don't know)
 88. (Refused)

- F4. *How likely are these fixed cost changes to impact your future investments in energy efficiency?
Would you say: [READ LIST]
1. Very likely
 2. Somewhat likely
 3. Not too likely
 4. Not likely at all?
 99. (Don't know)
 88. (Refused)
- F5. *Why do you say that? [OPEN END]

G. Freeridership (Both Customers and Design Teams)

Now I'd like to talk specifically about the services you received through the program.

[ASK DESIGN TEAMS ONLY]

- G1. Focus on Energy provided an incentive of [ACTUAL CALCULATED INCENTIVE AMOUNT] based on the outcomes of the energy modeling analysis providing during the early stages of design. Without this assistance, would your team have conducted energy modeling to the same extent during the early stages of the design process? That is, examined, in detail, energy use associated with envelope, lighting design, lighting controls, HVAC and outside air options, etc. during the early stages of the building design phase?
1. Yes
 2. No
 3. It depends [RECORD RESPONSE: _____]
 99. (Don't know)
- G2. And would you have conducted the same advanced and comprehensive modeling in the early stages without the modeling assistance from the Focus on Energy program staff?
1. Yes
 2. No
 3. It depends [RECORD RESPONSE: _____]
 99. (Don't know)
- G3. And would you have conducted the same advanced and comprehensive modeling in the early stages without the modeling assistance and tools provided by the Focus on Energy program staff? This can be either your own internal modeling, or the modeling tool that was provided, NEO 2.0.
1. Yes
 2. No
 3. It depends [RECORD RESPONSE: _____]
 99. (Don't know)
- G4. [IF NO TO G1,G2,OR G3] Would you have done modeling in the early stages at all?
1. Yes
 2. No [SKIP TO G7]

- G5. [IF G4= YES] How would it have been different?
1. [SPECIFY]
- G6. How important was the energy modeling analysis in the early stages on your decision to add higher efficiency measures to your building? Were the recommendations...[read list]
1. Very important
2. Somewhat important
3. Not too important
4. Not at all important
99. (Don't know)
- [ASK OWNER]
- G7. Our records show that Focus on Energy provided an incentive of [ACTUAL CALCULATED INCENTIVE AMOUNT] and a comprehensive analysis report for the energy efficient features you installed. Without the incentive and the report, would you have installed equipment that was just as efficient?
1. Yes- all
2. Yes- some
3. No
- G8. Had the incentive or energy modeling not been available, would you have installed the same energy efficient equipment... [READ LIST]
1. This year
2. Within 1-2 years
3. Within 3 years
4. I would not have done it
- G9. [ASK IF G7= 1 OR 2 AND G8=1 OR 2] Before you learned about the program, was the purchase and installation of the specific energy efficient equipment highlighted in the report included in your construction budget?
1. YES
2. NO
99. (Don't know)
- G10. Was the incentive for the equipment included in your planning budget for this project?
1. Yes
2. No

G11. **[ASK ALL]** Finally, I'd like you to rate the level of influence for several factors in your decision to participate. For each factor, please identify on a 1 to 5 scale. 1 is not at all influential and 5 is very influential

	Influence of program factors						DK	NA
	<i>Not at all influential</i>					<i>Extremely influential</i>		
A) Total Incentives	1	2	3	4	5	DK	NA	
B) Program staff	1	2	3	4	5	DK	NA	
C) Modeling results and report	1	2	3	4	5	DK	NA	
D) Design team assistance	1	2	3	4	5	DK	NA	
E)NEO Tool	1	2	3	4	5	DK	NA	
F)Program Outreach	1	2	3	4	5	DK	NA	

H. Spillover

H1. In the course of construction, did you purchase any energy efficient equipment that did not have modeled savings, or that did not receive a Focus on Energy rebate?

- 1. Yes
- 2. No

H2. **[IF H1= YES]** What equipment did you purchase?

- 1. [SPECIFY]

H3. How did you determine whether or not it was energy efficient?

- 1. It was ENERGY STAR certified
- 2. Other [SPECIFY]

H4. How many **[MEASURE FROM H2]** did you install?

- 1. [SPECIFY QUANTITY]
- 99. (Don't Know)

H5. How important was your participation in the Design Assistance Program in your decision to install **[insert answer from H2]**? Would you say:

- 1. Very Important
- 2. Somewhat important
- 3. Not too important
- 4. Not important at all?
- 99. (Don't Know)

- H6. Since participating in the program, have you developed any other buildings, *specifically in Wisconsin*, with energy-efficient equipment or strategies?
1. Yes
 2. No [SKIP TO H12]
 99. (Don't Know)
- H7. What energy-efficient equipment did you purchase and install in these other buildings?
1. [SPECIFY]
- H8. Did you receive a rebate from Focus on Energy for this project?
1. Yes
 2. No
 99. (Don't Know)
- H9. How did you determine whether or not it was energy efficient?
1. It was ENERGY STAR certified
 2. Other [SPECIFY]
 99. (Don't know)
- H10. How many [MEASURE FROM H7] did you install?
1. [SPECIFY QUANTITY]
 99. (Don't Know)
- H11. How important was your participation in the Design Assistance Program in your decision to install [insert answer from H2]? Would you say:
1. Very Important
 2. Somewhat important
 3. Not too important
 4. Not important at all?
- H12. [FOR DESIGN TEAMS] Has your working with the design assistance program changed the way you approach projects and customers as they complete the planning and design process?
1. Yes
 2. No
 99. (Don't Know)
- H13. [IF H12=1] Please describe how it has changed?
1. [SPECIFY]
 99. (Don't Know)

I. Firmographics

Finally, I would like to ask you some questions about your company.

- I1. *What industry is your company in? [CODE ONE RESPONSE BELOW; DON'T READ UNLESS NECESSARY]
1. (Agriculture, Mining)
 2. (Communications)
 3. (Construction)
 4. (Education)
 5. (Finance, Insurance, Real Estate)
 6. (Food Service (restaurants))
 7. (Government)
 8. (Health Care)
 9. (Manufacturing)
 10. (Nonprofit / churches / schools)
 11. (Retail, Wholesale)
 12. (Transportation)
 13. (Hotel/motels)
 14. (Other [SPECIFY: _____])
 99. (DON'T KNOW)
 88. (Refused)

J. Closing

- J1. *In the future, how would you like to stay informed about opportunities to save energy and money? [DO NOT READ LIST; MULTIPLE RESPONSES POSSIBLE]
1. (Contact with Focus on Energy representative through phone, email, or in person)
 2. (Focus on Energy monthly newsletter)
 3. (Focus on Energy Website)
 4. (Focus on Energy workshop, event)
 5. (Contact with utility representative)
 6. (Utility mailing, bill insert, utility Website)
 7. (Contractor or vendor through phone, email, or in person)
 8. (Through a trade association or professional organization)
 9. (Other [SPECIFY: _____])
 99. (DON'T KNOW)
 88. (REFUSED)
- J2. *Do you have any other comments about energy efficiency decisions and purchases you would like to share?
[RECORD RESPONSE: _____]

Thank you. We appreciate your help with this survey. Have a nice day.

**Focus on Energy Nonresidential Programs
Large Energy Users Participant Survey 2015**

Researchable Questions		
Key Research Topics	Areas of Investigation	Related Questions
Screening	Project initiation process	A4-A7
Marketing and Outreach	Program Awareness	B1
	Future communication preferences	K1
	Key factors influencing customers' decision to participate in program	C1
Barriers	Obstacles to installing high-efficiency equipment	D1-D3
Satisfaction	Assess satisfaction with various program components and reasons for dissatisfaction among participants	F4- F11
Fixed Charge Increases	Understand awareness and impact of recent fixed cost increases for certain utility customers	G1-G5
Firmographics	Determine building and company characteristics of participants	J1-J3

Interviewer instructions are in green.

CATI programming instructions are in red.

Words in parenthesis should not be read to respondent

*Indicates core questions

SAMPLE Variables:

- [PHONE] Phone 1 Area Code and Phone 1
- [COMPANY] Site Name
- [CONTACT] First Name 1 and Last Name 1
- [ADDRESS] Address and City
- [UTILITY] Utility Name
- [MEASURE1]
- [MEASURE2]
- [MEASURE3]

A. Introduction

- A1. Hello, may I speak with [CONTACT?] OR [IF NO NAME] May I speak with the person who handles energy decisions for your company? [IF NOT AT THIS LOCATION, ASK FOR PHONE NUMBER AND NAME AT CORRECT LOCATION AND CALL RESPONDENT]
1. (Yes) [CONTINUE WITH RESPONDENT ON PHONE]
 88. (REFUSED) [THANK AND TERMINATE]

Back-up information, not to be programmed:

[If “No – Not available,” ask if Respondent would like to arrange a more convenient time for us to call them back or if you can leave a message for that person.]

[IF RESPONDENT ASKS HOW LONG, SAY: “APPROXIMATELY 20 MINUTES.”]

[IF NEEDED:] This survey is for research purposes only and this is not a marketing call. Your participation in this study is important so that Focus on Energy can improve the energy efficiency programs it offers to businesses and other organizations.

[Only if asked for a Focus on Energy contact to verify the survey authenticity, offer Joe Fontaine with the Public Service Commission of Wisconsin, 608-266-0910.]

- A2. Hello, I am [INSERT NAME] calling with a short survey on behalf of Wisconsin’s Focus on Energy, program. Are you the person responsible for making equipment decisions regarding energy efficiency at your company? [IF NEEDED: Focus on Energy is a statewide program supported by Wisconsin’s utilities to encourage energy efficiency.]
1. (Yes)
 2. (No, but person can come to phone) [START OVER AT A2 WITH NEW RESPONDENT]
 3. (No, not available [SCHEDULE CALLBACK])
 99. (DON’T KNOW) [ASK TO SPEAK WITH SOMEONE WHO WOULD KNOW AND START AGAIN]
 88. (REFUSED) [THANK AND TERMINATE]
- A3. *Our records show that you installed energy efficient equipment including [MEASURE1], [MEASURE2], and [MEASURE3] at [INSERT ADDRESS]. To ensure our records are correct, can you confirm that you received an incentive for this (these) measures in 2015?
1. (Yes)
 2. (No, wrong year) [Record correct year, if possible]
 3. (No, wrong address) [RECORD CORRECT ADDRESS]
 4. (No, wrong measure) [CORRECT BELOW]
 - a. (MEASURE1 IS INCORRECT [Correct: _____]) [CALL THIS VARIABLE C_MEASURE1]
 - b. (MEASURE2 IS INCORRECT [Correct: _____]) [CALL THIS VARIABLE C_MEASURE2]
 - c. (MEASURE3 IS INCORRECT [Correct: _____]) [CALL THIS VARIABLE C_MEASURE3]
 5. (No, I did not install any measures) [THANK AND TERMINATE]
 99. (Don’t Know) [Is there someone we could speak with that would know this? Record name and contact information: _____]
 88. (Refused) [THANK AND TERMINATE]

[THANK AND TERMINATE TEXT: FOR THIS SURVEY WE ARE ONLY INCLUDING BUSINESSES WHO HAVE PARTICIPATED IN THIS PROGRAM AND RECEIVED AN INCENTIVE. WE DO APPRECIATE YOUR TAKING OUR CALL. THANK YOU AND HAVE A GOOD DAY/EVENING.]

A4. *I'm going to read you a short list. Please tell me who, if anyone, was involved in helping you initiate your energy efficiency project. [READ LIST AND MARK 1= YES, 2=NO, 99=DON'T KNOW; 88 REFUSED FOR EACH]

	Yes	No	DK	REF
A4.1 Your contractor or vendor	1	2	99	88
A4.2 A Focus on Energy "Energy Advisor"	1	2	99	88
A4.3 Your utility account manager	1	2	99	88

A5. *How did your organization learn about the incentives available for this project? [DO NOT READ LIST; MULTIPLE RESPONSES POSSIBLE] [IF RESPONDENT MENTIONS WEBSITE CLARIFY IF UTILITY OR FOCUS ON ENERGY WEBSITE SO YOU KNOW HOW TO CODE ANSWER ON LIST.]

1. (Contact with Focus on Energy representative through phone, email, or in person)
2. (Focus on Energy monthly newsletter)
3. (Focus on Energy website)
4. (Focus on Energy sponsored workshop or event)
5. (Focus on Energy printed program materials)
6. (Contact with utility representative)
7. (Utility mailing, bill insert, or utility Website)
8. (Word of mouth (family, friend, or business colleague))
9. (I contacted my contractor/vendor to ask)
10. (My contractor/vendor let me know about them)
11. (Previously participated in program/received an incentive)
12. (Through a trade association or professional organization
[SPECIFY: _____])
13. (National Rebate Administrator)
14. (Other [SPECIFY: _____])
99. (Don't know)
88. (Refused)

A6. *Did you receive an incentive check in the mail for the upgrades, or did your contractor provide a discount on the cost of the project?

1. (Incentive in the mail)
2. (Contractor discount)
99. (Don't know)
88. (Refused)

A7. *Did your organization complete the application for the financial incentive or did the contractor, vendor, or someone else do that for you?

1. (We completed the application)
2. (Contractor/vendor completed the application)
3. (Energy Advisor completed the application)
99. (Don't know)
88. (Refused)

B. Awareness

[SKIP IF A7=1 or 3]

- B1. *Focus on Energy offers incentives to businesses for making energy-efficiency upgrades. Contractors, or vendors, or Focus on Energy staff can provide businesses with information and assistance to complete the upgrades. Had you heard about the Focus on Energy incentives available to businesses before today?
1. (Yes)
 2. (No)
 99. (Don't know)]
 88. (Refused)

C. Decision Making

Now I'd like to understand more about how your organization made decisions about this energy efficiency project.

- C1. *What factor was most important to your company's decision to make these energy-efficient upgrades? [DO NOT READ LIST; SINGLE RESPONSE]
1. (To save money on energy bills, reduce energy consumption or energy demand)
 2. (To obtain a program or bonus incentive)
 3. (To obtain a tax credit)
 4. (To replace old (but still functioning) equipment)
 5. (To replace broken equipment)
 6. (To enhance performance of our system(s))
 7. (To improve comfort)
 8. (Other [SPECIFY _____])
 99. (DON'T KNOW)
 88. (Refused)

D. Barriers

- D1. *What would you say are the main benefits your company has experienced as a result of the energy efficiency upgrades we've discussed? [DO NOT READ LIST; RECORD ALL THAT APPLY; PROBE FOR MULTIPLE RESPONSES]
1. (The incentive)
 2. (Using less energy, reducing energy consumption or energy demand)
 3. (Saving money on our utility bills; lower energy bills)
 4. (Increased occupant comfort)
 5. (Better aesthetics/better or brighter lighting)
 6. (Saving money on maintenance costs)
 7. (Other [SPECIFY: _____])
 8. (NO BENEFITS)
 99. (DON'T KNOW)
 88. (Refused)

- D2. I'm going to read you a list of challenging scenarios that companies face when or considering energy-efficient improvements. Please tell me whether you agree with these statements. The first statement is: **[RANDOMIZE, READ STATEMENT; THEN JUST FOR THE FIRST STATEMENT READ THE FOLLOWING: Would you say you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree? [READ LIST AND RECORD 1=STRONGLY AGREE, 2=SOMEWHAT AGREE, 3=NEITHER AGREE NOR DISAGREE; 4=SOMEWHAT DISAGREE, AND 5=STRONGLY DISAGREE; 97= NOT APPLICABLE, 99=DON'T KNOW, AND 88=REFUSED]**
- D2a. Making upgrades at our facility is an inconvenience.
 - D2b. Generally, making energy efficiency upgrades to this facility is too costly.
 - D2c. Our existing heating and cooling systems work fine, and we don't replace working equipment, even if it is not energy efficient.
 - D2d. My company leases space, so does not want to invest in energy efficiency upgrades.
 - D2e. Proposed capital upgrades must meet a certain return on investment and energy efficiency is not a major consideration when determining the ROI.
 - D2f. Decisions about equipment upgrades are made at a corporate office, and we don't have much input at this facility.
 - D2g. My company has made all the energy efficiency improvements we can without a substantial investment
- D3. *What could be done to help your company overcome these challenges?**[DO NOT READ LIST, ALLOW MULTIPLE RESPONSES]**
- 1. (Nothing)
 - 2. (Higher incentives)
 - 3. (Provide upfront rewards)
 - 4. (Offer low-interest loans)
 - 5. (Simplify the paperwork)
 - 6. (Provide better/more information about program **[SPECIFY WHAT TYPE OF INFORMATION THEY NEED: _____]**)
 - 7. (Provide an energy audit)
 - 8. (Other **[RECORD VERBATIM ANSWER _____]**)
 - 99. (DON'T KNOW)
 - 88. (REFUSED)
- D4. Do you have an internal payback threshold that projects must meet in order to go forward?
- 1. (Yes) **D4a. [WHAT IS THAT THRESHOLD, IN YEARS?: _____]**
 - 2. (No)
 - 99. (DON'T KNOW)
 - 88. (REFUSED)

E. Program Participation

- E1. **[IF A4.2=1]** How important was your Energy Advisor in your decision to participate in the program? Would you say....
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all important
 99. (Don't know)
 88. (Refused)
- E2. **[IF A4.3=1]** How important was your Key Account Manager in your decision to participate in the program? Would you say....
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all important
 99. (Don't know)
 88. (Refused)

F. Satisfaction and Application Ease

Next, I have a few questions for you about your application.

[ASK IF A7=1]

- F1. *Thinking about the application you submitted, how easy would you say this paperwork was to complete? Would you say: **[READ LIST]**
1. Very easy
 2. Easy
 3. Somewhat challenging
 4. Very challenging
 99. (Don't know)
 88. (Refused)

[ASK IF F1 = 3 or 4]

- F2. *Why do you say that? **[OPEN END]**

[ASK IF A7=1]

- F3. Did you have to submit a pre-approval application for your project?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

[ASK IF F3=1]

- F4. Thinking about the pre-approval process, how satisfied were you with the time it took to complete the initial application until you were able to begin work? Would you say?
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not satisfied at all
 99. (Don't know)
 88. (Refused)

[ASK IF A6=1]

- F5. *And, thinking about the incentive you received in the mail, how satisfied were you with the time it took to receive the check? Would you say: [READ LIST]
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not satisfied at all
 99. (Don't know)
 88. (Refused)

[ASK IF A7=1]

F5a: And thinking about the incentive or discount you received for completing the program, how would you characterize your incentive? *Would you say...*[READ LIST]

1. I am happy with my incentive based on time it took to complete the application, or
2. The time it took to complete the application was not worth the incentive I received
3. (DO NOT READ) (No opinion)
99. (DON'T KNOW)
88. (REFUSED)

- F6. *About how long did it take for the incentive to arrive? [READ LIST]

1. 1-3 weeks
2. 4-6 weeks
3. 7-8 weeks
4. Over 8 weeks?
99. (Don't know)
88. (Refused)

- F7. *Did you ever visit the Focus on Energy website to learn about energy efficient upgrades, ways to save energy, or to download forms?

