Highlights

The Southwest region of the United States made great progress in 2019 to advance energy efficiency. Highlights of accomplishments led or supported by the Southwest Energy Efficiency Project (SWEEP) include:

- Electric utilities in the Southwest helped their customers save about 2,300 gigawatt hours (GWh) per year from energy efficiency programs implemented in 2019, which is equivalent to the electricity use of 230,000 typical households in the region.

- Electric utility energy efficiency programs implemented in 2019 will provide households and businesses about $1 billion in net economic benefits, while also reducing CO₂ emissions by approximately 16 million metric tons over the lifetime of the measures installed during the year.

- New Mexico adopted new energy savings standards for utility energy efficiency programs.

- Colorado adopted energy and water efficiency standards for 15 residential and commercial products sold in the state in 2019.

- The Salt River Project adopted new Sustainability Goals, including goals for energy efficiency programs, demand response, electric vehicle adoption, and strategic electrification through 2035.

- State and local governments continued to adopt the latest version of the International Energy Conservation Code (IECC). Most of the new construction in the region is occurring in jurisdictions that have adopted an up-to-date building energy code.

- The market for electric vehicles (EVs) is growing rapidly in the Southwest, with sales of plug-in vehicles in our region tripling from 2017 to 2019.

- Colorado adopted the Zero Emissions Vehicle Program, which will require manufacturers to deploy an increasing number of EVs in the state. In addition, both Nevada and New Mexico announced plans for adoption.

- Colorado and New Mexico passed legislation in 2019 requiring utility companies to make significant investments in transportation electrification.
SWEEP worked with state policymakers, utilities, and utility commissions to expand utility energy efficiency programs in 2019. We were especially successful in approving new policies in New Mexico and expanding energy efficiency programs in Colorado, Nevada, and with SRP in Arizona.

The chart below shows the energy savings achieved by the seven largest electric utilities in the region each year as a fraction of retail electricity sales over the past decade. The leading utilities, SRP and Xcel Energy Colorado, achieved savings equal to 1.5 to 2.0 percent of their electricity sales as of 2019. Four other utilities saved 1.0-1.2 percent of sales from their 2019 programs. One utility, Arizona Public Service Company (APS), significantly scaled back its energy savings programs and achievements during 2018-19.

Utilities in the region are helping their customers save billions of dollars through their energy efficiency and demand response programs. We estimate that households and businesses in the region will realize nearly $1 billion in net economic benefits over the lifetime of energy efficiency and demand response measures installed through utility programs in 2019 alone. In addition, utilities will avoid around 16 million metric tons of CO₂ emissions over the lifetime of energy efficiency measures installed in 2019.
Arizona

SWEEP helped to convince the Arizona Commission (ACC) to approve a new energy efficiency plan for Tucson Electric Power which restored funding for the utility’s energy efficiency and demand response programs. In addition, the ACC subsequently approved maintaining the plan and its level of funding through 2020, which will provide continuity to TEP’s energy efficiency programs.

With respect to APS, SWEEP continued to advocate for the ACC to restore the utility’s energy efficiency programs in response to the deep cuts made by APS over the past two years. SWEEP also began negotiations with APS on a path forward for future demand-side management (DSM) efforts. SWEEP worked to mobilize a coalition of 150-plus businesses from across the state to support the reinstatement of utility energy efficiency programs. A new plan proposed by APS at the end of 2019 increases funding for DSM programs including programs targeted to families living in apartment buildings as well as low-income households.

SWEEP also worked to mobilize a coalition of customers to support the adoption of stronger sustainability commitments (energy efficiency, demand response, electric vehicles, and carbon emissions goals) by SRP. We were successful in this effort. In June, SRP’s Board approved new goals including:

- Supporting the adoption of 500,000 EVs through 2035;
- Delivering over 3 million megawatt-hours (MWh) of annual aggregate energy savings through 2035;
- Implementing at least 300 megawatts (MW) of dispatchable demand response and load management resources through 2035; and
- Expanding a portfolio of electric technology/strategic electrification programs to deliver 300 GWh of annual aggregate energy impact by 2035.

