



**Public Service Commission Report to the Legislature**

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

**Calendar Year 2016**

**TABLE OF CONTENTS**  
2016 Report (January-December 2016)

- **Focus on Energy Program Summary**
- **Program History**
- **2016 Energy Savings Summary**
  - **Total Portfolio Results**
    - Lifecycle Kilowatt Hour and Therm Savings
    - Annual Kilowatt Savings
    - Number of Program Participants
    - Lifecycle Energy Savings
    - Expenditures
- **Economic and Environmental Benefits of the Focus on Energy Program**
  - **Non-Residential Program Impacts**
    - Lifecycle Kilowatt Hour and Therm Savings
    - Annual Kilowatt Savings
    - Business Program Expenditures
  - **Residential Program Impacts**
    - Lifecycle Kilowatt Hour and Therm Savings
    - Annual Kilowatt Savings
    - Residential Program Expenditures
  - **Renewable Program Impacts**
    - Lifecycle Kilowatt Hour and Therm savings
    - Annual Kilowatt Savings
    - Renewable Program Expenditures
  - **Environmental and Economic Research and Development Program**
- **2016 Financial Summary**
  - Administrative Costs
  - Financial Sheet
- **Municipal and Electric Cooperative Energy Savings**

# 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 technical assistance and financial incentives help to implement projects that otherwise would not be completed, or to complete projects sooner than scheduled. Focus 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.

Additional information regarding Focus can be found at [www.focusonenergy.com](http://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, non-profit organizations, and all government levels, the programs help residents and businesses make smart energy choices and reduce energy waste.

Under [2005 Wisconsin Act 141](#) (Act 141), oversight of Focus was 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. The utilities formed a non-profit board called the Statewide Energy Efficiency and Renewables Administration (SEERA) to fulfill its obligations under Act 141. 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; and,
- Deliver quantified financial returns on public investments in energy improvements.

## 2016 FOCUS ENERGY SAVINGS – PORTFOLIO RESULTS

Cost effective at delivering significant energy savings with high customer satisfaction (9 on a 10-point scale,) Focus encourages Wisconsin residents and businesses to make informed energy decisions. By providing incentives, technical resources, and information, Focus helps residents lower their cost of living and businesses to improve their bottom lines by reducing energy waste. This drives millions of dollars in energy savings, and helps to improve our state’s environmental health and preserves our natural resources. Some of the highlights for 2016 include:

- For every dollar invested in energy efficiency, Focus provided \$3.00 in economic and non-economic benefits; and,
- Over 788,000 homeowners and businesses participated in 17 statewide programs.

### Verified Gross Life Cycle Energy Savings: January 1-December 31, 2016

Portfolio	Participants	Verified Gross kWh*	Verified Gross kW*	Verified Gross Therms*	MMBtu	Benefit Cost Ratio
Non-Residential Programs	5,844	6,291,666,334	59,101	308,984,348	52,365,600	3.13
Residential Programs	782,428 <sup>+</sup>	3,199,626,956	29,162	88,115,245	19,728,652	2.75
<b>FOCUS TOTAL</b>	<b>788,272</b>	<b>9,491,293,290</b>	<b>88,263</b>	<b>397,099,593</b>	<b>72,094,252</b>	<b>3.00</b>

<sup>+</sup> Estimated. For 2016, the Evaluation Team determined participation for lightbulbs using data from the 2015 residential general population survey. The survey collected data on the number of bulbs purchased annually by 609 Wisconsin residents. Using the average number of bulbs purchased annually per household (6.8 CFLs and 5.8 LEDs) and the total number of bulbs purchased from the Program Implementer’s tracking system, the Evaluation Team estimated the number of households that participated in the Program in 2015. See Volume II for methods used to determine annual participation.

\* Verified gross savings numbers are savings that have gone through an engineering review by evaluators to determine whether the reported gross savings were reasonable. Abbreviations are: kWh = Kilowatt hours, kW = Kilowatts, Therms = Therms, and MMBtu = Million British Thermal Units.