1. (Yes)
2. (No)
99. (Don't know)
88. (Refused)

[ASK IF F7=1]

- F8. *How easy was it to find what you were looking for? Would you say it was: [READ LIST]
1. Very easy
 2. Easy
 3. Somewhat challenging
 4. Very challenging
 99. (Don't know)
 88. (Refused)

[ASK IF F7=1]

- F9. *How would you rate the quality of information on the Focus on Energy website? Would you say the information was: [READ LIST]
1. Very helpful
 2. Somewhat helpful
 3. Not too helpful
 4. Not helpful at all
 99. (Don't know) [SKIP TO F11]
 88. (Refused) [SKIP TO F11]

- F10. *Why do you say that? [OPEN END]

- F11. *Is there anything that [IF A7=1 THEN READ, "Focus on Energy" IF B1=2 THEN READ "the contractor"] could have done to improve your overall experience with the Large Energy Users program? [DO NOT READ THE LIST, RECORD ALL THAT APPLY]
1. (Better/more communication [SPECIFY: Who would you like more communication from?_____])
 2. (Quicker response time [SPECIFY: Who would you like a quicker response time from?__])
 3. (Larger selection of eligible equipment [ASK: What energy-efficient equipment should Focus on Energy offer incentives for?_____])
 4. (Increasing the incentive amount)
 5. (Simplify the application process)
 6. (Allow me to fill out the applications online)
 7. (Simplify the website)[ASK: In what way?_____]
 8. (Provide quicker approval on applications)
 9. (Send incentive check out faster)
 10. (Provide more face-time with my Energy Advisor (this may include more frequent visits))
 11. (Other [SPECIFY:_____])
 12. (No, nothing)
 99. (DON'T KNOW)
 88. (REFUSED)

G. Fixed Charges

[ASK SECTION G IF UTILITY= 1="Wisconsin Electric Power Company (WE Energies)", 2= "Wisconsin Public Service Corporation", OR 3="Madison Gas and Electric Company"]

- G1. *Were you aware of the recent fixed cost increases put in place by your utility last year? [IF NEEDED: these changes impacted the fixed monthly customer charge on your electric bill].
1. (Yes)
 2. (No) SKIP TO SECTION H
 99. (Don't know) SKIP TO SECTION H
 88. (Refused) SKIP TO SECTION H

[ASK G2-G4 IF G1=1]

- G2. *Did these changes impact your decision to make the energy-efficient upgrades we've been discussing?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

[ASK IF G2=1]

- G3. *How so?
1. **G3a.** [OPEN END]
 99. (Don't know)
 88. (Refused)
- G4. *How likely are these higher fixed costs to impact your future investments in energy efficiency? Would you say: [READ LIST]
1. Very likely
 2. Somewhat likely
 3. Not too likely
 4. Not likely at all
 99. (Don't know) [SKIP TO NEXT SECTION]
 88. (Refused) [SKIP TO NEXT SECTION]

- G5. *Why do you say that? [OPEN END]

H. Freeridership

The next questions refer to the [MEASURE1 OR C_MEASURE1] we've been talking about. [IF NEEDED READ: "We know you may have applied for other incentives, but for these next questions, we'd like to focus on just the [MEASURE1 OR C_MEASURE1]."]

FR0a. First, did your organization have specific plans to install the [MEASURE1 OR C_MEASURE1][s] **BEFORE** learning about the Large Energy Users Program incentive?

1. (Yes)
2. (No)
99. (Don't know)
88. (Refused)

[SKIP IF FR0a=2, 98 or 99]

FR0b. Prior to participating in this program, was the purchase and installation of the [MEASURE1 OR C_MEASURE1] [s] included in your organization's capital budget?

1. (Yes)
2. (No)
99. (Don't know)
88. (Refused)

[SKIP IF FR0a=2, 98 or 99]

FR0c. Had your organization **ALREADY** ordered or purchased the [MEASURE1 OR C_MEASURE1] [s] **BEFORE** your organization heard about the Large Energy Users Program technical assistance and incentives?

1. (Yes)
2. (No)
99. (Don't know)
88. (Refused)

FR1. Help me understand, would you have purchased and installed the same [MEASURE1 OR C_MEASURE1] [s] without the technical assistance and incentives provided by Focus on Energy?

1. (Yes) [SKIP TO FR2]
2. (No) [SKIP TO FR6]
99. (Don't know)
88. (Refused)

[Ask if FR1=98 or 99]

FR1a. Let me make sure I understand correctly, would you have installed **something** without the incentive program?

1. (Yes, would have done something) [CONTINUE TO FR2]
2. (No, would NOT have installed anything) [SKIP TO FR6]
99. (Don't know) [SKIP TO FR10]
88. (Refused) [SKIP TO FR10]

[Ask FR2 through FR5 if FR1 = 1 or FR1a=1]

FR2. When you say you **would have installed** the same [MEASURE1 OR C_MEASURE1] [s], would you have installed the same (measure[s]) that (was/were) just as energy efficient?

1. (Yes)
2. (No)
99. (Don't know)
88. (Refused)

FR3. *[Ask for measures with [MEASURE1 OR C_MEASURE1]>1]* And without the Large Energy Users Program technical assistance and incentive, would you have installed the same number of [MEASURE1 OR C_MEASURE1] [s]?

1. (Yes, the same amount)
2. (No, would have installed less)
3. (No, would have installed more)
99. (Don't know)
88. (Refused)

FR4. Without the Large Energy Users Program technical assistance and incentive, would you have installed the [MEASURE1 OR C_MEASURE1][s] ...

1. Within the same year?
2. Within one to two years?
3. Within three to five years?
4. In more than five years?
99. (Don't know)
88. (Refused)

FR5. Did the technical assistance provided and the incentive for the high efficiency equipment allow you to increase the project's Return on Investment (ROI) so that it would meet the company's internal ROI requirements for capital allocation, thereby allowing the project to receive implementation approval?

1. (Yes)
2. (No)
98. (Don't know)
99. (Refused)

[Ask FR6 to FR10 if FR1 = 2 or FR1a=2]

FR6. Let me make sure I understand. When you say you **would not have installed** the same [MEASURE1 OR C_MEASURE1] [s] without the Large Energy Users Program's incentive or technical assistance, do you mean you would not have installed the (MEASURE[s]) **at all?**

1. (Yes – would **NOT** have installed at all) **[SKIP TO FR10]**
2. (No – Would have still installed)
99. (Don't know)
88. (Refused)

FR7. Without the Large Energy Users Program's technical assistance or incentive, would you have purchased something that was just as energy efficient as the [MEASURE1 OR C_MEASURE1] [s] you installed?

1. (Yes – would have installed something just as energy efficient)
2. (No)
99. (Don't know)
88. (Refused)

FR8. *[Ask for measures with [MEASURE1 OR C_MEASURE1]>1]* And without the Large Energy Users Program incentive or technical assistance, would you have installed the same number of *[MEASURE1 OR C_MEASURE1]*s?

1. (Yes, the same amount)
2. (No, would have installed less)
3. (No, would have installed more)
99. (Don't know)
88. (Refused)

FR9. And finally, when would you have installed the *[MEASURE1 OR C_MEASURE1]* [s]. . .

1. In the same year?
2. In one to two years?
3. In three to five years?
4. More than five years out?
99. (Don't know)
88. (Refused)

FR10. Did the incentive for the high efficiency equipment allow you to increase the project's Return on Investment (ROI) so that it met the company's internal ROI requirements for capital allocation, thereby allowing the project to receive implementation approval?

1. (Yes)
2. (No)
99. (Don't know)
88. (Refused)

I. Spillover

I1. Since making these energy-efficiency upgrades has your company installed any other energy-efficient products in your facility that you did **NOT** receive an incentive for? By energy-efficient products, I mean high efficiency lighting such as T5s; high efficiency motors and variable speed drives; high efficiency air conditioners and heat pumps, efficient heating or water heating equipment, et cetera.

1. (Yes) *[ASK I2]*
2. (No) *[SKIP TO SECTION J]*
99. (DON'T KNOW) *[SKIP TO SECTION J]*
88. (REFUSED) *[SKIP TO SECTION J]*

I2. Are these products also installed at the same location as the upgrades we have been talking about or at a different location?

1. (Same location)
2. (Different location)
99. (DON'T KNOW)
88. (REFUSED)

13. What were the other energy-efficient products that you installed without getting an incentive? [DO NOT READ LIST; MARK ALL THAT APPLY; 99=DON'T KNOW, 88=REFUSED, -96=N/A] [If the customer says they bought something but have not installed it, the equipment has to be installed and operating for us to count it towards spillover.]
1. (CFLs)
 2. (LEDs)
 3. (Fluorescent tubes (T5s, T8s, etc.))
 4. (Efficient lighting controls (occupancy sensors, daylighting, timers))
 5. (High efficiency motors)
 6. (Air source heat pumps)
 7. (Ground source heat pumps)
 8. (Central AC)
 9. (VSD (variable speed drive))
 10. (Boiler)
 11. (Compressed air regulator)
 12. (Gas furnaces)
 13. (Exit signs)
 14. (Refrigeration equipment (refrigerators, freezers))
 15. (Other) [SPECIFY: _____]
 99. (DON'T KNOW)
 88. (REFUSED)
14. [REPEAT FOR EACH ITEM MENTIONED IN I3] How many [INSERT ITEM FROM I3] did you install? [RECORD NUMBER _____, 99 FOR DON'T KNOW, 88 FOR REFUSED, AND -96 FOR N/A]]
15. [REPEAT FOR EACH ITEM MENTIONED IN I3] Please tell me how important [[IF A6=1 READ, "the incentive for the MEASURE1" OR IF A5=2 READ, "assistance from your contractor"] was in your decision to install [ANSWER FROM I3]] Was it:
- [EMPHASIZE EACH ANSWER OPTION AND PAUSE IN BETWEEN EACH OPTION.]
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not at all important
 99. (Don't know)
 88. (Refused)
16. [ASK FOR ALL MENTIONED IN I3] To confirm, did you receive an incentive for installing [INSERT ANSWER FROM I3]? [DO NOT READ ANSWER LIST]
1. (Yes)
 2. (No)
 3. (Item did not qualify)
 4. (Contractor or vendor received the incentive)
 99. (Don't know)
 88. (Refused)

17. [ASK IF I2=2] What is the address of the location where you installed [INSERT EACH ITEM FROM I3]?
[99 FOR DON'T KNOW AND 88 FOR REFUSED]
ENTER STREET ADDRESS:
ENTER CITY:
ENTER STATE:
ENTER ZIP CODE:

J. Firmographics

Finally, I would like to ask you some questions about your company.

- J1. *What industry is your company in? [CODE ONE RESPONSE BELOW; DON'T READ UNLESS NECESSARY]
1. (Agriculture, Mining)
 2. (Communications)
 3. (Construction)
 4. (Education)
 5. (Finance, Insurance, Real Estate)
 6. (Food Processing)
 7. (Government)
 8. (Health Care)
 9. (Manufacturing)
 10. Metal Casting
 11. Metal fabrication
 12. (Nonprofit / churches / schools)
 13. Pulp and Paper
 14. (Retail, Wholesale)
 15. (Transportation)
 16. (Hotel/motels)
 17. (Other [SPECIFY: _____])
 99. (DON'T KNOW)
 88. (Refused)
- J2. *Does your organization lease or own the facility?
1. (Lease)
 2. (Own)
 3. (Other [SPECIFY: _____])
 99. (DON'T KNOW)
 88. (REFUSED)
- J3. *How many people are employed at this location?
1. [RECORD NUMBER: _____]
 99. DON'T KNOW
 88. REFUSED

K. Closing

K1. *In the future, how would you like to stay informed about opportunities to save energy and money in Wisconsin? [DO NOT READ LIST; MULTIPLE RESPONSES POSSIBLE]

1. (Contact with Focus on Energy representative through phone, email, or in person)
2. (Focus on Energy monthly newsletter)
3. (Focus on Energy Website)
4. (Focus on Energy workshop, event)
5. (Contact with utility representative)
6. (Utility mailing, bill insert, utility Website)
7. (Contractor or vendor through phone, email, or in person)
8. (Through a trade association or professional organization)
9. (Other [SPECIFY:_____])
99. (DON'T KNOW)
88. (REFUSED)

K2. *Do you have any other comments about energy efficiency decisions and purchases you would like to share?

[RECORD RESPONSE:_____; 99 FOR DON'T KNOW, 88 FOR REFUSED]

Thank you. We appreciate your help with this survey. You may also be contacted for an on-site visit if you have not been contacted already. Have a nice day.

Focus on Energy 2015 Large Energy Users Program Key Account Manager Interview Guide

Respondent name: _____

FOE Program: _____

Respondent phone: _____

Interview date: _____ Interviewer initials: _____

Interview Audience

KAMs are utility program actors who work with customers and energy management teams to provide technical expertise, identify energy-efficiency opportunities, and support the development of SEM plans.

Research Questions

- Do KAMs have a solid understanding of the programs? Follow up on the 2013 recommendation Cadmus made on hosting timely meetings between the Program Administrator and KAMs to discuss any program changes and issues.
- What is the KAM's role in program marketing?
- Do KAMs have the information and support they need to effectively promote the program to customers?
- How is the program operating from the perspective of the KAMs? Follow up on the 2013 recommendation Cadmus made on increasing the number of KAMs in order to increase capacity on customer support and technical expertise.
- What do KAMs view as customer participation barriers?
- What can the Program Administrator and Program Implementers do to address these barriers?
- How effective is the communication between KAMs and program stakeholders?
- Have program management and project pipeline tracking improved since 2013? Follow up on 2013 evaluation findings in which LEU KAMs reported that the project pipeline tracking was a concern. They suggested improvements on project-specific data tracking and easier access to update project information.

Interview Guide

Introduction

Hello, my name is [name] and I am calling from Cadmus. We are evaluating Focus on Energy's programs. We would like to hear about your role and involvement with Focus on Energy programs, and get feedback on ways to improve the programs for you and your customers. We expect this interview to take no more than 30 minutes of your time.

Role and Involvement

1. Please tell me a little bit about your role with the Focus on Energy program.
 - a) Do you work with program implementers, Energy Advisors, CB&I, and trade allies?
2. What types of accounts do you manage? [Probe for business type and size]
 - a) How are accounts divided among KAMs? Does the size of the customer drive this?
 - b) Are there any small businesses that are considered Key Accounts?
3. At the moment, about how many accounts do you manage?
 - a) And how many of those accounts are current program participants?
4. How often do you communicate with your Managed Accounts about the Focus on Energy programs?

Focus on Energy Program Knowledge and Interaction

5. How familiar are you with the Focus on Energy programs and offerings? Would you say:
 1. Very familiar,
 2. Somewhat familiar,
 3. Not too familiar,
 4. Or not familiar at all?

[ASK IF 5=1 OR 2]

6. Which programs are you most familiar with?

Program Marketing and Outreach

7. What is your role, if any, in marketing the program to customers? (Probe for differences across programs).
 - a) Do you work with the program implementers to conduct customer marketing and outreach? For example, do you send emails to potential customers or make phone calls to potential customers?

- b) Do you ever go on any site visits for projects? (If yes, probe for what types of projects they do site visits for)
8. How do you stay informed about program matters? What materials are provided to you? (Probe for who provides these materials or informs them)
- a) Do these materials help you to promote the programs to customers?
 - b) Are you informed about program changes in a timely manner?
 - i. How often do you have meetings to discuss program news and updates?
 - c) What would help in terms of increasing your ability to promote the program to customers?

Customer Response and Participation Barriers

9. Have any of your customers contacted you directly to participate in Focus on Energy's programs?
10. Which elements of the program do you find customers were most interested in/responsive to?
11. In your experience, what prevents customers from participating in the program?
- a) What can Focus on Energy do to address these issues and increase customer participation?
12. Are there any lost opportunities you have identified? For example, I mean:
- a. Are there industries or market segments that have not participated historically but would be a good fit for the programs?
 - b. [SMALL BIZ ONLY] Are there industries or market segments that have not participated historically but would be good candidates for targeted promotions?

Project Pipeline Tracking

13. What do you use to track customer participation data and project-specific data?
14. [IF 14=YES] How easy or difficult is it to track customers' project progress?
- a. Can you easily access project-specific data?
 - b. Can you update project information?
15. Do you have any suggestions for changes to help you better track your customers' progress?

Interaction with Other Program Actors

16. Do you communicate with the program implementer/Energy Advisors/CB&I?
- [ASK a-d if YES]
- a) How often do you communicate with the program implementer/Energy Advisors/CB&I?

- b) Does this apply to all programs? (If no, probe for which programs have communication challenges)
- c) Are there gaps in your communication? If so, what are they?

Closing

- 17. Do you have any suggestions for improving any aspect of the programs? [Probe: from your perspective, the customer's perspective, administratively, anything Implementer or CBI could do?]
- 18. Is there anything we haven't already mentioned that you would like to add?

Thank you for your time today. Your feedback is extremely helpful.

Focus On Energy Multifamily Direct Install Program 2015 Tenant Survey

Welcome to the Focus on Energy Multifamily Program Participant Survey! Focus on Energy invite you to participate in this survey and share your experience with the Multifamily Program and the equipment you received as part of your participation. Your feedback helps us improve our programs. As a small token of our appreciation we will enter your name into a drawing to win a free iPad Air 2!*

You can take the survey online by visiting: **[SURVEY WEB ADDRESS]**

1. Please rate your satisfaction with each of the following energy-efficient products. Select the box that best matches your level of satisfaction.

Products Recently Installed in Your Home	Very Satisfied	Somewhat Satisfied	Not too Satisfied	Not at all Satisfied	Do Not Know	Did Not Receive
Energy-saving CFL light bulbs						
Energy-saving LED light bulbs						
High-efficiency bathroom faucet aerator(s)						
High-efficiency kitchen faucet aerator						
Energy-efficient showerhead(s)						

2. How would you rate the service of the staff who installed the energy-efficient products in your home?
 - a. Very courteous and respectful
 - b. Somewhat courteous and respectful
 - c. Neutral
 - d. Not too courteous or respectful
 - e. Not at all courteous or respectful
 - f. Don't know
 - g. I was not home during the installation

3. Did any problems occur during the install (damage to property, installers tracked in dirt, left packaging, etc.)?
 - a. Yes
 - b. If yes, please explain: _____
 - c. No
4. How many people (including yourself) live in your residence? _____
5. How many showers do you have in your home? _____
6. How many bathroom sinks do you have in your home? _____
7. Does the property owner pay for your utility bill or do you pay for your own utilities?
 - a. Property owner pays
 - b. Tenant pays
 - c. Some combination of both
 - d. Don't know
8. What about the water bill?
 - a. Property owner pays
 - b. Tenant pays
 - c. Some combination of both
 - d. Don't know
9. Approximately how many square feet of living space does your home have?
 - a. Less than 500 square feet
 - b. 500 to less than 1,000 square feet
 - c. 1,000 to less than 1,500 square feet
 - d. 1,500 to less than 2,000 square feet
 - e. 2,000 to less than 2,500 square feet
 - f. 2,500 to less than 3,000 square feet
 - g. 3,000 or more square feet
 - h. Don't know
10. How long have you lived in this home? _____ years _____ months
11. How do you manage the heating temperature of your home?
 - a. Thermostat installed in unit
 - b. Central thermostat controlled by property owner/others
12. How do you manage the cooling temperature of your home?
 - a. Thermostat installed in unit
 - b. Central thermostat controlled by property owner/others
 - c. Through-the-wall air conditioning unit

d. I do not have air conditioning in my home

13. Do you have any other feedback for us about the energy upgrades to your home?

Thank you! Your input helps us improve our service.

