



Affordable Housing for the Long Term— Using Energy Efficiency and Renewables

FACT SHEET



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PRODUCTS



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Ten solar panels sit atop the Yahara River View Apartment building. A solar hot water system like this can provide 50 percent to 75 percent of a building's domestic hot water needs.

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call 800.762.7077 or
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The new Yahara River View Apartments in Madison stand as proof that energy efficient multi-family dwellings can be built on a tight construction budget.

“Our goal was to make the building affordable for residents by maximizing its energy efficiency,” said Paul Jasenski, project manager for Common Wealth Development, the nonprofit organization that built and now manages the building.

Jasenski tapped the expertise and assistance of Focus on Energy and his local gas and electric utility to design the 60-unit apartment building's energy systems. Today, the Yahara River View Apartments stand as a model for how to provide comfortable, affordable multi-family housing using the latest energy efficiency and renewable energy systems.

FINANCIAL AND DESIGN ASSISTANCE

Faced with the challenge of minimizing the building's long-term energy costs, Jasenski called on Mark Faultersack, manager of multi-family services at Madison Gas & Electric. Faultersack informed Jasenski that his project was eligible for financial assistance under the utility's Neighborhood Revitalization program.

To qualify for the assistance, Jasenski agreed to install ENERGY STAR® qualified refrigerators, clothes washers, dishwashers and windows, as well as R-19 insulation, radiant floor heat and high efficiency boilers.

Early in the design process, Jasenski also called on Focus on Energy, whose Apartment & Condo Efficiency Services Program offers design assistance to help developers identify cost effective ways to increase energy efficiency. “Our goal is to reduce a building's energy costs by as much as 30 percent while staying within the developer's construction budget,” said Andrew Price, program consultant for Focus on Energy.

Along with Faultersack, Focus representatives attended Jasenski's construction meetings to discuss available options. They examined the installation, operation, and maintenance costs of promising options and ran simulations to determine which combination of measures would assure affordable long-term energy costs. “We had to find the right balance between the initial cost of installation and the energy cost savings over time,” Price noted.



High efficiency Munchkin-brand boilers help heat water throughout the complex. The boilers only turn on when needed.



ENERGY STAR clothes washers save water and reduce energy costs at Yahara River View apartments.

Focus on Energy and the utility also offered Common Wealth financial incentives for installing energy efficiency and renewable energy measures. Jasenski considered the simulation results and available incentives in selecting the best options for his project. These incentives helped offset the costs of installing the energy improvements.

RENEWABLE ENERGY AND SMART BOILERS DO THEIR PART

After several meetings and simulations, Jasenski finalized specifications and prepared to start construction. He incorporated several key features that would make the building the model of efficiency it is today.

The most visible—the solar hot water system atop the building—supplements the high efficiency gas water heating system. After the initial investment, the system costs little to operate, protecting Common Wealth Development and the apartment building’s tenants from spikes in energy costs.

Also unique are the metering devices that monitor use of the building’s radiant floor heating. Each of the 60 apartments is equipped with a monitor that reads the amount of heat being used in that specific apartment. This information is used to generate individual bills for each unit, helping residents understand the cost of heat. “Giving residents control over their apartments’ comfort, and responsibility for the costs, provides a financial incentive to save energy,” said Jasenski. “It also reduces our risk, as it lowers the overall energy use of the building.”

Yahara also employs multiple high efficiency, sealed-combustion, condensing, modulating boilers to keep energy use and costs down. Six boilers heat water for both space heating and domestic hot water. Their controls monitor indoor and outdoor temperatures to determine the need for heat and the use of hot water, and operate the number of boilers and firing rates as needed.

Jasenski credits Focus on Energy and his utility company for helping make Yahara River View Apartments an example of

how energy efficiency systems and renewable energy sources can be a sound investment in multi-family construction. “Focus on Energy and MG&E provided a wealth of technical and financial assistance,” Jasenski concluded. “They helped me make well-informed decisions about energy systems, and provided the financial assistance to make it all happen.”

Through the Apartment & Condo Efficiency Services Program, Focus on Energy helps owners and developers of apartment and condominium buildings make good energy decisions that result in reduced labor and operating costs, improved tenant comfort and satisfaction, and smart energy practices. To find out more about the resources Apartment & Condo Efficiency Services offers, call 800.762.7077 or visit focusonenergy.com.

MORE ABOUT SOLAR HOT WATER SYSTEMS

Clean, renewable and cost effective, solar hot water systems are a smart choice for new apartment buildings and condos. They run virtually cost free and help reduce a building’s energy costs significantly.

A solar hot water system can provide up to one third of a building’s domestic hot water needs. Supplemented by a high efficiency water heater, solar hot water systems provide all of a building’s hot water at a fraction of the cost of a conventional system.

With renewable energy, owners can protect themselves from rising energy costs, a benefit particularly appealing to owners who pay for tenants’ hot water.

Though they represent an additional investment during a building’s construction, solar hot water systems operate with minimal maintenance costs once installed. Providing a cost effective source of energy for decades, solar hot water systems more than pay for themselves.

Solar hot water systems are also good for the environment, as they consume no fossil fuels and emit no fumes into the atmosphere.

Developers considering solar hot water systems should consult a solar hot water system contractor early in the building design process. The design should account for the location of the collector panels and expansion tank. This makes installation easier and less expensive, and lessens the risk of roof leaks and voiding the roofing material warranty.

For more information on solar hot water systems and other renewable energy sources, call Focus on Energy at 800.762.7077 or visit focusonenergy.com.

Focus on Energy works with eligible Wisconsin residents and businesses to install cost effective energy efficiency and renewable energy projects. Focus information, resources and financial incentives help to implement projects that otherwise would not get completed, or to complete projects sooner than scheduled. Its efforts help Wisconsin residents and businesses manage rising energy costs, promote in-state economic development, protect our environment and control the state’s growing demand for electricity and natural gas. For more information call **800.762.7077** or visit focusonenergy.com.

