

SOUTHWEST ENERGY EFFICIENCY PROJECT

Saving Money and Protecting the Environment Through More Efficient Energy Use

## 2012 Annual Report

## Highlights

2012 was another strong year for the Southwest Energy Efficiency Project (SWEEP). Funding for electric utility energy efficiency and load management programs in the region reached approximately \$335 million per year, meaning utilities achieved greater energy savings as well as economic and environmental benefits in 2012 compared to previous years. With SWEEP's support, a number of states, cities or counties adopted or made progress towards adopting the 2012 International Energy Conservation Code. SWEEP advanced policies to facilitate deployment of electric vehicles, including crafting legislation that was adopted in Colorado in early 2013. Participants in the Colorado Industrial Energy Challenge, an innovative program led by SWEEP on behalf of the Colorado Energy Office, cut their energy use nearly 10 percent on average as of 2012. In addition, SWEEP released a major study in 2012 showing that best practice utility energy efficiency programs could provide enormous economic and environmental benefits to the region.

## **Utility Program**

SWEEP played a major role in the expansion of utility energy efficiency programs in the southwest region in 2012. Total funding for these programs increased to about \$335 million, nearly twice the level in 2008 (see Table 1). Funding growth was especially strong in Arizona and Colorado in recent years. More significant, the energy savings from utility efficiency programs in the region is rising, with two utilities (Arizona Public Service Co. and the Salt River Project) reaching the top tier of utilities nationwide with respect to energy savings achieved as a percentage of electricity sales as of 2012.

SWEEP advocated for increased funding for utility demand-side management (DSM) programs as an intervener in proceedings before state public utility commissions in most of our states in 2012. In addition, we influenced energy efficiency programs and policies through advising utilities in the region and through interactions with state policy makers. SWEEP works collaboratively with utilities on the design of energy efficiency programs. These programs are leading to the adoption of more efficient appliances and lighting, more efficient new homes, and significant efficiency improvements in commercial buildings and industries.

Figure 1 shows the growth in electricity savings from utility programs in the region during 2003-2012. As of 2012, utilities were saving over 2 billion kWh per year from programs implemented annually, and nearly 11 billion kWh per year from cumulative programs. The savings achieved from programs implemented each year has increased every year over the past decade.

Table 2 below estimates the total energy savings, net economic benefits, and avoided  $CO_2$  emissions from DSM programs implemented by utilities during 2003-2012. In total, we estimate that households and businesses throughout the region will realize about \$4.7 billion in net economic benefits from DSM programs implemented by utilities in the region during this ten-year period. Likewise, we estimate that the programs cut  $CO_2$  emissions by about 7.6 million metric tons in 2012 alone, with about 28.4 million metric tons of avoided  $CO_2$  emissions during 2003-2012. In addition to reducing greenhouse gas emissions, energy efficiency programs are improving local air quality and public health by reducing emissions of  $NO_x$ ,  $SO_2$  and mercury.

	DSM program budget (million \$ per year)					
State	2002	2004	2006	2008	2010	2012
AZ	4	4	19	45	94	120
со	11	21	18	28	66	98
NV	3	11	30	55	46	37
NM	1	1	1	10	24	27
UT	9	16	27	36	51	49
WY	~0	~0	~0	~0	3	4
Region	29	54	95	174	284	335

 Table 1: Electric Utility DSM Spending in the Southwest, 2002-12

Figure 1: Energy Savings from Electric Utility DSM Programs in the Southwest, 2003-12

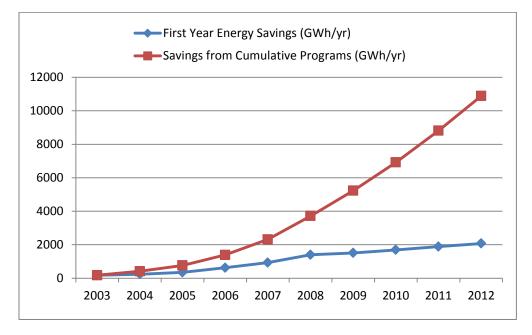


Table 2: Electricity Savings, Net Economic Benefits, and Avoided CO<sub>2</sub> Emissions from Electric Utility DSM Programs in the Southwest, 2003-12

Year	First-year Energy Savings (GWh/yr)	Energy Savings from Cumulative Programs (GWh/yr)	Net Economic Benefits from Annual Programs <sup>1</sup> (Million \$)	Avoided CO <sub>2</sub> Emissions <sup>2</sup> (1000 metric tons)
2003	175	175	113	122
2004	240	415	146	290
2005	350	765	189	535
2006	625	1,390	256	973
2007	930	2,320	332	1,624
2008	1,400	3,720	459	2,604
2009	1,510	5,230	649	3,661
2010	1,690	6,920	726	4,844
2011	1,890	8,810	864	6,167
2012	2,075	10,885	904	7,620
Total	10,885		4,683	28,441

Notes:

1) Assumes that the total investment in energy efficiency measures is 1.8 times the utility program cost and that programs have a benefit-cost ratio of 2.5 on average using the Total Resource Cost test.

