### SAVE ENERGY. SAVE MONEY. SAVE WITH SRP.

100% 🚃



Home Performance



Pool Pump



Cool Cash

CFL



Duci Test and Repair



Appliance Recycling





**ENERGY STAR Homes** 



**Energy Scorecard** 

- 187



**Building Energy** Code Initiative



**New Construction** 





Shude Tree



Retrocommissioning



**SPATIA** 



**M-Power** 



**Small Business Solutions** 



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**Peak Reduction** 



**PowerPartner** 



Delivering more than power.™

#### SAVE ENERGY. SAVE MONEY. SAVE WITH SRP.

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### SAVE ENERGY. SAVE MONEY. SAVE WITH SRP.

Managing resources to serve customers' energy needs is at the heart of what we do at SRP. During the past few years, we've introduced more than 25 new energy-efficiency programs for our residential and commercial customers. These programs have been refined and will continue to be optimized to help all types of customers save energy and money. Best of all, energy efficiency helps SRP cost-effectively meet current and future power demand.

By 2020, SRP aims to meet 20% of its expected retail energy requirements with energyefficiency programs and supply-side sustainable resources, including wind, geothermal, solar, landfill gas, biomass, hydropower and fuel cell technology. That goal was set in 2011, when the SRP Board of Directors voted to raise SRP's Sustainable Portfolio goals. We're well on our way to meeting that goal.

In fiscal year (FY) 2013, we exceeded our goal of 10.38% of retail requirements delivered through sustainable sources. Energy-efficiency programs play an important part in reaching the overall goal each year. We also exceeded our annual incremental energy-efficiency savings target of 1.50% by delivering 2.25% of retail requirements.

Our residential and commercial customers played a key role in helping us exceed many FY13 program goals. On the residential side, we sold about 2.5 million CFL bulbs through our partnerships with local retailers. We also made a splash with our Energy-Efficient Pools Program, with more than 5,500 customers making the switch to variable-speed pool pumps. In addition, more than 4,000 customers purchased SRP ENERGY STAR® homes and are benefiting from a whole-house approach to energy efficiency. Commercial customers



did their part by taking advantage of our Standard Business Solutions and Custom Business Solutions programs, which offer rebates for energy-efficient lighting, HVAC, refrigeration and more. These programs exceeded their annual energy-savings goals, achieving 163% of the set targets. These success stories would not be possible without our customers' participation.

Energy-efficient construction continues to be a priority for SRP, and that's why we're committed to raising awareness of the International Energy Conservation Code (IECC) for residential construction and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standards for commercial construction. We've taken the lead in supporting local jurisdictions and educating key stakeholders within SRP's electric service territory to achieve the adoption of these building energy codes, which ultimately help customers achieve long-term savings.

As SRP enters its second century of service in the Valley of the Sun, energy efficiency is a major part of our overall conservation and stewardship ethic. It is a cost-effective way to



help residents and business owners make improvements that save energy and money while helping preserve resources. Ultimately, this collaboration with customers helps SRP manage resources for all customers — today and in future generations.



SRP SUSTAINABLE PORTFOLIO\* FY13 ACTUAL AND FY14 PROJECTED

\*Resources in excess of requirement will be banked for future use.

Cindy Marysha Cindy Marzofka

Cindy Marzofka Manager, Program Marketing & Corporate Events

P-

Dan Dreiling Manager, Product Development

What are watts?

Watts measure power. A 100-watt light bulb consumes 100 watts of power when turned on. If this bulb were on for four hours, it would consume 400 watt-hours of energy. Watts measure instantaneous power, while watt-hours measure the total amount of energy consumed over time. A kilowatt (kW) is 1,000 watts, a megawatt (MW) is 1 million watts and a gigawatt (GW) is 1 billion watts.

### What is annual aggregate?

Most energy-efficiency technologies save energy not only in the year they are installed, but for all years of operation. Although total lifetime energy savings is important, SRP must project how much energy to supply on a yearly, a daily and an hourly basis. SRP looks at the impact of each program on an annual-aggregate basis. Annual aggregate sums the saving effects of all contributing technologies related to each program, including units installed in the current year and all prior years. Annual aggregate represents the amount of electricity that would have been needed if a program had not been implemented.

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# SRP'S ENERGY-EFFICIENCY

## OUR PLAN TO MEET FUTURE DEMAND

During the past decade, businesses and households have been adding sophisticated equipment and electronics that improve productivity and comfort. These devices are powered by SRP's electrical system. As we look to the future, energy-efficiency programs play an important role in our plan to meet future energy needs.

### MORE SUSTAINABLE SOURCES IN THE MIX

SRP continuously evaluates ways to expand our use of environmentally sensitive supplyand demand-side options, explores additional ways to displace the use of fossil fuels, and provides opportunities for the introduction of new technologies and ideas. SRP does this by implementing its Sustainable Portfolio Principles, which include evaluating measures that offset or do not emit greenhouse gases and that produce the maximum sustainableenergy benefit for the lowest reasonable cost. In addition, SRP develops and expands the use of sustainable-energy technologies in collaboration with customers, Arizona universities, and public and private entities.



In 2011, SRP's Board set an annual incremental energy-efficiency target to help customers manage their energy use and to contribute savings to the Sustainable Portfolio.

SRP will actively encourage and recognize innovation in, and the use of, sustainable-energy technologies by employees, outside experts, the public and customers. We will also undertake comprehensive education efforts to inform customers and stakeholders of our sustainability efforts. These key principles will guide SRP in our efforts to meet and exceed yearly goals and ensure a more sustainable future for our customers.

### HOW WE MEASURE PROGRAM RESULTS

Evaluations of energy-efficiency programs are essential. SRP must have a thorough understanding of the direct effect each program has in reducing energy consumption, the quality of the experience and the value provided to participating customers, and the overall net benefit provided by each program's existence. Recognizing this need, SRP regularly performs formal and comprehensive energy-savings impact, program process and cost-effectiveness evaluations on SRP's energy-efficiency programs. In order for the results to be reliable and impartial, third-party independent consultants conduct these evaluations. These industry-expert consultants conduct engineering and electric-usage analyses, research, interviews with internal and external stakeholders, and economic cost-benefit tests to provide an objective and unbiased assessment of our programs and the portfolio of energy-efficiency offerings as a whole. SRP's Measurement and Evaluation group also conducts regular research and reviews of the programs. This comprehensive approach ensures that the reported program impacts and activities are accurate, reliable, and trusted and that resources devoted to energy-efficiency initiatives are effectively and appropriately allocated.

### ENERGY USE WILL CONTINUE TO GROW

As SRP's history shows, the Valley's long-term economic strength supports growth in new homes, businesses and uses for electricity. Although the recent economic recession has limited SRP's customer growth, the long-term outlook for the Valley is still bright. Today's energy-efficiency and demand-response programs are effective tools to manage the energy demand that will come with the return of regional economic growth.



#### SRP GROWTH IN ENERGY USE

SRP specifically considers the impacts of our energy-efficiency and demand-response programs when determining future system needs. Increasing efficiencies on SRP's system can lower fuel expenses, defer the building of new power plants and reduce required reserves.



