2013 Annual Report

HIGHLIGHTS

The Southwest Energy Efficiency Project (SWEEP) had another successful year in 2013. The electricity savings from utility energy efficiency programs implemented in 2013 grew to more than 2.3 billion kWh per year, with estimated net economic benefits of around $1 billion from utility efficiency programs implemented in 2013. With SWEEP's support, a number of states, cities and counties adopted or made progress towards adopting the 2012 International Energy Conservation Code. SWEEP advanced policies to facilitate deployment of electric vehicles, including legislation that was adopted in Colorado in 2013 and in Utah in early 2014. 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 was the primary author of a well-received report issued by five Regional Energy Efficiency Organizations (REEOs) on how to incentivize and provide appropriate credit for energy efficiency improvement in the forthcoming CO_2 emissions standards for existing power plants.

UTILITY PROGRAM

SWEEP played a major role in the expansion of utility energy efficiency programs in the Southwest region in 2013. We estimate that total DSM program funding across electric utilities in the region increased to around $346 million last year, double the amount spent five years earlier (see Table 1). More important, the energy savings from electric utility efficiency programs implemented in 2013 increased to about 2.3 billion kWh per year, equal to the electricity use of about 230,000 typical households in the region. The energy savings achieved by utility programs across the region increased about eight percent between 2012 and 2013.

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 during 2013. In addition, we influenced energy efficiency programs and policies through advising utilities in the region and through interactions with state policy makers.

Table 1 | Electric Utility DSM Spending in the Southwest, 2002-13

State	DSM program budget (million $ per year)						
	2002	2004	2006	2008	2010	2012	2013
AZ	4	4	19	45	94	127	125
CO	11	21	18	28	66	96	94
NV	3	11	30	55	46	39	39
NM	1	1	1	10	24	28	29
UT	9	16	27	36	51	47	55
WY	~0	~0	~0	~0	3	4	4
Region	**29**	**54**	**95**	**174**	**284**	**340**	**346**

Figure 1 | Energy Savings from Electric Utility DSM Programs in the Southwest, 2003-13

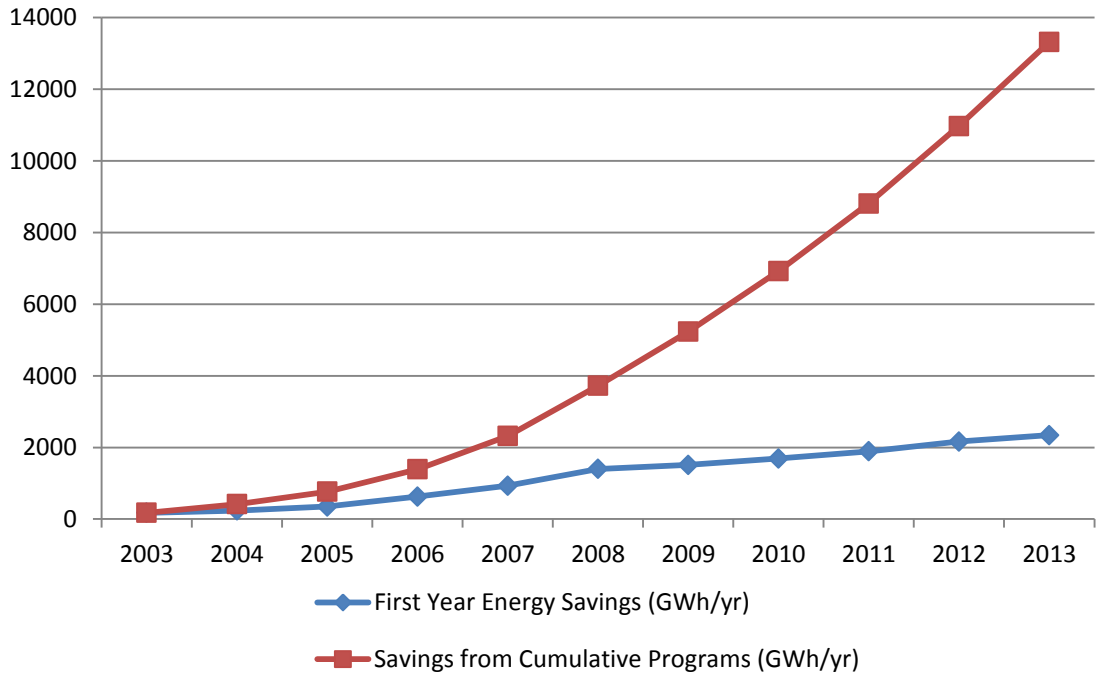


Figure 1 shows the growth in electricity savings from utility programs in the region during 2003-2012. As of 2013, utilities were saving over 13 billion kWh per year from cumulative programs. The savings achieved from programs implemented annually has increased every year over the past decade. We estimate that households and businesses throughout the region will realize about $1 billion in net economic benefits from DSM programs implemented in 2013 (from 12 months of program activity alone)

and that the 2013 utility DSM programs will cut CO_2 emissions by about 15 million metric tons over the lifetime of measures installed that year. 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.

Arizona

Electric utilities in Arizona spent about $125 million on energy efficiency programs in 2013. More important, the two largest utilities – Arizona Public Service (APS) and Salt River Project (SRP) – achieved electricity savings of around 1.8-2.2% of their electricity sales in 2013, which places them among the top tier of utilities nationwide in terms of energy efficiency program performance. Notably, SRP achieved energy savings in excess of 2.2% of its retail energy sales in its 2013 fiscal year, which ended in May 2013. Both APS and SRP surpassed their electric savings standards or goals in 2013. SWEEP advised the utilities on how best to achieve their savings goals, provided input on their 2014 energy efficiency implementation plans, and supported approval of the plans before the Arizona Corporation Commission (ACC).

Tucson Electric Power (TEP) was a major focus of SWEEP's work in Arizona in 2013. TEP suspended most of its existing energy efficiency programs and put on hold plans to offer new programs in the spring of 2012 due to the ACC failing to approve the company's 2011-2012 DSM implementation plan as well as inadequate cost recovery for approved programs. SWEEP worked to get programs reinstated and to ensure that these issues were addressed as part of a rate case that concluded in 2013. Several of TEP's programs were reinstated in early 2013 as part of a settlement agreement that SWEEP helped negotiate. The rate case settlement agreement included provisions to address utility financial disincentives to energy efficiency investment such as new cost recovery and shareholder incentive mechanisms. The ACC approved most elements of the settlement agreement, enabling TEP to work toward full reinstatement of its energy efficiency programs.