To thank you for completing this survey, Focus on Energy will include you in a drawing for a free iPad2!*

Please be sure to include your name and mailing address.

Name: _____

Address: _____

Phone: _____

Email: _____

For questions regarding this questionnaire, please call Jeana Swedenburg at (303) 634-2918.

Focus on Energy appreciates your feedback.

I do not wish to be contacted in the future for additional feedback on this program.

*16GB Silver Wi-Fi iPad Air 2 or a \$500 gift card to the Apple Store

Focus on Energy Nonresidential Customer General Population/ Nonparticipants Survey

Researchable Topics	Item
Awareness of Focus programs	C1 - C7
Potential participation, Spillover	F1-F10
Reasons for not participating, motivations, challenges	D1- D7
Decision making procedures	G1-G6
Firmographics	H1-H5
Cross-sector upstream lighting purchases	E1-E8

Interviewer instructions are in green.

CATI programming instructions are in red.

Items that should not be read are in parenthesis.

*Questions with asterisk indicate marketing questions

Audience: This survey is for business customers who are not currently participating in a Focus on Energy energy efficiency program.

[Variables from sample]

[CONTACT NAME]

[CONTACT PHONE]

[COMPANY]

Quotas = 70 small businesses who purchased light bulbs, 140 nonparticipants in total

Goal is 140 completes of the full length survey, and then we'll switch to a shortened version that will ask just the bulb purchase questions- this will be section A, B1, B2, section E, section H, section I. Once we're beyond 140 completes of the full survey, a "complete" will be when the survey gets beyond question B2 (business has between 1 and 19 employees). The goal will be 75 completes where E3.1 and E6.1 are >0 (cases of at least 1 LED and 1 CFL purchased for the business, quantity of 75 is for buffer for junk responses, with the hope of 70 final responses) with a cap of 500 "completes." There will be some overlap for these 75 completes where a business purchased both a CFL and an LED, but also cases where they only purchased CFLs or LEDs.

A. Introduction

- A1. Hello, I'm [INSERT NAME], calling on behalf of Focus on Energy. May I speak with [CONTACT NAME]? OR IF NO CONTACT NAME] the person who makes equipment upgrade decisions for your business?
1. (Yes)
 2. (No) [THANK AND TERMINATE]
 98. (Don't know) [ASK TO SPEAK WITH CORRECT PERSON]
 99. (Refused) [THANK AND TERMINATE]

- A2. Hello, I'm [INSERT NAME] calling on behalf of Focus on Energy. Focus on Energy is interested in your opinions to help improve their business efficiency programs and to better understand how to assist customers in saving money and energy. Please be assured this is not a sales call. My questions are for research purposes only. Are you the best person to talk to about this?
1. (Yes)
 2. (No) [ASK TO SPEAK WITH CORRECT PERSON]
 98. (Don't know) [ASK TO SPEAK WITH CORRECT PERSON]
 99. (Refused) [THANK AND TERMINATE]

- A3. We'd like to let you know that any information that you share with us today will be confidential and not attributed to any one individual or business.

B. Screeners

- B1. We show your company's name as [COMPANY], is that correct?
1. (Yes)
 2. (No) RECORD NAME
- B2. Do you consider your company a small business?
1. (Yes)
 2. (No)
- B3. How many people are employed at this location? [REPEAT [ADDRESS] IF NEEDED]
1. (1-9) [AFTER 140 COMPLETES SKIP TO SECTION E]
 2. (10-19) [AFTER 140 COMPLETES SKIP TO SECTION E]
 3. (20-49) [AFTER 140 COMPLETES THANK AND TERMINATE]
 4. (50-99) [AFTER 140 COMPLETES THANK AND TERMINATE]
 5. (100-199) [AFTER 140 COMPLETES THANK AND TERMINATE]
 6. (200-499) [AFTER 140 COMPLETES THANK AND TERMINATE]
 7. (500-999) [AFTER 140 COMPLETES THANK AND TERMINATE]
 8. (600-999) [AFTER 140 COMPLETES THANK AND TERMINATE]
 9. (1000-2499) [AFTER 140 COMPLETES THANK AND TERMINATE]
 10. (2500+) [AFTER 140 COMPLETES THANK AND TERMINATE]
 98. (Don't know) [AFTER 140 COMPLETES THANK AND TERMINATE]
- B4. Has your company received an incentive from Focus on Energy for installing energy efficient equipment in the last year? By energy-efficient equipment, I mean high efficiency heating and air, variable speed drives, high efficiency lighting; or other energy efficient equipment. [IF NEEDED: By last year, we mean in 2015.]
1. (Yes) [IF B3 = 1 or 2, SKIP TO SECTION E. IF B3 ≠ 1 OR 2, THANK AND TERMINATE]
 2. (No)
 98. (Don't know) [IF B3 = 1 or 2, SKIP TO SECTION E. IF B3 ≠ 1 OR 2, THANK AND TERMINATE]
 99. (Refused) [THANK AND TERMINATE]

Thank and Terminate Script: Thank you. We are speaking with companies who have not received an incentive for installing energy efficient equipment in the last year from Focus on Energy. Thank you for speaking with me today.

Back-up information, not to be programmed:

[If “No – Not a convenient time,” ask if Respondent would like to arrange a more convenient time for us to call them back or if you can leave a message for that person.]

[IF RESPONDENT ASKS HOW LONG, SAY: “APPROXIMATELY 15 MINUTES.”]

[IF NEEDED:] This survey is for research purposes only and this is not a marketing call. This is the primary way for customers to provide input into the incentive programs Focus on Energy offers. Your participation in this study is important so that Focus on Energy can include your perspectives in how their energy efficiency programs are offered.

[IF RESPONDENT SAYS THE DECISIONS ARE HANDLED IN A CORPORATE OFFICE THEN ASK FOR NAME AND PHONE NUMBER FOR THAT PERSON]

[Only if asked for a Focus on Energy contact to verify the survey authenticity, offer Joe Fontaine at **(608) 266-0910.**]

c. Awareness

- C1. Before today, had you heard anything about Focus on Energy’s energy-efficiency incentive programs for commercial or industrial customers that help businesses reduce their energy consumption and save money on their energy bills?
1. (Yes)
 2. (No) **[SKIP TO C5]**
 98. (Don’t know) **[SKIP TO C5]**
 99. (Refused) **[SKIP TO C5]**

[ASK IF C1=1]

- C2. Which incentive programs, if any, come to mind? [DO NOT READ; RECORD ALL THAT APPLY]
1. (Lighting)
 2. (Heating or Air Conditioning)
 3. (Refrigeration)
 4. (Commercial kitchen equipment)
 5. (Motors or drives)
 6. (New building design/construction)
 7. (Building energy assessments)
 8. (Building envelope, such as insulation, doors, windows)
 9. (Other) [SPECIFY]
 10. (None)
 98. (Don't know)
 98. (Refused)

[ASK IF C1=1]

- C3. How did you learn about these programs? [DO NOT READ. MULTIPLE CHOICES POSSIBLE]
1. (Contacted by my Focus on Energy account representative or other utility staff)
 2. (Our organization contacted Focus on Energy directly)
 3. (Word of mouth (family, friend, or business colleague))
 4. (Contacted by contractor or vendor)
 5. (Previously participated in program/received an incentive)
 6. (Program sponsored conference, workshop, business event)
 7. (Through professional organization or a trade association)
 8. (Trade publication)
 9. (Focus on Energy mailing)
 10. (Email from Focus on Energy)
 11. (Focus on Energy website)
 12. (Newspaper ad)
 13. (Radio ad)
 14. (TV ad)
 15. (Web search (e.g., searching on Google, Bing, or Yahoo))
 16. (Social Media (e.g., Facebook, Twitter, YouTube))
 17. (Online ads)
 18. (Other) [SPECIFY: _____]
 98. (Don't know)
 99. (Refused)

[ASK IF C1=1]

- C4. How likely is it that your business requests an incentive from a Focus on Energy program for an energy efficiency project in the next 6 months? Would you say ... [READ LIST]
1. Very likely
 2. Somewhat likely
 3. Not too likely
 4. Not at all likely
 98. (Don't know)
 99. (Refused)

[ASK IF C1=2, 98, or 99]

- C5. The Focus on Energy business programs provide commercial and industrial customers with incentives to install energy efficient equipment such as heating and air units, lighting, pumps, motors, kitchen equipment, and others. How likely is it that your business would request an incentive from a Focus on Energy program in the next 6 months? Would you say ... [READ LIST]
1. Very likely
 2. Somewhat likely
 3. Not too likely
 4. Not at all likely
 98. (Don't know enough about the program to answer)
 99. (Refused)

[ASK IF C4 OR C5= 1 OR 2]

- C6. Which equipment type are you most likely to install or retrofit? [MULTIPLE CHOICES POSSIBLE]
1. (Lighting)
 2. (Heating and air conditioning units)
 3. (Pumps/Motors/VFDs)
 4. (Refrigeration or kitchen equipment)
 5. (Other equipment [SPECIFY])
 98. (Don't know)
 99. (Refused)

[ASK EVERYONE]

- C7. What's the best way for Focus on Energy to inform you about their incentives for energy-efficient improvements? [DO NOT READ. RECORD UP TO THREE RESPONSES]
1. (Direct contact with Focus on Energy staff member)
 2. (Direct contact with a vendor/contractor)
 3. (Program sponsored conference, workshop, business event)
 4. (Through professional organization or a trade association)
 5. (Trade publication)
 6. (Focus on Energy mailing)
 7. (Email from Focus on Energy)
 8. (Focus on Energy website)
 9. (Newspaper ad)
 10. (Radio ad)
 11. (TV ad)
 12. (Social Media (e.g., Facebook, Twitter, YouTube))
 13. (Online ads)
 14. (Other) [SPECIFY]
 98. (Don't know)
 99. (Refused)

d. Motivation, Barriers, and Benefits to Participating

The next few questions are about making energy-efficient improvements for your business.

- D1. I'm going to read you a list of scenarios that companies experience when purchasing new appliances or considering energy-efficient improvements like efficient lighting. Please tell me whether you agree with these statements. If it doesn't apply to you, please let me know that. The first statement is: [RANDOMIZE, READ STATEMENT; THEN JUST FOR THE FIRST STATEMENT READ THE FOLLOWING: Would you say you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree?
[READ LIST AND RECORD 1=STRONGLY AGREE, 2=SOMEWHAT AGREE, 3=SOMEWHAT DISAGREE, AND 4=STRONGLY DISAGREE; 97= NOT APPLICABLE, 99=DON'T KNOW, AND 88=REFUSED]
- a. Making upgrades at our facility is an inconvenience.
 - b. Generally, making energy efficiency upgrades to this facility is too costly.
 - c. Our existing heating and cooling systems work fine, and we don't replace working equipment even if it is not energy efficient.
 - d. My company leases space, so does not want to invest in energy efficiency upgrades.
 - e. Proposed capital upgrades must meet a certain return on investment and energy efficiency is not a major consideration when determining the ROI.
 - f. Decisions about equipment upgrades are made at a corporate office, and we don't have much input at this facility.
 - g. My company has made all the energy efficiency improvements we can without a substantial investment

- D2. What would motivate your business to make more energy-efficient purchases or upgrades on current equipment? [DO NOT READ LIST; RECORD UP TO 3 RESPONSES]
- 1. (Lower costs of product/equipment)
 - 2. (Information on return on investment)
 - 3. (More information generally)
- B. (Higher incentives)
- 8. (Incentives on different products/technologies)
 - 9. (Other) [SPECIFY]
 - 98. (Don't know)
 - 99. (Refused)

[ASK IF D2=3]

- D3. When you say you would like more information, what kind of information is most useful?
- 1. [RECORD RESPONSE]
 - 98. (Don't know)
 - 99. (Refused)

[ASK IF D2=3]

- D4. And which organization or individual do you think is best to relay this information? For example, a Focus on Energy representative, someone like your contractor, or a product manufacturer?
- 1. (Focus on Energy)
 - 2. (Contractor/Distributor/Vendor)
 - 3. (Store staff)
 - 4. (Product Manufacturer)
 - 5. (Something else) [SPECIFY: _____]
 - 98. (Don't know)
 - 99. (Refused)

[ASK IF D2=5]

- D5. What kind of equipment or technologies?
1. [RECORD RESPONSE]
 98. (Don't know)
 99. (Refused)

[ASK IF C1=1]

- D6. What are the reasons you have not yet participated in a Focus on Energy' program? [DO NOT READ LIST; MULTIPLE CHOICES POSSIBLE]
1. (Don't know enough about program)
 2. (Don't understand what equipment/measures are available)
 3. (Don't have resources for initial investment)
 4. (Don't have enough time to participate)
 5. (Not sure how much savings there will be)
 6. (Don't see any benefits)
 7. (Have participated in past and do not see a need)
 8. (Other) [SPECIFY]
 98. (Don't know)
 99. (Refused)

[SKIP IF D6=98 or 99]

- D7. What could Focus on Energy do to help your business be more likely to participate in a Focus on Energy program?
1. [RECORD ANSWER]
 98. (Don't know)
 99. (Refused)

[ASK SECTION E IF B3= 1 OR 2]

E. LED and CFL Purchases

Now I'd like to ask you about light bulb purchases that you have made for your business

- E1. In the last 12 months, approximately how many screw-in CFL bulbs and how many screw-in LED bulbs did you or someone in your organization purchase? Please try to estimate the total number of **bulbs**, and not packages. [IF NEEDED: Screw-based LED bulbs are made from multiple, small lights, assembled into a typical bulb shape that fits in a regular light socket. LEDs have historically been used for nightlights, flashlights, and holiday lights. However, the technology has recently been adapted for use in mainstream lighting applications.]
[IF NEEDED: CFLs are compact fluorescent light bulbs. The most common type of compact fluorescent bulb is made with a glass tube bent into a spiral, resembling soft-serve ice cream, and it fits in a regular light bulb socket.]
[IF NEEDED: Please only consider screw in bulbs, not linear fluorescents or any other types of bulbs.]
[IF "DON'T KNOW," PROBE: Would you say it is less than or more than five bulbs? Work from there to get an estimate]
1. (RECORD Quantity of screw-in CFL bulbs)
 2. (RECORD Quantity of screw-in LED bulbs)

- 3. (have not purchased any)
- 98. (Don't know) [SKIP TO SECTION F. AFTER 140 COMPLETES SKIP TO SECTION H]
- 99. (Refused) [SKIP TO SECTION F. AFTER 140 COMPLETES SKIP TO SECTION H]

[IF E1.1 AND E1.2 = 0, SKIP TO SECTION F. AFTER 140 COMPLETES SKIP TO SECTION H]

- E2. Did you purchase these bulbs from a *retail* location, such as Menards, hardware store, Walmart, etcetera, or somewhere else like online? [IF NEEDED: By retail store I mean an in-store, retail location such as a Costco, hardware store, grocery store, Walmart, etc. and NOT purchased online]
- 1. (Yes, retail location)
 - 2. (Somewhere else [specify: _____]) [SKIP TO SECTION F]
 - 98. (Don't know) [SKIP TO SECTION F]
 - 99. (Refused) [SKIP TO SECTION F]

[ASK IF E1.1>0 AND E2=1]

- E3. Of the [QUANTITY FROM E1.1] CFL bulbs you purchased, please tell me how many were purchased to be used in your business facility? [NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN CFL BULBS, NOT A RANGE.]
- 1. (RECORD QUANTITY For my business facility)
 - 98. (Don't know)
 - 99. (Refused)

[ASK IF E3>0]

- E4. Of the [QUANTITY FROM E3] CFL bulbs purchased for your facility from a retail outlet in the past 12 months, how many are currently installed?
[NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN CFL BULBS, NOT A RANGE.]

[ASK IF E4>0]

- E5. From which retail store(s) did you purchase the CFL bulbs that are currently installed in your business facility? [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH STORE THAT APPLIES, TOTAL QUANTITY SHOULD EQUAL E4 QUANTITY]
- 1. (Ace Hardware)
 - 2. (Batteries Plus)
 - 3. (Big Lots)
 - 4. (Blain's Farm and Fleet)
 - 5. (Costco)
 - 6. (Do It Best)
 - 7. (Dollar General)
 - 8. (Dollar Tree)
 - 9. (Express Mart)
 - 10. (Family Dollar)
 - 11. (Festival Foods)
 - 12. (Goodwill)
 - 13. (Gordy's)
 - 14. (Habitat Restore)
 - 15. (Home Depot)
 - 16. (Lowe's)
 - 17. (Menards)
 - 18. (Mill's Fleet Farm)

19. (Miner's)
20. (Sams Club)
21. (True Value)
22. (United Hardware)
23. (Walgreens)
24. (WalMart)
25. (Woodman's)
26. (World of Variety)
27. (Other [SPECIFY _____])
28. (Did not buy from a retail store)
98. (Don't know)
99. (Refused)

[ASK IF E1.2>0 AND E2=1]

- E6. Of the [QUANTITY FROM E1.2] screw-in LED bulbs you purchased, please tell me how many were purchased to be used in your business facility? [NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN LED BULBS, NOT A RANGE.]
1. (RECORD QUANTITY For my business facility)
 98. (Don't know)
 99. (Refused)

[ASK IF E6 > 0]

- E7. Of the [QUANTITY FROM E6] screw-in LED bulbs purchased for your facility from a retail outlet in the past 12 months, how many are currently installed?
[NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN LED BULBS, NOT A RANGE.]