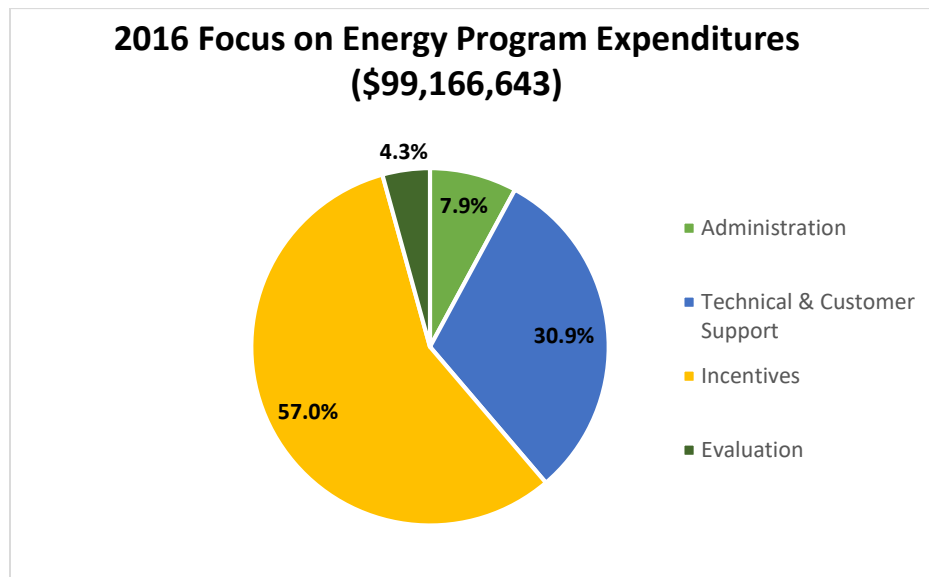
## Expenditures

Expenditure categories were revised in 2016 to provide clarity and more accurately reflect program costs. The four categories include: Administrative; Technical & Customer Support; Incentives; and Evaluation and the definitions are as follows:

- **Administrative** costs are the costs not directly associated with a specific program activity but which are necessary to the development and administration of programs, including record keeping, payroll, accounting, auditing, billing, business management, budgeting and related activities, overhead allocation and other costs necessary to direct the organization of the program, but do not include program evaluation.

- **Technical & Customer Support** costs are those associated with project identification, engineering calculation & modeling, inspection of installed projects, trade ally contractor outreach, technical training, and customer service.
- **Incentives** costs are cash incentives payable to Customers & Trade Allies and instant discounts received at point of purchase at participating retail locations
- **Evaluation** costs are those associated with independently verifying program energy savings and supporting continuous program improvement through analysis of markets, technologies and program operations.

The chart below illustrates expenditures for the Focus program as a whole in 2016.



### Economic and Environmental Benefits from the Focus Program

The Focus program achieved an overall benefit/cost ratio of 3.00 to 1.00 for the 2016 contract period. That is, for every dollar of spending associated with the program, the state achieved \$3.00 in economic and non-economic benefits. Non-economic benefits include the prevention of the following emissions:

- 5,968,677 tons of carbon dioxide;
- 4,707 tons of nitrogen oxide; and,
- 10,782 tons of sulfur dioxide.

## Business Energy Efficiency Programs

All types of businesses, large and small, can benefit from the energy efficiency expertise provided by Focus staff. Focus works with eligible Wisconsin businesses to install cost-effective energy efficiency and renewable energy projects. Its efforts help businesses reduce energy waste, protect our environment, control the state’s growing demand for electricity and natural gas, and promote in-state economic development. Programs are organized by type of business delivery method which is more closely aligned with utility customer classes. This makes it easier to target customer classes using utility data. Programs include:

- Large Energy Users;
- Chain Stores and Franchises;
- Business Incentive Program;
- Agriculture, Schools and Government;
- Small Business Program;
- Design Assistance Program (New Construction);
- Renewable Energy Competitive Incentive;
- Renewable Rewards; and,
- Renewable Loan fund (ended in September 2016).