2) Assumes 700 metric tons of avoided CO<sub>2</sub> emissions per GWh of electricity savings on average based on avoiding an equal share of coal-fired and natural gas-fired generation.

#### Arizona

Electric utilities in Arizona spent about \$120 million on energy efficiency programs in 2012. More important, the two largest utilities – Arizona Public Service (APS) and Salt River Project (SRP) – achieved electricity savings of around 1.8% of their electricity sales in 2012, which places them among the top tier of utilities nationwide in terms of energy efficiency program performance. APS in particular increased the energy savings from its efficiency programs by 25% between 2011 and 2012 in order to meet the energy efficiency standards set by the Arizona Corporation Commission (ACC) in 2010. SWEEP advised APS and helped the utility obtain approval of its 2012 energy efficiency implementation plan.

In 2011, APS filed an application for a rate increase that includes a full-revenue-percustomer decoupling mechanism. SWEEP actively supported this proposal as the case proceeded in 2012. However, other parties in the rate case supported a lost revenue recovery mechanism and this is what the ACC ultimately approved. The outcome was received favorably by APS and helped the utility justify increase program funding and energy savings.

Tucson Electric Power (TEP) was unable to obtain approval of either disincentive removal or a shareholder incentive mechanism because it has not had a rate case in recent years. In addition, most energy efficiency programs were suspended in the spring of 2012 due to the ACC failing to approve the company's DSM implementation plan as well as inadequate cost recovery for efficiency programs. SWEEP worked hard to get programs reinstated and to ensure that these issues were addressed as part of a rate case that began in the fall of 2012. Some of TEP's programs were reinstated in early 2013. In addition, a settlement agreement in the rate case was submitted to the ACC that included new cost recovery and shareholder incentive

mechanisms. We are optimistic that the settlement will be approved and that TEP's efficiency program will get "back on track" soon.

Regarding the Salt River Project (SRP), an unregulated utility, SWEEP focused on SRP's Sustainable Portfolio Standard, which directs the utility's current and future use of energy efficiency and renewable energy resources. In May 2011 the SRP Board of Directors unanimously approved several revisions to the Standard including energy savings targets of 1.5% per year in FY 2012-2014, 1.75% per year in FY 2015-2017, and 2.0% per year in FY 2018-2020. During 2012, SWEEP advised SRP and advocated for expanded efficiency programs which the utility implemented during 2012-13.

#### Colorado

Electric utility DSM funding in Colorado reached nearly \$100 million in 2012. Xcel Energy, the main investor-owned utility in the state, helped its customers reduce their electricity use by 1.3% per year from efficiency programs implemented in 2012, 29% more savings than were realized in 2011. Xcel estimates that its 2012 electric efficiency programs will save households and businesses \$170 million net over the lifetime of the efficiency measures installed last year.

SWEEP had a significant impact on Xcel Energy's 2012-2013 DSM programs plan. SWEEP also provided feedback and advice to Xcel as programs were implemented during 2012. As a result of our program advisory and advocacy work, Xcel is implementing a number of innovative programs, including building code and financing support programs.

In 2012, SWEEP participated in a docket at the PUC that resulted in expansion of the energy efficiency programs implemented by Black Hills Energy, the other investor-owned utility in CO. Black Hills reached the benchmark of 1% savings from DSM programs implemented in 2012. SWEEP also prepared a case study on the energy efficiency programs of Fort Collins Utilities, the leading municipal utility in the southwest region. In addition, SWEEP developed policy options for ramping up energy efficiency programs implemented by rural electric cooperatives in the state.

#### Nevada

Both funding and energy savings associated with electric utility DSM programs in Nevada declined in 2012, continuing a trend that began in 2010. The decline was a result of 1) less support for energy efficiency by NV Energy and the state utility commission (PUCN) during a period of severe economic recession; 2) delays in approving Nevada Power's 2010-12 Integrated Resource Plan (IRP) and DSM plan; and 3) excess generating capacity and thus less need for energy savings in the short run.