### PROGRAMS ENCOURAGE CUSTOMER SAVINGS

By partnering with customers to manage their usage, SRP can better manage the cost to supply electricity.

SRP's energy-saving rebates, discounts and advice give customers more control over their energy use and monthly bills. We provide customers with the peace of mind that comes with taking control of their costs and protecting the environment. Our energy-saving programs are described in this report, and current offers are featured on our websites.

- For residential customers: savewithsrp.com
- For commercial customers: savewithsrpbiz.com

Please note that SRP reserves the right to change or cancel programs or our terms and conditions at any time.

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### **RESIDENTIAL ENERGY-EFFICIENCY**

PROC Guaranteed Heating & Cooling\* Less Than SO2 ENVIRONMENTS FOR



# HOME PERFORMANCE WITH ENERGY STAR

The SRP Home Performance with ENERGY STAR® program is a comprehensive home energy assessment. Instead of focusing on a single problem, such as an outdated cooling system or lack of insulation, the program identifies solutions throughout the home that can work together to provide the customer with the best results.

Assessments and installations are completed by prequalified contractors certified by the Building Performance Institute (BPI). Contractors receive \$299 per assessment. Participating customers are responsible for \$99 of that amount, and SRP pays contractors the remaining \$200. Energy-saving improvements identified in this assessment (a \$500 value) may qualify for other money-saving offers from SRP, such as rebates for cooling systems, duct repairs, shade screens and pool pumps.

Key program statistics are listed below.

HOME PERFORMANCE WITH ENERGY STAR	FY13 Actual	FY14 Budget
Annual Participation	4,225	3,500
Annual Rebate	\$977,629	\$1,316,000
Single-Year Energy Savings (MWh)	3,380	3,598
Annual Aggregate Energy Savings (MWh)	6,873	13,090
Annual Aggregate Load Reduction (MW)	1.78	6.96
Total Resource Cost (TRC)	1.15	1.26
Ratepayer Impact Measure (RIM)	0.44	0.54

What is TRC?

The Total Resource Cost (TRC) measures the overall economic efficiency of customer energy-saving programs. Both customer participant and utility costs are included in this measure. Programs with a TRC greater than 1.0 are considered cost-effective.

What is RIM?

The Ratepayers Impact Measure (RIM) is the impact of the program on utility revenues (prices) and its effect on nonparticipating customers. Programs with relatively higher kilowatt-hour (kWh) reductions will result in higher revenue losses and reduce the potential to be cost-effective under RIM. It also measures how changes in utility revenues and operating costs affect average price levels. The higher the RIM value, the smaller impact the program will have on customer prices. "Last summer it hit me. We have a big indoor space to cool off. Was there anything we could do to save some money on our electric bill? We were pleased and relieved. Our home was pretty efficient. The contractor told us that adding insulation in some interior walls could cut energy use."

**Residential customer in Phoenix** 

Participation in Home Performance with ENERGY STAR also means customers are eligible for air-sealing and insulation rebates of 75% of the cost to seal air leaks (up to \$250) and 75% of the cost of qualified insulation (up to \$250). Many homes are full of hidden holes that let outside air in and conditioned air out. These leaks can have a negative impact on insulation performance. Sealing leaks is critical to improving overall efficiency and comfort. For insulation to achieve its maximum performance, it must be installed in the right locations and be free of gaps, voids and compressions. When combined with sealing air leaks, properly installed insulation provides more even temperatures throughout the house, resulting in a more comfortable living environment and greater energy savings.

Key program statistics are listed below.

AIR SEALING	FY13 Actual	FY14 Budget*
Annual Participation	1,085	n/a
Annual Rebate	\$209,000	n/a
Single-Year Energy Savings (MWh)	169	n/a
Annual Aggregate Energy Savings (MWh)	331	n/a
Annual Aggregate Load Reduction (MW)	0.08	n/a
Total Resource Cost (TRC)	0.23	n/a
Ratepayer Impact Measure (RIM)	0.56	n/a
		•
INSULATION REBATE	FY13 Actual	FY14 Budget*
INSULATION REBATE Annual Participation	FY13 Actual 1,391	FY14 Budget* n/a
INSULATION REBATE Annual Participation Annual Rebate	FY13 Actual 1,391 \$243,547	FY14 Budget* n/a n/a
INSULATION REBATE Annual Participation Annual Rebate Single-Year Energy Savings (MWh)	FY13 Actual 1,391 \$243,547 1,604	FY14 Budget* n/a n/a n/a
INSULATION REBATE Annual Participation Annual Rebate Single-Year Energy Savings (MWh) Annual Aggregate Energy Savings (MWh)	FY13 Actual 1,391 \$243,547 1,604 2,603	FY14 Budget* n/a n/a n/a n/a
INSULATION REBATE Annual Participation Annual Rebate Single-Year Energy Savings (MWh) Annual Aggregate Energy Savings (MWh) Annual Aggregate Load Reduction (MW)	FY13 Actual 1,391 \$243,547 1,604 2,603 0.97	FY14 Budget* n/a n/a n/a n/a n/a
INSULATION REBATE Annual Participation Annual Rebate Single-Year Energy Savings (MWh) Annual Aggregate Energy Savings (MWh) Annual Aggregate Load Reduction (MW) Total Resource Cost (TRC)	FY13 Actual 1,391 \$243,547 1,604 2,603 0.97 3.44	FY14 Budget* n/a n/a n/a n/a n/a n/a

\*As of FY14, Air Sealing and Insulation will be included in Home Performance with ENERGY STAR statistics.



### COOL CASH REBATE PROGRAM

SRP Cool Cash<sup>™</sup> Rebate Program participants receive up to \$400 for the purchase of new energy-efficient heat pumps and package units to replace existing units in their homes. Rebates are paid according to the efficiency levels of the units. Units eligible for a rebate have a Seasonal Energy Efficiency Rating (SEER) of 15 or higher; an associated Energy Efficiency Rating (EER) of 12 or higher (package systems) or 12.5 or higher (split systems); and required heating-efficiency ratings. Rebate levels are \$200, \$300 and \$400, depending on the various equipment configurations.

COOL CASH REBATE PROGRAM	FY13 Actual	FY14 Budget
Annual Participation	1,258	2,014
Annual Rebate	\$444,400	\$657,349
Single-Year Energy Savings (MWh)	2,151	3,282
Annual Aggregate Energy Savings (MWh)	13,624	16,906
Annual Aggregate Load Reduction (MW)	4.86	6.25
Total Resource Cost (TRC)	2.51	1.82
Ratepayer Impact Measure (RIM)	0.83	0.84







### DUCT TEST AND REPAIR REBATE PROGRAM

The SRP Duct Test and Repair Rebate Program offers up up to \$75 toward duct testing and up to \$175 for qualified duct repairs. Ducts distribute air from the central heating or air-conditioning system to each part of the home and back again. In a typical house, about 20% of the air that moves through the duct system is lost because of leaks or improper installation. Tightly sealed and well-insulated air ducts can maintain temperatures throughout the home, reduce energy costs, and prevent dirt, dust, moisture, pollen, pests and fumes from entering the home. BPI-certified contractors use industry-accepted testing methods to perform the work.