Colorado

SWEEP influenced the 2019-20 DSM plan for Xcel Energy, the largest utility in the state. The new plan includes a number of program elements proposed by SWEEP. The plan received broad support and was approved by the Colorado Public Utilities Commission (PUC). Households and businesses served by Xcel Energy realized about 12 percent more energy savings in 2019 compared to 2018, through participation in Xcel's programs.

SWEEP supported a new policy that requires utilities to include a carbon cost of at least $46 per ton of CO₂ emissions (or emissions avoided) in resource planning as well as energy efficiency planning and goal setting. This new policy, approved in the 2019 legislative session, will help more energy efficiency programs pass cost effectiveness screening in the future.

SWEEP also participated in a rate case for Xcel Energy, supporting implementation of decoupling as soon as the rate case concludes. The CO PUC had approved decoupling previously but Xcel was arguing that implementation should be delayed and the design of the decoupling mechanism revisited. Along with our allies, we were successful in convincing the PUC to reject Xcel’s proposal, meaning decoupling will start for the utility in 2020.

In addition, SWEEP took the lead in developing a major new policy that will encourage the adoption of beneficial electrification (heat pumps, heat pump water heaters, etc.) in buildings. The policy proposal gained the support of the coalition of clean energy advocates in Colorado as well as the Colorado Energy Office. It was presented to policy makers at the end of 2019.
Nevada
NV Energy began implementing several new or expanded energy efficiency programs in 2019, resulting in the utility increasing energy savings by about 31 percent relative to savings achieved in 2018. Higher energy savings were possible without an increase in overall utility expenditures, leading to greater net economic benefits for households and businesses.

SWEEP participated in a docket before the Nevada PUC which examined potential modifications to DSM programs starting in 2020. In this docket, the utility proposed a significant reduction in funding for energy efficiency and demand response programs. SWEEP and its allies advocated for a much more moderate funding reduction as well as an increase in energy savings targets in 2020. We were successful in reaching a settlement agreement with NV Energy and other interveners that achieved our objectives and was approved by the NV PUCN.

New Mexico
SWEEP took the lead in developing and then built support for new policies that will support implementation of strong utility energy efficiency programs in New Mexico over the next decade. The policies include new energy savings requirements during 2021-30, a directive for the PRC to approve decoupling if requested by a utility, and allowing funding for utility energy efficiency and other DSM programs to range from 3 to 5 percent of utility revenues (funding was fixed at 3 percent of revenues previously). The new policies received broad support from businesses, utilities, consumer groups, and environmental advocates. The policies were adopted in New Mexico’s 2019 legislative session and signed into law by Governor Lujan Grisham.

SWEEP also worked on a new three-year DSM plan for Southwestern Public Service Company (SPS) in 2019, representing the Coalition for Clean, Affordable Energy (CCAE). A settlement agreement was reached in this docket that included approval of the programs requested by SPS but with some modifications proposed by SWEEP. The settlement agreement was approved by the New Mexico Public Regulation Commission.

Utah
SWEEP and its partner, Utah Clean Energy (UCE), advised Rocky Mountain Power (RMP) as it implemented its energy efficiency and demand response programs during 2019. As a result of our comments, RMP included some new measures in their programs and is following some of our other recommendations such as partnering with the gas utility to a much greater extent. RMP increased funding for DSM programs in 2019 but its energy savings were down slightly compared to 2018.

Regional
SWEEP prepared and disseminated a new report on the ways in which utilities in our region are using or planning to use grid-connected appliances and buildings to reduce utility system costs and help integrate growing amounts of renewable energy into their generation mix. The report was widely distributed, and a webinar was organized to help disseminate the key findings.
Buildings Program

SWEEP worked across the region to move states, cities, and counties forward with the adoption and implementation of the 2018 IECC. We communicated the benefits of the code for the environment and economy to municipalities and states and urged updating energy codes as one strategy for meeting climate goals. SWEEP participated in several municipal stakeholder groups to achieve these goals.

Energy Code Adoption in Southwest

We expanded our collaborative efforts — including forming a new group in Utah — to advance energy efficiency in buildings through multiple mechanisms including adopting state-of-the-art building energy codes. We also worked with a coalition of key stakeholders in Colorado to advance zero energy construction and bring the energy efficiency industry together with the renewable energy industries.