During 2012, SWEEP worked on: 1) rebuilding funding for utility DSM programs; 2) improving the cost-effectiveness of a number of the programs; and 3) fundamental policy reform. SWEEP participated in a docket before the PUCN in early 2012 that reviewed Nevada Power's and Sierra Pacific Power's 2010 DSM program results as well as the 2012 DSM programs

portfolio. In this docket, we helped prevent the PUCN from adopting a Settlement Agreement that called for drastic cuts in funding.

SWEEP provided considerable input to NV Energy as it developed a new three-year DSM plan for Nevada Power Company in southern Nevada, as well as a revised 2013 DSM plan for Sierra Pacific Power in northern Nevada. In this docket, we advocated for maximizing program participation and the net economic benefits from the DSM programs of both operating companies. While the PUCN mostly approved the funding levels proposed by NV Energy, it did reject deep cuts proposed by the Commission staff and the consumer advocate. The PUCN also approved one of our key recommendations concerning the residential air conditioning program. The energy savings from NV Energy's DSM programs should increase during 2013-2015 as a result of the recommendations we made.

In addition, SWEEP worked on policy development to address roadblocks to energy efficiency in Nevada. Specifically we developed proposals for: 1) separate Energy Efficiency Resource Standards, removing energy efficiency from the state's renewable energy standards; 2) a directive to the PUCN and utilities to maximize implementation of cost-effective DSM resources; and 3) decoupling as an alternative to the controversial lost revenue recovery mechanism now in place. We presented these proposals to legislators, NV Energy, PUCN commissioners and other stakeholders in advance of the 2013 legislative session.

#### **New Mexico**

In New Mexico, SWEEP participated in DSM plan review dockets for both Southwestern Public Service Company (SPS) and Public Service Company of New Mexico (PNM) in 2012. Regarding SPS, SWEEP advocated a number of improvements in SPS's programs that were accepted by SPS and the staff of the Public Regulation Commission (PRC) through a settlement agreement. The settlement agreement was approved by the Commission and should lead SPS to surpass the threshold of saving 1% of retail sales through its DSM programs for the first time in 2012-13. SPS is a subsidiary of Xcel Energy serving about 115,000 customers in southeastern New Mexico.

SWEEP provided considerable input to PNM as it worked on a new two-year DSM plan during 2012. A number of our program recommendations were included in the DSM plan that the utility submitted for PRC approval in early October, 2012. We then intervened in the docket through the Coalition for Clean Affordable Energy and worked on getting further program improvements through our testimony. This docket will conclude in 2013.

In addition, SWEEP serves on the committee that selects and oversees a statewide DSM program evaluation, monitoring and verification (EM&V) contractor in New Mexico. During 2012, we helped develop a new request for proposal (RFP) for this contractor, evaluate the proposals that were received, and select of the next statewide EM&V contractor. We played a valuable role as an independent expert in this process, working with the utilities and staff of the PRC.

#### Utah

Rocky Mountain Power (RMP) is the one investor-owned electric utility in Utah. SWEEP and its partner Utah Clean Energy (UCE) engaged in a number of activities aimed at expanding the scope and positive impacts of RMP's DSM programs during 2012. We objected to RMP's proposal to significantly reduce the DSM surcharge (known as the DSM tariff rider) on customers' bills. The proposal was made by RMP in response to the utility over-collecting relative to its DSM expenditure over the previous two years. Our intervention prevented the substantial reduction from going into effect, and led to a negotiated agreement for a much smaller reduction in the tariff rider.

SWEEP and UCE advised RMP on how it could expand and improve its DSM programs throughout the year. We urged the company to provide incentives for near zero energy new homes as part of its new homes program and to initiate a program providing rebates for energy-efficient consumer electronic products. We helped convince RMP to add a Home Energy Reports program to its portfolio of DSM programs. This new program was launched during the summer of 2012. In the second half of the year, we advised RMP on ways to improve its evaporative cooling promotion and incentives, provide energy performance ratings of new and existing homes on a voluntary basis, and support enhanced energy management by its business customers.

In addition, UCE intervened in RMP's 2012 rate case, recommending stronger inverted block rates for residential customers as well as a study on decoupling and other strategies for removing the company's throughput incentive. We were successful on the rate design front. The PSC approved a settlement that includes increasing the differential in the summer block rates previously in effect as well as starting two-tier block rates in the non-summer months. This proposal should help to motivate more residential customers to reduce their electricity use.