SWEEP also worked extensively on the integrated resource plans of APS and TEP to analyze and highlight the benefits of energy efficiency and the full achievement of the energy efficiency standard to Arizona ratepayers over the next fifteen years. The treatment of energy efficiency within the resource planning process in Arizona became more important in 2012-2013 for ensuring the pursuit of all cost-effective energy efficiency in the state, and it will become even more important for the 2014 resource plans. SWEEP used the 2012-2013 resource planning process to set up analyses and obtain information that should prove to be valuable in future resource plans.

Regarding the Salt River Project (SRP), an unregulated utility, SWEEP focused on implementation of energy savings targets in the company's Sustainable Portfolio Standard, the utility's commitment to increased funding support for energy efficiency its pricing proceeding (SRP's equivalent of a rate case), and the utility's approval of its FY 2014 energy efficiency budget. As noted above, SRP achieved very strong energy savings results during its 2013 fiscal year. SWEEP advised SRP and advocated for expanded efficiency programs, which the utility is now implementing.

Colorado

Xcel Energy, the main investor-owned utility in the state, helped its customers reduce their electricity use by 1.25% per year from efficiency programs implemented in 2013. Xcel surpassed its energy savings goal once again and estimates that its 2013 programs will save households and businesses around $170 million net over the lifetime of the efficiency measures installed last year.

SWEEP advised Xcel Energy as well as other utilities in the state on ways they could improve their efficiency programs. In part due to SWEEP's recommendations, utilities are implementing a number of innovative programs in areas such as building code support, financing and consumer information feedback. SWEEP also influenced Xcel's 2014 DSM plan and provided recommendations that were part of settlement agreement submitted to the Colorado Public Utilities Commission (PUC). The PUC approved the settlement and 2014 programs are now being implemented.

SWEEP began working on the new DSM Strategic Issues docket which kicked off in June, 2013 with a filing containing proposals from Xcel Energy. The filing includes new energy savings goals, revisions to the shareholder incentive mechanism, and other DSM policy changes. Participation in this docket was a major activity for SWEEP's utility program in the second half of 2013. We filed extensive testimony proposing much higher energy savings goals for 2015-2020 than those proposed by Xcel, and addressed many other issues including DSM savings potential, shareholder incentives, and appropriate cost effectiveness tests and assumptions. The new policies that come out of the docket will take effect starting in 2015. A decision is expected in mid-2014.

SWEEP also worked on expanding the energy efficiency programs of municipal utilities and rural electric cooperatives in 2013. In particular we developed a few different proposals for energy savings standards that would apply to Tri-State and larger independent cooperatives, analyzed the potential costs and benefits of the proposals, and discussed them with key policy makers as well as other clean energy advocates. However, our proposals did not advance in the 2013 legislative session. Regarding municipal utilities, we wrote and disseminated a case study on the very successful energy efficiency programs of Fort Collins Utilities. In addition, we provided recommendations for expanding the efficiency programs to Colorado Springs Utilities as well as some of the larger rural electric cooperatives in the state.

Nevada

Both funding for and energy savings associated with electric utility DSM programs in Nevada were modest in 2013, continuing a downward trend that began in 2010. The decline was a result of reduced support for energy efficiency by NV Energy and the state utility commission (PUCN) during a period of severe economic recession, excess generating capacity, and falling energy consumption in the short run.

During 2013, 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 provided considerable input to NV Energy as it developed a new three-year DSM plan for Sierra Pacific Power Company in northern Nevada for 2014-16, as well as a revised 2014 DSM plan for Nevada Power in

southern Nevada. We influenced the utility's filing, and we then advocated for maximizing energy savings and net economic benefits in the docket where the PUCN reviewed the DSM plans. The docket concluded with approval of two new programs that SWEEP supported: a residential lighting program focused on promoting LED lamps and a Home Energy Reports pilot program. Furthermore, the Nevada PUC approved a significant increase in funding for NV Energy's overall DSM portfolio in 2014.

In addition, SWEEP worked on policy development to address roadblocks to greater levels of utility energy efficiency investment 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 and during the 2013 legislative session. Our proposals received support from all three members of the PUCN in public meetings, but NV Energy blocked their advance in the legislature. Nonetheless, we educated policy makers and made significant progress towards getting the policies adopted in the next legislative session in 2015. In the latter part of 2013 we continued educating policy makers and building the coalition in support of the EERS and decoupling policies.

New Mexico

In New Mexico, SWEEP participated in deliberations regarding the overarching policies guiding utility energy efficiency programs, known as the Efficient Use of Energy Act, originally enacted in 2005. A legislator with backing of one of the PRC commissioners initially proposed some revisions that would have greatly limited utility efficiency programs in the state. We fought this proposal and then participated in negotiations that resulted in some consensus changes that we believe improve (rather than harm) the Act. The changes include establishing a fixed surcharge (three percent of revenues) for funding electric utility DSM programs and shifting from the Total Resource Cost (TRC) to the Utility Cost test for determining DSM program cost effectiveness. These changes were approved by the New Mexico legislature in 2013.

SWEEP participated in DSM plan review dockets for Public Service Company of New Mexico (PNM) and El Paso Electric Company (EPE) during 2013, and began similar work on a DSM plan review for Southwestern Public Service Company (SPS). SWEEP provided considerable input to PNM as it worked on a new two-year DSM plan that was submitted to the PRC in 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. The PRC approved all of the programs proposed by PNM and rejected other proposals in the docket that would have hampered PNM's DSM efforts.

In the EPE docket, SWEEP prepared a number of recommendations for enhancing the three-year DSM plan filed by EPE and complying with the requirements of the revised Efficient Use of Energy Act. Most of our recommendations were accepted by EPE and a settlement was reached in this docket. The settlement was approved by the PRC. SPS's new DSM plan, which SWEEP influenced and supported, was approved by the PRC in early 2014.

Utah

Rocky Mountain Power (RMP) provides about 81% of the electricity consumed 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 2013. In particular we provided advice as RMP revised all of its efficiency programs for businesses. The changes that took effect in July 2013 include an expanded list of efficiency measures qualifying for rebates, higher maximum incentive levels, and utility co-funding for commercial and industrial energy managers. We also urged RMP to improve its evaporative cooling program, implement a direct installation program for small businesses, and provide energy performance ratings of new and existing homes on a voluntary basis. Overall, RMP increased its DSM program spending to $55 million in 2013, 17% more than was spent in 2012. In addition, the resulting energy savings increased by seven percent during 2012-2013.