DUCT TEST AND REPAIR REBATE PROGRAM	FY13 Actual	FY14 Budget
Annual Participation	3,282	5,791
Annual Rebate	\$769,175	\$763,425
Single-Year Energy Savings (MWh)	3,030	4,047
Annual Aggregate Energy Savings (MWh)	9,289	13,336
Annual Aggregate Load Reduction (MW)	3.47	6.90
Total Resource Cost (TRC)	4.69	5.42
Ratepayer Impact Measure (RIM)	0.88	0.91



### SHADE SCREEN REBATE PROGRAM

The SRP Shade Screen Rebate Program provides incentives for installing shade screens on east-, west- and south-facing windows. Screens must block at least 80% of the sun's rays, which can reduce heat gain by up to 50% and lower customer cooling costs by up to 25%. SRP customers receive an \$0.80-per-square-foot rebate on qualifying new or refurbished, installed shade screens.

Key program statistics are listed below.

SHADE SCREEN REBATE PROGRAM	FY13 Actual	FY14 Budget
Annual Participation	4,993	5,119
Annual Rebate	\$632,294	\$565,138
Single-Year Energy Savings (MWh)	4,284	3,728
Annual Aggregate Energy Savings (MWh)	10,951	14,679
Annual Aggregate Load Reduction (MW)	4.15	17.74
Total Resource Cost (TRC)	11.62	9.83
Ratepayer Impact Measure (RIM)	0.90	0.89

"The shade screens have made a big difference. My master bath suite is not a hot spot anymore, and my office furniture and equipment stay cool. In addition, the screens look great, which makes the homeowners association very happy."

**Residential customer in Gilbert** 





### ENERGY-EFFICIENT POOLS PROGRAM

The SRP Energy-Efficient Pools Program rewards pool owners with a discount of \$150 for the installation of a variable-speed pump. The amount was reduced from \$200 effective May 1, 2013, to support as many customers as possible due to the tremendous response to the program in FY13. These pumps save energy and cut operating costs by moving water through the pool filtration system more slowly than single- or two-speed pumps but can also be set to filter quickly for more intense cleaning.

ENERGY-EFFICIENT POOLS PROGRAM	FY13 Actual	FY14 Budget
Annual Participation	5,596	5,300
Annual Rebate	\$1,486,485	\$1,166,000
Single-Year Energy Savings (MWh)	16,680	15,798
Annual Aggregate Energy Savings (MWh)	24,391	40,189
Annual Aggregate Load Reduction (MW)	5.29	7.06
Total Resource Cost (TRC)	2.46	2.98
Ratepayer Impact Measure (RIM)	0.73	0.75

"All my light fixtures now have CFL bulbs. I think one of the best benefits, besides the savings, is that the light bulbs do not get as hot, so less heat is generated in my smaller rooms. That adds to the savings in the summer!"

Residential customer in Phoenix



# **RETAIL LIGHTING PROGRAM**

SRP's Retail Lighting Program provides customers with a discounted retail price for energy-efficient CFLs. SRP offers several buy-down programs in which we partner with retailers and CFL manufacturers to pay a portion of the bulbs' retail cost. The buy-downs range from \$0.50 to \$2 per lamp on

a wide range of bulbs, including select ceiling fan, daylight and dimming CFLs. FY13 programs were in place at Costco, Home Depot, Lowe's, Walmart and Sam's Club.

The CFL discount program:

- Captures significant energy savings for the SRP Sustainable Portfolio
- Produces long-term, cost-effective energy savings
- Is an easy, low-cost, energy-saving action for any customer

RETAIL LIGHTING PROGRAM	FY13 Actual	FY14 Budget
Annual Participation	2,460,961	1,924,194
Annual Rebate	\$2,593,559	\$2,349,171
Single-Year Energy Savings (MWh)	113,497	63,704
Annual Aggregate Energy Savings (MWh)	389,678	441,410
Annual Aggregate Load Reduction (MW)	83.40	82.08
Total Resource Cost (TRC)	16.35	7.13
Ratepayer Impact Measure (RIM)	0.79	0.78



## Fridge = APPLIANCE RECYCLING PROGRAM

The SRP Appliance Recycling Program provides a \$50 incentive to customers for the removal and environmentally responsible disposal of older, yet still operating, refrigerators and freezers. It targets secondary units ranging from 10 to 30 cubic feet that may be outdoors or in garages. The program provides energy savings for customers and a significant environmental benefit.

APPLIANCE RECYCLING PROGRAM	FY13 Actual	FY14 Budget
Annual Participation	12,585	12,000
Annual Rebate	\$619,890	\$600,000
Single-Year Energy Savings (MWh)	14,381	14,031
Annual Aggregate Energy Savings (MWh)	44,657	58,688
Annual Aggregate Load Reduction (MW)	7.08	10.05
Total Resource Cost (TRC)	4.61	4.63
Ratepayer Impact Measure (RIM)	0.53	0.55



"The shade trees have made a difference at my home. They are still little but growing daily, and I love the birds, bees and other wildlife they have attracted. As they mature, they will bring both great beauty and great shade to my home."

**Residential customer in Scottsdale** 





### SHADE TREE PROGRAM

The SRP Shade Tree Program provides customers with up to two desertadapted shade trees. Shade trees can reduce cooling needs by up to 10% by blocking the sun's rays. Shaded walls can be 10°–35° cooler at peak times. In addition to saving energy, the desert-adapted varieties the

program uses require minimal irrigation and help conserve precious water resources. Customers must attend a workshop designed to educate them about the best ways to plant and care for their new trees.

SHADE TREE PROGRAM	FY13 Actual	FY14 Budget
Annual Participation	5,182	5,000
Annual Rebate	\$45,675	\$50,000
Single-Year Energy Savings (MWh)	706	681
Annual Aggregate Energy Savings (MWh)	825	1,505
Annual Aggregate Load Reduction (MW)	0.31	0.31
Total Resource Cost (TRC)	3.15	3.65
Ratepayer Impact Measure (RIM)	0.85	0.90



## ENERGY STAR HOMES

SRP ENERGY STAR Homes is a partnership with Valley homebuilders to encourage their efforts to increase the efficiency of new homes. The program benefits builders and buyers alike. In fact, nearly 70% of new homes built within SRP's service territory in the past year were certified.

That is a good indication that homebuyers are increasingly more interested in energy efficiency and that builders have embraced the program's benefits.

Introduced in May 2012, SRP ENERGY STAR Homes replaced the PowerWise Homes program. This new partnership offers a major benefit to homebuyers in the Valley. It embraces SRP's commitment to energy-efficient, quality-built housing while leveraging the nationally recognized ENERGY STAR name. SRP's program follows ENERGY STAR Version 3 guidelines and features additional HVAC and water-efficiency improvements important to a desert climate.

To demonstrate the energy efficiency of the models being offered to buyers, tests and inspections are performed on randomly selected houses during construction and given a rating with the Home Energy Rating System (HERS). Builders earn an incentive for each completed house with a HERS Index of 70 or lower. The program encourages builders to reach even greater levels of efficiency. The program enhancements will amount to a significant increase in energy and water savings, helping new-home owners save up to \$550 annually on their utility bills.