#### Wyoming

SWEEP continued to provide recommendations for increasing the effectiveness of Rocky Mountain Power's DSM programs in 2012 (RMP is the largest electric utility in Wyoming). SWEEP previously participated in a docket that resulted in approval of a three-year plan to significantly expand RMP's energy efficiency programs. Preliminary estimates indicate that RMP increased the energy savings from its efficiency programs in Wyoming by about 50% between 2011 and 2012.

#### **Regional Efficiency Potential Study**

SWEEP completed a major new study titled *The \$20 Billion Bonanza: Best Practice Utility Energy Efficiency Programs and the Benefits in the Southwest.* As part of this study, published in October, 2012, we identified 18 "Best Practice" energy efficiency programs and developed all the key program assumptions. We applied the programs in each southwest state and determined program costs and energy savings. The study then examined the avoided costs and emissions reductions from implementing the Best Practice programs including both avoiding new power plants and accelerating retirement of dirty, old coal-fired plants. In addition, the study estimated the impact on jobs and income in each state and for the region from implementing the Best Practice efficiency programs.

The study found that implementing the Best Practice efficiency programs throughout the region would result in \$20 billion in net economic benefits for households and businesses and also result in a net increase of 28,000 jobs by 2020. Figure 2 provides the breakdown of potential benefits by state. The benefits would exceed costs by more than a 2:1 ratio.  $CO_2$  emissions from electricity generation in the region would drop by 15% (about 5.5 million tons per year) in 2020 if Best Practice programs were implemented. In addition, we reviewed key policies in each state and provided policy recommendations in the report.

We released the study with briefings in five state capitols in October and early November. The roll-out of the study included dissemination of fact sheets, press releases and slide presentations for each state and the region as a whole. The briefings were well attended and the study received considerable favorable press coverage. The study has been very useful as we conduct utility energy efficiency advocacy work in all of our states. In addition, the study serves as a model for similar analyses elsewhere in the country. (For more information see http://www.swenergy.org/programs/utilities/20BBonanza.htm.

# Figure 2: Net Economic Benefits from Implementation of Best Practice Utility Energy Efficiency Programs in the Southwest during 2010-2020



## **Buildings Program**

#### **Building Code Advocacy and Implementation**

The SWEEP buildings program team worked extensively to advance building energy codes in 2012. Nine local governments in home rule states adopted the 2012 International Energy Conservation Code (IECC): Peoria, Eagar, Glendale, Scottsdale, Tucson and Pima County in Arizona; and Golden, Longmont and Vail in Colorado. At the statewide level, Nevada adopted the 2009 IECC with SWEEP's support. In addition, SWEEP supported adoption of the 2012 IECC in the code development process that began in southern Nevada. In Utah, SWEEP and its partner UCE worked on advancing adoption of the 2012 IECC by the Utah Building Code Commission and the state legislature.

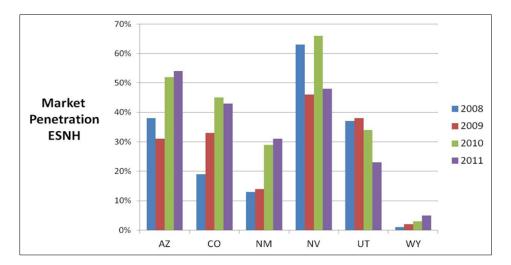
SWEEP continued to promote energy codes, best building practices, green construction, and retrofit of existing buildings through presentations, webinars, and trainings to local community leaders, regional associations such as Maricopa Association of Governments, Denver Regional Conference of Governments and national organizations such as National League of Cities. In addition, SWEEP worked to advance codes and efficient building practices through International Code Council (ICC) chapter committees and other mechanisms.

SWEEP supported energy code trainings across the Southwest in 2012. In addition, SWEEP partnered with other organizations to create collaborative groups for improving code compliance in Colorado and Nevada. The state-based code collaborative efforts are striving to exceed the federal government's goal of 90 percent compliance of 2009 IECC or equivalent.

SWEEP worked with a number of utilities in 2012 to create programs to support energy code adoption and compliance. This included programs initiated by the SRP and APS in Arizona, and Xcel Energy in Colorado. In addition, PNM included a code support program in their new DSM plan at SWEEP's urging.