[ASK IF E7>0]

- E8. From which retail store(s) did you purchase the screw-in LED bulbs that are currently installed in your business facility? [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH STORE THAT APPLIES, TOTAL QUANTITY SHOULD EQUAL E7 QUANTITY]
1. (Ace Hardware)
 2. (Batteries Plus)
 3. (Big Lots)
 4. (Blain's Farm and Fleet)
 5. (Costco)
 6. (Do It Best)
 7. (Dollar General)
 8. (Dollar Tree)
 9. (Express Mart)
 10. (Family Dollar)
 11. (Festival Foods)
 12. (Goodwill)
 13. (Gordy's)
 14. (Habitat Restore)
 15. (Home Depot)
 16. (Lowe's)
 17. (Menards)
 18. (Mill's Fleet Farm)

- 19. (Miner's)
- 20. (Sams Club)
- 21. (True Value)
- 22. (United Hardware)
- 23. (Walgreens)
- 24. (WalMart)
- 25. (Woodman's)
- 26. (World of Variety)
- 27. (Other [SPECIFY _____])
- 28. (Did not buy from a retail store)
- 98. (Don't know)
- 99. (Refused)

F. Potential Participation / Spillover

The next questions are about energy-efficient improvements you may have made this year, in 2015.

[ASK EVERYONE]

- F1. [IF B3=1 OR 2, READ: "Other than the light bulbs we have already talked about,"] Did you install any energy-efficient equipment in 2015? By energy-efficient equipment, I mean products like high efficiency heating and air, variable speed drives, commercial food service equipment or high efficiency lighting?
- 1. (Yes)
 - 2. (No) [SKIP TO NEXT SECTION]
 - 98. (Don't know) [SKIP TO NEXT SECTION]
 - 99. (Refused) [SKIP TO NEXT SECTION]

[ASK IF F1=1]

F2. What type of energy-efficient improvements, products, or equipment did your business install in 2015? [DO NOT READ LIST; RECORD UP TO 3]

1. (CFLs)
2. (screw-in LEDs)
3. (LED Troffers)
4. (Fluorescent tubes)
5. (Outdoor lighting)
6. (Lighting controls (occupancy sensors, daylighting, timers))
7. (Energy management systems)
8. (Motors)
9. (Air source heat pumps)
10. (Water source heat pump)
11. (Air conditioner)
12. (Chillers)
13. (Variable speed drives (VFD))
14. (Commercial Kitchen Equipment)
15. (Insulation)
16. (furnace)
17. (Other 1 [SPECIFY])
18. (Other 2 [SPECIFY])
19. (Other 3 [SPECIFY])
98. (Don't know)
99. (Refused)

[ASK F3-F5 ABOUT EACH MENTION IN F2 SEPARATELY]

F3. How many [IF F2=15 READ: SQUARE FEET] did you install?

1. [RECORD ANSWER]
98. (Don't know)
99. (Refused)

[ASK ABOUT EACH MENTION IN F2 SEPARATELY] [ASK IF F2 = 4, 5, 8, 9, 11, 12, 14, 16]

F4. Was/Were the [INSERT ANSWER FROM F2] standard efficiency, or high efficiency?

1. (Standard)
2. (High)
98. (Don't know)
99. (Refused)

[ASK ABOUT EACH ITEM MENTIONED IN F2 WHERE F4=2 (high efficiency)]

F5. What resources did you use to determine whether the [INSERT ANSWER FROM F2] was/were high efficiency?

1. [RECORD RESPONSE]
98. (Don't know)
99. (Refused)

[ASK IF F1=1]

- F6. Just to confirm, did you receive an incentive or discount from Focus on Energy for all, some, or none of this equipment? [INTERVIEWER NOTE: This is in reference to the equipment they mentioned in F2; energy efficient equipment installed in 2015.]
1. (All) [SKIP TO NEXT SECTION]
 2. (Some) [ASK F7]
 3. (None) [SKIP TO F8]
 98. (Don't know) [SKIP TO NEXT SECTION]
 99. (Refused) [SKIP TO NEXT SECTION]

[ASK IF F6=2]

- F7. Which equipment? [PROGRAMMING: ONLY LIST ANSWERS GIVEN IN F2 AND SELECT FROM THESE]
1. (CFLs)
 2. (screw-in LEDs)
 3. (LED Troffers)
 4. (Fluorescent tubes)
 5. (Outdoor lighting)
 6. (Lighting controls (occupancy sensors, daylighting, timers))
 7. (Energy management systems)
 8. (High efficiency motors)
 9. (Air source heat pumps)
 10. (Water source heat pump)
 11. (Air conditioner)
 12. (Chillers)
 13. (Variable speed drives (VFD))
 14. (Commercial Kitchen Equipment)
 15. (Insulation)
 16. (Furnace)
 17. (Other 1 [SPECIFY])
 18. (Other 2 [SPECIFY])
 19. (Other 3 [SPECIFY])
 98. (Don't know)
 99. (Refused)

[ASK F8 THROUGH F11IF F6=2 OR 3]

- F8. Why didn't you apply for an incentive from Focus on Energy for all of this equipment? [DO NOT READ LIST; RECORD UP TO 3]
1. (Didn't know I could get an incentive)
 2. (Equipment wasn't qualified for an incentive)
 3. (Didn't have enough time)
 4. (Incentive application process was too complicated)
 5. (Didn't have staff to follow-up)
 6. (Not sure how much savings there would be)
 7. (Didn't see any benefits)
 8. (Not aware of specific programs)
 9. (Other) [SPECIFY]
 98. (Don't know)

99. (Refused)

F9. On a 1 to 5 scale, with 1 meaning “not important”, to 5, meaning the item was “very important” to your decisions, how important were each of the following to your decision to install energy efficient equipment without an incentive from Focus on Energy? [INTERVIEWER NOTE: This is in reference to the equipment they mentioned in E2; energy efficient equipment installed in 2015.]

Statement	Not important				Very important	Don't know	Not applicable
	1	2	3	4	5	98	96
a. Information about energy savings from Focus on Energy marketing or program staff							
b. Information from a contractor							
c. Information from colleagues or friends who installed energy efficient equipment and received an incentive from Focus on Energy							
d. Past participation in a Focus on Energy commercial incentive program							
e. Information from an energy audit conducted at your facility							

[ASK IF F9b ≠ N/A or F9e ≠ N/A]

F10. What was the business name of the contractor with whom you worked or who performed an audit of your facility?

1. ([RECORD: _____])
98. (Don't know / don't recall)
99. (Refused)

F11. Was there anything else that was important in your decision to install energy efficient equipment without an incentive from Focus on Energy? [INTERVIEWER NOTE: This is in reference to the equipment they mentioned in E2; energy efficient equipment installed in 2015.]

1. ([RECORD: _____])
98. (Don't know / don't recall)
99. (Refused)

[SKIP THIS SECTION ONCE WE REACH 140 COMPLETES]

G. Decision Making and Energy Efficiency Attitudes

Now I have a few questions about energy use in your business.

G1. How energy-efficient would you say your business is currently? Would you say...[READ LIST]

1. Very inefficient
2. Somewhat inefficient
3. Somewhat efficient
4. Very efficient
98. (Don't know)

99. (Refused)

[ASK IF G1 IS 1 OR 2 OR 3 OR 4]

G2. What would you say makes your business [G1 RESPONSE]?

- 1. [RECORD RESPONSE]
- 98. (Don't know)
- 99. (Refused)

G3. Does your business have corporate policies about energy efficiency that are considered when purchasing new equipment or making improvements?

- 1. (Yes)
- 2. (No) [SKIP TO G5]
- 98. (Don't know) [SKIP TO G5]
- 99. (Refused) [SKIP TO G5]

[ASK IF G3 = 1]

G4. Which of the following best describes this policy? [READ OPTIONS]

- 1. Your business almost always purchases energy efficient equipment
- 2. Your business purchases energy efficient equipment if it meets payback [IF NEEDED: This refers to longer term costs over time.]
- 3. Your business purchases energy efficient equipment if it meets return on investment criteria
- 4. (Something else) [SPECIFY]
- 98. (Don't know)
- 99. (Refused)

[ASK EVERYONE]

G5. What payback period does your business typically require for energy efficient equipment upgrades? [IF NEEDED: Payback period refers to the amount of time required to recover the cost of the energy efficient equipment upgrades.]

- 1. [RECORD RESPONSE]
- 98. (Don't know)
- 99. (Refused)

G6. Who is the primary decision maker on energy efficiency equipment upgrades? [WE ARE NOT LOOKING FOR SPECIFIC NAMES, JUST TITLES]

- 1. [RECORD RESPONSE]
- 98. (Don't know)
- 99. (Refused)

H. Firmographics

We are almost finished. Now I have a few questions about your company that will help us with our analysis. Your responses will be kept confidential.

- H1. *Is this your company's only location, or do you have multiple locations?
1. (Only location)
 2. (Multiple locations)
 98. (Don't know)
 99. (Refused)
- H2. What is the approximate square footage of heated and cooled space in your facility at [ADDRESS]?
[NUMERIC OPEN END UP TO 1,000,000]
1. [SPECIFY]
 98. (Don't know)
 99. (Refused)
- H3. Is your facility heated primarily with electricity or gas? [REPEAT [ADDRESS] IF NEEDED]
1. (Electricity)
 2. (Gas)
 3. (Electricity and Gas Equally)
 98. (Don't know)
 99. (Refused)
- H4. Does your organization own or lease this facility? [REPEAT [ADDRESS] IF NEEDED]
1. (Own)
 2. (Lease)
 98. (Don't know)
 99. (Refused)

I. Closing

Those are all the questions we have today. Thank you for your time and opinions. Have a great day!

**Focus on Energy Nonresidential Programs
Trade Ally Online Survey 2015**

Researchable Questions		
Key Research Topics	Areas of Investigation	Related Questions
Firmographics	Determine trade ally’s company characteristics	Section D
Marketing and Participation Decision-Making	Awareness of Focus on Energy	E5, F1
	Communication channels	E3-E4
	Key factors and barriers influencing trade ally’s decision to register w/Program	E1-E2
Engagement	Promotion of the programs	F2-F4
	Trade ally’s value propositions	F5
Economic Impact	Economic benefits of Focus on Energy programs	Section G
Satisfaction	Satisfaction with Trade Ally Network and Focus on Energy	Section H
Market Barriers	Specific customer groups that are hard-to-reach, availability and use of financing programs	Section I
Program-Specific Questions	Specific questions for MESP, SBP, AgSG, and BIP	Sections J-M
Fixed Charges	Awareness of the recent fixed cost increases put in place by Wisconsin utilities	Section N

SAMPLE Variables:

- [EMAIL ADDRESS] = Trade ally’s email address
- [COMPANY] = Name of trade ally’s company
- [FIRST NAME] = Trade ally’s first name
- [LAST NAME] = Trade ally’s last name
- [DESIGNATED PROGRAM] = Determines which program module the trade ally will complete

A. Survey Invitation E-mail Message

To: [EMAIL ADDRESS]
 From: Cadmus on Behalf of Focus on Energy
 Subject: Paid Survey Opportunity for Wisconsin Trade Professionals

Dear [FIRST NAME]:

Focus on Energy is interested in hearing from trade professionals involved with energy-efficient equipment or services. We’d like to know more about your experiences so we can improve our programs. We know your time is valuable, so we are offering a **\$50 Visa gift card** for your participation in an online survey. This survey should take approximately 15 minutes.

Follow this link to the survey: [SURVEY LINK]

Or copy and paste this URL into your internet browser: [SURVEY LINK]

Please complete the survey by **October 2, 2015** in order to receive your gift card.

Focus on Energy greatly appreciates your participation. If you have any questions about the survey, please feel free to contact me. Thank you in advance!

Sincerely,
Joe Fontaine

Focus on Energy Evaluation Coordinator
Public Service Commission of Wisconsin
(608) 266-0910
Joe.Fontaine@wisconsin.gov

Follow the link to opt out of future emails:
{!://OptOutLink?d=Click here to unsubscribe}

B. Survey Start Screen



[DISPLAY FOCUS ON ENERGY LOGO]

Welcome! Focus on Energy is conducting a survey of trade allies who have been involved with energy-efficiency equipment or services for which your customer has received an incentive or discount. Our records show that your customers have participated in the [DESIGNATED PROGRAM]. Although we know you or your customers may be involved in other programs that Focus on Energy offers, *for the purposes of this survey, please think about your experiences with the [DESIGNATED PROGRAM] when answering the questions.*

Your responses are very important to us and will be kept confidential. Complete the survey by **October 2, 2015** to receive a **\$50 Visa gift card**. The survey will take approximately 15 minutes.

Your responses are automatically saved and will not be submitted until you complete the survey. You can resume the survey at any time by clicking on the link in your invitation to continue where you left off (as long as you access the survey from the same device.) Press the "Next" to advance to the next question. Press the "Back" button to return to the previous question.

[DISPLAY "BEGIN SURVEY" BUTTON]

A. Firmographics

- A1. How many employees work at your office in Wisconsin? [TEXT ENTRY BOX; NUMERIC VALIDATION 0-999]
- A2. What does your company specialize in? (Select all that apply)
1. Commissioning services
 2. Electrical/lighting
 3. Energy assessments, diagnostics, or ratings
 4. HVAC equipment
 5. Other mechanical systems
 6. Insulation/building envelope
 7. New building construction
 8. Refrigeration
 9. Renewable energy
 10. Renovations
 11. Training/consulting
 12. Other [FORCED TEXT ENTRY RESPONSE]
 99. Don't know

B. Participation Decision-Making and Marketing

[ASK REGISTERED]

- B1. What are the reasons why your company chose to register with Focus on Energy's Trade Ally Network? (Select all that apply)
1. Having my company listed on the Find a Trade Ally tool
 2. Having access to co-branding marketing opportunities
 3. Being able to receive the incentive on my customer's behalf
 4. Have a dedicated Focus on Energy contact
 5. Wanting to learn more about the Focus on Energy Program
 6. To gain a competitive advantage in the marketplace
 7. To be able to advertise my business as a Trade Ally
 8. Other [FORCED TEXT ENTRY RESPONSE]
 99. Don't know

[ASK NONREGISTERED]

- B2. Our records show that you have worked with customers who received incentives from Focus on Energy. What are the main reasons why you have not registered with Focus on Energy's Trade Ally Network? (Select all that apply)
1. No perceived value to being a registered Trade Ally
 2. Unaware of the opportunity to be a registered Trade Ally
 3. I was registered in the past but was removed at one point
 4. I was registered in the past but was removed at one point
 5. I don't have time to complete the registration process
 6. The registration process seemed too time consuming and/or confusing
 7. I have been meaning to register but have not gotten to it yet

- 8. I heard about Focus on Energy or its Trade Ally Network for the first time through this survey
- 9. Other [FORCED TEXT ENTRY RESPONSE]
- 99. Don't know

[ASK REGISTERED]

B3. What is your preferred source for staying informed about Focus on Energy's programs and Trade Ally Network?

- 1. Focus on Energy website
- 2. E-mails
- 3. Meetings
- 4. Newsletters
- 5. My Energy Advisor with Focus on Energy
- 6. My Trade Ally Network peers
- 7. Trainings
- 8. Personal calls from the program representatives
- 9. Other [FORCED TEXT ENTRY RESPONSE]
- 10. Nothing/I don't look for any information
- 99. Don't know

[ASK REGISTERED]

B4. Now we would like to know how useful other information sources are in helping you stay up to date with Focus on Energy programs. Please rank the following communication options from most useful to least useful. (Drag to rearrange the order. The most useful should appear at the top while the least useful appears on the very bottom.) [RANDOMIZE ORDER]

- 1. Focus on Energy website
- 2. E-mails
- 3. Meetings
- 4. Newsletters
- 5. My Energy Advisor with Focus on Energy
- 6. My Trade Ally Network peers
- 7. Trainings
- 8. Personal calls from the program representatives

[ASK NONREGISTERED AND SKIP IF B2=8]

B5. Where did you most recently hear about Focus on Energy's programs? (Select all that apply)

- 1. Contact from a Focus on Energy representative
- 2. Contact from a utility representative
- 3. Focus on Energy newsletter
- 4. Focus on Energy website
- 5. Focus on Energy workshop or event
- 6. From customer(s)
- 7. From friend, family, or colleague
- 8. From other trade professionals
- 9. Other [FORCED TEXT ENTRY RESPONSE]
- 99. Don't know

C. Engagement

- C1. How familiar are you with the various Focus on Energy programs and incentives for business customers?
1. Very familiar
 2. Somewhat familiar
 3. Not very familiar
 4. Not at all familiar

[ASK IF C1 =1, 2, OR 3]

- C2. How often do you promote Focus on Energy programs to customers?
1. All the time
 2. Frequently
 3. Sometimes
 4. Seldom
 5. Never

[ASK IF C2= 3 or 4 or 5]

- C3. Why don't you promote them more often? (Select all that apply)
1. I'm not confident about the details of the programs or who is eligible
 2. It's confusing to the customer
 3. Too much paperwork
 4. For the jobs I do, the incentives are not worth the hassle
 5. I don't like the equipment or products that Focus on Energy promotes
 6. I perceive a financial risk to myself or my customer
 7. I don't like having my work inspected
 8. I heard about Focus on Energy or its Trade Ally Network for the first time through this survey
 9. Other [FORCED TEXT ENTRY RESPONSE]
 99. Don't know

[ASK IF C2= 1, 2]

- C4. What is the greatest benefit of promoting Focus on Energy's [xx Program]? [ALLOW ONLY ONE RESPONSE]
1. The financial incentives for my customer
 2. Increased business
 3. Affiliation with Focus on Energy
 4. Doing something good for the environment
 5. Other [FORCED TEXT ENTRY RESPONSE]
 99. Don't know

[SKIP IF B2=8]

- C5. On a 10-point scale where 0 means “strongly disagree” and 10 means “strongly agree,” please select your level of agreement with the following statements. [DROP DOWN SELECTION MENU WITH RESPONSE CHOICES RANGING FROM 0-10, PLUS “DON’T KNOW”] [RANDOMIZE ORDER]
- A. I play a significant role in educating my customers about energy efficiency
 - B. Focus on Energy introduces me to new business opportunities
 - C. I am interested in getting more resources about business planning and services, such as sales, marketing, customer service
 - D. I find the benefit of being involved with Focus on Energy outweigh any challenges

D. Economic Impact

- D1. So far in 2015, what percentage of your company’s projects were eligible and received an incentive from Focus on Energy this year? These are projects for which you or your customers submitted an application to Focus on Energy for an incentive. Use your best guess.