SWEEP worked to accelerate the construction of Net Zero Energy (NZE) homes and commercial buildings in the region in 2019. We provided information and facilitated training for the building industry, building departments, and cities and counties. We urged utilities to create new or modified programs to better support NZE buildings. In addition, we helped progressive cities adopt voluntary stretch codes at NZE performance levels as well as NZE promotion and recognition efforts.

SWEEP also promoted state and local adoption of commercial building benchmarking, transparency, and upgrade requirements for commercial, multifamily, and public properties in 2019. We worked with the cities in Nevada and Colorado to adopt and then implement these requirements.
Arizona
SWEEP helped increase the adoption of the 2018 IECC in municipalities within the home rule state of Arizona in 2019. Adoption occurred from Tucson to Flagstaff, with both large and small cities adopting the state-of-the-art code. We also collaborated with the Institute for Market Transformation on a study on residential code compliance levels in Arizona. In addition, SWEEP worked with cities to include more stringent energy codes in climate action plans. We helped municipalities add language on EV charging infrastructure and solar readiness requirements in residential codes. Two cities in the state have adopted EV readiness requirements along with the adoption of the newest energy code.

Colorado
In Colorado, SWEEP led an effort working with key stakeholders in the state, including the Colorado Energy Office, to update the minimum energy code that local jurisdictions must adopt when they update their building codes. The new policy requires local governments to adopt one of the three most recent model codes, which at this time means either the 2018, 2015, or 2012 IECC. The new minimum code has a floating timeline; i.e., when a new model energy code is released municipalities will be required to choose among an updated set of reference codes when they update their building codes. Half a dozen smaller rural communities are now in the process of updating their energy code to the 2018 IECC.

SWEEP also led the effort to establish energy and water efficiency standards for 15 residential and commercial products sold in the state. This policy, which we developed and brought to policy makers, also includes energy and water standards in Colorado on any product for which such standards are rolled back by the Federal government. SWEEP estimates a savings to Coloradoan of $1 billion over the life of the products included in this new policy. SWEEP worked closely with the Appliance Standards Awareness Project to develop this state policy, which was enacted in Colorado’s 2019 legislative session and signed into law by Governor Polis.

SWEEP helped facilitate Denver’s adoption of the 2018 IECC and an additional stretch code. The 2018 IECC included requirements to increase energy efficiency in buildings beyond the base ICC code, including solar readiness, EV capabilities, support of storage, increased energy efficiency to name just a few. The stretch code will have multiple compliance pathways that include Passive House standard or Zero Energy as optional paths. The codes were approved in December with an implementation date of May 1, 2020.

SWEEP was also a key stakeholder in the development of Denver’s Green Building Policy for large buildings which came in effect in January 2019. We helped craft the new policy as well as find common ground among many building industry interest groups. The new ordinance adds a wide range of options that buildings can use to comply, addressing many building owner and housing advocate concerns about affordability, feasibility, and legality. Building owners and developers can pick from adding more greenspace anywhere onsite, adding solar anywhere onsite, investing in community solar, upgrading energy efficiency, obtaining third-party certifications like LEED or various combinations.

SWEEP was also a key stakeholder in launching the Beneficial Electrification League of Colorado (BEL-CO), a joint effort with Tri-State, the Colorado Energy Office, Rocky Mountain Institute, and the Energy Efficiency Business Coalition. SWEEP helped convince BEL-CO to work on heat pump and heat pump water heater market development activities in Colorado as one of its main priorities.
Nevada
SWEEP supported the state of Nevada in 2019 as it adopted the 2018 IECC without amendments. At the local level, Boulder City, North Las Vegas, Sparks, and Washoe County moved forward in 2019 with adoption of the latest energy code. We provided extensive input to retain a strong foundation of building efficiency in residential codes in Nevada, before a solar credit is allowed, and were successful in these efforts in all local jurisdictions.

Reno’s City Council passed a benchmarking ordinance in January 2019, after much work to position the ordinance for adoption. The ordinance is expected to save $62 million on energy bills, create 300 local jobs, provide $14 million in air quality benefits by 2030, as well as promote Reno’s position as a leading sustainable city to attract new businesses and investments. The new ordinance requires commercial and multifamily buildings above 30,000 square feet to track and report on energy usage over time.