In addition to working to advance adoption of the 2012 IECC, SWEEP participated in a number of groups that are developing proposals for the 2015 IECC, including the ICC Sustainability, Energy and High Performance Code Action Committee. SWEEP also assisted a number of municipalities that considered adopting the 2012 International Green Construction Code (IGCC). In December, Scottsdale, AZ became the first city in the region to adopt the IGCC as a mandatory requirement for new construction.

In late 2012 the U.S. EPA released their latest ENERGY STAR Certified New Homes Market Indices for States. The southwestern U.S. continues to lead the nation with market penetration rates exceeding 40 percent in Arizona, Colorado and Nevada as of 2011 (see Figure 3). SWEEP supported these strong results by promoting and supporting state and utility incentive and training programs focused on ENERGY STAR or better new construction.

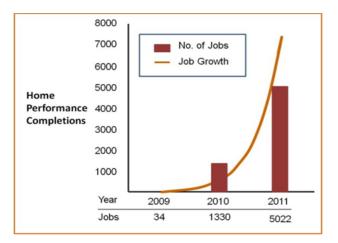


#### Figure 3: Market Penetration ENERGY STAR Homes in the Southwest

#### **Building Retrofit**

SWEEP continued to co-lead a collaborative effort related to improving Home Performance with ENERGY STAR programs in the Southwest in 2012. This collaborative met monthly to discuss program developments and share experiences related to whole-house home retrofit programs. Utilities, state programs, and other stakeholders participate in the collaborative. As shown in Figure 4, the number of whole house retrofits completed through Home Performance programs in the region expanded greatly in recent years.

Figure 4: Home Performance Completions in SWEEP Region, 2009-11



In addition, SWEEP participated in the working group set up by the Colorado Energy Office to advance the greening of the multiple listing service (MLS) by adding energy efficiency and green building fields into the applications. Approximately 90 percent of Colorado's MLS now has functionality for energy efficiency features. Through outreach and advocacy, SWEEP is helping to convince the real estate industry to populate MLS databases with energy efficiency information.

## **Transportation Program**

In 2012, SWEEP's transportation program focused on enacting legislation, developing coalitions for advancing policies in 2013, and completing major research reports. Our transportation work is focused around two themes: 1) initiatives related to reducing vehicle use (vehicle-miles traveled, or VMT); and 2) initiatives related to accelerating the deployment of electric vehicles (EV).

#### **Reducing Vehicle Use**

Colorado law as of 2012 restricted the use of fuel taxes, vehicle registration fees and license fees that went into the Highway Users Tax Fund (HUTF) to designing, building, and maintaining "highways." Working with counties and cities, SWEEP built a coalition to support legislation that would enable cities and counties to use their share of HUTF revenues for public transit, bicycle, pedestrian and multi-modal projects.

Working initially with the City of Boulder, Boulder County and the city of Aurora, we won support from the Metro Mayors Caucus, which represents 27 municipal jurisdictions in the Denver metro area, and the Metro County Commissioners. With this backing, we proposed the bill to the new chair of the House transportation committee and the vice chair of the Senate transportation committee. They both agreed to sponsor the bill, which was adopted by the Colorado legislature in 2013 and signed into law by Governor Hickenlooper.

In preparation for the revision of the regional transportation plan for the Denver metropolitan area, SWEEP worked with three of the region's five largest cities (Denver, Aurora and Boulder) to develop a vision for how the region can use transit-oriented development to channel new housing and employment centers into the locations where light rail stations are accessible by walking or bicycling. SWEEP also worked with these jurisdictions in a successful effort to advocate that the plan process will include scenario planning to determine which policies are required to meet the sustainability goals that the region has adopted. The objective is to accommodate a growing population and expanded employment without continuing the 40year trend of vehicle use growing faster than population. SWEEP's transportation program director has been appointed to the advisory committee that will provide input as the new regional transportation plan is developed.

#### Accelerating the Deployment of Electric Vehicles

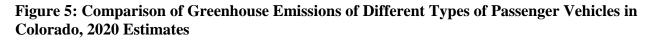
Colorado adopted legislation in 2012 that deregulates the sale of electricity to EVs by owners of charging stations. This was a big victory for SWEEP's transportation program as it removes a significant barrier to expansion of EV charging infrastructure (outside of homes) in the state. SWEEP took the lead in developing this policy including negotiations with Xcel Energy and other stakeholders. In addition, we began a dialogue with utilities and other stakeholders about adopting this policy in other states in the Southwest. In 2010, the natural gas industry succeeded in enacting an amendment to the Colorado vehicle procurement program that directs the state to purchase natural gas vehicles if the cost is not more than 10% greater than comparable gasoline vehicles. SWEEP developed a proposal to open the process to all alternative fueled vehicles, and to require that cost comparisons between bidders be based on life-cycle costs, including fuel costs. We believe that EVs are competitive with gasoline and natural gas vehicles if life-cycle costs are the basis for the cost comparison. Our proposal was introduced in the 2013 legislative session.