[DROP DOWN SELECTION MENU WITH RESPONSE CHOICES RANGING FROM 0-100% IN 10% INCREMENTS, PLUS “DON’T KNOW”]

- D2. How has the volume of your sales changed since your involvement with Focus on Energy?
- 1. Significantly increased
 - 2. Somewhat increased
 - 3. Have not changed
 - 4. Somewhat decreased
 - 5. Significantly decreased
 - 99. Don’t know

[ASK IF D2=1 OR 2]

- D3. How has your business changed as a result of the increase in sales? (Select all that apply)
- 1. Hired more staff
 - 2. Added more services
 - 3. Added more products/equipment
 - 4. Expanded our service location
 - 5. Added more vehicles
 - 6. Opened more offices
 - 7. Other [FORCED TEXT ENTRY RESPONSE]
 - 99. Don’t know

E. Satisfaction

[ASK REGISTERED]

- E1. How is Focus on Energy doing when it comes to the following:
[MATRIX WITH RESPONSE CHOICES: EXCELLENT, GOOD, FAIR, POOR, DON'T KNOW, or NOT APPLICABLE] [RANDOMIZE ORDER]
- A. Reaching out to you and keeping you informed about programs and offerings
 - B. Paying you in a timely manner, if you receive the incentive on behalf of your customer
 - C. Making the paperwork easy
 - D. Training you on how to effectively market programs to your customers
 - E. Providing educational opportunities or training resources
 - F. Providing the right amount of support so you can confidently sell and install energy efficiency equipment

- E2. On a 10-point scale where 0 means “not all satisfied” and 10 means “extremely satisfied,” how satisfied are you with Focus on Energy overall? [RESPONSE CHOICES RANGING FROM 0-10, PLUS “DON'T KNOW”]

[ASK NONREGISTERED]

- E3. On a 10-point scale where 0 means “not at all likely” and 10 means “extremely likely,” how likely are you to register with Focus on Energy’s Trade Ally Network in the next year? [RESPONSE CHOICES RANGING FROM 0-10, PLUS “DON'T KNOW”]

[ASK IF E2 <7]

- E4. Besides incentive amounts, what is one important thing Focus on Energy can improve to increase your satisfaction? [TEXT ENTRY BOX; NO FORCED RESPONSE]

[ASK NONREGISTERED AND IF E3<7]

- E5. What is one important thing that Focus on Energy can do to encourage trade professionals, like yourself, to register with the Trade Ally Network? [TEXT ENTRY BOX; NO FORCED RESPONSE]

- E6. Did you receive any Focus on Energy sponsored training either before or after you started offering program services?

1. Yes (please specify the training)
2. No [SKIP TO E9]

[ASK IF E6= 1]

- E7. On a 10-point scale where 0 means “not useful at all” and 10 means “extremely useful,” how useful was the training in providing the information you needed? [RESPONSE CHOICES RANGING FROM 0-10, PLUS “DON'T KNOW”]

[ASK IF E7<7]

- E8. Do you have any recommendations for improving the Focus on Energy sponsored training you received?
[TEXT ENTRY BOX; NO FORCED RESPONSE]

- E9. How frequently do you run into challenges with the incentive application process?
1. Very frequently
 2. Often
 3. Not very often
 4. Almost never
 98. Don't know

[ASK IF E9=1 or 2]

- E10. What are your most frequent challenges? Select all that apply.
1. Too much information required
 2. Too many supporting documents required (e.g., energy savings calculations, contractor invoices)
 3. Takes too much time
 4. Too many requirements for eligible equipment
 5. Difficult to get a hold of program staff when I had questions
 6. Took too long for approval
 7. Other [FORCED TEXT ENTRY RESPONSE]
 8. Don't know

F. Market Barriers and Financing

Please describe the type(s) of customer you find hard to reach or are unwilling to pursue energy-efficient upgrades, and why they are hard to reach. [TEXT ENTRY BOX; NO FORCED RESPONSE]

- F1. When presenting energy-efficiency equipment options to your customers, do you promote any type of financing or loan program options?
1. Yes
 2. No
 3. I would if there were any financing/loan programs available
 4. I am not aware of any financing/loan programs

[ASK IF F1= 1]

- F2. Which financing programs do you promote?
[OPEN END]

G. Multifamily Energy Savings Program Module

- G1. [ASK IF TRADE ALLY = MESP] How effective would you say the financial incentives offered through the Multifamily Energy Savings Program are in encouraging property owners/managers to install energy saving upgrades?
1. Very effective
 2. Somewhat effective
 3. Not too effective
 4. Not at all effective
 5. Don't know

H. Small Business Program Module

[ASK H1-H4 IF TRADE ALLY = SBP]

[ASK H1 IF REGISTERED]

- H1. How satisfied are you with the program support you receive from the Small Business Program energy advisors?
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 5. Don't work with Energy Advisors
 6. Don't know
- H2. LEDs are some of the newest energy-efficient products available to small business customers. How have LEDs impacted your work?
1. Significant impact (increased number of jobs/customers significantly)
 2. Moderate impact (increased number of jobs/customers moderately)
 3. Small impact (increased number of jobs/customers slightly)
 4. No impact (did not increase number of jobs/customers at all)
 5. Don't know
- H3. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the following statements: [MATRIX WITH RESPONSE CHOICES: STRONGLY AGREE, SOMEWHAT AGREE, SOMEWHAT DISAGREE, STRONGLY DISAGREE, OR DON'T KNOW] [RANDOMIZE ORDER]
- A. My customers are satisfied with the split between incentives and co-payment for Small Business Program projects. The Energy Snapshot tool helps me communicate with and persuade customers
 - B. I am well-informed about the requirements and latest changes to the Small Business Program
 - C. The steps I complete to participate in the Small Business Program are more streamlined now than a year ago
 - D. The 2015 Program Packages are easy to communicate
 - E. The equipment types included in the packages and *a la carte* are sufficient for me to provide a comprehensive service to my customer.
- H4. What is one important thing you would suggest Focus on Energy do to improve its Small Business Program? [TEXT ENTRY BOX; NO FORCED RESPONSE]

I. Agriculture, Schools and Government Program Module

[ASK I1-I5- IF TRADE ALLY = AgSG]

[ASK I1-I2 IF REGISTERED]

11. How satisfied are you with the program support you receive from the Agriculture, Schools, and Government energy advisors?
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 5. Don't work with Energy Advisors
 98. Don't know
12. [ASK IF I1= 2, 3, 4] Do you have any recommendations for improving the program-related support you receive from the Agriculture, Schools, and Government energy advisors?
[TEXT ENTRY BOX; NO FORCED RESPONSE]
13. If you participated in an Agriculture Co-Branding Campaign, how satisfied are you with the process of co-branding and marketing?
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 5. Not applicable; did not participate in co-branding
 6. Don't know
- [ASK IF I3 ≠ DK OR NA]
14. Did this campaign help your business sell more projects?
1. Yes
 2. No
 3. Don't know
15. Are there any energy-efficient technologies that the Agriculture, Schools, and Government Program does not currently incent that you believe would benefit your customers?
1. Yes
 2. No

J. Business Incentive Program Module

[ASK I1-J11 IF TRADE ALLY = BIP]

[ASK IF REGISTERED]

- J1. How satisfied are you with the program support you receive from the Business Incentive Program energy advisors?
1. Very satisfied
 2. Somewhat satisfied
 3. Not too satisfied
 4. Not at all satisfied
 5. Don't work with Energy Advisors Don't know

[ASK IF REGISTERED]

- J2. Do you know who your assigned Business Incentive Program Energy Advisor is?
1. Yes
 2. No [SKIP TO J7]

[ASK IF REGISTERED]

- J3. Do you feel your Business Incentive Program Energy Advisor and/or program staff is helpful and knowledgeable in all Focus on Energy programs?
1. Yes
 2. No

[ASK IF REGISTERED]

- J4. Do you feel the level of attention you receive from your Business Incentive Program Energy Advisors is sufficient?
1. Yes, I feel the frequency and communication channels for which I receive updates are sufficient
 2. Yes, but I would like to hear from my Energy Advisor more frequently
 3. No, I do not feel I receive the level of attention I need to be successful in the program

[ASK IF REGISTERED]

- J5. How often would you like to be talking to your Business Incentive Program Energy Advisor? (select one)
1. Weekly
 2. Monthly
 3. Quarterly
 4. Semi-Annual
 5. Annual
 6. Other

[ASK IF REGISTERED]

- J6. For what reasons do you feel it's appropriate for your Business Incentive Program Energy Advisor be in contact with you? (select all that apply)
1. I don't need them to contact me; I will reach out to my Energy Advisor when I feel it's appropriate
 2. I only want to work with them when it's related to a specific project
 3. I want to hear from them with updates on training opportunities and special incentive/program offerings
 4. I prefer to have regular communications, even if it's just to see how my business is doing
 5. Other

[ASK IF REGISTERED]

- J7. What would make you feel more valuable as a Trade Ally for the Business Incentive Program?
1. Being informed on what I'm contributing to the program (energy savings, incentives)
 2. Being able to provide input on the program's design
 3. Being monetarily rewarded for my efforts as a Trade Ally
 4. Nothing, I feel valuable as a Trade Ally under the existing program delivery model
 5. Other
- J8. What topics or tools can Focus on Energy provide more training to better facilitate your understanding or participation in the Business Incentive Program? (Select all that apply)
1. Understanding the Focus on Energy program in general – how incentives are structured, processes, contacts
 2. How to calculate energy savings, payback, and financial incentives
 3. How to identify qualified products (such as DLC or ENERGY STAR)
 4. A refresher on sales techniques or tactics
 5. Other

K. Fixed Charges

- K1. Were you aware of the recent fixed cost increases put in place by WE Energies, Wisconsin Public Service, or Madison Gas and Electric? (These changes impacted the fixed monthly customer charge on electric bills).
1. Yes
 2. No [SKIP TO L1]

[ASK K2-K4 IF K1K1=1]

- K2. To the best of your knowledge, for your customers in these service territories, have the changes impacted your customers' decisions to make the energy-efficient upgrades?
1. Yes
 2. No
 3. Don't know

[ASK IF K2=1]

- K3. How so?
(open end response)

- K4. To the best of your knowledge, how likely do you think it is that these higher fixed costs will impact your customer's future investments in energy efficiency?
1. Very likely
 2. Somewhat likely
 3. Not too likely
 4. Not likely at all
 99. Don't know **[SKIP TO L1]**
- K5. Why do you say that? **[OPEN END]**

L. Gift Card

- L1. Please provide a mailing address so we can send you the \$50 Visa gift card.

Name	<input type="text"/>
Street or PO Address	<input type="text"/>
City	<input type="text"/>
State	<input type="text"/>
Zip Code	<input type="text"/>

[END OF SURVEY MESSAGE]

Success! Your responses have been submitted. Thank you for taking the time to complete our survey. Your Visa gift card will arrive in a few weeks. Please be on the lookout for a business-size envelope from CADMUS. Have a nice day!

**Focus on Energy 2015 RECIP
Customer Interview Guide**

Research Objectives	Item
Determine how customers learned of the Program and how best to reach them	B1-B2
Identify hidden and/or undocumented costs of installing renewable energy projects	C1
Identify non-program sources of customer funding for renewable energy projects	C3
Identify motivations for renewable energy technology adoption and installation	D1
Determine barriers to Program participation and perceived benefits (energy and non-energy related) resulting from program participation and installation of renewable energy technologies.	D2-D4
Assess satisfaction with various program components, including customer response to the RFP process and experience with the committed incentive reduction	E1-E2
Identify potential program improvements	E3-E4
Assess freeridership	Section F
Determine spillover activities	Section G
Firmographics	Section H

Note to Reviewer:

This RECIP interview will be delivered over the phone by Cadmus staff familiar with the program. We plan to complete interviews with ten RECIP participant customers. Where possible, Cadmus will attempt to make appointments via email prior to contacting participants by phone.

Introduction

[READ IF APPOINTMENT WAS MADE]

Hello. I'm [INSERT NAME], calling from Cadmus on behalf of Focus on Energy. Thank you for scheduling some time to talk with me about your experiences with the Renewable Energy Competitive Incentive Program.

[ASK IF NO APPOINTMENT WAS MADE]

Hello. I'm [INSERT NAME], calling from The Cadmus Group on behalf of Focus on Energy. We'd like to talk with you about your experiences with the Renewable Energy Competitive Incentive program sponsored by Focus on Energy. Your answers will be used as part of a study to evaluate and improve Focus on Energy's programs.

May I speak with [INSERT CUSTOMER CONTACT NAME]?

[IF NEEDED]

The Renewable Energy Competitive Incentive Program provides incentives for renewable energy systems installed at eligible Wisconsin organizations through a competitive request for proposals process.

[IF NEEDED]

This phone call is designed to last about 20 minutes. Let me assure you this is not a sales call. This is a fact-finding survey only. Your individual responses will be kept confidential.

A. Screener and Project Confirmation

[ASK IF NO APPOINTMENT MADE]

- A1. Our records show you are the contact person for your organization's participation in Focus on Energy's RECIP Program -- Is that right? [IF NEEDED: The Renewable Energy Competitive Incentive Program provides incentives for renewable energy systems installed through a competitive proposal process]
1. (Yes, on the phone)
 2. (No, but person can come to phone) [START OVER FROM INTRO WITH NEW RESPONDENT]
 3. (No, not available) [SCHEDULE CALLBACK]
 99. (Don't Know) [ASK IF THERE IS SOMEONE THERE TO TALK TO, OTHERWISE TERMINATE]
 98. (Refused) [ASK IF THERE IS SOMEONE THERE TO TALK TO, OTHERWISE TERMINATE]
- A2. And is this a good time to talk? [IF NEEDED AND NOT ALREADY STATED: This phone call is designed to last no longer than 20 minutes. Let me assure you this is not a sales call. We are contacting you to help Focus on Energy improve their programs. Your individual responses will be kept confidential.]
1. (Yes) [CONTINUE]
 2. (No) [SCHEDULE CALL BACK]
 98. (Refused)

[FOR ALL PARTICIPANTS]

- A3. To confirm for our records, what is your title at the company? [DO NOT READ]
1. (Owner)
 2. (President/CEO/COO)
 3. (Senior Vice President/Vice President/Other decision maker)
 4. (Energy Manager)
 5. (Facilities Manager)
 6. (Engineer)
 7. Other: _____
 98. (Refused)

- A4. [IF PROJECT NOT IDENTIFIED AS COMPLETE IN SPECTRUM] Our records show that your [INSERT PROJECT TYPE] was approved by Focus on Energy's RECIP program. Would you please tell me about the current stage of your renewable energy project? [IF NEEDED: For example how far along are you in the project's installation?]
1. [RECORD RESPONSE] _____
 99. (Don't know)
 98. (Refused)

- A5. Did you develop the RECIP project proposal application or did the installation contractor or someone else do that for you?
1. (We completed the application)
 2. (Contractor/vendor completed the application)
 3. (Other) [SPECIFY] _____
 99. (Don't know)
 98. (Refused)

B. Program Awareness and Communication

- B1. How did your organization learn about the RECIP program?
1. [RECORD RESPONSE] _____
 99. (Don't know)
 98. (Refused)
- B2. In the future, how would you like to stay informed about opportunities to save energy and money through Focus on Energy?
1. [RECORD RESPONSE] _____
 99. (Don't know)
 98. (Refused)

C. Costs and Financing

Now I have a few questions about project costs and funding. Please note that your individual responses will be kept confidential and will only be reported in aggregate in the final report.

- C1. I understand that the costs included in your proposal may not fully reflect all of the costs for your renewable energy system. Were there any additional costs you may have paid that were not covered as eligible project costs in your proposal? For example, feasibility studies, property purchases, or equipment leases?
1. [RECORD RESPONSE] _____
 99. (Don't know)
 98. (Refused)

C1a. What was the approximate dollar amount for each of those costs? [Probe for dollar amount for the each of the costs identified in C1] [IF NEEDED: Your best estimate is fine]

1. [RECORD RESPONSE] _____
99. (Don't know)
98. (Refused)

- C2. Approximately what percentage of your total project costs were covered by the RECIP incentive?
1. [RECORD RESPONSE] _____
 99. (Don't know)
 98. (Refused)

C3. Can you describe how you paid for the [100%-Response from C2] of your renewable energy system's costs that were not covered by the RECIP incentive? [READ RESPONSES IF NECCESARY; MULTIPLE RESPONSES POSSIBLE]

1. Cash
2. Line of credit
3. General Business Loan
4. Solar or energy related loan product [PROBE FOR NAME OF LOAN/PROGRAM]
5. Another type of loan [SPECIFY] _____
6. Other grant funding [PROBE FOR SOURCE OF GRANT FUNDING]
7. Tax credits [PROBE FOR SPECIFICS]
8. Other [SPECIFY & PROBE FOR SOURCE (IF APPLICABLE)] _____
99. (Don't know)
98. (Refused)

C3a. Including the RECIP incentive, what is the aggregate value of all financial assistance you received for your renewable energy system (loans, grand funding, tax credits, etc)...?

1. [RECORD RESPONSE] _____
99. (Don't know)
98. (Refused)

[Ask if C3=2, 3, 4, or 5]

C3b. What is the value of your loan(s)?

1. [RECORD RESPONSE] _____
99. (Don't know)
98. (Refused)

[Ask if C3=2, 3, 4, or 5]

C3c. What is the interest rate and term of your loan(s)?

2. [RECORD RESPONSE] _____
99. (Don't know)
98. (Refused)

[Ask if C3=2, 3, 4, or 5]

C3d. Did the loan(s) require a down-payment?

1. (Yes)
2. (No)
99. (Don't know)
98. (Refused)

[Ask if C3b=1]

C3e. What was/were the down payment amount(s)?

- 1. [RECORD RESPONSE] _____
- 99. (Don't know)
- 98. (Refused)

C3f. Are you planning to use the Federal Investment Tax Credit for your system?

- 1. Yes
- 2. No
- 99. (Don't know)
- 98. (Refused)

[Ask if project installation is not complete and C3a=1]

C3g. What plans do you have in place to ensure that your project is operational by December 31, 2016?

- 1. [RECORD RESPONSE] _____
- 99. (Don't know)
- 98. (Refused)

D. Participation Benefits and Barriers

D1. What were the most important factors in your company's decision to submit a proposal to Focus on Energy's RECIP program and install your renewable energy project?

- 1. [RECORD RESPONSE] _____
- 99. (Don't know)
- 98. (Refused)

D2. Other than reducing your energy bills, what benefits has the project provided? *[Probe for both energy and non-energy benefits]*

- 1. [RECORD RESPONSE _____]
- 99. (Don't know)
- 98. (Refused)

D3. In general, what do you see as the most challenging aspects of installing renewable energy projects? [DO NOT READ; MULTIPLE RESPONSES POSSIBLE]

- 1. (High initial cost)
- 2. (Budget limitations)
- 3. (Long payback period)
- 4. (Lack of technical knowledge and resources to pursue renewable energy projects [SPECIFY WHERE TECHNICAL KNOWLEDGE/RESOURCES ARE LACKING: _____])
- 5. (Lack of corporate support for renewable energy investments)
- 6. (Paperwork too complicated and time consuming) [CAN YOU CLARIFY WHAT PART WAS MOST COMPLICATED? (E.G., GOVERNMENT APPROVAL PROCESS, INTERCONNECTION REQUIREMENTS _____)]
- 7. (Replacing equipment without affecting operations)
- 8. (Funding competition for other investments/improvements within organization)

- 9. (Physical aspects of the installation such as siting)
- 10. (Other [SPECIFY: _____])
- 11. (NO CHALLENGES)
- 99. (Don't know)
- 98. (Refused)

D4. How helpful has Focus on Energy been in assisting you in overcoming those challenges? Would you say Focus on Energy has been...[READ LIST]

- 1. Very helpful
- 2. Somewhat helpful
- 3. Not too helpful
- 4. Not at all helpful
- 99. (Don't know)
- 98. (Refused)

D5. What else could Focus on Energy do to help your company with these challenges?