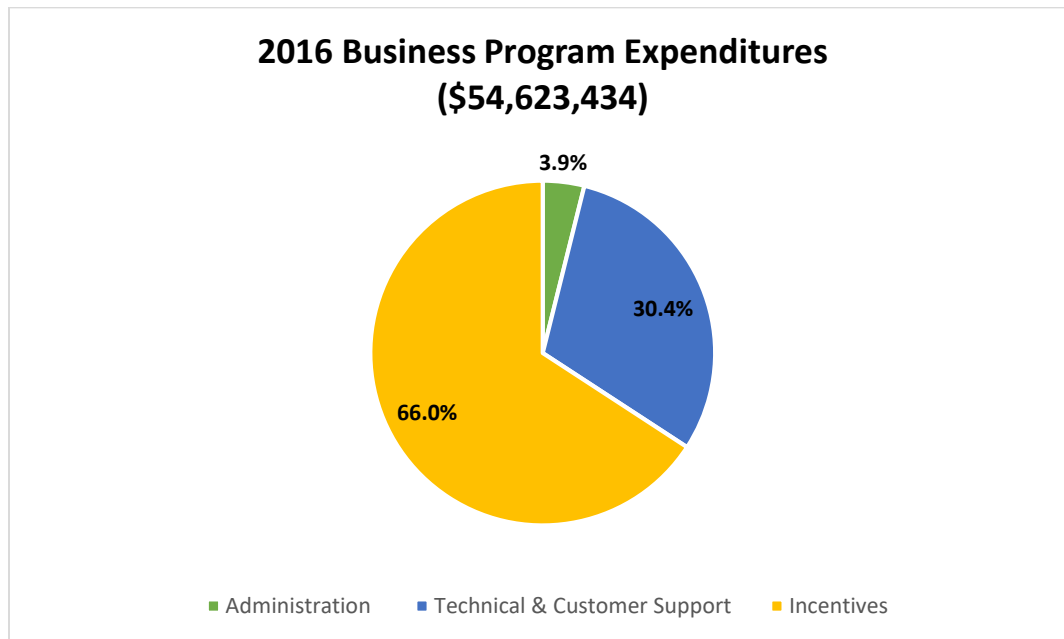
These Focus programs help Wisconsin businesses by:

- Demonstrating 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 and in some cases using Focus incentives as a funding match.

### 2016 Verified Gross Life Cycle Non-residential Savings (with Renewables)

	Participants	Verified Gross kWh	Verified Gross kW*	Verified Gross Therms	MMBtu	Benefit/Cost Ratio
Non-Residential Programs	5,844	6,291,666,334	59,101	308,984,348	52,365,600	3.13

## Expenditures<sup>1</sup>



### **RESIDENTIAL ENERGY EFFICIENCY PROGRAMS**

In 2016, demand for the broader portfolio of Residential programs continued to rise, helping residents reduce energy waste and save money by providing information and incentives necessary to prompt smart energy choices. Whether residents purchased ENERGY STAR<sup>®</sup> qualified LED bulbs, made efficiency upgrades to an existing home, or requested a Simple Energy Efficiency kit, Focus experts offered the insight, technical assistance, and financial incentives to get them started. The following programs were offered in the Residential sector during 2016:

- Simple Energy Efficiency (SEE);
- Home Performance with ENERGY STAR<sup>®</sup>;
- Retail Lighting and Appliances program;
- New Homes;
- Multifamily Direct Install;
- Multifamily Energy Savings;
- Residential Renewables; and,
- Design Assistance Program (Multifamily).