ENERGY STAR HOMES	FY13 Actual	FY14 Budget
Annual Participation	4,286	3,434
Annual Rebate	\$4,041,408	\$3,733,699
Single-Year Energy Savings (MWh)	22,126	11,451
Annual Aggregate Energy Savings (MWh)	126,146	137,597
Annual Aggregate Load Reduction (MW)	34.64	35.36
Total Resource Cost (TRC)	2.58	2.68
Ratepayer Impact Measure (RIM)	0.86	0.81



### ENERGY SCORECARD PILOT

The Energy Scorecard Pilot program provides certain residential customers with customized energy-saving solutions and energy-consumption data that compare their usage with similar homes. The program is in its second year of a two-year pilot and is designed to help customers better manage their energy usage throughout the year and establish long-term behavior change. Scorecards are issued six times per year.

ENERGY SCORECARD PILOT	FY13 Actual	FY14 Budget
Annual Participation	60,000	60,000
Annual Rebate	\$O	\$0
Single-Year Energy Savings (MWh)	2,977	0
Annual Aggregate Energy Savings (MWh)	2,977	0
Annual Aggregate Load Reduction (MW)	0.99	0.46
Total Resource Cost (TRC)	0.99	0.00
Ratepayer Impact Measure (RIM)	0.45	0.00





## BUILDING ENERGY CODE INITIATIVE

The SRP Building Energy Code Initiative aims to raise awareness and promote the adoption of residential and commercial building energy codes within SRP's electric service territory. Building energy codes are becoming increasingly more effective in providing SRP customers with homes and buildings that are more energy efficient and affordable to operate. Building energy codes also represent one of the lowest-cost options to improve energy efficiency and reduce greenhouse gas emissions across SRP's service territory.

The primary goal of this program is to provide municipal building officials, advisory board members, and elected officials with the necessary information, training, and technical assistance to adopt the most current IECC for residential construction and the ASHRAE 90.1 standard for commercial construction. SRP also provides educational support and training to members of the local building community, including builders, architects, engineers and contractors who need to comply with the newly adopted energy codes. Finally, SRP uses its presence at the national, state and local levels to help our customers and stakeholders develop and advocate for more robust building energy codes.

Within SRP's Sustainable Portfolio, this program will capture credit for a portion of the energy saved as more-efficient homes and buildings are constructed in jurisdictions that have adopted the advanced energy codes.

RESIDENTIAL ENERGY CODE INITIATIVE	FY13 Actual	FY14 Budget
Annual Participation	3,132	6,806
Annual Rebate	\$17,436	\$100,000
Single-Year Energy Savings (MWh)	3,274	2,764
Annual Aggregate Energy Savings (MWh)	3,990	6,754
Annual Aggregate Load Reduction (MW)	1.03	1.75
Total Resource Cost (TRC)	62.29	86.04
Ratepayer Impact Measure (RIM)	0.93	0.95
COMMERCIAL ENERGY CODE INITIATIVE	FY13 Actual	FY14 Budget
COMMERCIAL ENERGY CODE INITIATIVE Annual Participation	FY13 Actual 465	<b>FY14 Budget</b> 1,758
COMMERCIAL ENERGY CODE INITIATIVE Annual Participation Annual Rebate	FY13 Actual 465 \$17,436	FY14 Budget 1,758 \$100,000
COMMERCIAL ENERGY CODE INITIATIVE Annual Participation Annual Rebate Single-Year Energy Savings (MWh)	<b>FY13 Actual</b> 465 \$17,436 661	FY14 Budget 1,758 \$100,000 3,732
COMMERCIAL ENERGY CODE INITIATIVE Annual Participation Annual Rebate Single-Year Energy Savings (MWh) Annual Aggregate Energy Savings (MWh)	<b>FY13 Actual</b> 465 \$17,436 661 807	FY14 Budget 1,758 \$100,000 3,732 4,539
COMMERCIAL ENERGY CODE INITIATIVE Annual Participation Annual Rebate Single-Year Energy Savings (MWh) Annual Aggregate Energy Savings (MWh) Annual Aggregate Load Reduction (MW)	FY13 Actual         465         \$17,436         661         807         0.11	FY14 Budget           1,758           \$100,000           3,732           4,539           0.77
COMMERCIAL ENERGY CODE INITIATIVE Annual Participation Annual Rebate Single-Year Energy Savings (MWh) Annual Aggregate Energy Savings (MWh) Annual Aggregate Load Reduction (MW) Total Resource Cost (TRC)	FY13 Actual         465         \$17,436         661         807         0.11         10.11	FY14 Budget         1,758         \$100,000         3,732         4,539         0.77         93.53



### APPLIANCE AND EQUIPMENT STANDARDS

The SRP Appliance and Equipment Standards program is designed to increase the awareness of and advocate for more-robust efficiency standards at the national, state and local levels. SRP participates in national standards development committees to help shape the efficiency standards available for nationwide adoption and implementation by the U.S. Department of Energy (DOE) and other organizations. SRP also provides leadership within Arizona through support of local legislative initiatives to retain and adopt new equipment efficiency standards. This program will capture credit for a portion of the energy saved as home and building owners in SRP's service territory purchase more-efficient appliances and equipment.

Key program statistics from Arizona's Pool Pump Standard are listed below.

APPLIANCE AND EQUIPMENT STANDARDS	FY13 Actual	FY14 Budget
Annual Participation	5,596	5,300
Annual Rebate	\$O	\$100,000
Single-Year Energy Savings (MWh)	3,827	3,619
Annual Aggregate Energy Savings (MWh)	4,265	7,884
Annual Aggregate Load Reduction (MW)	0.57	1.03
Total Resource Cost (TRC)	30.51	23.86
Ratepayer Impact Measure (RIM)	0.66	0.64





### M-POWER

SRP M-Power® is a prepay program that uses in-home display monitors, smart cards and a payment kiosk network to put more than 139,000 consumers in control of many aspects of their energy use and payments. As a result, M-Power customers, on average, reduce their annual energy consumption 12% by:

- Monitoring electricity usage with real-time information
- Managing the cost of consumption to meet personal needs
- Using in-home displays that provide positive reinforcement and immediate feedback about energy usage

In addition, the program provides hands-on energy education for the entire family. According to annually conducted customer research, M-Power has achieved one of the highest levels of satisfaction.

- 92% of customers are satisfied/very satisfied with M-Power.
- 79% of customers say that gaining control over their electricity usage had a lot to do with them enrolling.
- 94% of customers say they agree/ strongly agree with the statement that they use energy more wisely.
- 81% of customers agree/strongly agree that they use a lot less electricity.

M-POWER	FY13 Actual	FY14 Budget
Annual Participation	139,239	148,500
Annual Rebate	\$O	\$O
Single-Year Energy Savings (MWh)	234,160	220,929
Annual Aggregate Energy Savings (MWh)	234,160	220,929
Annual Aggregate Load Reduction (MW)	55.70	57.25
Total Resource Cost (TRC)	5.78	5.32
Ratepayer Impact Measure (RIM)	0.72	0.72



# COMMERCIAL ENERGY-EFFICIENCY



# STANDARD BUSINESS SOLUTIONS

SRP's Standard Business Solutions program is the largest contributor to the portfolio of commercial energy-efficiency programs. It provides rebates for the purchase of popular high-efficiency equipment used in lighting, HVAC, compressed-air, refrigeration and data center applications. In FY14, the building envelope will be added as a new category with the addition of rebates for window film and shade screens.