- 1. [RECORD RESPONSE _____]
- 99. (Don't know)
- 98. (Refused)

E. Program Satisfaction and Improvement

E1. Next, I will ask about different aspects of your participation in RECIP. Please tell me if your experience with each aspect has been excellent, good, fair, or poor. If something does not apply, please let me know.

Let's start with [INSERT FROM LIST BELOW]. Would you say your experience has been excellent, good, fair, or poor with ... [RECORD ONE OPTION FOR EACH] [RECORD VERBATIM COMMENTS AND PROBE FOR REASONING]

- 1. The competitive bidding process
- 2. [Ask if A5=1] Developing the RECIP proposal application
- 3. The committed incentive reduction [IF NEEDED: This refers to the agreement as part of the proposal that the winner agrees to refund a portion of reward for failure to meet proposed scope of work or project completion date]
- 4. Completing post-installation paperwork
- 5. Communication with Focus on Energy representatives

E2. On a 10-point scale where 0 means "not all satisfied" and 10 means "extremely satisfied," how satisfied are you with Focus on Energy overall?

- 1. [RECORD RESPONSE] _____
- 99. (Don't know)
- 98. (Refused)

[ASK IF E2 <7]

E3. What is the most important thing Focus on Energy can improve to increase your satisfaction?

- 1. [RECORD RESPONSE] _____
- 99. (Don't know)
- 98. (Refused)

- E4. Do you have any other suggestions for how Focus on Energy could improve the RECIP program?
1. [RECORD RESPONSE] _____
 99. (Don't know)
 98. (Refused)

F. Freeridership

Next I have some questions to learn more about your decision to install the [INSERT PROJECT AND SIZE] and the influence of the Focus on Energy RECIP.

- F1. First, would your organization have installed the [INSERT PROJECT] without the incentives offered through the RECIP program?
1. Yes
 2. No
 99. (Don't know)
 98. (Refused)
- F2. I will read four statements and would like you to select the one that best describes where you were in the planning of your project's installation when you first learned of Focus on Energy's RECIP program. [READ ALL AND SELECT ONE]
1. We had no formal plans for the project.
 2. We had already spoken to installation contractors but had not received any quotes for the project.
 3. We had already spoken to installation contractors and had received a quote.
 4. We had received a quote and were preparing to move forward with the selected renewable energy system
 99. (Don't know)
 98. (Refused)
- F3. Prior to participating in the RECIP, was the [INSERT PROJECT] included in your organization's capital or operating budget?
1. (Yes)
 2. (No)
 99. (Don't know)
 98. (Refused)
- F4. [IF YES TO F3] Did your capital or operating budget assume that the [INSERT PROJECT] would receive an incentive through RECIP?
1. (Yes)
 2. (No)
 99. (Don't know)
 98. (Refused)

- F5. [IF YES TO F1] Without the RECIP program, would you have installed... [READ LIST AND SELECT ONE]
1. The same size system
 2. A smaller system
 3. No system at all
 99. (Don't know)
 98. (Refused)
- F6. [IF YES TO F1] Without the RECIP incentive, would you have installed the renewable energy project... [READ LIST; WHEN RESPONSE SELECTED, SKIP TO SECTION G]
1. Within the same year [SKIP TO SECTION G/SPILLOVER]
 2. Within one to two years [SKIP TO SECTION G/SPILLOVER]
 3. Within three to five years [SKIP TO SECTION G/SPILLOVER]
 99. (Don't know) [SKIP TO SECTION G/SPILLOVER]
 98. (Refused) [SKIP TO SECTION G/SPILLOVER]
- F7. [ASK IF NO TO F1] To confirm, when you say you would not have installed the same [INSERT PROJECT], do you mean that without the incentive from RECIP, that you would not have installed [INSERT PROJECT] at all?
1. Yes [SKIP TO SECTION G/SPILLOVER]
 2. No
 99. (Don't know)
 98. (Refused)
- F8. [ASK IF NO TO F1] Without the RECIP program, would you have installed... [READ LIST AND SELECT ONE]
1. The same size system
 2. A smaller system
 3. No new system at all
 99. (Don't know)
 98. (Refused)
- F9. [ASK IF NO TO F1] And finally, would you have installed the [INSERT PROJECT]... [READ LIST AND SELECT ONE]
1. Within the same year
 2. Within one to two years
 3. Within three to five years
 99. (Don't know)
 98. (Refused)

G. Spillover

- G1. Since installing your renewable energy system, has your company installed additional renewable energy equipment at this location or others in Wisconsin **for which you did not receive a Focus on Energy program incentive?**
1. (Yes)
 2. (No) [SKIP TO G4]
 99. (Don't know) [SKIP TO CLOSING SECTION]
 98. (Refused) [SKIP TO CLOSING SECTION]
- G2. What type of renewable energy system did you install?
1. [RECORD RESPONSE] _____
 99. (Don't know)
 98. (Refused)
- G3. How important was your experience with the Focus on Energy RECIP Program in your decision to install additional renewable energy equipment? Would you say: [READ LIST]
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not important at all
 99. (Don't know)
 98. (Refused)
- G4. Since participating in the program, has your company made any energy efficiency improvements or installed any additional energy-efficient equipment for which you did not receive a Focus on Energy program incentive? [IF NEEDED: By energy-efficient products, I mean high efficiency lighting such as T5s or high performance T8s; high efficiency motors and variable speed drives; high efficiency air conditioners and heat pumps, efficient heating or water heating equipment, etc.]
1. (Yes)
 2. (No) [SKIP TO CLOSING SECTION]
 99. (Don't know) [SKIP TO CLOSING SECTION]
 98. (Refused) [SKIP TO CLOSING SECTION]
- G5. What type of energy-efficient improvements or equipment, and how many, did your organization install? [MULTIPLE RESPONSE] [OPEN END. 99= Don't Know. 98= Refused. 96=N/A].
1. (RECORD EQUIPMENT: _____ QUANTITY: _____)
 2. (RECORD EQUIPMENT: _____ QUANTITY: _____)
 3. (RECORD EQUIPMENT: _____ QUANTITY: _____)
 4. (RECORD EQUIPMENT: _____ QUANTITY: _____)

- G6. How important was your experience with the Focus on Energy RECIP Program in your decision to purchase and install additional efficient equipment? Would you say:
1. Very important
 2. Somewhat important
 3. Not too important
 4. Not important at all
 99. (Don't know)
 98. (Refused)

H. Customer Firmographics

Finally, I would like to ask you some questions about your company. These questions will help us with our analysis and your answers are strictly confidential.

- H1. What industry is your company in? [CODE ONE RESPONSE BELOW; DON'T READ UNLESS NECESSARY]
1. (Agriculture, Mining)
 2. (Communications)
 3. (Construction)
 4. (Education)
 5. (Finance, Insurance, Real Estate)
 6. (Food Service (restaurants))
 7. (Government)
 8. (Health Care)
 9. (Manufacturing)
 10. (Nonprofit / churches / schools)
 11. (Retail, Wholesale)
 12. (Transportation)
 13. (Hotel/motels)
 14. (Other [SPECIFY: _____])
 99. (DON'T KNOW)
 88. (Refused)
- H2. Does your organization lease or own the facility served by the renewable energy project?
1. (Lease)
 2. (Own)
 3. (Other [SPECIFY: _____])
 99. (DON'T KNOW)
 88. (REFUSED)
- H3. How many people are employed at this location?
1. [RECORD NUMBER: _____]
 99. DON'T KNOW
 88. REFUSED

Thank you. We appreciate your help with this survey. Have a nice day.

**Focus on Energy RECIP
2015 Trade Ally Interview Guide**

Research Topics	Survey Questions
Determine how Trade Allies learned of the Program and how best to reach them	B1-B2
Explore Trade Ally roles and involvement in RECIP, including customer promotion and experience with the competitive bid process	A2-A4; C1-C12
Explore Trade Ally perceived benefits to program participation, including economic benefits	D1; D6-D7
Identify barriers to program participation, renewable energy equipment installation, and technology adoption	D2-D3
Assess how effectively the program is encouraging Trade Allies and customers to participate in the program.	D4-D5
Assess Trade Ally satisfaction with various Program components, including their experience with the committed incentive reduction, and potential Program improvements	E1-E4
Firmographics	F1-F3

A. Introduction

*Note: Interviews will be scheduled via email prior to calls which will explain the full purpose of the survey.
[ASK TO SPEAK WITH PERSON LISTED ON CONTACT LIST]*

[IF INTERVIEW NOT SCHEDULED]

Hello, my name is _____.

I am from Cadmus calling on behalf of Focus on Energy. We are contacting contractors involved in the Renewable Energy Competitive Incentive Program (or RECIP) to get their feedback on how the program is going and to hear about your experiences.

[IF NEEDED: The Renewable Energy Competitive Incentive Program (RECIP) provides incentives for renewable energy systems installed at eligible Wisconsin organizations through a competitive request for proposals (RFP) process. While you may also have experience with Focus on Energy’s Renewable Rewards program, which offers rebates for geothermal heat pump and solar electric installations, for the purposes of this conversation I’d like to focus on your experiences with RECIP.]

[IF EMAIL SENT] You may have received an e-mail earlier this week asking you to participate in this conversation about your experiences with the Focus on Energy renewable energy program.

A1. Is this a good time to talk? [If not, what is a good time for me to call you?]

[SCHEDULE APPOINTMENT] _____

[If needed: The interview usually takes about 30 minutes. Please note that your responses are completely confidential.]

A2. What types of renewable energy projects does your company install? [Probe for specific technologies]

1. [Record Response] _____
98. (Don't know)
99. (Refused)

A3. Approximately how many projects has your company installed through the RECIP program?

1. [Record Response] _____
98. (Don't know)
99. (Refused)

A4. When did your company first start working with the RECIP program?

1. [Record Response] _____
98. (Don't know)
99. (Refused)

B. Program Awareness

B1. How did you or your company learn about the RECIP program?

1. Focus on Energy website
2. E-mails
3. Meetings
4. Newsletters
5. My Energy Advisor with Focus on Energy
6. My Trade Ally Network peers
7. Trainings
8. Personal calls from the program representatives
9. Previously participated in program
10. Customer
11. Other [SPECIFY]
12. Nothing/I don't look for any information
98. Don't know

- B2. What is your preferred source for staying informed about Focus on Energy's RECIP program?
1. Focus on Energy website
 2. E-mails
 3. Meetings
 4. Newsletters
 5. My Energy Advisor with Focus on Energy
 6. My Trade Ally Network peers
 7. Trainings
 8. Personal calls from the program representatives
 9. Other [SPECIFY]
 10. Nothing/I don't look for any information
 98. Don't know

C. Trade Ally Involvement and Customer Promotion

- C1. Now I'd like to talk about the some of the ways you are involved with RECIP customers, other than the actual installation of the project. Do you ever...[Indicate Yes=1, No=2, Don't know=98, or Refused=99]
1. Help customers determine which type of renewable energy project to install?
 2. Develop RECIP project proposals for customers?
 3. Complete post-installation paperwork?
 4. Are there other ways you work with RECIP customers? (If Yes, Please specify_____)

[ASK IF C1.2=2]

- C2. You mentioned that you develop RECIP project proposals. Can you tell me a little about how this process works? [**Probe:** For example do you develop the whole proposal or just certain parts? How do you determine the project's funding needs?]
1. [RECORD RESPONSE] _____
 98. (Don't know)
 99. (Refused)

- C3. Does your company promote the RECIP opportunities to customers?
1. (Yes)
 2. (No)
 98. (Don't know)
 99. (Refused)

[Ask if C3=1]

- C4. How often do you promote the RECIP program to customers? Would you say you promote the program...[READ LIST]
1. All the time
 2. Frequently
 3. Sometimes
 4. Seldom
 5. Never

[ASK IF C3=1]

- C5. How does your company promote the RECIP opportunities to customers?
1. [RECORD RESPONSE] _____
 98. (Don't know)
 99. (Refused)

[ASK IF C4= 3 or 4 or 5]

- C6. Why don't you promote them more often?
1. [RECORD RESPONSE] _____
 98. (Don't know)
 98. (Refused)

- C7. How often is obtaining financing a barrier for your customers who are interested in installing renewable energy projects?
1. Always
 2. Sometimes
 3. Rarely
 4. Never
 98. (Don't know)
 99. (Refused)

- C8. Have you heard of Focus on Energy's renewable loan fund? [IF NEEDED: The Public Service Commission of Wisconsin recently ordered that Focus on Energy use \$10 million Focus on Energy use \$10 million to fund a revolving loan pilot program, which is projected to begin in 2016 or 2017. The program has not yet been implemented, but the renewable loan fund will be available to all individuals and businesses who are building new renewable energy production facilities in Wisconsin, as a loan option within the existing Renewable Rewards and RECIP Programs.]
1. Yes
 2. No [SKIP TO C11]
 98. (Don't know)
 99. (Refused)

- C9. How interested do you think your customers will be in the renewable loan fund? What makes you say that?
1. [RECORD RESPONSE] _____
 98. (Don't know)
 99. (Refused)

- C10. What impact, if any, do you think this renewable loan fund will have on customer decision making? [Probe for impact/importance of renewable loan fund versus RECIP, and whether customers would be more or less receptive to the loan fund than RECIP]
1. [RECORD RESPONSE] _____
 98. (Don't know)
 99. (Refused)

- C11. When presenting renewable energy options to your customers, do you promote any type of existing financing or loan program options? [Note to interviewer: This refers to existing financing opportunities, not the revolving loan fund.]
1. Yes
 2. No
 3. I would if there were any financing/loan programs available
 4. I am not aware of any financing/loan programs
98. (Don't know)
98. (Refused)

[ASK IF C11= 1]

- C12. Which financing programs do you promote?
1. [RECORD RESPONSE] _____
 98. (Don't know)
 99. (Refused)

D. Program Benefits, Barriers and Effectiveness

- D1. What do you see as the greatest benefits for renewable energy providers participating in Focus on Energy's RECIP program?
1. [RECORD RESPONSE] _____
 98. (Don't know)
 99. (Refused)
- D2. What challenges have you experienced while participating in RECIP?
1. [RECORD RESPONSE] _____
 98. (Don't know)
 99. (Refused)
- D3. What could Focus on Energy do to help you or other renewable energy providers overcome these challenges?
1. [RECORD RESPONSE] _____
 98. (Don't know)
 99. (Refused)
- D4. Overall, how effective do you think RECIP is at helping to encourage customers to install renewable energy projects? Would you say the program is...[READ LIST]
1. Very effective
 2. Somewhat effective
 3. Not too effective
 4. Not at all effective
98. (Don't know)
99. (Refused)

- D5. What are your reasons for saying [INSERT RESPONSE]?
1. [RECORD RESPONSE] _____
 98. (Don't know)
 99. (Refused)
- D6. Has RECIP helped drive renewable energy installation sales for you company?
3. Yes
 4. No
 98. (Don't know)
 99. (Refused)
- D7. What makes you say that?
1. [RECORD RESPONSE] _____
 98. (Don't know)
 99. (Refused)

E. Program Satisfaction, and Improvement

- E1. Next, I will ask about different aspects of your participation in the RECIP program. Please tell me if your experience with each aspect has been excellent, good, fair, or poor. If something does not apply, please let me know.

Let's start with [INSERT 1]. Would you say your experience has been excellent, good, fair, or poor with ... [RECORD ONE OPTION FOR EACH] [RECORD VERBATIM COMMENTS AND PROBE FOR REASONING]

1. The competitive bidding process [**Probe:** Competitive bidding process vs. prescriptive/custom incentives for renewable energy technology; What Trade Allies like/do not like about the competitive bid process.]
 2. [Ask If involved in RFP] The clarity of the RFPs issued by Focus on Energy
 3. [Ask If involved in RFP] Proposal evaluation criteria [**Probe:** How clear was the explanation of evaluation criteria? What has been their experience with evaluation criteria changes?]
 4. [Ask If involved in RFP] The committed incentive reduction
 5. [Ask if involved in completing post-installation paperwork] Completing post-installation paperwork
 6. Communication with Focus on Energy representatives [NOTE FOR INTERVIEWERS: Includes any contact with Focus on Energy]
- E2. On a 10-point scale where 0 means "not all satisfied" and 10 means "extremely satisfied," how satisfied are you with Focus on Energy overall?
1. [RECORD RESPONSE] _____
 98. (Don't know)
 99. (Refused)

[ASK IF 0 <7]

- E3. What is the most important thing Focus on Energy can improve to increase your satisfaction?
1. [RECORD RESPONSE] _____
 98. (Don't know)
 99. (Refused)
- E4. Do you have any suggestions for how Focus on Energy could improve the RECIP program?
1. [RECORD RESPONSE] _____
 98. (Don't know)
 99. (Refused)

F. Firmographics

Lastly, I have a couple of questions about your company.

- F1. How many people are employed at your company in Wisconsin?
1. [RECORD NUMBER] _____
 98. (Don't know)
 99. (Refused)
- F2. How would you characterize your company's business? [IF NEEDED: For example, engineering firm, design firm, renewable energy provider, consulting company, etc.]
1. [RECORD RESPONSE] _____
 98. (Don't know)
 99. (Refused)
- F3. What are the primary services you provide to your customers [IF NEEDED: not just RECIP customers but all of your customers]?
1. [RECORD RESPONSE] _____
 98. (Don't know)
 99. (Refused)

**Focus on Energy Nonresidential – Small Business Program
Participant Customer Survey 2015**

Researchable Questions		
Key Research Topics	Areas of Investigation	Related Questions
Introduction and screening	--	A1-A2
Verification	Confirm installation of measures	B1-B5
Marketing and Outreach	Communication channels	C1, C2, M1
Decision-making	Key factors influencing customers' decision to participate in program	D1-D2
Barriers	Obstacles to installing high-efficiency products	E1-E2
LED and CFL Purchases	Quantify bulbs purchased through retailers that participate in the residential lighting program	F1-F7
Free Energy Assessment	Assess importance of the free energy assessment service in participants' decision to install products	G1-G3
Net-To-Gross	Determine freeridership	H1-H12
	Determine spillover	I1-I6
Satisfaction	Assess satisfaction with various program components and reasons for dissatisfaction among participants	J1-J5
Fixed Charge Increases	Understand awareness and impact of recent fixed cost increases for certain utility customers	K1-0
Firmographics	Determine building and company characteristics of participants	C2-L2

Interviewer instructions are in green.