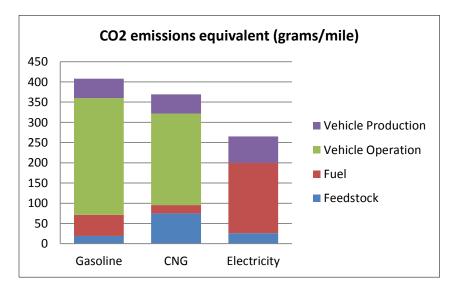
Working with a group of stakeholders, SWEEP helped research and write the *Colorado Electric Vehicle and Infrastructure Readiness Plan* during 2012. The Plan includes analysis of the market for electric vehicles, assessment of current barriers to EVs and charging stations, and recommended strategies to overcome these barriers and grow the market for EVs in Colorado. This project was funded by the U.S. Department of Energy (DOE).

The EV Readiness Plan identifies "range anxiety" as one of the major barriers to public acceptance of EVs. To overcome that barrier, SWEEP proposed that the state impose a \$20-30 registration fee on EV owners that would be dedicated to the development of a statewide charging network. This proposal was introduced and adopted in the 2013 legislative session.

#### **Research Reports**

Using new analytical models developed by the DOE, SWEEP prepared a study comparing the greenhouse gas and criteria pollutant emissions of gasoline, natural gas, and EVs in Colorado. The report, which shows that EVs will become the preferred choice with respect to pollutant emissions as the electric grid shifts to cleaner power sources, was released in early 2013 (see Figure 5). The report is relevant to public sector vehicle procurement and other efforts such as future Clean Air Act implementation plans.





SWEEP also undertook research during 2012 to summarize the legislation, regulations and other policies adopted by all six southwest states to support public acceptance of EVs. The goal is to provide a reference document that can be used by decision makers to see what other jurisdictions are doing, drawing attention to what states are currently doing and highlighting what more could be done. The "Report Card" will be released in May 2013.

### **Industry and CHP Program**

With funding from the U.S. Department of Energy (DOE) and the Colorado Energy Office (CEO), SWEEP launched the Colorado Industrial Energy Challenge (CIEC) program in 2010. The program recruits industrial facilities in Colorado to commit to a five-year energy goal and provides free technical assistance, networking opportunities, training, and recognition from the Governor.

Under SWEEP's leadership, the CIEC held its third recognition event in 2012, including presentations of "Excellence in Energy Efficiency" awards to five companies and recognition to eight additional companies who joined the program in the preceding 12 months. As of the end of 2012, the CIEC program had 29 participants, including some of Colorado's largest energy consumers, which spend an average of \$5.8 million per year on energy. In 2012 SWEEP hosted three successful networking meetings, and offered a webinar on making the business case for investments in EE. In addition, the CIEC program completed four energy assessments for partner companies in 2012.

As of 2012, CIEC members achieved energy savings of around 2.0 trillion Btu/yr, about 9.6% of the companies' total annual consumption based on their reported savings relative to 2010 baseline consumption (see Table 3). Both energy consumption and energy savings are viewed on a source basis in these figures.

2010 Total Energy Consumption <sup>1</sup> (trillion Btu/yr)	20.7
Energy Savings in 2012 (trillion Btu/yr)	2.0
Energy Savings in 2012 as a % of 2010 Consumption	9.6%
Value of Energy Savings in 2012 <sup>2</sup> (million \$)	10.7
Estimated Reductions in GHG emissions (metric tons CO <sub>2</sub> e/yr)	151,000

Table 3. Energy	Savinos i	n 2012 hv	<b>Particinants</b> in	the CIEC Program
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Notes:

1) Based on reported data from 18 companies with goals of 2010 or earlier;

2) Assuming an average energy cost of \$5.40/MMBtu (source energy basis).

SWEEP also participated in a state industrial energy efficiency program organized by the Utah Governor's Office in 2012. SWEEP provided input and guidance on networking events, recruiting companies, and an awards/recognition event for participating companies. The Utah program is modeled on the Colorado program but does not include technical assistance.

