



Public Service Commission Report to the Legislature

**Energy Efficiency and Renewable Resource Program
Activities in Wisconsin**

Calendar Year 2010

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WISCONSIN UTILITIES' ENERGY EFFICIENCY AND RENEWABLE RESOURCES PROGRAM SUMMARY (FOCUS ON ENERGY)

Focus on Energy (Focus) 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 be completed, or to complete projects sooner than scheduled. Its efforts help Wisconsin residents and businesses control the state's growing demand for electricity and natural gas, manage rising energy costs, promote in-state economic development, and protect our environment.

During the 2010 contract period, Focus helped Wisconsin residents and businesses annually save over 590 million kilowatt hours (kWh), 23 million therms of natural gas, and \$75 million.

Additional information regarding Focus can be found at www.focusonenergy.com.

HISTORY

Originally formed by the Wisconsin Legislature in 1999 and funded by the Utility Public Benefits fund, Focus delivers energy efficiency and renewable energy services for [residential](#) and [business](#) customers throughout the state. In 2001, the Department of Administration rolled out the *Focus on Energy Program* statewide. In partnership with consumers, utilities, businesses, nonprofit organizations, and all government levels, the programs help residents and businesses make smart energy choices.

Under [2005 Wisconsin Act 141](#) (Act 141), oversight of Focus transferred to the Public Service Commission (Commission). Act 141 requires investor-owned electric and natural gas utilities to spend 1.2 percent of their annual gross operating revenues on energy efficiency and renewable resource programs. Act 141 also requires municipal utilities and retail electric cooperatives to collect an average of \$8 per meter to fund energy efficiency programs. Municipal utilities and retail electric cooperatives can collect the dollars and participate in the Focus program or can elect to operate their own Commitment to Community programs.

Per Act 141, Focus aims to:

- Reduce the amount of energy used per unit of production in Wisconsin, while improving energy reliability.
- Enhance economic development and make Wisconsin firms more competitive.
- Reduce the environmental impacts of energy use.
- Expand the ability of markets to deliver energy efficient and renewable energy goods and services to consumers and businesses.
- Deliver quantified financial returns on public investments in energy improvements.

FOCUS ON ENERGY – ENERGY SAVINGS – PORTFOLIO RESULTS

Focus is Wisconsin utilities’ statewide energy efficiency and renewable energy program. An award-winning, nationally recognized program, it works with both public and private sectors and encourages Wisconsin residents and businesses to make informed energy decisions. By providing incentives, technical resources, and information, Focus aids residents in lowering their cost of living and businesses in improving their bottom lines. This drives millions of dollars in annual energy savings, and helps to improve our state’s environmental health and preserve our natural resources.

Annual Energy Savings: January 1–December 31, 2010

	Participants	Verified Gross kWh*	Verified Gross kW*	Verified Gross Therms*	Annual Value of Energy Saved **
Business Programs	30,866	470,987,177	90,344	20,041,916	\$56,396,192
Residential Programs	456,632	119,653,022	16,312	3,598,320	\$19,014,894
FOCUS ON ENERGY TOTAL	487,498	590,640,200	106,657	23,640,237	\$75,411,087

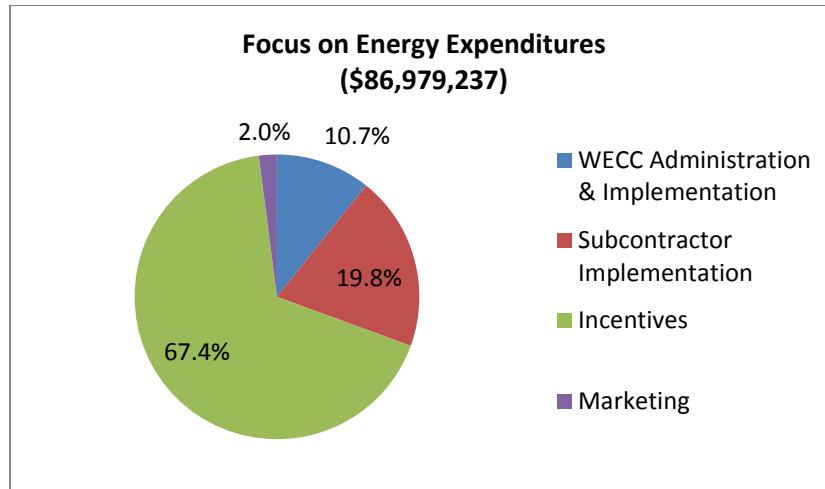
* Verified gross savings numbers are savings that have gone through an engineering review by evaluators to determine whether the reported gross savings were reasonable.