- Lighting: Rebates of \$300 per kW of installed demand reduction and \$15 to \$40 per qualifying occupancy sensor are offered.
- HVAC: Rebates range from \$20 to \$185 per ton, based on the unit's level of efficiency, and up to \$40 per programmable thermostat.
- Variable-frequency drives: Customers can receive a \$55-per-horsepower (hp) rebate for drives that are installed on HVAC fan and pump motors.
- Data centers: For networked PC power management software, customers can receive \$8 per computer, \$750 per high-

Key program statistics are listed below.

efficiency server, \$75 per server for power management and \$100 per server virtualization.

- **Economizers:** A rebate of \$40 per ton is available.
- Hotel room occupancy controls: Customers can receive a \$50 rebate per controlled room.
- **CO and CO<sub>2</sub> sensors:** Rebates of \$250 and \$120, respectively, are offered.
- Compressed air, chillers and refrigeration measures: Refer to SRP's equipment catalogs and program manuals online for specific rebate levels.

STANDARD BUSINESS SOLUTIONS	FY13 Actual	FY14 Budget
Annual Participation	1,529	1,690
Annual Rebate	\$8,676,438	\$9,000,000
Single-Year Energy Savings (MWh)	129,968	114,523
Annual Aggregate Energy Savings (MWh)	364,757	479,280
Annual Aggregate Load Reduction (MW)	21.82	78.37
Total Resource Cost (TRC)	8.08	5.37
Ratepayer Impact Measure (RIM)	0.72	0.73

"Including energy-efficiency measures in the design and construction phase of our manufacturing facility is paying off. With the lighting and occupancy sensors alone, we will save more than 800,000 kilowatt-hours a year. The company is also realizing an unexpected benefit: Employees say they feel like they work in a better environment."

### **Commercial customer in Mesa**



# CUSTOM BUSINESS SOLUTIONS

The SRP Custom Business Solutions program offers customers the opportunity to submit projects for energy-efficient upgrades unique to their facilities and operations.

Customers may submit rebate applications for eligible measures regardless of whether they participate in an assessment. Examples of eligible measures include energy management control systems, certain building-envelope enhancements, process or equipment improvements, and energy-efficient air distribution systems. Cost-effective projects receive rebates of \$0.11 per kWh for single-year energy savings. Rebates are limited to 50% of the incremental cost and can be reduced by 25% if the customer does not complete the outlined commissioning requirements.

Certain large businesses may qualify for an assessment of energy-saving opportunities. To qualify, eligible customers must meet one of these criteria:

- Be served by an E-60 series price plan
- Have a compressed-air system of 100 hp or greater (excluding backup systems)
- Have a pumping system for non-HVAC applications of at least 25 hp (excluding backup)

An SRP Qualified Service Provider (QSP) will perform a preapproved preliminary assessment to identify cost-effective opportunities for energy savings. This initial assessment is fully funded by SRP up to \$3,000. Projects with the strongest returns are further evaluated by the QSP as part of a more in-depth, preapproved technical assessment. This assessment provides specific measure details and estimates of costs, energy savings and financial returns. SRP will pay 50% of the technical assessment cost (up to \$15,000 per customer per year). SRP will pay the remaining 50% for customers who implement the recommended measures that meet established requirements. In FY14, a technical assessment will be included for data centers larger than 1,000 square feet with dedicated HVAC equipment.

CUSTOM BUSINESS SOLUTIONS	FY13 Actual	FY14 Budget
Annual Participation	222	250
Annual Rebate	\$4,282,640	\$3,200,000
Single-Year Energy Savings (MWh)	47,067	32,236
Annual Aggregate Energy Savings (MWh)	110,474	142,710
Annual Aggregate Load Reduction (MW)	7.90	23.66
Total Resource Cost (TRC)	12.97	4.51
Ratepayer Impact Measure (RIM)	0.72	0.72



# NEW CONSTRUCTION SOLUTIONS

The SRP New Construction Solutions program provides technical assistance and financial rebates to help architects, engineering professionals and building owners optimize energy and demand savings, in addition to reducing operating costs in new commercial buildings larger than 75,000 square feet that have a monthly demand greater than 400 kW. Incentives for this program include free SRP consulting to facilitate ideas for incorporating energy-efficiency measures in the building and building-simulation modeling. SRP also provides incentives of \$8,000 to \$12,000 to the design team, based on the size of the facility. Building-owner equipment rebates range from \$0.08 to \$0.16 per kWh for single-year energy savings, depending on the efficiency level of the new facility. In FY14, rebates for the design of and technical consulting for data center projects will be included.

Newly constructed buildings must exceed by a minimum of 10% ASHRAE standard 90.1-2007. Owner incentives are paid on a sliding scale based on the percentage that the new building exceeds the ASHRAE 2007 standard, up to a maximum of 30%. The typical project development cycle is 18 to 24 months. Energy savings for current-year expenditures will most likely occur in the following fiscal year.

Key program statistics are listed below.

NEW CONSTRUCTION SOLUTIONS	FY13 Actual	FY14 Budget
Annual Participation	2	19
Annual Rebate	\$306,321	\$1,755,600
Single-Year Energy Savings (MWh)	2,943	4,030
Annual Aggregate Energy Savings (MWh)	4,197	8,227
Annual Aggregate Load Reduction (MW)	0.49	1.69
Total Resource Cost (TRC)	7.47	1.18
Ratepayer Impact Measure (RIM)	0.68	0.56

What is the maximum rebate awarded under the SRP Business Solutions programs?

Rebate limits are per customer per fiscal year. Customers are eligible for up to \$200,000 in rebates under any single SRP Business Solutions program and up to \$300,000 for participation in the programs overall.



# RETROCOMMISSIONING SOLUTIONS

The SRP Retrocommissioning Solutions program helps customers achieve demand and energy savings in both small and large commercial and industrial facilities of at least 2 years of age. Through the retrocommissioning process, low- and no-cost measures are identified and implemented to improve the operation of mechanical and control systems to reduce energy and demand. In many cases, the program also improves occupant comfort and production efficiency. In FY14, a second offering will be launched to address the needs of smaller buildings in the range of 25,000–75,000 square feet. The option will focus on addressing a predefined list of common retrocommissioning measures in these buildings. Program participants must demonstrate a commitment to spend \$500–\$1,000 on small and medium facilities (25,000–75,000 square feet) and \$10,000 or more on larger facilities to implement identified retrocommissioning measures with an estimated total project simple payback of two years or less, based on electricity savings. Rebates are limited to two projects per year for small and medium facilities and capped at \$50,000 per project (large facilities) and \$200,000 per customer.