SWEEP produced two reports in 2012 on utility programs for industrial customers. The first report, *Southwest Utility Industrial Energy Efficiency Programs: Highlights and Best Practices*, describes the current industrial energy efficiency programs at the major utilities in the Southwest and provides recommendations for enhancing industrial program offerings to increase participation and achieve greater energy savings.

The second report, *Utility Financing Programs for Industrial Customers*, reviews experience around the country with utility financing programs for industrial energy efficiency improvements. It provides recommendations to utilities in the southwest region that are considering developing financing programs for industrial customers. This type of program is currently not offered by any utilities in the Southwest except for Arizona Public Service (APS), which began offering financing for residential and business customers in 2010 in partnership with a local bank in Phoenix. Obtaining capital for energy efficiency projects is one of the biggest obstacles to achieving more energy savings in industrial facilities.

Using these two reports as background, SWEEP continued to reach out to the industrial energy efficiency program managers for all the major utilities in the Southwest. These discussions included reviewing the utilities' progress towards achieving their energy savings goals, plans for future program enhancements, and interest in developing financing, strategic energy management (SEM) or other new types of programs.

#### **Combined Heat and Power (CHP)**

SWEEP had a productive year in encouraging the use of CHP, waste heat to power, and district energy in the Southwest. SWEEP continued to lead the U.S. DOE Intermountain Clean Energy Application Center (CEAC), one of eight centers nationally that helps facilitate clean, efficient, and well-designed CHP systems, through the three-pronged strategy of education and outreach, policy and regulatory work, and technical assistance.

One focus of SWEEP's CHP work in 2012 was to get CHP recognized as an eligible custom measure in electric utility DSM programs. In addition to providing financial incentives to customers, this helps to change the attitude of utilities towards CHP projects and potentially reduces roadblocks. In New Mexico, we were successful in convincing Southwestern Public Service Company (SPS) to include CHP as an eligible measure in their DSM programs with CHP systems qualifying for an incentive of up to \$400/kW. SPS's proposal was approved by the New Mexico PRC. This action serves as model for other electric utilities in the region.

SWEEP continued to encourage better treatment of waste heat to power projects in Xcel Energy's Colorado service territory, stemming from a prior Settlement Agreement in a DSM plan docket. In addition, we participated in a repository docket and hearing at the Colorado PUC on model standby rates, held meetings with two Colorado commissioners about CHP barriers, provided guidance on best practices and recommended improvements for New Mexico's avoided cost rate calculations for CHP, corrected the CHP assumptions and calculations in PacifiCorp's IRP, assisted the American Council for an Energy-Efficient Economy (ACEEE) in evaluating how CHP could replace retiring coal capacity in Colorado, and supported the continuation of funding for Southwest Gas Company's CHP incentive program.

In 2012, we organized and hosted the third in our series of state workshops and tours called "Recycled Energy in Action," this time in Arizona. The Arizona workshop highlighted successful, reliable, and economically-beneficial CHP projects in local communities, educated potential adopters about the steps to pursue a CHP project, and expanded our network of regional stakeholders and project developers. Other significant CHP education work included hosting a webinar on adding absorption chilling to CHP to maximize geographic and sector applicability, and creating and maintaining how-to-guides and informational resources on a CHP-specific website (intermountaincleanenergy.org). We also presented at other conferences and meetings around the region, including the annual CHP Association conference and the "Heat is Power" inaugural meeting regarding policy treatment of waste heat to power in the Southwest.

In addition to our CHP policy and outreach work, SWEEP and its partners provided numerous businesses with feasibility assessments to help determine if CHP is a good technical and economic fit for a facility, answered specific technical or regulatory questions, and assisted companies in navigating around barriers that would have otherwise prevented individual projects from moving forward. A CHP system was commissioned in 2012 at the Clarion Hotel in Phoenix, AZ following assistance from the CEAC in 2011. Several other CHP projects are currently being installed following assistance from the CEAC in 2012.

#### Communications

In order to increase the awareness and impact of our work, SWEEP hired a communications director in April, 2012. A major focus of communications work in 2012 was planning and executing a media outreach campaign around the *\$20 Billion Bonanza* study. This process included design of the report, an executive summary, and attractive fact sheets for each state and the region, along with press releases for each state and the region. As a result, the study received considerable print media coverage throughout the region (for examples of stories, see <a href="http://www.swenergy.org/news/media/default.aspx">http://www.swenergy.org/news/media/default.aspx</a>).