SWEEP and UCE also made considerable input into a new Integrated Resource Plan (IRP) that PacifiCorp (the parent company of RMP) completed in April 2013. We convinced PacifiCorp to consider higher levels of DSM investment among the scenarios examined during development of the plan. The final IRP calls for increased investment in cost-effective DSM programs, with savings from these programs expected to satisfy 67% of the load growth that otherwise is expected to occur during 2013-22. This in turn led RMP to expand its efficiency and load management programs starting in the second half of 2013.

In addition, UCE intervened in RMP's 2012-13 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 Public Service Commission (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 Wyoming during 2013. (RMP is the largest electric utility in Wyoming as well as Utah.) RMP increased the energy savings from its efficiency programs in Wyoming significantly in 2012-13. In addition, RMP is planning to file a new DSM plan in 2014 calling for further expansion of DSM programs in the state.

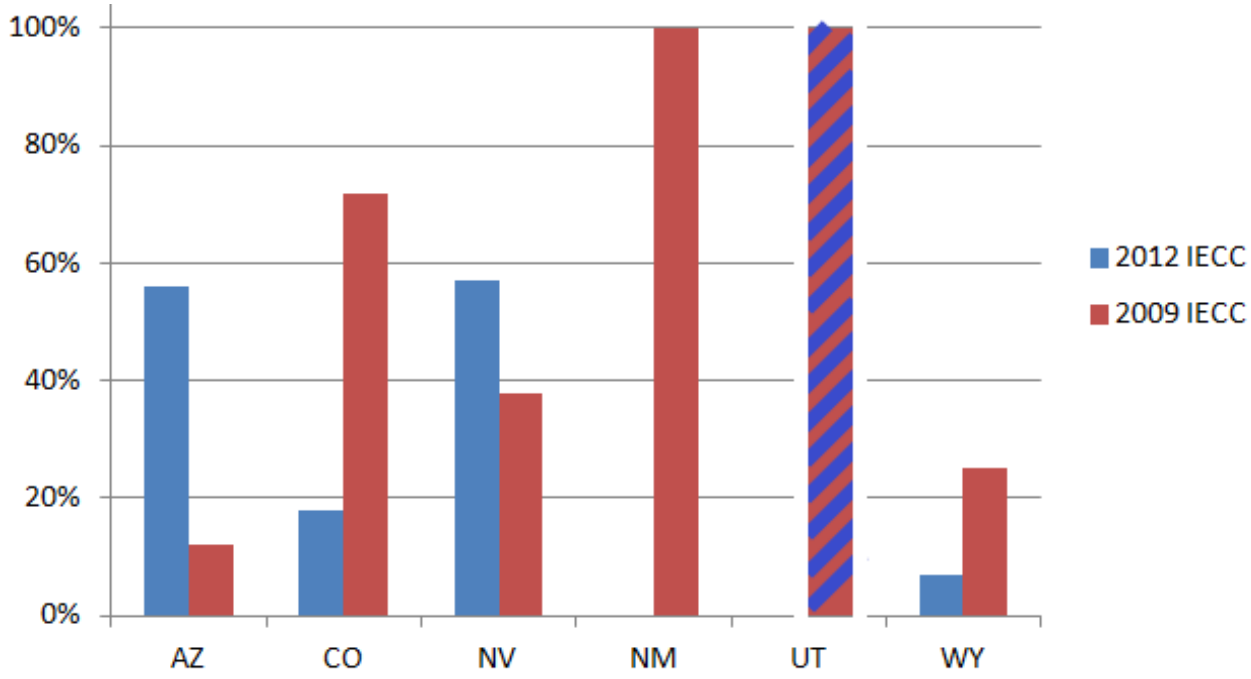
BUILDINGS PROGRAM

Building Code Advocacy and Implementation

The SWEEP Buildings Program team continued to advance the adoption of the 2012 International Energy Conservation Code (IECC) in our six states in 2013. We were successful in advancing the energy code in all states but New Mexico. Most notably, the 2012 IECC was adopted statewide in Utah in 2013 with no amendments for new commercial buildings, but with some weakening amendments for new residential buildings. SWEEP and its partner Utah Clean Energy (UCE) worked extensively with the Utah Building Code Commission and Pacific Northwest National Laboratory (PNL) to advance the adoption of this code.

SWEEP also worked on adoption of the 2012 IECC at the local level in Arizona and Colorado, which are "home rule" states and as such do not adopt a mandatory statewide building code. In 2013, numerous local jurisdictions adopted the 2012 IECC, including Pima County, Phoenix, Tucson, Chandler, Glendale, Scottsdale, and Queen Creek in Arizona; Boulder County, Boulder, Vail, and Parker in Colorado; Teton County and Jackson in Wyoming; and Clark County and Henderson in Nevada.

Figure 2 | Energy Code Adoption as a Percentage of New Construction in the Southwest



Utah note: Commercial Buildings – 2012 IECC; Residential Buildings – 2012 IECC with weakening amendments

85,750 residential building permits for new homes were issued across the region during 2013, along with increased construction of new commercial buildings. As shown in Figure 2, we estimate that around 55 percent of new construction in Arizona and Nevada now occurs in municipalities that have adopted the 2012 IECC. In Colorado, we estimate that only 14 percent of new construction occurs in municipalities where the 2012 IECC has been adopted; most of the new construction in Colorado occurs in municipalities that have adopted the 2009 IECC.

SWEEP and a large stakeholder group in Arizona fought a proposal by the Central Arizona Homebuilders Association which would have limited the ability of local jurisdictions to require energy efficiency in housing greater than a Home Energy Rating System (HERS) score of 73. This proposal, if it was adopted, would have had the effect of allowing less efficient new homes relative to those built to comply with the 2012 IECC. Working with building officials, city managers, trade associations, manufacturers and other stakeholders, SWEEP was able to prevent this bill from advancing in the 2013 legislative session.

SWEEP was successful in convincing policymakers in Utah to adopt the 2012 IECC during 2013; the code will be implemented in mid-2014. The state legislature approved the adoption of the 2012 IECC with full commercial provisions but modifications to the residential provisions. SWEEP and UCE performed an energy analysis on the amended residential code and found a respectable savings of 10.3% relative to the 2006 IECC which was the code in place at the time. We also worked with stakeholders in Utah, the U.S. Department of Energy (DOE) and PNL to update the REScheck compliance software to support the amended Utah code.

SWEEP estimates that the energy code adoptions in the Southwest in 2013 alone will save about 36 trillion Btu of energy by 2020. This is equivalent to about $800 million in energy bill savings for homeowners and commercial building occupants affected by the code upgrades.