New Mexico
In 2019, we laid the groundwork to advance the statewide energy code in New Mexico. SWEEP worked extensively on the New Mexico Energy Roadmap with a large and diverse stakeholder group, and one of the key outcomes was a recommendation to adopt the 2018 IECC, something that is moving forward in 2020. Presentations and discussions were provided to the state building department on the importance of advancing the energy code, with direct reference to the energy roadmap report.

The City of Albuquerque commenced review of the 2018 IECC with plans by local leadership to adopt the energy code in 2020. Other cities and counties will advance to the state code after adoption occurs at the state level.

Utah
Utah has legislative requirements that prevent modifying the residential provisions of the energy code more than once every six years but this limitation does apply to codes for commercial buildings. SWEEP and UCE participated in code development committee meetings, where we provided information on the economic and environmental benefits of adopting the 2018 IECC for commercial buildings. SWEEP and UCE also advanced specific residential provisions that meet the legislative requirements but would provide additional energy savings in new homes in Utah. The state legislature adopted the 2018 IECC for new commercial buildings in 2019.

1 The state of Nevada adopts an energy code that applies in parts of the state that do not adopt a local code.
Transportation Program

SWEEP worked to improve the efficiency of the transportation system in the Southwest by accelerating the deployment of EVs and reducing overall transportation demand. The results of our work are apparent in plug-in vehicle sales, which doubled from 2017 to 2018 and likely increased another 50 percent in 2019. (See chart below.)

SWEEP worked with states, utilities, cities, and the private sector to advance policies and programs that will further accelerate electric vehicle deployment. We made significant progress in 2019 in key program areas, including advancing Clean Car Standards, enabling and expanding utility engagement in transportation electrification, and promoting shared electric vehicles.

Number of Plug-In Vehicle Sales in the Southwestern United States by Year*

![Number of Plug-In Vehicle Sales in the Southwestern United States by Year](image)

*Source: U.S. Auto Alliance – (2019 data includes sales only through June)

Arizona

At the end of 2018, the ACC adopted a new policy enabling utility engagement in vehicle electrification. In July 2019, the Commission formally approved rules to implement these new policies, giving clear guidance to APS and TEP on how to proceed. These new policies will enable APS and TEP to increase the scale of their EV programs, and fund them through rates. Additionally, SWEEP worked with the staff and board of the SRP to win a new sustainability plan, which aims to support the adoption of 500,000 EVs through 2035.

As part of our effort to educate decisionmakers and the public, SWEEP commissioned and released a report detailing the many benefits of greater EV use in Arizona. The report found that increased adoption of clean EVs would reduce utility costs for Arizona families, reduce transportation costs for drivers, support the local economy, and improve air quality for all Arizonans. Among the findings, if Arizona develops policies to support a rapid adoption of EVs, reaching one million EVs on the road by 2030 and over 7 million by 2050, it would generate $31 billion in net economic benefits statewide.
In addition, SWEEP helped organize and host a transportation electrification forum, drawing more than 140 attendees from key organizations and agencies across Arizona to talk about next steps in transportation electrification planning and policy implementation. Andy Tobin, the Director of the State Department of Administration, gave the keynote address.

**Colorado**

SWEEP helped convince Governor Jared Polis to announce plans to adopt the Zero Emission Vehicle (ZEV) program, a rule that requires auto manufacturers to deploy an increasing number of plug-in vehicles to auto dealerships across the state. SWEEP joined with allies to successfully win adoption of this policy at the Air Quality Control Commission in August. Colorado became the 11th ZEV state; the first to adopt the standards in almost a decade, and currently the only interior state participating.

At the same time, SWEEP helped secure a new version of the state’s spending plan for settlement money from the Volkswagen emissions scandal, focusing all remaining resources on efforts to advance energy-efficient EVs.

With leadership from SWEEP, the Colorado General Assembly passed a bill that ordered Xcel Energy and Black Hills Energy to develop and file transportation electrification plans with the CO PUC, officially expanding their role to include providing electricity as transportation fuel.

In part due to public attention on electricity charges affecting Denver’s main electric bus line, Xcel Energy began implementing the new law by proposing a new rate specifically for commercial and industrial EV charging. The new rate was approved by the PUC in fall 2019, and is now in place. SWEEP estimates that it will offer substantial savings on electricity as a transportation fuel, particularly for transit fleets.