RETROCOMMISSIONING SOLUTIONS	FY13 Actual	FY14 Budget
Annual Participation	16	33
Annual Rebate	\$534,868	\$1,188,000
Single-Year Energy Savings (MWh)	6,721	15,848
Annual Aggregate Energy Savings (MWh)	15,484	31,332
Annual Aggregate Load Reduction (MW)	0.81	4.55
Total Resource Cost (TRC)	1.78	2.53
Ratepayer Impact Measure (RIM)	0.59	0.69





## SMALL BUSINESS SOLUTIONS

The SRP Small Business Solutions program is designed exclusively for customers who consume less than 145,000 kWh per year. It provides a free walk-through audit of the customer's lighting system and discounts of up to 75% on the purchase of qualifying lighting technologies, such as:

- High-performance T8 or T5 systems
- Premium T8 fluorescents
- Hardwired and permanent CFL fixtures
- LED exit signs

- LED fixtures approved by ENERGY STAR or the DesignLights<sup>™</sup> Consortium
- Wall- and ceiling-mounted occupancy sensors
- Ceramic metal halide lamps

Projects typically have a simple payback of less than one year. Customers who do not meet the criteria can still receive lighting rebates through the SRP Standard Business Solutions program.

Key program statistics are listed below.

SMALL BUSINESS SOLUTIONS	FY13 Actual	FY14 Budget
Annual Participation	1,407	1,090
Annual Rebate	\$2,802,602	\$2,000,000
Single-Year Energy Savings (MWh)	12,964	8,483
Annual Aggregate Energy Savings (MWh)	24,905	33,388
Annual Aggregate Load Reduction (MW)	1.60	3.02
Total Resource Cost (TRC)	2.40	1.49
Ratepayer Impact Measure (RIM)	0.55	0.55

"The lighting upgrades in the seven-bay garage have made a difference in our ability to do our jobs quickly, effectively and safely. Installing new lighting in the waiting lounge has made the whole area far more comfortable. The lighting is consistent and less yellow, giving customers a relaxing space to work or read while they wait for their vehicle. The upfront investment was small, and the savings are significant."

### **Commercial customer in Mesa**









# PEAK-REDUCTION PRICE PLANS

During the summer, higher temperatures intensify the need for air conditioning, creating peak seasonal demand. The price customers pay for energy is higher during the six warmest months (May through October) and lower in the six cooler months (November through April). Prices are highest in July and August. The daily "on-peak" demand occurs during the hottest part of the day. To meet the periods of highest demand and maintain reliability throughout the year, SRP must use more-expensive generating plants and purchase higher-priced electricity.

SRP offers a selection of Time-of-Day Price Plans designed to encourage and reward customers for shifting electricity use from on-peak to off-peak times. These plans are SRP EZ-3<sup>™</sup> and SRP Time-of-Use<sup>™</sup> (TOU) for residential and commercial customers.

Prices are lower during off-peak hours and higher during on-peak hours. By signing up for EZ-3 or TOU and shifting their energy use, customers can lower their energy costs and help SRP decrease the need to generate or buy higher-priced energy. Even though customers shift the time of day they use energy, it may not result in reduced energy use. However, shifting use to lower-priced hours helps SRP save money on resources needed during peak times — and that savings is passed on to customers.

Key program statistics are listed below.

RESIDENTIAL TIME-OF-DAY PRICE PLANS*	FY13 Actual	FY14 Budget
Annual Participation	241,925	250,325
Load Reduction (MW)	152.5	162.6

\*Time-of-Day plan participation and impacts are the sum of the TOU and EZ-3 price plans.



## POWERPARTNER

The SRP PowerPartner<sup>™</sup> demand-response program provides SRP with the option to call usage curtailment events as financial signals or operational constraints dictate the need to reduce the demand for electricity.

Throughout the year, this resource is also available to provide additional reliability for our system during times of plant maintenance. EnerNOC operates and manages the program on SRP's behalf.

The program will provide up to 50 MW of capacity by the end of FY14. Commercial customers' load-reduction activities can include reducing light levels, cycling HVAC systems and shutting down noncritical systems. The amount of load reduction achieved per customer depends on the specific equipment or processes managed during an event. Because of ample resource availability and loads that were suppressed due to the economic downturn, only two events were called in FY13. However, this resource continues to be viewed as valuable in providing a cost-effective tool for critical peak management into the future.

POWERPARTNER	FY13 Actual	FY14 Budget
Annual Participation	146	170
Load Reduction (MW)	48.10	50





## CUSTOMERS TO SAVE ENERGY AND WATER

EDUCATNC

Customers don't have to stop using energy and water to make a difference in their budgets or the environment. Simply using them more wisely will help make our limited resources last longer.



### RESIDENTIAL

We have helped our customers make wise choices about energy and water usage over the years. Our Save With SRP guide helps customers make informed choices about using energy and water more efficiently. And when they do, they help our planet and their pocketbooks.

Likewise, the *Save With SRP* newsletter and **savewithsrp.com** feature timely offers and energy-efficiency tips that can produce savings.

The **Save With SRP Retail** program is dedicated to educating customers about energy efficiency at the point of purchase. Save With SRP field representatives build and maintain relationships with retailers to increase awareness of and participation in SRP programs. We partner with major retailers to offer SRP rebates, energy-saving tips and product information. On average, six retail educational events (REEs) are held at stores each month. SRP representatives also attend homeowners association, library and large-scale events. These events integrate water, environmental and energy-saving messages to help SRP customers increase efficiency.

Central cooling systems and heat pumps that need minor repairs often use more energy than properly functioning units. To reduce energy usage and promote cost savings, SRP recommends that customers' cooling and heating units be serviced at least once a year by an SRP Certified Contractor. In FY13, as part of the **SRP Certified Contractor Program**, licensed, bonded and insured contractors would perform a 16-point checkup on cooling and heating equipment for \$65.95 per unit. Promotional efforts were conducted from November through December and February through April. In addition, the FY12 SRP spring HVAC checkup discount contributed energy savings of 2,954 MWh in FY13.

**SRP Home Energy Manager** is a free online resource that helps customers evaluate and manage their home energy choices.

- Home profile: Customers can find out where they are using the most energy and get no-cost/low-cost recommendations for their homes.
- **Customizable calculators:** Customers can enter personalized data for help in making wise, energy-saving choices.
- Kid's Korner: Parents and teachers can help the next generation develop good energy-saving habits through games, quizzes and other online activities.



"My husband maintains a home office with multiple devices. We have been spending \$18 a month to power a home office that is only used part time. That really surprised us. Now we turn off the equipment when we're not using it. We also had numerous clock radios and cordless-phone stations around the house that were plugged in but not needed. We've disconnected these items too."

Residential customer in Phoenix

With the **Kill A Watt**<sup>™</sup> meter available through the **SRP Energy Analyzer** program, customers can identify many of the ways they use energy every day, including "vampire" appliances — the ones that use energy even when they are turned off. Based on this information, customers can take immediate action to reduce their household usage and lower their monthly energy bills. SRP has teamed up with local libraries to offer customers the opportunity to borrow a Kill A Watt free of charge. For a list of participating libraries, visit **savewithsrp.com**.