SWEEP supported two energy code collaboratives underway in Nevada and Colorado in 2013. The collaboratives bring together code officials and others to work on achieving at least 90 percent compliance with the energy codes in place in each state. SWEEP also worked on continued energy code training and support for code officials in Wyoming, where two communities adopted the 2012 IECC.

In Arizona, SWEEP worked with the utilities APS and SRP and local energy code trainers to support local government adoption of the 2012 IECC. As noted above, this effort was very effective. SWEEP and the utilities were also very active in opposing legislation that would have weakened energy codes for new residential construction.

Building Retrofit

SWEEP continued to develop and grow the Southwest Home Performance Collaborative (SWHPC) in 2013. The Collaborative now includes Texas and participation by the South-central Partnership for Energy Efficiency as a Resource (SPEER), another regional efficiency organization. In 2013, the SWHPC focused on ways to improve the cost effectiveness of home performance programs, given that many

utilities are having difficulty maintaining their programs. In addition, the Collaborative supported introduction of a residential retrofit program by PNM which was included in the utility's last DSM plan and is being launched in 2014.

Energy Codes and Utility DSM Programs

SWEEP also worked with PNM to develop a training program on commercial energy codes, connecting PNM staff with other utilities that operate energy code training programs in our region. In late 2013, the New Mexico PRC approved PNM's new DSM programs plan which included the code training effort. SWEEP is assisting PNM with development of the content and schedule for these trainings, which will take place in mid-2014. Other utilities in the region that provide energy code training or support include APS, SRP, Rocky Mountain Power, Questar Gas and NV Energy.

Benchmarking and Disclosure

SWEEP initiated a set of activities to promote commercial building energy efficiency benchmarking and disclosure during 2013. We researched benchmarking and disclosure policies and "best practices" around the country, developed education and training materials on benchmarking and disclosure, and organized a webinar for state and local governments in the region that took place in early 2014. In Utah, SWEEP and UCE assisted Salt Lake City to secure the involvement of local electric and gas utilities in the U.S. DOE Better Buildings Energy Data Accelerator, in order to support more widespread benchmarking in Utah. In Colorado, we developed a legislative proposal on the topic that was considered in early 2014.

Net Zero Energy Buildings

SWEEP drafted a code change proposal to an appendix of the 2015 IECC that would support the move towards net zero energy housing. The proposal requires that new homes be "solar ready" through documenting where solar panels and associated pipes and wiring would be located. SWEEP staff attended two code development hearings and coordinated support with solar industry and other supporters. Our proposal was approved and is included in an appendix to the 2015 IECC which will be released in mid-2014. The new appendix to the energy code will provide jurisdictions with the foundation for developing solar ready homes.

SWEEP also worked with New Buildings Institute to promote the *Getting to Zero Forum* that was held in Denver in 2013. We participated in numerous online forums and in-person events focused on net zero energy buildings. The total number of net zero energy buildings located in the SWEEP region reached 16 by the end of 2013. Most are in Arizona and Colorado.

Additionally, SWEEP is participating in the Denver 2030 District effort, a private-public partnership which aims to dramatically reduce energy and water consumption and reduce emissions from transportation in a portion of downtown Denver by 2030. SWEEP is a member of the Benefits and Outreach Committee which engages building owners and promotes participation.

TRANSPORTATION PROGRAM

During 2013, SWEEP's transportation program focused on: 1) enacting a broad suite of legislation in Colorado to promote the adoption of electric vehicles; 2) setting the groundwork for next steps on electric vehicle policy in Colorado, Arizona, New Mexico, and Utah; 3) amending Colorado law to allow local governments to spend gas tax revenues on transit, bicycle and pedestrian infrastructure; 4) developing growth scenarios based on transit-oriented land use policies designed to reduce vehicle-miles travelled (VMT) in the Denver metropolitan area; 5) promoting energy efficiency in the freight sector; and 6) beginning new efforts advocating the use of user fees in managed lanes.

Electric Vehicle Policy in Colorado

SWEEP was very actively involved in the development and passage of five electric vehicle (EV) bills that passed the Colorado legislature in the 2013 legislative session. Collectively, these bills are a significant step forward for EV policy in Colorado.

- HB 13-1247 extends a robust state income tax credit of up to $6,000 for EV purchasers, thereby lowering the cost premium for purchasing an EV.
- HB 13-1310 creates a decal program for electric vehicles and requires a fifty-dollar annual payment for an EV decal. Thirty dollars will be deposited into the Highway Users Trust Fund and twenty dollars will be deposited into the electric vehicle infrastructure fund housed within the Colorado Energy Office.
- SB 13-070 improves the statute governing state procurement of alternative fuel vehicles by placing electric, plug-in hybrid electric, and natural gas vehicles on a more level playing field.
- SB 13-25 allows state agencies and local governments to use performance contracting to finance vehicle fleet operational and fuel savings measures including acquisition of electric vehicles and charging infrastructure.
- SB 13-212 enables cities and counties in Colorado to include EV charging infrastructure among the options that can be included under Property-Assessed Clean Energy (PACE) financing for commercial buildings.

Next Steps for EV Policy: Arizona, Colorado, New Mexico, and Utah

SWEEP released several studies on electric vehicles in the Southwest in 2013 including a multi-state analysis that evaluates the 2013 and 2020 emissions associated with EVs in each state, and a report card evaluating state policies supporting EVs in each state. SWEEP also prepared analyses of the impact of EVs on air quality in Albuquerque, Salt Lake City and Phoenix, indicating that EVs would have significantly lower urban air pollution impacts than gasoline vehicles in all three cities.

Arizona has developed a rather robust EV charging network, but has weak financial incentives to encourage consumers to purchase EVs. To better incentivize electric vehicles, an upfront incentive such as a rebate or a tax credit should be offered. SWEEP prepared a report that recommended this policy and

analyzed the air quality and economic benefits of EVs in Arizona. It was released at a successful press event in Phoenix in late September. We also drafted the electric vehicle section for the state Master Energy Plan.

In Colorado, SWEEP convened an electric vehicle policy group, made up of business and environmental representatives, to consider the next steps the state can take. This group developed proposals to expand the allowable uses of the electric vehicle infrastructure fund, and to expand incentives for electric vehicles in High Occupancy Toll lanes. SWEEP also helped shape a $30 million dollar investment that the state will be making in alternative fuel medium and heavy duty vehicles.