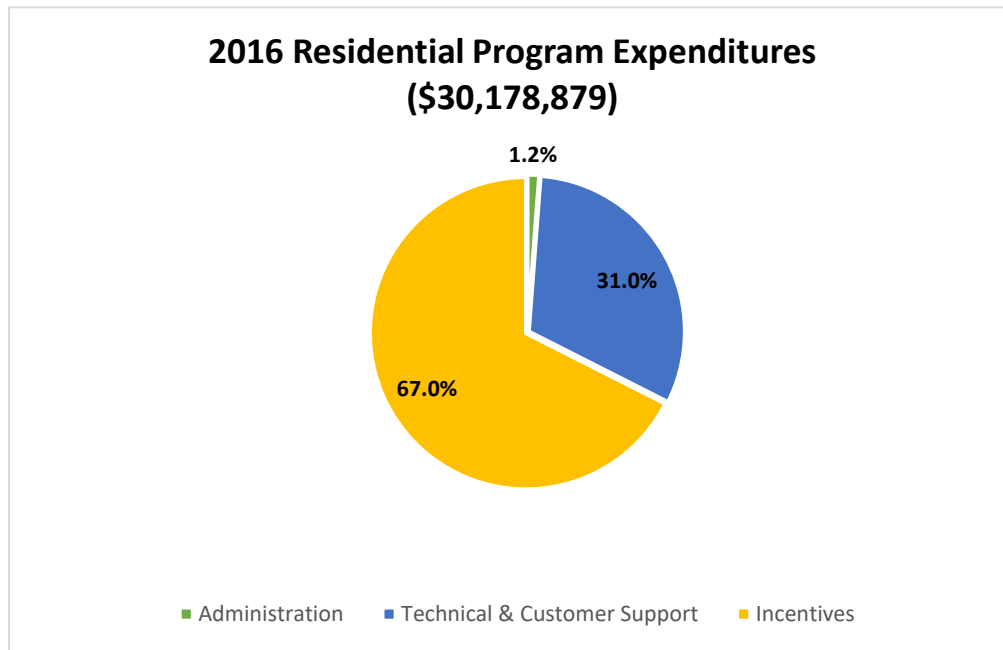
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<sup>1</sup> Non-Residential expenditures were 64 percent of total Focus program expenditures in 2016.

## 2016 Verified Gross Life Cycle Residential Savings (with Renewables)

	Participants	Verified Gross kWh	Verified Gross kW*	Verified Gross Therms	MMBtu	Benefit/Cost Ratio
Residential Programs	788,272	3,199,626,956	29,612	82,477,213	19,728,652	2.75

## Expenditures<sup>2</sup>



## RENEWABLE PROGRAMS

Act 141 requires that Focus includes renewable resource programs for Business and Residential end-use customers. As a result of the Quadrennial Planning II process in the fall of 2014, the Commission ordered the Program Administrator, Chicago Bridge & Iron (CB&I) to offer a Renewable Energy Revolving Loan Fund (RLF) to begin in January of 2015. The Commission dedicated \$10 million over the four-year period from the undesignated Focus fund for this effort and further directed that \$5 million be used for incentives in 2015 and \$3.5 million be used for incentives in 2016. The Commission directed CB&I to report back no later than mid-2016 on the status of the fund. Due to unforeseen delays, the RLF was not launched until January of 2016.

<sup>2</sup> Residential expenditures were 36 percent of total Focus program expenditures in 2016.