**Annual value of Energy Saved represents the first year of energy savings for measures installed in 2010. The calculation for the benefit/cost ratio of 2.3 takes into account savings from the measures over their useful lives (e.g. if a furnace has a 15 year useful life, those 15 years of savings are reflected in the benefit/cost ratio.)

Expenditures

The chart on page 7 illustrates expenditures for the Focus program as a whole. Expenditures are divided into four categories: Wisconsin Energy Conservation Corporation (WECC) Administration, Implementation, Marketing, and Incentives. WECC Administration refers to the expenses associated with overall portfolio management and planning. This includes setting up and monitoring subcontracts; responding to data requests; expenses associated with the monthly program meetings; meetings with Commission staff, Statewide Energy Efficiency and Renewable Administration (SEERA), and individual utilities; and other administrative tasks that are not associated with implementing a particular program.

The implementation costs, by contrast, are the labor and direct costs associated with a specific program. This includes time spent meeting with customers to provide information and technical assistance, and assisting customers with incentive applications. In sum, implementation includes the time and materials required to field the program, excluding marketing costs and incentives.



Economic and Environmental Benefits from Focus on Energy Program

The Focus program achieved an overall benefit/cost ratio of 2.3 for the 2010 contract period. That is, for every dollar spent on the program, the state received \$2.30 back in energy savings benefits. In addition to the financial benefits, the environmental benefits in the form of emissions reductions include:

- 1.3 billion pounds of carbon dioxide;
- 2.3 million pounds of sulfur dioxide;
- 1.8 million pounds of nitrogen oxide; and
- 8.6 pounds of mercury.

BUSINESS ENERGY EFFICIENCY PROGRAMS

All types of businesses, large and small, can benefit from Focus’s energy efficiency expertise. Focus works with eligible Wisconsin businesses to install cost-effective energy efficiency and renewable energy projects. Its efforts help 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. Focus’s 2010 Business programs served the following market segments:

- Agriculture and rural businesses;
- Commercial businesses (including healthcare, hospitality, food service, grocery);
- Industrial businesses (pulp/paper, plastics, metals, wastewater, food processing);
- Schools and government facilities; and
- New business construction.

Focus helped Wisconsin businesses by:

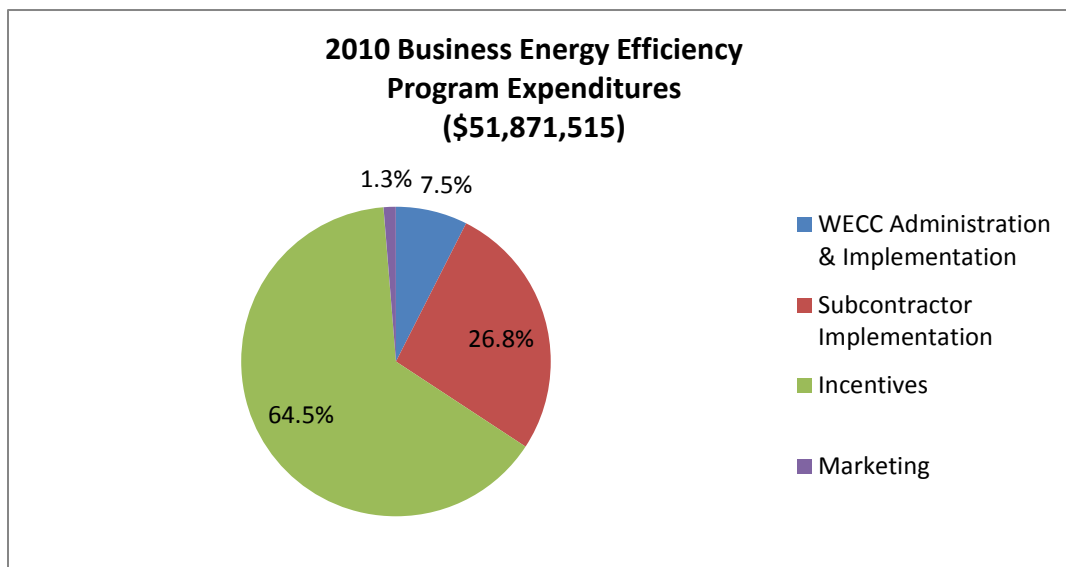
- Showing them practical ways to implement energy strategies;
- Rewarding businesses with financial incentives for these strategies;

- Providing no-cost or low-cost energy tips;
- Offering training opportunities on energy efficiency; and
- Applying for federal grants from the U.S. Department of Energy.