In New Mexico, SWEEP teamed up with the Sierra Club and the Green Chamber of Commerce, along with General Motors and Nissan, to develop a proposal for tax credits for electric vehicle purchase or lease, and for installing commercial charging stations. In Utah, we submitted comments to the Public Service Commission (PSC), sharing the air quality analysis and laying out a suite of policies to advance EVs. Our effort at the PSC was successful in positioning electric vehicles as an important element of clean air strategies for the state.

Colorado and Utah emerged in 2013 as two of the top ten states in the U.S. for electric vehicles, with EVs representing over 0.6% of new vehicle sales in Colorado and over 0.4% in Utah. In 2013, the highest market penetration for electric vehicles in the United States was in Oregon and California with, respectively, 1.6% and 1.4% of new vehicle sales. The new policies adopted in Colorado in 2013 should help to increase the EV market share in that state in the coming years.

Figure 3 | Electric vehicles as a Percentage of New Vehicles Sales in the Southwest

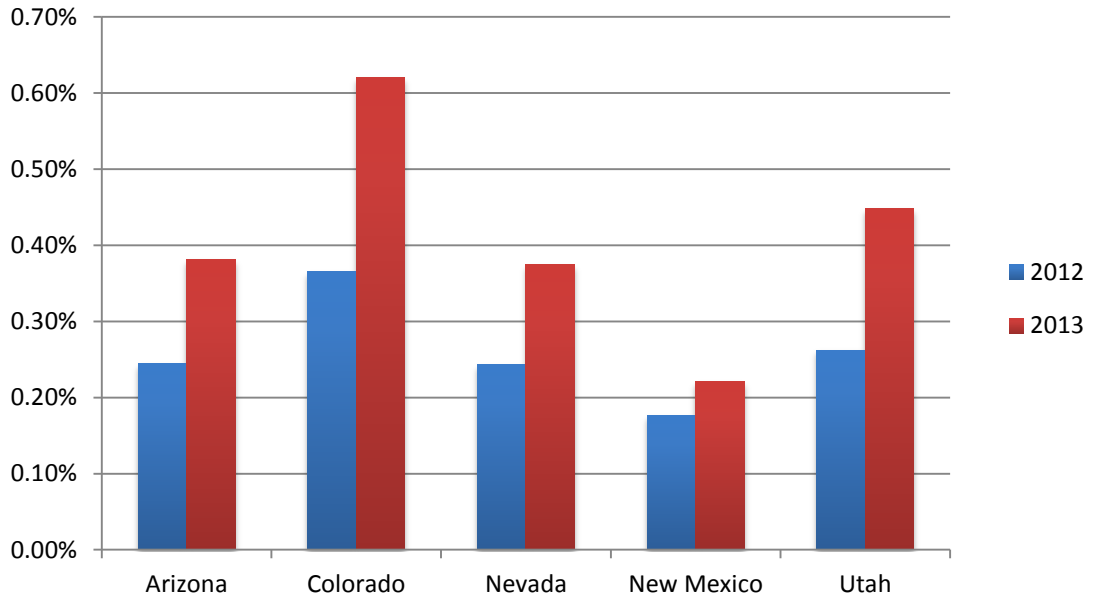


Table 2 below summarizes the state of electric vehicle policy in the SWEEP states; the number of points reflects how robust the policies are, with three points being the highest possible score in each category.

Table 2 | SWEEP's State EV Policy Scorecard

Policy	Arizona	Colorado	New Mexico	Nevada	Utah	Wyoming
PEV Rebate	-	-	-	-	-	-
PEV Income Tax Credit	-	3*	-	-	2*	-
PEV Charger Rebate	-	-	-	-	-	-
PEV Charger Income Tax Credit	1	-	-	-	-	-
PEV Exempt from Sales Tax	-	1*	-	-	-	-
PEVs Able to Use HOV Lane	1*	1*	-	1*	1*	-
PEV Manufacturers Tax Credit	-	-	1	-	-	-
Grants to Local Governments for PEVs/Chargers	-	1	-	-	2*	-
NEV Road Access	1	1	1	1	1	-
PEV Access to Carpool Parking	1*	-	-	-	-	-
Reduced License Tax	2*	-	-	-	-	-
Fine for Taking PEV Parking	1	-	-	-	-	-
Fuel Tax Provision for PEVs	-	1	-	-	-	-
Free PEV Parking	-	-	-	1	-	-
Deregulation of Retail Electricity Sales to PEVs	-	1*	-	-	-	-
Clean Car Standards	-	-	1	-	-	-
Exemption from Emissions Testing	0.5	0.5	0.5	0.5*	0.5	-
Building Codes for New Development	-	-	-	-	-	-
Permitting for PEV Chargers	-	-	-	-	-	-
Fleet Acquisition	1*	1*	1*	1*	1	-
PEVs Included in State Bid	-	1	-	1	1	-
Financing for PEVs/ Chargers	-	1	-	-	-	-
Promoting Multi-Family PEV Charging	-	1	-	-	-	-
Total Points	**8.5**	**13.5**	**4.5**	**5.5**	**10.5**	**0**
Grade	**B-**	**A-**	**C-**	**C**	**B-**	**F**

**Policy also applies to other types of alternative fuel vehicles*

Amended Colorado Law to Allow Cities and Counties to Spend Highway Users Tax Fund Revenues on Mass Transit

Since the 1930s, Colorado law has restricted the use of fuel taxes, vehicle registration fees and license fees to designing, building, and maintaining "highways." This restriction was believed to be contained in the state constitution. SWEEP prepared a legal analysis demonstrating that, in fact, the legislature had the authority to more broadly interpret the constitutional use of Highway Users Tax Fund (HUTF) revenues. Working with counties and cities that would prefer to spend some of their share of HUTF revenues on other transportation investments, SWEEP built a coalition to support legislation to allow this. We were able to get support for this policy from a broad group including Colorado Counties, the Colorado

Municipal League, the Denver Regional Council of Governments, the Metropolitan Mayors Council, and the Metro Denver Chamber of Commerce.

With support from this coalition, the legislature adopted SB 13-048 which authorizes local governments to spend up to 100% of their HUTF allocation for transit or bicycle/pedestrian infrastructure, and up to 15% on transit operations or transportation demand management programs. The bill is permissive and does not require local governments to direct any of their local HUTF revenues to multi-modal investments; it only provides them with the authority to do so. The annual revenue stream that is now flexible is approximately $300 million.

SWEEP built on this success to advocate that the Colorado Department of Transportation (CDOT) make administrative decisions to allocate more state funds to transit projects; they did allocate $50 million towards the completion of the North Metro rail line. In addition, SWEEP succeeded in getting an opinion from the Attorney General's office that, in fact, future funds may be used for transit without limit, and that a minimum of 10% must be used for transit.