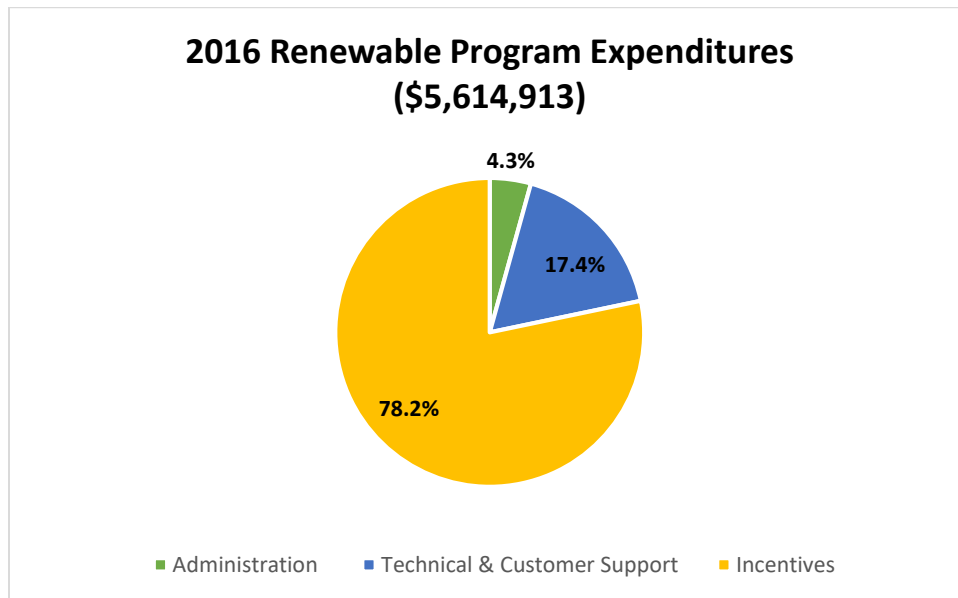


CB&I submitted the report and at its October 20, 2016 meeting, the Commission determined that the RLF should be discontinued and directed Commission staff and CB&I to report back within 30 days for the Commission’s review, recommendations as to the appropriate level of incentives and to the appropriate allocation of incentives between business and residential customers. At its December 1, 2016 meeting, the Commission determined that the estimated balance of the RLF (\$7,734,140 as of October 2016) should be used for incentives in 2017 and 2018. The Commission allocated \$1.1 million in residential incentives in both 2017 and 2018, \$2.1 million in business incentives in 2017, and \$3.4 million in business incentives for 2018. The Commission also capped solar photovoltaic incentives for 2017 and 2018 at 12 percent of total system costs. Finally, the Commission increased the capacity cap for business prescriptive solar photovoltaic incentives from 4 kilowatts (kW) to 8 kW ([PSC REF#: 295733](#)).

### 2016 Verified Gross Life Cycle Renewable Impacts

	Participants	Verified Gross kWh	Verified Gross kW	Verified Gross Therms	Benefit/ Cost Ratio
Non-residential Renewables	49	236,719,970	1,596	4,688,080	<b>1.09</b>
Residential Renewables	573	115,446,914	1,814	0	
<b>TOTAL</b>	<b>622</b>	<b>352,166,884</b>	<b>3,410</b>	<b>4,688,080</b>	

### Expenditures



## RESEARCH PORTFOLIO

Per a January 2012 Commission decision, the Environmental and Economic Research and Development Program (EERD) was directed to research the more immediate goal of Focus program design and delivery rather than the long term goal of planning for the state's energy future. At the time of that decision, the Commission also reduced the annual EERD budget from \$1,900,000 to \$100,000 per year through 2014. The \$100,000 annual budget was then approved for the 2015-2018 program period during the second Quadrennial Planning Process. There was no change to the mechanism for soliciting new research projects; therefore, the EERD program continued to solicit new projects through a competitive procurement process.

During the summer of 2016, CB&I conducted a Request for Proposals (RFP) process to fund a *New Homes Baseline and Market Characterization* study. Four proposals were received and the RFP committee selected Seventhwave to perform the study, with a budget of \$100,000. The study was completed in August of 2017 and results are being used to inform program design for the 2018 program year.

An RFP was also released in November 2016 and eight proposals were received. The RFP committee selected two proposals for funding:

- *Mid-sized Business Characterization*, by EMI Consulting, expected completion in December, 2017 with a budget of \$98,388.
- *Embedded Data Centers*, by Seventhwave, expected completion in April, 2018 with a budget of \$71,889.