2010 Annual Business Impacts

	Participants	Verified Gross kWh	Verified Gross kW	Verified Gross Therms	Benefit/Cost Ratio
Business Programs	30,670	461,909,017	88,558	18,891,128	2.7

Expenditures



RESIDENTIAL ENERGY EFFICIENCY PROGRAMS

Focus continued to help residents save energy and money by providing the information and incentives necessary to prompt smart energy choices. Whether residents purchased ENERGY STAR[®] qualified compact fluorescent light bulbs, made efficiency upgrades to an existing home, or built an entirely energy efficient new home, Focus experts offered the insight, technical assistance, and financial incentives to get them started. The following programs were offered in the Residential sector during the 2010 contract period:

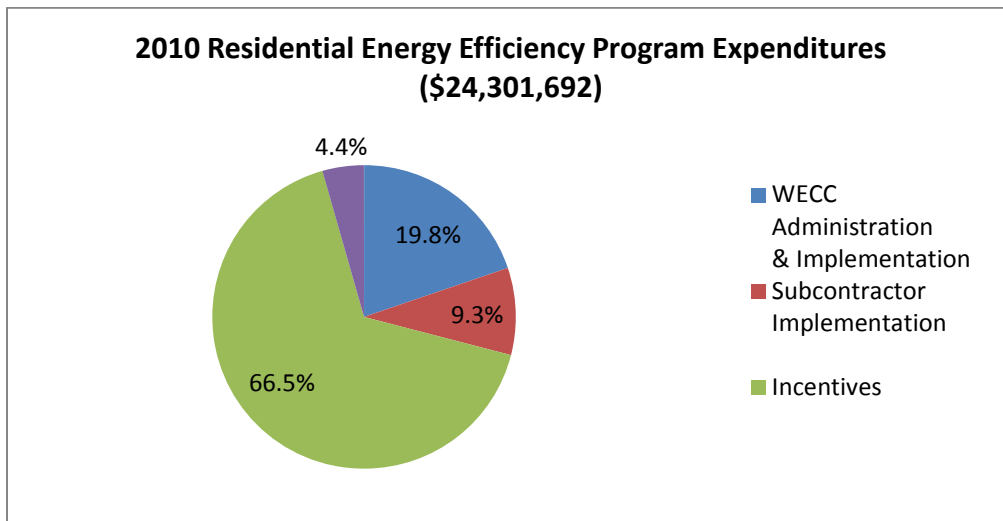
- Apartment and condo efficiency services;
- Appliance and plug load program;
- Efficient heating and cooling;
- Home performance with ENERGY STAR[®];
- Residential information and education initiatives;

- ENERGY STAR® lighting program;
- Targeted Home Performance with ENERGY STAR®;
- Wisconsin ENERGY STAR® Homes;
- Residential renewables.

2010 Annual Residential Impacts

	Participants	Verified Gross kWh	Verified Gross kW	Verified Gross Therms	Benefit/Cost Ratio
Residential Programs	456,188	117,873,816	15,698	3,579,426	1.5

Expenditures



RENEWABLE PROGRAMS

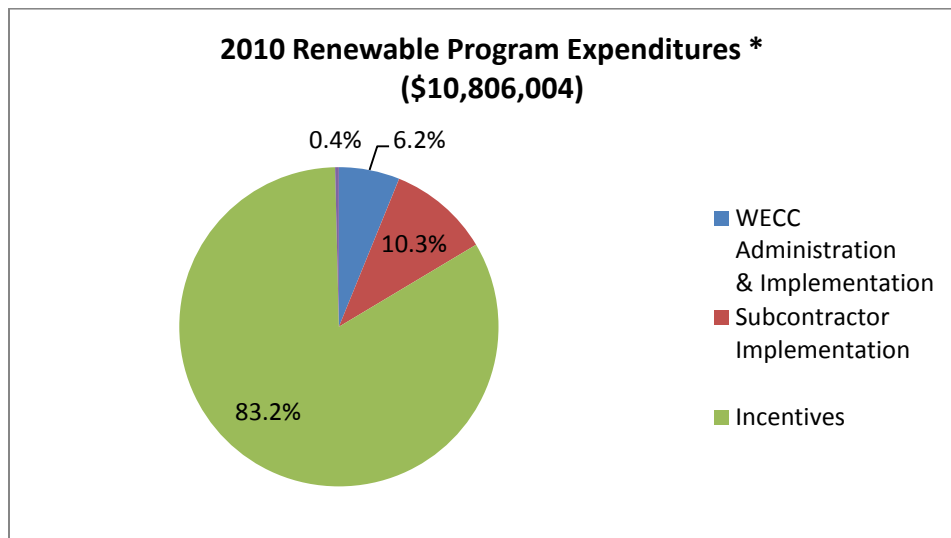
As energy costs rise and environmental concerns grow, more and more Wisconsin residents and businesses are turning to renewable energy. Act 141 requires that the statewide program include renewable resource programs for Business and Residential end-use customers. In 2010, renewable energy technologies were integrated into the Business and Residential programs for more efficient delivery of these programs to customers. Activity for the Business and Residential renewable programs is shown below. Because it was the first year renewable resource programs were integrated into the efficiency programs, a separate benefit/cost ratio is not available for renewable resource programs only in 2010. This will be available beginning with the 2011 calendar year.