The **Together We Conserve** website features tips about how customers can save water and explains SRP's role in managing the Valley's water supply. The site contains the interactive Water Efficient Landscape Guide, which provides professionally inspired landscape design ideas for customers. The guide groups representative photos into multiple categories, such as front yards, landscape conversions and patios. In addition, customers can research plant type, size, flower color, location uses, growth rate and more.

SRP's annual **Water Conservation Expo** was attended by more than 1,000 people, who learned about SRP's role in water management, stewardship and conservation. At the expo, 531 smart irrigation controllers were purchased by Valley customers to increase efficiency of their outdoor watering. SRP collaborated with Ewing Irrigation Inc. and Rain Bird Corp. to offer discounted pricing and a rebate on the smart irrigation controller. Municipal water departments, the Arizona Department of Water Resources, the University of Arizona and other entities partnered with SRP to help educate people about water efficiency and conservation. **SRP My Account**<sup>™</sup> gives customers control of their SRP account online 24/7. My Account provides an easy way for customers to monitor their energy consumption and maximize savings. With My Account, customers can:

- Control expenses
  - » Receive weekly bill estimates based on current usage.
  - » Monitor daily usage online to help stay within budget.
  - » Sign up for personalized
     e-Notifications when bill or usage
     thresholds are exceeded.
  - » Set reminders to adjust seasonal equipment, such as the pool pump.

- Get budgeting help
  - » View multiple accounts with one login to My Account.
  - » Compare monthly bill and usage with homes of similar size.
  - » View current bill and three-year bill history to understand how energy is used.
- Make the best choices
  - » Apply actual usage data to find the most cost-effective SRP price plan for different lifestyles.

The **Weatherization Assistance Program (WAP)** is a federal program that was established to help low-income families and individuals improve energy efficiency and lower energy costs while improving energy-related health and safety issues in their homes.

In support of WAP, SRP provides \$725,000 per year to the Arizona Community Action Association (ACAA) to assist community agencies in their efforts to improve energy efficiency for SRP low-income homeowners. Households at or below the 200% federal poverty level could be eligible for WAP through the Community Action Program office in their community.

More than 35,000 of Arizona's low-income households have received weatherization assistance services since the program's inception in 1977.

In November 2012, SRP management committed \$100,000 to fund a study of educationbased approaches to energy management for low-income customers. A cross-functional Limited-Income Study Group was formed to evaluate strategies and identify cost-effective, wide-ranging solutions that will help these customers manage energy bills. SRP enlisted Morrison Institute to provide research assistance and engaged key stakeholders in the process, including the ACCA, Southwest Energy Efficiency Project and Arizona Public Interest Research Group.

**High-bill assessments** are offered to residential customers who are concerned about the level of their monthly energy bills. For \$55, an SRP technician will conduct an inspection of major household cooling, heating, pool and ventilation systems, as well as appliances, lighting, insulation, and areas of heat gain and loss. A written report with the inspection data and suggestions for reducing energy usage is provided to participating customers. To offset the cost of recommended changes, customers can receive rebates through SRP's energy-efficiency programs for measures such as cooling-system upgrades, duct repairs, and shade screen and variable-speed pool pump installations.





### COMMERCIAL

**SRP Business Solutions** combines monthly electronic newsletter content, an e-library, interactive tools and the "Ask an Expert" feature, which offers access to and answers from a staff of engineers, researchers, librarians and technicians.

**My Account** is an Internet-based tool that allows commercial customers to access account information, usage and payment history, and a "right price plan" tool that displays potential savings available by switching to SRP's Time-of-Use plan.

The **Equipment Energy Cost Calculator** is an online tool that helps commercial customers determine the energy costs related to lighting and to operating office and commercial food service equipment.



**SPATIA® Energy Information Services**, through the use of a near-real-time, Internet-based tool, can help enrolled customers cut costs by shifting peak loads, managing consumption and optimizing performance.

The **Signature Series** of technical seminars and workshops, offered in partnership with the DOE and other industry experts, instructs

commercial customers about efficient electricity usage, future technologies and available rebate opportunities.

The **Energy for Education Rider** offers a unique, convenient financing option for financially challenged school districts that seek to make energy-efficient upgrades to their facilities but lack the upfront capital. The rider uses a monthly "on-bill" repayment of principal and interest costs — participating schools repay SRP using the energy savings generated from the installed equipment. Each customer may qualify for up to \$250,000 in financing and is still eligible to take advantage of rebates offered by the SRP Business Solutions programs. K-12 public and charter schools are eligible to participate.

The **SRP Business Resource Center**, at **srpbizresource.com**, is an online tool packed with timely and relevant information to help sustain and grow small and midsize businesses. It includes economic resources, workshops, research, business news and expert advice.

To help businesses improve their facilities' energy efficiency, **savewithsrpbiz.com** offers information about SRP rebates for equipment such as lighting, HVAC, insulation, refrigeration and compressed-air equipment. Visitors to the site can also learn about free lighting audits for small businesses and technical assessments for more complex systems.





### COMMUNITY SOLAR

SRP residential and commercial customers can participate in the **SRP Community Solar™** program. It allows customers to purchase a portion of their power from the energy generated at a local solar plant. By

participating in the program, customers can benefit from and support solar energy without installing a rooftop system. Participating customers have online access to monthly data that reflects the power production at the solar plant. SRP also provides lesson plans and training for teachers in Arizona K–12 public schools about how to use the data for real-world, community-based learning in their classrooms.



# STAYING CURRENT ON RESEARCH AND DEVELOPMENT

SRP understands that the success of our portfolio depends on keeping abreast of the latest energyefficiency and technological developments.



### ELECTRIC TRANSPORTATION

SRP's Electric Vehicle Initiative is our program to prepare for the adoption of plug-in hybrid and full electric vehicles (EVs) in our service territory. Although plug-in electric vehicles (PEVs) promise cleaner transportation and reduced petroleum dependency, they also consume electricity for much of their energy and need to be recharged from the grid. SRP is leasing several plug-in electric hybrid vehicles as replacement cars for our fleet to better understand how these cars are used in a fleet environment as well as the impact of charging on the grid. To encourage greater use of clean transportation, SRP has also installed eight Level 2 workplace charging stations for employees.

The Electric Power Research Institute (EPRI) has several programs that support the development of electric vehicle (EV) technologies. SRP participates with EPRI in developing hardware and communication standards for EV charging. SRP also supports EPRI's Electric Transportation group and provides input for its program direction. These efforts will help guide the design of EVs to ensure ease of use and cost-effectiveness.

SRP is also a partner in the DOE-funded EV Project. This project will install charging infrastructure in 18 cities across the nation to support a smooth transition to the adoption of electric-transportation technology. The Phoenix and Tucson metro areas are part of the project, in which more than 300 Level 2 and 12 DC fast-charging stations have been installed. SRP will help monitor energy usage and study the impacts of EV charging on our electrical infrastructure to ensure it can adequately support this important technology.

Finally, SRP works with broader PEV infrastructure planning efforts by actively coordinating with subregional and regional entities, such as the DOE Clean Cities program, the National Electric Transportation Infrastructure Working Council and Electric Vehicles Arizona, an EV stakeholder group that studies the issues and opportunities presented by EVs.