Arizona also has constitutional language restricting the use of their Highway Users Revenue Fund to highway-related purposes. SWEEP completed a legal analysis of this language and the relevant case law, and we believe that there is a compelling argument that the legislature could choose to interpret this language more broadly, to include investment in public transit. We have shared this with transit advocates and begun to explore whether it may be possible to move legislation in Arizona to allow greater flexibility as to how local governments spend these revenues.

Updating the Denver Regional Transportation Plan

The Denver Regional Council of Governments (DRCOG) has begun the process leading to a revised regional transportation and land use plan for the Denver metropolitan area, known as the 2040 Metro Vision Plan. SWEEP has been given a seat on the advisory committee that is helping to shape this plan update.

This work builds on two efforts that SWEEP has been involved in since 2009. First is the work we did to get DRCOG to adopt a set of sustainability principles, including goals for reducing per capita VMT, reducing greenhouse gas emissions from transportation, and directing most new residential and employment growth into urban centers served by transit. Second, SWEEP has been working 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 transit stations are located.

The 2040 plan update provides an opportunity to develop the specific policies that are necessary to meet these goals. DRCOG agreed to engage in a robust scenario analysis process, examining the impact of different land use pattern and transportation investment scenarios on a range of regional indicators. SWEEP has played a strong role in helping to shape the scenarios, working with allies on the DRCOG board and the advisory committee. The scenarios include one with 50% of new housing and 75% of new

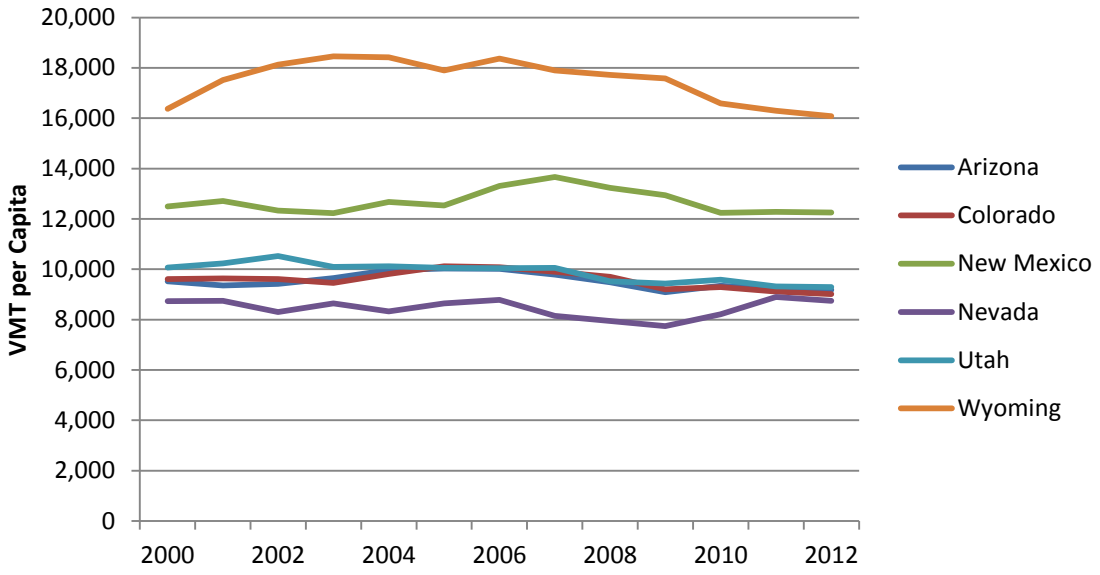
employment located within walkable urban centers, backed up by robust investments in transit and in walkable neighborhoods.

Heavy Duty (Freight) Vehicles

SWEEP worked with the Colorado Motor Carriers Association and the Colorado Energy Office (CEO) on a trucking efficiency proposal, which would create tax credits for medium and heavy-duty alternative fuel trucks, and would create incentives for fleets to adopt energy saving practices from the EPA Smartways Program. SWEEP's focus on alternative fuel trucks has been on medium duty hybrid and electric trucks, learning from the success that California has had with their Hybrid Vehicle Incentive Program for trucks. We were successful in convincing the trucking industry as well as CEO to change their initial proposal, which created tax credits for natural gas-fueled trucks only, to include all types of alternative-fueled trucks. These tax credits were enacted in the 2014 legislative session.

Transportation Trends in the SWEEP States: VMT per Capita is Declining

Figure 4 | Total VMT Per Capita by State



After fifty years of annual growth in per capita light duty vehicle-miles travelled, VMT began flattening out and even declining nationally approximately a decade ago. The southwestern states have exhibited the same trend. The most recent year data is available for is 2012. Figure 4 shows per capita VMT from 2000 to 2012 in the six SWEEP states.

This trend is extremely important to achieving reduced energy use and emissions from transportation. At the previous rate of VMT growth, efforts to increase the efficiency of the vehicle fleet were largely offset by increases in driving. If the flattening in VMT growth can be sustained, significant reductions in total energy use for personal transportation will be possible.

INDUSTRIAL PROGRAM AND COMBINED HEAT AND POWER

SWEEP launched the Colorado Industrial Energy Challenge (CIEC) program in 2010 with funding from the U.S. Department of Energy (DOE) and the Colorado Energy Office (CEO). The CIEC program recruited industrial facilities in Colorado to commit to a five-year energy goal, and provided free technical assistance, networking opportunities, training, and recognition from the Governor's Office. The program wrapped up in 2013, although a new phase of the program began in May, 2014.

Under SWEEP's leadership, the program was successful in recruiting 30 industrial companies to participate in the program by committing to a five-year energy savings goal. These companies spend an average of $5.4 million per year on energy. As shown in Table 3, the participating companies achieved total energy savings of 2.0 trillion Btu per year, cost savings of $11.0 million, and a CO_2 emission reduction of 153,000 metric tons in 2012. The program contributed to these outcomes through requiring companies to set goals, providing technical assistance, facilitating sharing of best practices between participants, and annual recognition of outstanding achievements.