The communications director also supported particular policy/program campaigns including our efforts to convince utility commissions in Arizona and Nevada to support higher levels of funding for utility energy efficiency programs. We facilitated positive media coverage of utility energy efforts in both states. In general, media coverage of SWEEP's work and issues greatly expanded following addition of the communications director.

Some of the more notable coverage outside of that for the \$20 Billion Bonanza report included publishing an op-ed in the Colorado Springs Gazette that calls on the local municipal utility to expand its energy efficiency programs; an op-ed in the Las Vegas Sun and television coverage in Reno calling for increased utility investment in energy efficiency in Nevada; a story by the Denver Post highlighting the benefits of strong utility energy efficiency programs in Colorado; and television, public radio and print media coverage of a hearing in Arizona regarding the reinstatement of TEP's energy efficiency programs.

SWEEP's communications director also established a social media presence (Twitter account) on the internet that drives additional traffic to our website. Late in the year SWEEP

began the process of updating its logo and report templates.

## **Other Activities**

SWEEP continued to implement the Energy Efficient Cooling Information Service (EECIS) in 2012. SWEEP partnered in this endeavor with the Western Cooling Efficiency Center (WCEC) at the University of California, Davis. As part of the EECIS, SWEEP organized and hosted monthly webinars on state-of-the-art cooling technologies and strategies for the utilities and other sponsors of the WCEC. We also developed a website and distributed a newsletter to educate utilities on ways they can demonstrate, test and promote highly efficient cooling within their DSM programs.

SWEEP organized its *Ninth Annual Southwest Regional Energy Efficiency Workshop* in Santa Fe in 2012. The workshop provided a forum for discussion of the latest developments regarding utility DSM programs in the region, state and federal policy efforts, and emerging energy efficiency technologies. The 2012 workshop featured presentations on information feedback and behavior change programs, LED lighting and next generation commercial lighting programs, air conditioning efficiency strategies, and opportunities related to highly efficient new buildings. Presentations from the 2012 workshop are available at http://www.swenergy.org/events/annual/2012/index.html.

SWEEP began a new partnership with the U.S. DOE and other regional energy efficiency organizations (REEOs) in 2012. With funding from DOE, all five REEOs are working within their regions in areas of mutual interest such as building code advocacy and support, providing assistance to state and local governments, and promoting advanced and emerging technologies within utility DSM programs. In addition, DOE began funding SWEEP's work to accelerate deployment of EVs in 2012. Collaboration among REEOs also took place at other levels including quarterly meetings of REEO Executive Directors.

SWEEP made numerous presentations at state or regional forums as well as national conferences in 2012, including presenting two papers at the 2012 ACEEE Summer Study on Energy Efficiency in Buildings (see publications list below). These presentations and papers are helping to educate policy makers, energy professionals, and other stakeholders about energy efficiency opportunities, progress and potential in the Southwest.

## **Publications**

The following reports along with legislative reports and selected presentations are available on the SWEEP web site, <u>http://www.swenergy.org/publications/index.html</u>

C. Framel. Innovative Energy Efficiency Projects Implemented by Local Governments in the Southwest. Jan. 2012.

N. Kolwey. Southwest Industrial Energy Efficiency Programs: Highlights and Best Practices. June 2012.

H. Geller and J. Schlegel. **Energy Efficiency Programs in the Southwest: 2012 Update.** Proceedings of the 2012 ACEEE Summer Study on Energy Efficiency in Buildings. Aug. 2012.

E. Zuckerman and J. Schlegel. **No Longer Background Noise: Resource Planning When Energy Efficiency Really Matters.** Proceedings of the 2012 ACEEE Summer Study on Energy Efficiency in Buildings. Aug. 2012.

N. Kolwey. Utility Financing Programs for Industrial Customers. Sept. 2012.

H. Geller, et. al. The **\$20** Billion Bonanza: Best Practice Electric Utility Energy Efficiency Programs and Their Benefits for the Southwest. Oct. 2012.

## **Supporters**

SWEEP is grateful for the financial support it received from the following organizations in 2012:

American Lung Association of the Southwest Anonymous Foundation Colorado Energy Office Edwards Mother Earth Foundation Energy Foundation ETC Group (U.S. DOE funding) Hewlett Foundation New Mexico Gas Company OPOWER Public Service Company of New Mexico U.S. Department of Energy U.S. Environmental Protection Agency Western Cooling Efficiency Center, University of California-Davis Xcel Energy

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