# OTHER COLLABORATIONS

SRP also supports the advancement of energy-efficient technologies through our membership in EPRI and collaborative efforts with universities and other organizations. EPRI is an independent, nonprofit organization whose members represent more than 90% of the electricity generated and delivered in the United States.

During FY13, SRP worked with EPRI on more than 30 research and development projects relating to renewable energy, energy efficiency, environmental controls, electric vehicles and smart grid enhancements. SRP participates in the following EPRI energy-efficiency demonstration projects:

- Controllable high-bay commercial lighting
- Commercial heat pump water heaters
- Evaporative precooling systems for small and midsize commercial rooftop air-conditioning units

SRP has also joined with EPRI to coordinate the early deployment of pilot programs that accelerate the adoption of highly efficient, near-market-ready technologies. The programs will be developed and tested by utilities across the country in an effort to share information, data and lessons learned as these initiatives are introduced to energy-efficiency portfolios. The technologies included in the early deployment project include:

- Energy-efficient equipment and operation strategies for data centers
- Residential heat pump water heaters, which offer efficient technology alternatives for homes
- Variable refrigerant flow systems in commercial buildings, an emerging technology designed to advance the performance and efficiency of high-capacity air-conditioning systems

Also being conducted is a detailed study of the behavioral changes of customers living in homes with net-zero and near-net-zero energy use. This effort will allow enhanced understanding of the true energy-usage impact that results from promoting construction of ultra-high-efficient homes.

We also continue to collaborate with Arizona State University. Selected research initiatives include photovoltaic (solar) battery storage integration, solar hot-water system testing and evaluation, and an analysis of the Ice Bear thermal storage system. The research results will help us actively enhance sustainability efforts for today and the future.





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### PLANNED ANNUAL AGGREGATE PROGRAM

RESIDENTIAL	FY14	FY15
Home Performance with ENERGY STAR	13,090	18,187
Cool Cash AC Rebate	16,906	20,605
Duct Test and Repair	13,336	18,333
Shade Screen	14,679	17,170
Pool Pump	40,189	56,543
Retail Lighting	441,410	419,913
Appliance Recycling	58,688	71,072
Shade Trees	1,505	2,186
ENERGY STAR Homes	137,597	151,692
Energy Scorecard Pilot	0	55,730
Residential Energy Code Initiative	6,754	13,160
Appliance and Equipment Standards	7,884	11,766
M-Power	220,929	193,459
Other*	16,827	23,818
Residential	Total 989,794	1,073,634

\*Quality Install, Low-Income Weatherization, Low-Income Education, PowerWise Homes Checkup, HVAC Checkup, Retail Appliance

COMMERCIAL	FY14	FY15
Standard Business Solutions	479,280	576,656
Custom Business Solutions	142,710	177,081
New Construction Solutions	31,332	48,236
Retrocommissioning Solutions	33,388	40,673
Small Business Solutions	8,227	14,853
SPATIA Energy Information Services	1,770	2,318
Commercial Energy Code Initiative	4,539	18,383
Other**	34,283	34,283
Commercial Total	735,529	912,483

\*\*Cool Roofs, HVAC Carryover, Lighting Carryover

Total Portfolio	1,725,323	1,986,117	

### ENERGY SAVINGS (MWH)

FY16	FY17	FY18	FY19
23,445	29,182	34,222	37,163
24,715	28,828	32,940	38,683
23,806	29,516	35,227	40,937
19,855	22,552	25,250	27,947
73,788	91,331	109,468	127,903
462,539	427,031	466,532	457,666
79,627	83,757	87,033	86,793
2,866	3,547	4,228	4,909
166,566	182,348	197,673	211,106
65,019	65,019	65,019	81,274
19,931	29,122	41,104	56,538
15,817	19,955	24,204	28,539
174,511	181,484	187,717	192,971
33,456	42,666	50,239	62,302
1,185,941	1,236,337	1,360,856	1,454,731

FY16	FY17	FY18	FY19
684,583	797,904	923,154	1,054,665
213,360	251,449	291,543	331,637
65,139	80,284	94,630	107,088
48,318	56,345	64,776	73,630
23,921	33,995	45,076	56,157
1,703	1,703	1,703	1,703
32,283	47,474	59,889	72,682
34,283	33,983	33,459	33,459
1,103,592	1,303,138	1,514,230	1,731,023

2,289,532 2,539,475	2,875,086	3,185,754
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### FY14 PLANNED BENEFITS FROM NEW PROGRAM PARTICIPANTS

	Net Annual Savings (MWh)	Net Coincident Peak Reduction (MW)	TRC Net Benefit	TRC B/C	RIM B/C
RESIDENTIAL					
Home Performance with ENERGY STAR	3,598	1.02	\$685,962	1.26	0.54
Cool Cash AC Rebate	3,282	1.22	\$1,832,554	1.82	0.84
Duct Test and Repair	4,047	1.51	\$5,219,647	5.42	0.91
Shade Screen	3,728	1.39	\$5,296,194	9.83	0.89
Pool Pump	15,798	3.43	\$8,617,024	2.98	0.75
Retail Lighting	63,704	13.58	\$34,852,831	7.13	0.78
Appliance Recycling	14,031	1.77	\$5,118,767	4.63	0.55
Shade Tree	681	0.25	\$1,234,215	3.65	0.90
ENERGY STAR Homes	11,451	2.97	\$14,250,873	2.68	0.81
Energy Scorecard Pilot	0	0.00	-\$432,771	0.00	0.00
Residential Energy Code Initiative	2,764	0.72	\$5,424,420	86.04	0.95
Appliance and Equipment Standards	3,619	0.46	\$2,240,436	23.86	0.64
M-Power	220,929	57.25	\$17,506,985	5.32	0.72
Residential Total	347,632	85.58	\$99,044,997	3.87	0.75



### FY14 PLANNED BENEFITS FROM NEW PROGRAM PARTICIPANTS

	Net Annual Savings (MWh)	Net Coincident Peak Reduction (MW)	TRC Net Benefit	TRC B/C	RIM B/C
COMMERCIAL					
Standard Business Solutions	114,523	19.22	\$94,213,342	5.37	0.73
Custom Business Solutions	32,236	5.41	\$29,042,897	4.51	0.72
New Construction Solutions	4,030	0.68	\$742,249	1.18	0.56
Retrocommissioning Solutions	15,848	1.90	\$4,358,410	2.53	0.69
Small Business Solutions	8,483	1.05	\$2,496,534	1.49	0.55
SPATIA Energy Information Services	568	0.07	\$16,320	1.17	0.48
Commercial Energy Code Initiative	3,732	0.63	\$5,902,061	93.53	0.82
Commercial Total	179,420	28.96	\$131,050,825	3.74	0.70
Total Portfolio	527,052	114.54	\$230,095,823	3.80	0.72

B/C = Benefit/Cost Ratio TRC = Total Resource Cost RIM = Ratepayer Impact Measure Totals include portfolio-level benefits not reflected in individual programs.





For more information about SRP energy-efficency programs, visit **savewithsrp.com** (residential) or **savewithsrpbiz.com** (commercial).