Focus offers information, technical assistance, and financial rewards to help customers select and install renewable energy solutions in their home, farm, or business. The Business and Residential sectors offered the following renewable energy programs during the 2010 contract period:

- Anaerobic digestion biogas;
- Non-residential biomass combustion;
- Solar electric;
- Solar heating;
- Wind;
- Information and education initiatives.

Annual Renewable Impacts

	Participants	Verified Gross kWh	Verified Gross kW	Verified Gross Therms
Business Renewables	196	9,078,160	1,786	1,150,738
Residential Renewables	444	1,779,206	614	18,894



*Business Program renewable expenditures totaled \$7,652,498 and Residential Program renewable expenditures totaled \$3,153,531.

ENVIRONMENTAL AND ECONOMIC RESEARCH AND DEVELOPMENT

The Environmental and Economic Research and Development (EERD) Program was created to fund research about the impact of energy use on the Wisconsin environment and economy. EERD grant recipients are chosen by the Environmental Research Forum, a ten-member group chaired by Ken Rineer of Commission staff. Other Forum members represent the Department of Commerce, the Department of Natural Resources (DNR), the Department of Agriculture, Trade and Consumer Protection, the Governor’s Office of Energy Independence, the USDA Forest Products Laboratory, the University of Wisconsin, Clean Wisconsin, We Energies, and Alliant Energy. The Forum is charged with identifying critical research gaps regarding the environmental and economic impacts of energy use in Wisconsin, and then recommending funding for new projects to fill those gaps. Forum members individually evaluate submitted proposals and then met to discuss and draft the

final list of proposals to be recommended for funding. No Requests for Proposals (RFP) for new research grants were released in 2010. Energy Center of Wisconsin managed a portfolio of 34 grants, researching topics ranging from biomass impacts and economics to climate change.

Two Research Expositions were held during the year. The first Research Exposition in January centered on the theme of “Energy, Carbon and Climate in Wisconsin.” The following three EERD researchers presented their projects to an attendance of 110 registrants:

- Christopher Kucharik, UW-Madison, (*Impacts of Past and Future Changes in Climate and Atmospheric CO₂ on Wisconsin Agriculture*);
- Eric Kruger, UW-Madison (*Projecting Consequences of Altered Atmospheric Chemistry for Carbon Sequestration by Wisconsin’s Aspen Forests*); and,
- Craig Anderson, DNR (*Biodiversity in Selected Communities Related to Global Climate Change*).

The second Research Exposition was held in June, with the following theme: “Impacts of Emerging Energy Technologies: Solar, Wind, Bioenergy and Electric Cars.” Four EERD-funded projects were presented to approximately 70 attendants, as shown below:

- S.A. Klein, UW-Madison, Department of Mechanical Engineering, (*Assessment of Photovoltaics at High Penetration on Peak Demand and Annual Energy Use*);
- Brian Bub, Natural Resources Consulting, Inc., (*Evaluating Nocturnal Bird and Bat Migration in the Upper Mississippi River Valley and Its Implications for Siting Wind Energy Facilities: A Workshop Series for Resource Agencies and Wind Developers*);
- Anna Haines, UW-Stevens Point, (*Land Use and Ecological Consequences of a Wood Gasification Energy Facility at UW-Stevens Point: A Spatial Analysis with Statewide Consequences*); and,
- Jessica Guo and Megan Mallette, UW-Madison, Department of Electrical Engineering, (*Consumer Adoption & Grid Impact Models for Plug-in Hybrid Electric Vehicles in Wisconsin*).

FOCUS ON ENERGY – 2010 FINANCIAL SUMMARY

During the 2010 contract period, the Focus program provided technical assistance and incentives and offered energy efficiency and renewable energy information to 487,498 businesses and residents in Wisconsin. This resulted in annual savings of more than 590 million kWh of electricity and more than 23 million therms of natural gas. The annual value of these energy savings totaled over \$75 million.

Administrative Costs

The Public Service Commission reported administrative costs totaling \$435,009 for five staff to oversee the Focus program during the 2010 contract period.