Buoyed by arguments and information about the benefits of electric vehicles SWEEP helped develop and convinced the Colorado General Assembly to pass legislation extending Colorado's nation’s best financial incentive for EV adoption through 2025. The legislation includes incentives for vehicles purchased by fleet operators. Lyft cited this policy as a major reason why it chose Colorado to deploy 200 Kia Niro EVs at an announcement event with Governor Polis.

The Colorado General Assembly also adopted a new law that created a workgroup at the Colorado Department of Transportation to explore policy ideas that could promote shared, autonomous and electric vehicles in Colorado — applying to taxis, shuttles, rideshare vehicles, home delivery vehicles, and other small commercial vehicles. SWEEP participated in this workgroup, chairing both the environmental impact and electrification sub-committees. We advocated for policies that could help steer our transportation system toward more efficient and more highly-utilized vehicles, which could reduce energy consumption and save people substantial amounts of money. CDOT published the workgroup report in November 2019, laying a foundation for potential new policies to be enacted in future years.

**Nevada**

SWEEP worked to educate and mobilize the public in Nevada around transportation electrification in 2019. We wrote and issued a report highlighting the benefits of transportation electrification. We found that passenger EVs save drivers up to $1,264 per year in fuel and maintenance costs, which translates to significant economy-wide growth and new jobs. SWEEP also organized a transportation electrification forum in Reno, recruiting speakers including the state Office of Energy director, a Public Utility Commissioner, and a variety of other key voices.
SWEEP also worked to convince Nevada Governor Steve Sisolak to follow Colorado’s lead and adopt the Clean Cars Program, including the ZEV component. The Governor pledged to move forward with this step, and other measures to reduce air pollution, in November 2019. The Governor also joined other U.S. Climate Alliance states in pledging to defend the Clean Cars program from attack at the federal level.

**New Mexico**
The election of Governor Michelle Lujan-Grisham in New Mexico opened up new opportunities to make progress on vehicle electrification in the state. SWEEP contributed to several policy advances in 2019.

Notably, the state legislature passed a bill that enables investor-owned utilities to invest in transportation electrification measures, and requires them to submit electrification plans to the Public Regulatory Commission. SWEEP and allies briefed Commissioners and utility stakeholders about the benefits of electrification, and advised utilities on ideas for effective plans.

SWEEP also urged Governor Lujan-Grisham to adopt the Clean Cars Program, joining Colorado and other states. The Governor issued an executive order making New Mexico a member of the U.S. Climate Alliance and creating a formal state climate task force, which mentioned the Clean Cars Program as a policy to consider. The Governor also created a multi-agency and multi-stakeholder vehicle electrification workgroup, and made a public pledge to adopt the Clean Cars Program. In addition, the Governor included Clean Car standards in the state’s climate plan.

**Utah**
SWEEP worked with our partner group, UCE, to help guide RMP’s investments in transportation electrification and map out next steps to increase the scope and scale of utility EV programs. The utility is three years into a five-year, $10 million EV infrastructure pilot program. We anticipate expanded investment in EV programs in future years.

**Regional**
SWEEP worked with allies including Alliance to Save Energy to bring proposals for EV-ready residential and commercial building codes to the committee in charge of setting the model 2021 IECC. The codes were approved in December 2019 by voting members from a wide range of local governments. These new codes will help make charging infrastructure more widespread in our region and across the country. The EV-ready codes set minimum requirements for builders to incorporate appropriate electrical infrastructure into garages and parking spaces to enable the future installation of EV charging stations.
Industrial Program

In the industrial sector, SWEEP helped advance utility strategic energy management (SEM) programs and improved energy efficiency in the cannabis sector in 2019.

We succeeded in getting two utilities to add new SEM programs to their DSM plans in 2019, Black Hills Energy and Public Service of New Mexico (PNM). In addition, we contributed to significant improvements in Xcel Energy’s SEM program. Xcel expanded its program to include more medium-size industrial facilities. Xcel also gave more customers more options — by focusing on equipment upgrades initially through the Process Efficiency Program, or by focusing on operations and maintenance measures initially through the Energy Information Systems program.