CATI programming instructions are in red.

Words in parenthesis should not be read to respondent

*Indicates core questions

[Quota=70 completes]

BACKGROUND: Focus on Energy's Small Business Program provides a free energy assessment to small business customers by a Focus on Energy-trained contractor. The assessment follows up with recommendations on energy-saving improvements that customers can choose to implement.

SAMPLE Variables:

- [PHONE] Phone 1 Area Code and Phone 1 Column J, K, L
- [COMPANY] Site Name Column H
- [CONTACT] First Name 1 and Last Name 1 N/A
- [ADDRESS] Address and City Columns Z-AC
- [UTILITY] Utility Name – Column AJ

A. Introduction and Screening

- A1. Hello, may I speak with [CONTACT] OR [IF NO NAME] may I speak with the person who handles energy decisions for your company? [IF NOT AT THIS LOCATION, ASK FOR PHONE NUMBER AND NAME AT CORRECT LOCATION AND CALL RESPONDENT]
1. (Yes) [CONTINUE WITH RESPONDENT ON PHONE]
 88. (Refused) [THANK AND TERMINATE]

Back-up information, not to be programmed:

[If “No – Not available,” ask if Respondent would like to arrange a more convenient time for us to call them back or if you can leave a message for that person.]

[IF RESPONDENT ASKS HOW LONG, SAY: “APPROXIMATELY 20 MINUTES.”]

[IF NEEDED:] This survey is for research purposes only and this is not a marketing call. Your participation in this study is important so that Focus on Energy can improve the energy efficiency programs it offers to businesses and other organizations.

[Only if asked for a Focus on Energy contact to verify the survey authenticity, offer Joe Fontaine with the Public Service Commission of Wisconsin, 608-266-0910.]

- A2. Hello, I am [INSERT NAME] calling with a short survey on behalf of Wisconsin’s Focus on Energy Small Business program. Are you the person responsible for making products decisions regarding energy efficiency at your company? [IF NEEDED: Focus on Energy is a statewide program overseen by the Wisconsin Public Service Commission to encourage energy efficiency.]
1. (Yes)
 2. (No, but person can come to phone) [START OVER AT A2 WITH NEW RESPONDENT]
 3. (No, not available [SCHEDULE CALLBACK]
 99. (Don’t know) [ASK TO SPEAK WITH SOMEONE WHO WOULD KNOW AND START AGAIN]
 88. (Refused) [THANK AND TERMINATE]

- A3. *Our records show that this year you installed energy efficient light bulbs and other energy-saving products through Focus on Energy’s Small Business program at [INSERT ADDRESS]. Is that correct?
1. (Yes)
 2. (No, wrong address) [RECORD CORRECT ADDRESS]
 3. (No, I did not install any products) [THANK AND TERMINATE]
 99. (Don’t Know) [Is there someone we could speak with that would know this? Record name and contact information:_____]
 88. (Refused) [THANK AND TERMINATE]

[THANK AND TERMINATE TEXT]

For this survey we are only including businesses that installed energy efficient light bulbs and other energy-saving products through Focus on Energy's Small Business program. We do appreciate your taking our call. Thank you and have a good [evening/day].

B. Verification

- B1. Are all of the light bulbs and other energy efficient products your contractor installed still in-place and operating as planned?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

[ASK IF B1=2]

- B2. Which products are no longer installed or operating as planned? [DO NOT READ LIST, SELECT ALL THAT APPLY]
1. (Faucet aerators)
 2. (Pipe wrap)
 3. (Showerheads)
 4. (Vending machine controllers)
 5. (CFL bulbs)
 6. (LED "open" signs)
 7. (LED lamps)
 8. (LED "exit" signs)
 9. (LED lighting fixtures)
 10. (Occupancy sensors)
 11. (High performance T8 lighting fixtures)
 12. (Other) [SPECIFY]
 99. (Don't know)
 88. (Refused)

[ASK IF B1=2] [ASK FOR EACH RESPONSE SELECTED IN B2]

- B3. Why are the [RESPONSE FROM B2] no longer installed or operating?
[OPEN END]

[ASK B4-B5 IF B1=2] [ASK FOR EACH RESPONSE SELECTED IN B2]

- B4. How many [RESPONSE FROM B2] did your contractor originally install?
[OPEN END NUMERIC]
- B5. And how many [RESPONSE FROM B2] are installed and operating now?
[OPEN END NUMERIC]

C. Marketing and Outreach

C1. *How did your company learn about the discounts available for energy efficient products through Focus on Energy's Small Business Program? [DO NOT READ LIST; MULTIPLE RESPONSES POSSIBLE] [IF RESPONDENT MENTIONS WEBSITE CLARIFY IF UTILITY OR FOCUS ON ENERGY WEBSITE SO YOU KNOW HOW TO CODE ANSWER ON LIST.]

1. (Contact with Focus on Energy representative through phone, email, or in person)
2. (Focus on Energy monthly newsletter)
3. (Focus on Energy website)
4. (Focus on Energy sponsored workshop or event)
5. (Focus on Energy printed program materials)
6. (Contact with utility representative)
7. (Utility mailing, bill insert, or utility Website)
8. (Word of mouth: family, friend, or business colleague)
9. (Contacted by a contractor or vendor through phone, email or in person)
10. (Previously participated in program/received an incentive)
11. (Through a trade association or professional organization
[SPECIFY: _____])
12. (Other [SPECIFY: _____])
99. (Don't know)
88. (Refused)

C2. *What industry is your company in? [SINGLE RESPONSE; DON'T READ UNLESS NECESSARY]

1. (Agriculture, Mining)
2. (Communications)
3. (Construction)
4. (Education)
5. (Finance, Insurance, Real Estate)
6. (Food Service (restaurants))
7. (Government)
8. (Health Care)
9. (Hotel/motels)
10. (Manufacturing)
11. (Nonprofit / churches / schools)
12. (Property Management)
13. (Retail, Wholesale)
14. (Transportation)
15. (Other [SPECIFY: _____])
99. (Don't know)
88. (Refused)

D. Decision Making

Now I'd like to understand more about how your company made decisions about participating in Focus on Energy's Small Business program offerings.

- D1. *What factor was **most** important to your company's decision to make these energy-efficient upgrades through the Small Business program? [DO NOT READ LIST; SINGLE RESPONSE]
1. (To save money on energy bills, reduce energy consumption or energy demand)
 2. (To obtain a program or bonus incentive)
 3. (To obtain a tax credit)
 4. (To replace old (but still functioning) products)
 5. (To replace broken products)
 6. (To enhance performance of our system(s))
 7. (To improve comfort)
 8. (The contractor's recommendation)
 9. (Other [SPECIFY _____])
 99. (Don't know)
 88. (Refused)
- D2. *What would you say are the main benefits your company has experienced as a result of the energy efficiency upgrades through the Small Business program? [DO NOT READ LIST; RECORD ALL THAT APPLY; PROBE FOR MULTIPLE RESPONSES]
1. (The incentive/discounted energy-efficient products)
 2. (Using less energy, reducing energy consumption or energy demand)
 3. (Saving money on our utility bills; lower energy bills)
 4. (Increased occupant comfort)
 5. (Better aesthetics/better or brighter lighting)
 6. (Saving money on maintenance costs)
 7. (Other [SPECIFY: _____])
 8. (No benefits)
 99. (Don't know)
 88. (Refused)

E. Barriers

- E1. *I'm going to read you a list of challenging scenarios that companies face when purchasing new appliances or considering energy-efficient improvements. Please tell me whether you agree with these statements. The first statement is: [RANDOMIZE ORDER] [READ STATEMENT; THEN JUST FOR THE FIRST STATEMENT READ THE FOLLOWING: Would you say you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree?] [READ LIST AND RECORD 1=STRONGLY AGREE, 2=SOMEWHAT AGREE, 3=NEITHER AGREE NOT DISAGREE, 4=SOMEWHAT DISAGREE, AND 5=STRONGLY DISAGREE; 97= NOT APPLICABLE, 99=DON'T KNOW, AND 88=REFUSED] [RANDOMIZE ORDER OF SCENARIOS]
- A. Making upgrades at our facility is an inconvenience.
 - B. Generally, making energy efficiency upgrades to this facility is too costly.
 - C. Our existing heating and cooling systems work fine, and we don't replace working products, even if it is not energy efficient.
 - D. My company leases space, so does not want to invest in energy efficiency upgrades.
 - E. Proposed capital upgrades must meet a certain return on investment and energy efficiency is not a major consideration when determining the return on investment.

- F. Decisions about products upgrades are made at a corporate office, and we don't have much input at this facility.
- G. My company has made all the energy efficiency improvements we can without a substantial investment.

E2. *What could be done to help your company overcome these challenges? [DO NOT READ LIST, ALLOW MULTIPLE RESPONSES]

- 1. (Nothing)
- 2. (Higher incentives)
- 3. (Provide upfront rewards)
- 4. (Offer low-interest loans)
- 5. (Simplify the paperwork)
- 6. (Provide better/more information about program [SPECIFY WHAT TYPE OF INFORMATION THEY NEED:_____])
- 7. (Provide an energy audit)
- 8. (Other [RECORD VERBATIM ANSWER_____])
- 99. (Don't know)
- 88. (Refused)

F. LED and CFL Purchases

Now I'd like to ask you about light bulb purchases other than those that you purchased through your contractor.

F1. In the last 12 months, approximately how many screw-in CFL bulbs and how many screw-in LED bulbs did you or someone in your organization purchase in-store from a retailer, outside of the bulbs you received from the Small Business program? Please try to estimate the total number of **bulbs**, and not packages. Also, please consider only screw-in bulbs purchased from a retail store, and NOT online. [IF NEEDED: By retail store I mean an in-store, retail location of a Costco, hardware store, grocery store, Walmart, etc. and NOT purchased online] [Only consider bulbs not purchased from your contractor or online.](IF "DON'T KNOW," PROBE: Would you say it is less than or more than five bulbs? [WORK FROM THERE TO GET AN ESTIMATE] [IF NEEDED: Please only consider screw in bulbs, not linear fluorescents or any other types of bulbs.]

- 1. (RECORD Quantity of screw-in CFL bulbs)
- 2. (RECORD Quantity of screw-in LED bulbs)
- 99. (Don't know)
- 88. (Refused)

[ASK IF F1.1>0]

F2. Where are these [QUANTITY FROM F1.1] screw-in CFL bulbs being used? How many were purchased to be used in your business facility, in your residence or, if applicable, in residential facilities that you build or own, including apartments? [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH APPLICATION THAT APPLIES]

- 1. (RECORD QUANTITY For my business facility)
- 2. (RECORD QUANTITY For your residence)
- 3. (RECORD QUANTITY For residential facilities or apartments that I build or own)
- 99. (Don't know)
- 88. (Refused)

[ASK IF F2.1>0]

F3. Of the [QUANTITY FROM F2.1] screw-in CFL bulbs purchased for your facility from a retail outlet in the past 12 months, how many are currently installed?

[NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN CFL BULBS, NOT A RANGE.]

[ASK IF F3>0]

F4. From which retail store(s) did you purchase the screw-in CFL bulbs that are currently installed in your business facility? [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH STORE THAT APPLIES, TOTAL QUANTITY SHOULD EQUAL F3 QUANTITY]

1. (Ace Hardware)
2. (Batteries Plus)
3. (Big Lots)
4. (Blain's Farm and Fleet)
5. (Costco)
6. (Do It Best)
7. (Dollar General)
8. (Dollar Tree)
9. (Express Mart)
10. (Family Dollar)
11. (Festival Foods)
12. (Goodwill)
13. (Gordy's)
14. (Habitat Restore)
15. (Home Depot)
16. (Lowe's)
17. (Menards)
18. (Mill's Fleet Farm)
19. (Miner's)
20. (Sams Club)
21. (True Value)
22. (United Hardware)
23. (Walgreens)
24. (WalMart)
25. (Woodman's)
26. (World of Variety)
27. (Other [SPECIFY _____])
28. (Did not buy from a retail store)
99. (Don't know)
88. (Refused)

[ASK IF F1.2>0]

- F5. Where are these [QUANTITY FROM F1.2] screw-in LED bulbs being used? Were they purchased to be used in your business facility, in a residence or, if applicable, in residential facilities that you build or own, including apartments? [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH APPLICATION THAT APPLIES]
1. (RECORD QUANTITY For my business facility)
 2. (RECORD QUANTITY For a residential application)
 3. (RECORD QUANTITY For residential facilities or apartments that I build or own)
 99. (Don't know)
 88. (Refused)

[ASK IF F5.1>0]

- F6. Of the [QUANTITY FROM F5.1] screw-in LED bulbs purchased for your facility from a retail outlet in the past 12 months, how many are currently installed?
[NUMERIC OPEN END: RECORD NUMBER OF SCREW-IN LED BULBS, NOT A RANGE.]

[ASK IF F6>0]

- F7. From which retail store(s) did you purchase the screw-in LED bulbs that are currently installed in your business facility? [MULTIPLE, NUMERIC RESPONSE: PROVIDE QUANTITY FOR EACH STORE THAT APPLIES, TOTAL QUANTITY SHOULD EQUAL F6 QUANTITY]
1. (Ace Hardware)
 2. (Batteries Plus)
 3. (Big Lots)
 4. (Blain's Farm and Fleet)
 5. (Costco)
 6. (Do It Best)
 7. (Dollar General)
 8. (Dollar Tree)
 9. (Express Mart)
 10. (Family Dollar)
 11. (Festival Foods)
 12. (Goodwill)
 13. (Gordy's)
 14. (Habitat Restore)
 15. (Home Depot)
 16. (Lowes)
 17. (Menards)
 18. (Mill's Fleet Farm)
 19. (Miner's)
 20. (Sams Club)
 21. (True Value)
 22. (United Hardware)
 23. (Walgreens)
 24. (WalMart)
 25. (Woodman's)
 26. (World of Variety)
 27. (Other [SPECIFY _____])
 28. (Did not buy from a retail store)

- 99. (Don't know)
- 88. (Refused)

G. Free Energy Assessment

- G1. A Focus on Energy contractor performed a free walk-through energy assessment of your facility and afterwards sent you a copy of the assessment report with recommendations and other information. Do you recall receiving this energy assessment report?
- 1. (Yes)
 - 2. (No) [SKIP TO G3]
 - 99. (Don't know) [SKIP TO G3]
 - 88. (Refused) [SKIP TO G3]
- G2. Would you say that you followed through with some, most, or all of the recommendations outlined in the energy assessment report?
- 1. (Some)
 - 2. (Most)
 - 3. (All)
 - 99. (Don't know)
 - 88. (Refused)
- G3. I am now going to mention different parts of the free energy assessment service. Please tell me how important each part was in your decision to install energy-efficient products. Please indicate if it was very important, somewhat important, not too important, or not at all important in your decision to install energy-efficient products. [RECORD FOR EACH STATEMENT A-D: 1=VERY IMPORTANT; 2=SOMEWHAT IMPORTANT; 3=NOT TOO IMPORTANT; 4=NOT AT ALL IMPORTANT. ALLOW 99 FOR DON'T KNOW, 88 FOR REFUSED, AND 96 FOR N/A.]
- A. The free walk-through energy assessment of your facility
 - B. [ASK IF G1=1] A copy of the energy assessment report
 - C. The Focus on Energy contractor going over the assessment with me [IF RESPONDENT DID NOT GET A REVIEW WITH THE CONTRACTOR, MARK AS 96.]
 - D. The savings return-on-investment being shown to me

H. Freeridership

Now I'd like to talk about the new products you purchased and installed that were recommended in the Focus on Energy free assessment report.

[INTERVIEWER NOTE ABOUT THIS SECTION (don't read to respondent): This section is based on hypothetical behavior so we are asking similar questions to verify that we are gathering the correct responses.]

- H1. First, did your company have specific plans to install the energy-efficient products before your contractor conducted the free energy assessment?
- 1. (Yes) [ASK H2]
 - 2. (No) [SKIP TO H4]
 - 99. (Don't know) [SKIP TO H4]
 - 88. (Refused) [SKIP TO H4]

- H2. Before you received the energy assessment, was the purchase of the energy-efficient products recommended by your contractor included in your company's budget?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)
- H3. Had your company already ordered or purchased the energy-efficient products before you received the recommendations in the energy assessment report?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)
- H4. Would you have purchased and installed the same products without the energy assessment report from your contractor?
1. (Yes) [SKIP TO H6]
 2. (No) [SKIP TO H9]
 99. (Don't know) [ASK H5]
 88. (Refused) [ASK H5]
- [ASK IF H4=99 OR 88]
- H5. Would you have purchased and installed **something else**, but not the recommended products, without the information you received in the energy assessment? [DO NOT READ LIST UNLESS NECESSARY]
1. (Yes, would have done something else) [CONTINUE TO H7]
 2. (No, would NOT have installed anything) [SKIP TO H9]
 99. (Don't know) [SKIP TO I1]
 88. (Refused) [SKIP TO I1]
- [ASK IF H4=1]
- H6. When you say you **would have purchased and installed** the same products, would you have installed the same type that was just as energy efficient?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)
- [ASK H7 THRU H8 IF H4=1 OR H5=1]
- H7. And without the information you received in the energy assessment report, would you have purchased and installed the same amount of new products?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

- H8. Without the information from the contractor's energy assessment, would you have purchased and installed the recommended energy-efficient products... [READ LIST AND RECORD ONE RESPONSE]
1. Within the same year?
 2. Within one to two years?
 3. Within three to five years?
 4. In more than five years?
 99. (Don't know)
 88. (Refused)

[ASK H9 THRU H12 IF H4=2 OR H5= 2]

- H9. When you say **you would not have purchased and installed** the same efficient products without the recommendations from the energy assessment, do you mean you would not have installed the products at all?
1. (Yes) [SKIP TO I1]
 2. (No)
 99. (Don't know)
 88. (Refused)

- H10. Without the information from the contractor's energy assessment report, would you have put in the same type of products but it would not have been as energy efficient?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

- H11. Without the information from the contractor's energy assessment, would you have purchased and installed a smaller number of efficient products?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

- H12. And, would you have purchased and installed the same products... [READ LIST AND RECORD ONE RESPONSE]
1. In the same year?
 2. In one to two years?
 3. In three to five years?
 4. More than five years out?
 99. (Don't know)
 88. (Refused)