## FOCUS 2016 FINANCIAL SUMMARY

During the 2016 contract period, the Focus program provided technical assistance; incentives; and energy efficiency and renewable energy information to an estimated 788,000 business and residential customers in Wisconsin. This resulted in life cycle savings of 8,806,768,180 kWh of electricity and more than 469 million therms of natural gas. Annual kW savings were 91,504.

### Administrative Costs

The chart below summarizes the administrative costs for the Focus program in 2016, which accounts for 7.9 percent of total spending.

Compliance Agent	\$226,043
SPECTRUM (Focus enterprise system)	\$1,243,061
Fiscal Agent	\$396,391
PSC Staff Oversight	\$400,000
CB&I Administrative Costs	\$3,064,322
Implementer Administrative Costs	\$2,535,979
<b>TOTAL</b>	<b>\$7,865,796</b>

The Financial Sheet below summarizes revenue, expenditures and Focus obligations for the 2016 contract period. Please note that the expenses for both the Residential and Business Programs include renewable resource program expenditures in addition to the energy efficiency program expenditures. In any given program year, not all dollars contributed are budgeted to programs in order to cover contractual obligations to be paid the following year.

## 2016 Focus Financial Sheet<sup>1</sup>

<b>REVENUE</b>	
Investor Owned Utilities	\$94,004,334
Municipal Electric Providers/Electric Cooperatives	\$3,271,868
Education and Training Revenue	\$38,092
<b>TOTAL REVENUE</b>	<b>\$97,314,294</b>
<b>EXPENSES</b>	
Residential Programs	\$30,178,879
Non-Residential Programs	\$54,623,434
Environmental and Economic Research and Development	\$128,336
Evaluation	\$4,265,122
CB&I Administrative and Technical & Customer Support	\$7,660,805
Other Program Support <sup>2</sup>	\$2,310,067
<b>TOTAL EXPENSES</b>	<b>\$99,166,643</b>
Carry-Over Funds <sup>3</sup>	\$2,047,841
Focus Contractual Obligations <sup>4</sup>	\$12,309,167

<sup>1</sup> Taken from the SEERA *Expense Report, Expenses through December 31, 2016*.

<sup>2</sup> Includes Fiscal Agent; Compliance Agent; Commission; SEERA; consulting services; software; SPECTRUM development and maintenance; bank fees and depreciation.

<sup>3</sup> Carry-Over funds are funds remaining at the end of the contract period which were obligated into the 2016 calendar year.

<sup>4</sup> 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 SPECTRUM.

## MUNICIPAL ELECTRIC AND RETAIL ELECTRIC COOPERATIVE REPORTING FOR COMMITMENT TO COMMUNITY PROGRAMS (CTC)

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 program 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.

In 2016, CTC programs were operated by 13 retail electric cooperatives. The other 11 cooperatives, all 41 WPPI Energy (WPPI) municipal electric utilities, and all 41 non-WPPI municipal utilities sent their energy efficiency funds to Focus. The table below summarizes energy savings and expenditures for all 13 CTC programs operated by cooperatives. It should be noted that the energy savings estimates are calculated by the cooperatives and are not subject to the same evaluation procedures as the Focus savings. As a result, Commission staff cannot verify these CTC energy savings claims and does not recommend adding these savings to the Focus savings for the purposes of calculating statewide energy savings.

### 2016 Retail Electric Cooperative CTC Summary

	<b>kW (with Load Mgt.)</b>	<b>Annual kWh (with Load Mgt.)</b>	<b>Program Admin.</b>	<b>Program Delivery</b>	<b>Incentives</b>	<b>General marketing</b>	<b>Load Mgt. Costs</b>	<b>Wholesale Supplier Credit</b>
<b>Coop CTC Totals</b>	5,636	14,726,719	\$41,096	\$77,690	\$889,430	\$135,398	\$515,718	\$277,665

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