In the cannabis sector, SWEEP developed two new code amendments that were adopted by Denver. One requires more efficient lighting, and the other more efficient dehumidification and cooling equipment. SWEEP also produced a webinar on energy efficiency opportunities in cannabis grow facilities. In addition, through its membership on Boulder County’s cannabis energy impact offset fund steering committee, SWEEP contributed to comprehensive audits for Boulder County’s cannabis growers, and a new “carbon-conscious” certification for growers meeting certain criteria.

As part of its continued leadership of the Colorado Industrial Energy Challenge programs, SWEEP organized and led three industrial networking meetings in 2019. Participants included MillerCoors, Corden Pharma, Ball Corporation, Carestream, Frito-Lay, Boulder Wastewater facility, Greeley wastewater facility, Avery Brewing, and IBM.

Communications

SWEEP engaged in a wide range of communications efforts during 2019 through press releases, blogs, news briefs, email newsletters and updates, social media engagement, and other targeted communications campaigns. We were cited in 46 press stories, wrote and distributed 17 blog articles, and published three op-eds that ran in the Salt Lake Tribune, Santa Fe New Mexican, and Colorado Politics.
We undertook considerable outreach in Arizona that resulted in hundreds of unique letters to Arizona utility commissioners. This helped to achieve positive outcomes on utility energy efficiency and EV policies at the ACC. In addition, we engaged in a number of communications efforts to help secure policy wins in Colorado, New Mexico, and Nevada in 2019.

**Other Activities**

SWEEP held its *Sixteenth Annual Southwest Utility Energy Efficiency Workshop* in Broomfield, CO in 2019. The workshop provided a forum for discussion of the latest trends and emerging themes in utility DSM programs in the region. The workshop also featured presentations on integrated energy efficiency and demand response programs, trends in lighting markets and programs, the role that energy efficiency and demand response can play in distribution system planning, variable speed heat pumps, heat pump water heaters, new approaches to valuing energy savings, and peak demand reduction, and more.

SWEEP presented its *Leadership in Energy Efficiency Awards* to five state legislators in 2019. These included Colorado Representatives Meg Froelich and Cathy Kipp along with Colorado Senator Faith Winter in Colorado; and New Mexico State Senator Jerry Ortiz y Pino and Representative Andrea Romero. All five individuals were sponsors of important energy efficiency legislation adopted in their respective state in 2019.

SWEEP continued its successful *Allies Program* in 2019. The program involves solicitation of financial support from energy efficiency businesses and other organizations that support SWEEP’s mission. The Allies Program, launched in 2014, had 42 participants at the end of 2019.
Publications

The following reports were published in 2019 and are available on the SWEEP web site at: http://www.swenergy.org/publications


**Energy Codes in Colorado Jurisdictions.** Nov. 2019.


Supporters

SWEEP is grateful for the financial support it received from the following organizations in 2019:

➢ Anonymous Foundation
➢ Denver Foundation
➢ Catena Foundation
➢ Colorado Energy Office
➢ Conservation Colorado Education Fund
➢ Energy Foundation
➢ GreenTech Action Fund
➢ Institute for Market Transformation
➢ National Association of State Energy Officials
➢ Natural Resources Defense Council
➢ Turner Foundation
➢ Arizona Public Service Company
➢ Black Hills Energy
➢ Dominion Energy
➢ El Paso Electric Company
➢ Fort Collins Utilities
➢ New Mexico Gas Company
➢ NV Energy
➢ Public Service Company of New Mexico
➢ Salt River Project
➢ Southwest Gas Company
➢ Tucson Electric Power Company
➢ Xcel Energy

In addition, SWEEP thanks its Allies for their financial support. See the [SWEEP Allies list here](#).
Staff and State Representatives (September 2020)

Howard Geller, Executive Director
Justin Brant, Utility Program Co-Director
Christine Brinker, Senior Associate Buildings Efficiency Program
Kevin Emerson, Utah Clean Energy Senior Policy and Regulatory Associate
Tammy Fiebelkorn, New Mexico Representative
Matt Frommer, Senior Transportation Associate
Kirsten Frysinger, Operations Director
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Travis Madsen, Transportation Program Director
Caryn Potter, Arizona Utility Program Manager
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Tom Polikalas, Nevada Representative
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