During 2010, WECC was the Program Administrator for the Business and Residential Programs. To increase program efficiencies and streamline offerings to the customer, the Renewable Program was integrated into Business and Residential Program offerings. Previously, Renewables had been a stand-alone program within the Focus Portfolio. WECC reported administrative costs of \$5,218,397 for 2010 contract period, which represents approximately 6 percent of the total program budget. Administrative costs by program are \$2,750,756 for Business Programs, \$2,467,642 for Residential Programs, and \$422,728 for Renewable Programs. WECC administration costs refer to expenses associated with overall portfolio management and planning. This includes setting up and monitoring subcontracts; responding to data requests; expenses associated with monthly program meetings; meetings with Commission staff, SEERA,¹ and individual utilities; and other administrative tasks that are not associated with implementing a particular program.

The Energy Center of Wisconsin was the Program Administrator for the Environmental and Economic Research and Development Program in 2010, and reported administrative costs totaling \$107,554.

The investor-owned utilities (IOU) reported costs of \$45,788 in 2010 to hire a consultant to perform a gap-analysis of the Focus program structure, recommend a program structure, write the RFP for the new Program Administrator, and manage the RFP process from start to finish.

The Financial Sheet below summarizes revenue, expenditures and Focus obligations for the 2010 contract period. Please note that the expenses for both the Residential and Business Programs include renewable resource program expenditure in addition to the energy efficiency program expenditures.

2010 Financial Sheet

REVENUE:	
Investor Owned Utilities	\$93,942,137
Municipal Electric Providers/Electric Cooperatives	<u>\$2,993,800</u>
TOTAL REVENUE	\$96,935,937
EXPENSES:	
Residential Programs	\$27,455,223
Business Programs	\$59,524,013
Environmental & Economic Research & Development	\$1,736,063
Evaluation	\$ 1,750,418
Other Program Support ²	<u>\$ 1,713,313</u>
TOTAL EXPENSES	\$92,179,030
Carry-Over Funds ³	\$NA-Rebid
Focus on Energy Contractual Obligations ⁴	\$ 39,554,324

² Includes Fiscal Agent, Compliance Agent, PSC, consulting services, software, depreciation, and contractor performance bonus expenses

³ Carry-Over funds are funds remaining at the end of the contract period which were obligated into the 2011 calendar year.

¹ SEERA is the non-profit organization formed by the IOUs to meet their Act 141 obligations.

⁴ Contractual Obligations refer to contracts with customers for the receipt of incentives when a project is installed/completed. Large projects can take up to 16 months from start to finish and therefore span from one calendar year to the next. This amount is taken from the January 31, 2011 Financial Position Report.

MUNICIPAL ELECTRIC AND RETAIL ELECTRIC COOPERATIVE REPORTING FOR COMMITMENT TO COMMUNITY PROGRAMS

Act 141 requires municipal utilities and retail electric cooperatives to collect an annual average of \$8 per meter for energy efficiency programs. The monthly fee may not exceed 1.5 percent of the total of every other charge for which the customer or member is billed for that month or \$375 per month, whichever is less. Each municipal utility or retail electric cooperative can choose to send the dollars collected to the Focus on Energy fund or keep them and operate its own Commitment to Community (CTC) programs. Although Act 141 excludes load management from the definition of energy efficiency, it allows municipals and retail electric cooperatives to include load management in their CTC program offerings.

Act 141 requires that an electric cooperative or municipal utility operating its own CTC program file a report that includes the following: (1) an accounting of fees charged to customers or members in the year; (2) expenditures on CTC programs; (3) a description of CTC programs established for the year; and (4) the effectiveness of the CTC programs in reducing demand for electricity by customers or members.

During the 2010 contract period, 41 WPPI Energy (WPPI) municipal electric utilities used half of the money they collected for CTC programs and contributed the other half to Focus. Of the remaining 41 non-WPPI municipal utilities, 37 were in Focus for all of 2010 with the other four joining Focus in the spring of 2010. As for retail electric cooperatives, 12 reported CTC activities in 2010 with 12 sending their dollars to Focus. The table below summarizes energy savings and expenditures for municipal electric utilities and retail electric cooperatives.

2010 Municipal Utility and Retail Electric Cooperative CTC Summary

	kW (includes Load Management)	kWh (includes Load Management)	Expenditures for Energy Efficiency	Expenditures for Load Management	Administrative Costs
Electric Cooperatives	11,361	4,635,304	\$737,786	\$1,542,299	\$34,825
Municipal (includes WPPI)	9,947	59,899,977	\$4,185,822	\$0	\$90,121

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