I. Spillover

11. Since purchasing and installing energy-efficient products discounted by the Focus on Energy Small Business Program, has your business added efficient products that you did not receive a Focus on Energy rebate or discount for? [IF NEEDED: By energy-efficient products, I mean high efficiency lighting such as LEDs, T8s; high efficiency motors and variable speed drives; high efficiency air conditioners and heat pumps, or efficient water heating products.]
1. (Yes) [ASK I2]
 2. (No) [SKIP TO SECTION J]
 99. (Don't know) [SKIP TO SECTION J]
 88. (Refused) [SKIP TO SECTION J]
12. Were these products recommended by your contractor during the Focus on Energy Small Business Program free energy assessment?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)
13. What were the other energy-efficient products that your business installed? [DO NOT READ LIST; MARK ALL THAT APPLY; 99=DON'T KNOW, 88=REFUSED, 96=N/A] [If the customer says they bought something but have not installed it, the products has to be installed and operating for us to count it towards spillover.]
1. (CFLs)
 2. (LEDs)
 3. (Fluorescent tubes (T5s, T8s, etc.))
 4. (Efficient lighting controls (occupancy sensors, daylighting, timers))
 5. (High efficiency motors)
 6. (Air source heat pumps)
 7. (Ground source heat pumps)
 8. (Central AC)
 9. (VSD (variable speed drive))
 10. (Boiler)
 11. (Compressed air regulator)
 12. (Gas furnaces)
 13. (Exit signs)
 14. (Refrigeration products (refrigerators, freezers))
 15. (Other [SPECIFY: _____])
 99. (Don't know)
 88. (Refused)
- [REPEAT FOR EACH ITEM MENTIONED IN I3]
14. How many [INSERT ITEM FROM I3] did you install?
[RECORD NUMBER _____, 99 FOR DON'T KNOW, 88 FOR REFUSED, AND 96 FOR N/A]

[REPEAT FOR EACH ITEM MENTIONED IN I3]

15. Please tell me how important the Focus on Energy Small Business Program was in your decision to install [INSERT ITEM FROM I3]. Was it very important, somewhat important, not too important, or not at all important? [EMPHASIZE EACH ANSWER OPTION AND PAUSE IN BETWEEN EACH OPTION. AFTER THE 2ND ITEM, YOU CAN SAY, “And using the same scale, please rate how important the program was on your decision to install [ANSWER FROM I3]”]
1. Very important
 2. Somewhat important
 3. Not too important or
 4. Not at all important
 99. (Don't know)
 88. (Refused)

[REPEAT FOR EACH ITEM MENTIONED IN I3]

16. Did your business receive a discount or rebate for installing [INSERT ANSWER FROM J3]? [DO NOT READ ANSWER LIST]
1. (Yes)
 2. (No)
 3. (Item did not qualify)
 99. (Don't know)
 88. (Refused)

J. Satisfaction

- J1. *Did you ever visit the Focus on Energy website to learn about energy efficient upgrades and ways to save energy?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

[ASK IF J1=1]

- J2. *How easy was it to find what you were looking for? Would you say it was: [READ LIST]
1. Very easy,
 2. Easy,
 3. Somewhat challenging, or
 4. Very challenging?
 99. (Don't know)
 88. (Refused)

[ASK IF J1=1]

- J3. *How would you rate the quality of information on the Focus on Energy website? Would you say the information was: [READ LIST]
1. Very helpful,
 2. Somewhat helpful,
 3. Not too helpful, or
 4. Not helpful at all?
 99. (Don't know)
 88. (Refused)

[ASK IF J3=3 OR 4]

- J4. *Why do you say that?
1. [RECORD OPEN END]
 99. (Don't know)
 88. (Refused)

- J5. *Is there anything that could have been done to improve your overall experience with the Small Business program? [DO NOT READ THE LIST, RECORD ALL THAT APPLY]
1. (Better/more communication [SPECIFY: Who would you like more communication from?_____])
 2. (Quicker response time [SPECIFY: Who would you like a quicker response time from?____])
 3. (Larger selection of eligible products [ASK: What energy-efficient products should Focus on Energy offer incentives for?_____])
 4. (Increasing the incentive amount)
 5. (Simplify the application process)
 6. (Allow me to fill out the applications online)
 7. (Simplify the website) [ASK: In what way?_____]
 8. (Provide quicker approval on applications)
 9. (Send incentive check out faster)
 10. (Provide more face-time with my Energy Advisor (this may include more frequent visits))
 11. (Other [SPECIFY:_____])
 12. (No, nothing)
 99. (Don't know)
 88. (Refused)

[ASK SECTION K IF UTILITY= 1="Wisconsin Electric Power Company (WE Energies)",2= "Wisconsin Public Service Corporation", OR 3="Madison Gas and Electric Company"]

K. Fixed Charges

- K1. *Were you aware of the recent fixed cost increases put in place by your utility last year?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

[ASK IF K1=1]

- K2. *Did these changes impact your decision to make the energy-efficient upgrades we've been discussing?
1. (Yes)
 2. (No)
 99. (Don't know)
 88. (Refused)

[ASK IF K2=1]

- K3. *How so?
1. [RECORD OPEN END]
 99. (Don't know)
 88. (Refused)

[ASK IF K1=1]

- K4. *How likely are these fixed cost changes to impact your future investments in energy efficiency? Would you say: [READ LIST]
1. Very likely
 2. Somewhat likely
 3. Not too likely
 4. Not likely at all?
 99. (Don't know) [SKIP TO SECTION L]
 88. (Refused) [SKIP TO SECTION L]

[ASK IF 0=1-4]

- K5. *Why do you say that?
1. [RECORD OPEN END]
 99. (Don't know)
 88. (Refused)

L. Firmographics

Finally, I would like to ask you some questions about your company.

- L1. *Does your company lease or own the facility?
1. (Lease)
 2. (Own)
 3. (Other [SPECIFY: _____])
 99. (Don't know)
 88. (Refused)
- L2. *How many people are employed at this location?
1. [RECORD NUMBER: _____]
 99. (Don't know)
 88. (Refused)

M. Closing

M1. *In the future, how would you like to stay informed about opportunities to save energy and money? [DO NOT READ LIST; MULTIPLE RESPONSES POSSIBLE]

1. (Contact with Focus on Energy representative through phone, email, or in person)
2. (Focus on Energy monthly newsletter)
3. (Focus on Energy website)
4. (Focus on Energy workshop, event)
5. (Contact with utility representative)
6. (Utility mailing, bill insert, utility website)
7. (Contractor or vendor through phone, email, or in person)
8. (Through a trade association or professional organization)
9. (Other [SPECIFY: _____])
99. (Don't know)
88. (Refused)

M2. *Do you have any other comments about energy efficiency decisions and purchases you would like to share?

1. [RECORD RESPONSE: _____]
99. (Don't know)
88. (Refused)

Thank you. We appreciate your help with this survey. You may also be contacted for an on-site visit if you have not been contacted already. Have a nice day.

Focus on Energy 2015 Small Business Program Utility Energy-Efficiency Manager Interview Guide

Respondent name: _____

Respondent phone: _____

Interview date: _____ Interviewer initials: _____

Interview Audience

For the Small Business Program, we will be interviewing Utility Energy-Efficiency Managers and/or coordinators who are familiar with the program's marketing, outreach, and coordination with Focus on Energy and Energy Advisors.

Research Questions

- What is the Utility EE Manager's role and their responsibilities with Focus on Energy's Small Business Program?
- Do they have a solid understanding of the Small Business Program?
- Who do Utility EE Managers communicate with: Energy Advisors, the Program Administrator, the Program Implementer?
- What is their role in program marketing and outreach? Do they have sufficient resources and support to effectively promote the program?
- What do Utility EE Managers view as customer/sector participation barriers? What can Focus on Energy do to address these participation barriers?
- What challenges do they face in coordinating with Focus on Energy? How can program management and coordination improve?

Interview Guide

Introduction

Hello, my name is [name] and I am calling from Cadmus. We are evaluating Focus on Energy's programs. We would like to hear about your role and involvement with Focus on Energy's Small Business Program, and get feedback on ways to improve the programs for you and your customers. We expect this interview to take 15 to 20 minutes of your time.

Role and Involvement

1. Please tell me a little bit about your role as Utility Energy-Efficiency Manager.
2. What are your responsibilities with Focus on Energy's Small Business Program?

- a) Do you ever work with Focus on Energy's Program Administrator (CB&I) or the Program Implementer (Staples)?
 - b) Do you ever work with Focus' Energy Advisors?
3. How often do you communicate with [INSERT RESPONSE FROM 2a AND 2b]?

Focus on Energy Program Knowledge and Interaction

4. How familiar are you with the Small Business Program and its offerings? Would you say:
- 1. Very familiar,
 - 2. Somewhat familiar,
 - 3. Not too familiar,
 - 4. Or not familiar at all?

[ASK IF 4=3 OR 4]

5. Why do you say that you not familiar with the Small Business Program? [PROBE FOR WHAT MANAGERS ARE NOT FAMILIAR WITH]
6. How do you stay informed about program matters?

Program Marketing and Outreach

- 7. What marketing and outreach activities do you for the Small Business Program, if any?
- 8. What steps are you taking, if any, to track or evaluate the effectiveness of marketing and outreach activities?
- 9. How has [UTILITY NAME] done so far this year in targeting and recruiting Small Business participants?
- 10. What would help in terms of increasing your ability to promote the Small Business Program to customers?
- 11. Are there industries or market segments that have not participated historically but would be good candidates for targeted promotions?

Participation Barriers

- 12. What do you think are the biggest participation challenges or barriers to the Small Business Program?
- 13. What can Focus on Energy do to address these issues and increase customer participation?

Program Management

- 14. Do you encounter any challenges coordinating with Focus on Energy on the Small Business Program?

- a) [IF YES] Please describe the challenges.
- b) Is data tracking and reporting through SPECTRUM a challenge? [Probe for how easy or difficult it is to access data in SPECTRUM]

15. What can Focus on Energy do to improve program coordination with your utility?

Closing

16. Do you have any suggestions for improving any aspect of the Small Business Program?

17. Is there anything we haven't already mentioned that you would like to add?

Thank you for your time today. Your feedback is extremely helpful.

Ongoing Program Satisfaction Surveys

Residential Programs

- Appliance Recycling Program
- Express Energy Efficiency Program
- Home Performance with ENERGY STAR Program
- Multifamily Energy Savings Program
- Residential and Enhanced Rewards Program

Nonresidential Programs

- Agriculture, Schools and Government Program
- Business Incentive Program
- Chain Stores and Franchises Program
- Large Energy Users Program
- Multifamily Direct Install Program
- Small Business Program

YOUR OPINION MATTERS



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Thank you for your recent participation in Focus on Energy's **Appliance Recycling Program**. Your feedback will help us continue to improve our program and make Wisconsin a more energy efficient place to work and live. Please take a moment to complete our short survey.

Please fill in the circle completely next to the answer or under the number you wish to select.

Overall, how satisfied are you with the program?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please tell us more about your experience and any suggestions for improvement.

How satisfied are you with the Focus on Energy staff who assisted you?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the amount of incentive you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How likely are you to initiate another energy-efficiency improvement in the next 12 months?

0 (Not at all likely) – 10 (Extremely likely)

0	1	2	3	4	5	6	7	8	9	10	Already Have	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- On occasion, Focus on Energy staff may follow up with some survey respondents. Please fill in this circle if you do not want someone from Focus on Energy to contact you about your responses to this survey.

YOUR OPINION MATTERS



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Thank you for your recent participation in Focus on Energy's **Express Energy Efficiency Program**. Your feedback will help us continue to improve our program and make Wisconsin a more energy efficient place to work and live. Please take a moment to complete our short survey.

Please fill in the circle completely next to the answer or under the number you wish to select.

Overall, how satisfied are you with the program?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please tell us more about your experience and any suggestions for improvement.

How satisfied are you with the Focus on Energy staff who assisted you?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the energy-efficient upgrade(s) you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How likely are you to initiate another energy-efficiency improvement in the next 12 months?

0 (Not at all likely) – 10 (Extremely likely)

0	1	2	3	4	5	6	7	8	9	10	Already Have	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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YOUR OPINION MATTERS



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Thank you for your recent participation in Focus on Energy's Home Performance with ENERGY STAR[®] Program. Your feedback will help us continue to improve our program and make Wisconsin a more energy efficient place to work and live. Please take a moment to complete our short survey.

Please fill in the circle completely next to the answer or under the number you wish to select.

Overall, how satisfied are you with the program?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please tell us more about your experience and any suggestions for improvement.

How satisfied are you with the contractor (Trade Ally) that provided the service?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the energy-efficient upgrade(s) you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the amount of the instant discount you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How likely are you to initiate another energy-efficiency improvement in the next 12 months?

0 (Not at all likely) – 10 (Extremely likely)

0	1	2	3	4	5	6	7	8	9	10	Already Have	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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YOUR OPINION MATTERS



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Thank you for your recent participation in Focus on Energy's **Multifamily Energy Savings Program**. Your feedback will help us continue to improve our program and make Wisconsin a more energy efficient place to work and live. Please take a moment to complete our short survey.

Please fill in the circle completely next to the answer or under the number you wish to select.

Overall, how satisfied are you with the program?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please tell us more about your experience and any suggestions for improvement.

How satisfied are you with the contractor (Trade Ally) that provided the service?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the Energy Advisor or Focus on Energy staff member who assisted you with your project?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the energy-efficient upgrade(s) you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the amount of incentive you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How likely are you to initiate another energy-efficiency improvement in the next 12 months?

0 (Not at all likely) – 10 (Extremely likely)

0	1	2	3	4	5	6	7	8	9	10	Already Have	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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YOUR OPINION MATTERS



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Thank you for your recent participation in Focus on Energy's **Residential & Enhanced Rewards Program**. Your feedback will help us continue to improve our program and make Wisconsin a more energy efficient place to work and live. Please take a moment to complete our short survey.

Please fill in the circle completely next to the answer or under the number you wish to select.

Overall, how satisfied are you with the program?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please tell us more about your experience and any suggestions for improvement.

How satisfied are you with the contractor (Trade Ally) that provided the service?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the energy-efficient upgrade(s) you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the amount of incentive you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How likely are you to initiate another energy-efficiency improvement in the next 12 months?

0 (Not at all likely) – 10 (Extremely likely)

0	1	2	3	4	5	6	7	8	9	10	Already Have	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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YOUR OPINION MATTERS



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Thank you for your recent participation in Focus on Energy's **Agriculture, Schools & Government Program**. Your feedback will help us continue to improve our program and make Wisconsin a more energy efficient place to work and live. Please take a moment to complete our short survey.

Please fill in the circle completely next to the answer or under the number you wish to select.

Overall, how satisfied are you with the program?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please tell us more about your experience and any suggestions for improvement.

How satisfied are you with the contractor (Trade Ally) that provided the service?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the Energy Advisor or Focus on Energy staff member who assisted you with your project?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the energy-efficient upgrade(s) you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the amount of incentive you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How likely are you to initiate another energy-efficiency improvement in the next 12 months?

0 (Not at all likely) – 10 (Extremely likely)

0	1	2	3	4	5	6	7	8	9	10	Already Have	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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YOUR OPINION MATTERS



focus on energy[™]
Partnering with Wisconsin utilities

Thank you for your recent participation in Focus on Energy's **Business Incentive Program**. Your feedback will help us continue to improve our program and make Wisconsin a more energy efficient place to work and live. Please take a moment to complete our short survey.

Please fill in the circle completely next to the answer or under the number you wish to select.

Overall, how satisfied are you with the program?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please tell us more about your experience and any suggestions for improvement.

How satisfied are you with the contractor (Trade Ally) that provided the service?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the Energy Advisor or Focus on Energy staff member who assisted you with your project?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the energy-efficient upgrade(s) you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the amount of incentive you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How likely are you to initiate another energy-efficiency improvement in the next 12 months?

0 (Not at all likely) – 10 (Extremely likely)

0	1	2	3	4	5	6	7	8	9	10	Already Have	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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YOUR OPINION MATTERS



Thank you for your recent participation in Focus on Energy's **Chain Stores & Franchises Program**. Your feedback will help us continue to improve our program and make Wisconsin a more energy efficient place to work and live. Please take a moment to complete our short survey.

Please fill in the circle completely next to the answer or under the number you wish to select.

Overall, how satisfied are you with the program?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please tell us more about your experience and any suggestions for improvement.

How satisfied are you with the contractor (Trade Ally) that provided the service?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the Energy Advisor or Focus on Energy staff member who assisted you with your project?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the energy-efficient upgrade(s) you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the amount of incentive you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How likely are you to initiate another energy-efficiency improvement in the next 12 months?

0 (Not at all likely) – 10 (Extremely likely)

0	1	2	3	4	5	6	7	8	9	10	Already Have	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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YOUR OPINION MATTERS



Thank you for your recent participation in Focus on Energy's **Large Energy Users Program**. Your feedback will help us continue to improve our program and make Wisconsin a more energy efficient place to work and live. Please take a moment to complete our short survey.

Please fill in the circle completely next to the answer or under the number you wish to select.

Overall, how satisfied are you with the program?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please tell us more about your experience and any suggestions for improvement.

How satisfied are you with the contractor (Trade Ally) that provided the service?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the Energy Advisor or Focus on Energy staff member who assisted you with your project?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the energy-efficient upgrade(s) you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the amount of incentive you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How likely are you to initiate another energy-efficiency improvement in the next 12 months?

0 (Not at all likely) – 10 (Extremely likely)

0	1	2	3	4	5	6	7	8	9	10	Already Have	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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YOUR OPINION MATTERS



focus on energy[™]
Partnering with Wisconsin utilities

Thank you for your recent participation in Focus on Energy's **Multifamily Direct Install Program**. Your feedback will help us continue to improve our program and make Wisconsin a more energy efficient place to work and live. Please take a moment to complete our short survey.

Please fill in the circle completely next to the answer or under the number you wish to select.

Overall, how satisfied are you with the program?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please tell us more about your experience and any suggestions for improvement.

How satisfied are you with the Focus on Energy staff who assisted you?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the energy-efficient upgrade(s) you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How likely are you to initiate another energy-efficiency improvement in the next 12 months?

0 (Not at all likely) – 10 (Extremely likely)

0	1	2	3	4	5	6	7	8	9	10	Already Have	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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YOUR OPINION MATTERS



focus on energy[™]
Partnering with Wisconsin utilities

Thank you for your recent participation in Focus on Energy's **Small Business Program**. Your feedback will help us continue to improve our program and make Wisconsin a more energy efficient place to work and live. Please take a moment to complete our short survey.

Please fill in the circle completely next to the answer or under the number you wish to select.

Overall, how satisfied are you with the program?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please tell us more about your experience and any suggestions for improvement.

How satisfied are you with the contractor (Trade Ally) that provided the service?

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0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the energy-efficient upgrade(s) you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the amount of the discount you received?

0 (Not at all satisfied) – 10 (Extremely satisfied)

0	1	2	3	4	5	6	7	8	9	10	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How likely are you to initiate another energy-efficiency improvement in the next 12 months?

0 (Not at all likely) – 10 (Extremely likely)

0	1	2	3	4	5	6	7	8	9	10	Already Have	Don't Know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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