Table 3 | 2010-2012 Energy Savings by CIEC Participants

Total Energy Consumption in 2010 (MMBtu)	**Total Energy Savings in 2012 relative to 2010** (MMBtu)	**Total Energy Savings in 2012 relative to 2010**	**Energy Cost Savings in 2012 relative to 2010**	**Reductions in CO_2 Emissions in 2012 relative to 2010** (metric tons)
20,779,000	2,011,000	9.7%	$10,960,000	153,000

SWEEP and its partner Utah Clean Energy (UCE) also supported a state industrial energy efficiency program organized by the Utah Governor's Office in 2013. SWEEP and UCE provided input and guidance on networking events, recruiting companies, and an awards/recognition event for participating companies. The Utah program was modeled on the Colorado program but did not include technical assistance. Utah's program included 17 participants with the top three companies receiving recognition at an event in March, 2013.

To draw attention to leading-edge utility energy efficiency programs for industrial customers, SWEEP produced a report titled *Utility Strategic Energy Management Programs* in 2013. Based upon a review of three highly effective strategic energy management (SEM) programs currently offered in the Pacific Northwest region of the U.S., the report makes recommendations for utilities that are considering developing SEM programs in the Southwest and elsewhere.

With this report as a basis, SWEEP recommended and supported adding SEM offerings to Rocky Mountain Power's commercial and industrial programs in Utah, and Rocky Mountain Power agreed to do this. With approval by the Utah Public Service Commission, the new SEM program was launched in July 2013. Rocky Mountain Power is the first utility in the region to offer support for SEM and co-funding of on-site energy managers, and serves as a model for other regional utilities.

SWEEP also made recommendations related to industrial efficiency as part of our comments on comprehensive DSM programs implemented by Xcel Energy in Colorado, Public Service of New Mexico (PNM), and Sierra Pacific Power in Nevada.

To spur dialogue and information-sharing amongst experts across the region, SWEEP and the U.S. DOE co-hosted the Western Regional Dialogue Meeting on Industrial Energy Efficiency and Combined Heat and Power in Salt Lake City, Utah. At the meeting, nearly a hundred participants and panelists provided suggestions on how to increase implementation of energy efficiency and combined heat and power in industry in western states. SWEEP helped design the agenda and recruit panelists and attendees. A summary of comments and suggestions made at the meeting is available on SWEEP's website: http://www.swenergy.org/events/archive.htm.

Combined Heat and Power (CHP)

SWEEP continued to lead the region's efforts to increase the adoption of clean, cost-effective, reliable, and well-designed CHP systems. SWEEP received a new contract with DOE to lead one of the seven centers nationally (called CHP Technical Assistance Partnerships, or CHP TAPs) that help facilitate CHP through the three-pronged strategy of technical assistance, education and outreach, and policy and regulatory expertise.

SWEEP worked directly with regional businesses and organizations interested in CHP to help them evaluate technical and financial feasibility, and walk them through the project development process, thus reducing the upfront barriers to CHP adoption. In 2013 we provided technical assistance and CHP feasibility evaluations to approximately 25 city and county buildings, military bases, universities, a data center, and manufacturing facilities. Recent CHP installations in our region include a 3,200 kW biogas-fueled system in Utah and a 100 kW system at the Clarion Hotel in Phoenix.

We also tackled policy barriers to CHP through intervention in utility commission dockets, briefings to utility personnel and regulators, and research and information-sharing on best-practice policies. In Colorado, Xcel Energy is poised to offer new incentives for waste heat to power projects (one type of CHP) at SWEEP's urging. SWEEP participated in the docket before the Colorado PUC in which these incentives are likely to be approved, and recommended a number of improvements to the incentives proposed by Xcel Energy. In addition, SWEEP advocated that Xcel Energy provide incentives for gas-fired CHP projects as part of its DSM programs in the DSM Strategic Issues docket pending before the Colorado PUC. Both dockets will conclude in 2014.

In New Mexico, SWEEP recommended that CHP be included as an eligible custom measure in Public Service Company of New Mexico's (PNM) Demand-Side Management Plan and provided advice on program design. The New Mexico Public Regulation Commission (PRC) decided that PNM should "include an analysis [of CHP] in its next plan filing." We also provided guidance to Southwestern Public Service Company on its fledging allowance of CHP as an eligible custom measure and its outreach efforts therein.

In Arizona, SWEEP held regular discussions with Southwest Gas Company regarding its CHP incentive program. We also helped publicize these incentives (and others in our region) to project developers and end users.

A top barrier to CHP is utilities not seeing or understanding its value in relation to the utility business model. Including CHP as an eligible measure in DSM programs is one way to help utilities look favorably upon CHP, because it can then be used to help the utility meet its energy savings goals or standards as well as help the utility obtain performance-based incentives. SWEEP held one-on-one briefings in 2013 on the status and options of adding CHP to DSM portfolios with each of the major electric and gas utilities in the region.

COMMUNICATIONS

Working with program staff and state representatives, the communications program generated more than 100 positive media headlines and broadcasts covering energy efficiency work in all of our program areas in 2013. Highlights include:

- In close coordination with state representatives and allies, the SWEEP communications director developed and implemented five press campaigns in Arizona, Nevada, New Mexico and Utah, all receiving excellent media coverage;
- We developed positive stories about energy efficiency and worked with reporters in Arizona, Colorado, Nevada and New Mexico to get them published;
- We continued to generate coverage of SWEEP's major *$20 Billion Bonanza* report;
- We received excellent media coverage of the release of two major transportation reports;
- We expanded our Twitter social media following to 465 and increased our "klout" score to 45 through retweets, favorites and click-throughs. Also, we used Twitter to support campaigns of other regional energy efficiency organizations;
- With the help of Resource Media, we conducted a well-received in-house staff training on media interview techniques;
- SWEEP communications ghost-wrote several op-eds for community leaders in Arizona, Nevada and New Mexico to weigh in on controversial decisions on building energy code pull-backs and to promote energy efficiency; and
- SWEEP placed its first national/international press story, a piece on Combined Heat and Power covered by *The Guardian*, the world's third-largest online newspaper.

Significantly, more reporters began to call SWEEP in 2013 to ask for our comment on various issues in our program areas, specifically utilities and transportation. SWEEP continues to develop relationships with the press and work on story development. All of the noteworthy 2013 press coverage is available on SWEEP's web site at http://swenergy.org/news/media/archive.aspx.

SWEEP's communications efforts helped support the adoption of key policies in several of our states, developed relationships with decision makers and key allies, and laid the groundwork for policies and legislation which will be considered in 2014. Prominent examples include:

In Colorado, SWEEP worked with Boulder County officials to craft one of the nation's first regulations requiring new homes to be built with wiring for electric vehicle charging, and publicized the regulations regionally and nationally in an effort to attract other municipalities to the idea. SWEEP developed a package of information and media stories about the region's most effective municipal utility with respect to energy efficiency efforts, Fort Collins Utilities. We received good media coverage that provided outreach to other utilities with information about this utility role model. Finally, SWEEP publicized four transportation reports and analyses that supported six successful bills in the 2013 legislative session in Colorado. In one case, SWEEP held a media conference call-in to share information from the newly released *State Government Report Card: Policies to Promote Electric Vehicles in the Southwest*. From those efforts, the SWEEP communications director developed relationships with key transportation reporters in Colorado and nationally.

In New Mexico, SWEEP developed productive relationships with legislators in support of a successful bill to extend the state's sustainable building tax credit for five years. We tied a media news story and op-ed to Gov. Susana Martinez' proclamation establishing Energy Efficiency Week, and we facilitated a major story in the Santa Fe paper on the favorable business case for energy efficiency. We also held a media conference call-in to share information with reporters about a controversial state agency decision to rescind the state's advanced building energy codes

In Utah, SWEEP and UCE held an EV event in front of the state Capitol. This was done in conjunction with a state-mandated PSC investigation into "options and opportunities for advancing and promoting measures designed to result in cleaner air in the state through the enhanced use of alternative fuel vehicles." The event included ride-alongs for media in electric vehicles and speeches by legislators who were introducing bills to help make EVs more affordable and expand the network of public charging stations. We provided media with quotes from legislators and background information on their bills. The success of the event exceeded our expectations and garnered coverage from major television stations, radio and the press. Both bills in support of EVs passed in Utah's 2014 legislative session.

In Arizona, SWEEP worked closely with the Arizona Governor's Office of Energy Policy (GOEP), APS, and the Phoenix Mayor's office to stage an event to draw attention to the economic and air quality benefits of electric vehicles. The event was timed to coincide with National Plug-In Day and was held at the City's new solar-powered electric vehicle charging station. The event garnered television, press and online coverage and helped SWEEP build positive relationships with utilities, EV associations and the GOEP.

In Nevada, SWEEP worked on media coverage of electric utility legislation, highlighting the need for energy efficiency resource standards that are separate from the state's renewable energy standards. SWEEP also obtained positive coverage of building energy codes and EVs in Nevada in 2013.

OTHER ACTIVITIES

SWEEP organized its ***Tenth Annual Southwest Regional Energy Efficiency Workshop*** in Boulder in 2013. The workshop provided a forum for discussion of the latest developments regarding utility DSM programs in the region, federal energy efficiency efforts, and emerging energy efficiency technologies. The 2013 workshop featured presentations on upstream incentive programs, industrial process efficiency programs, integrated energy efficiency and demand response programs for residential air conditioning, and using data analytics to accelerate energy savings in commercial buildings. Presentations from the 2013 workshop are available at http://www.swenergy.org/events/annual/2013/index.html.

SWEEP continued its partnership with the U.S. DOE and other regional energy efficiency organizations (REEOs) in 2013. With funding from DOE, all six 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. Collaboration among REEOs also took place at other levels including issuing a joint report titled *Incentivizing and Providing Appropriate Credit for Energy Efficiency Improvement in Forthcoming CO_2 Emissions Standards for Existing Power Plants*. Howard Geller, SWEEP's Executive Director, was the main author of the report.

SWEEP issued 12 reports in 2013 and made numerous presentations at state or regional forums as well as national conferences including the 2013 Market Transformation Symposium, the ACEEE Energy Efficiency as a Resource Conference, and conferences or workshops organized by the International Energy Agency (IEA), the National Association of State Energy Officials (NASEO), and the National Association of Regulatory Utility Commissioners (NARUC). These reports and presentations are helping to educate policy makers, energy professionals, and other stakeholders about energy efficiency opportunities, progress and potential in the Southwest.

SWEEP also began working on a new SWEEP Allies Program in 2013. The program involves solicitation of financial support from energy efficiency businesses and other organizations that support SWEEP's mission. The Allies Program was launched in early 2014 with 23 initial participants.

PUBLICATIONS

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

M. Quaid, S. Pletcher and H. Geller. **Energy Efficiency at Fort Collins Utilities: A Role Model for Publicly-Owned Utilities**. Feb. 2013.

N. Kolwey. **Utility Strategic Energy Management Programs.** March 2013.

J.C. Martel. **Energy Code Implementation: A Planning Guide for Building Departments.** April, 2013.

M. Salisbury. **Policies to Promote Electric Vehicles in the Southwest: A State Government Report Card**. May 2013.

M. Salisbury and W. Toor. **Transportation Fuels for the Southwest: Life-cycle Energy Use and Environmental Impacts of Electric, Compressed Natural Gas and Gasoline Vehicles.** July 2013.

SWEEP and Utah Clean Energy. **The Potential for Electric Vehicles to Reduce Vehicle Emissions and Improve Air Quality in the Wasatch Front.** Aug. 2013.

M. Salisbury. **Air Quality and Economic Benefits of Electric Vehicles in Arizona**. Sept. 2013

M. Salisbury. **Air Quality Benefits of Electric Vehicles in the Denver Metro and North Front Range Area**. Sept. 2013.

M. Salisbury. **Economic Benefits of Transit Systems: Colorado Case Studies**. Sept. 2013.

H. Geller and others. **Incentivizing and Providing Appropriate Credit for Energy Efficiency Improvement in Forthcoming CO2 Emissions Standards for Existing Power Plants.** Nov. 2013.

SUPPORTERS

SWEEP is grateful for the financial support it received from the following organizations in 2013:

Anonymous Foundation
Colorado Energy Office
Edwards Mother Earth Foundation
Energy Foundation
ETC Group (U.S. DOE funding)
Hewlett Foundation
OPOWER
U.S. Department of Energy
U.S. Environmental Protection Agency
Western Cooling Efficiency Center, University of California-Davis
Xcel Energy

STAFF AND STATE REPRESENTATIVES (May 2014)

Howard Geller, Executive Director
Jim Meyers, Senior Associate and Director of Buildings Program
Will Toor, Senior Associate and Director of Transportation Program
Neil Kolwey, Senior Associate and Director of Industrial Program
Christine Brinker, Senior Associate and Director of the Southwest Combined Heat and Power Technical Assistance Partnership
Gene Dilworth, Operations Director
Suzanne Pletcher, Director of Communications
Mike Salisbury, Program Associate
Lauren Smith, Program Associate
Ellen Zuckerman, Program Associate
Jeff Schlegel, Arizona Representative
Tammy Fiebelkorn, New Mexico Representative
Tom Polikalas, Nevada Representative
Kevin Emerson and Sarah Wright, Utah Representatives