



**SWEEP**

SOUTHWEST ENERGY EFFICIENCY PROJECT

# Annual Report

2022



[swenergy.org](http://swenergy.org)



## A message from our Executive Director

From red rock desert canyons and snow-capped peaks to sweeping ranchlands and mighty rivers, the iconic landscapes of the American Southwest are as diverse as they are beautiful. Likewise, the region's communities vary just as widely — from small rural towns to Native American reservations to major urban centers — while featuring a range of economic underpinnings and covering the full political spectrum.

One of the Southwest Energy Efficiency Project's (SWEET) strengths is a deep understanding of the diversity of the places where we work. Yes, our role is consistent across the map of the Southwest: to be the trusted technical and policy experts who, in partnership with the people we serve, craft and advocate for clean, equitable, and climate-friendly energy and transportation solutions. But how that work unfolds across the region is tailored to respect and meet the unique needs and contexts of each state and community.

SWEET brought this strategic, place-based approach to our efforts in 2022. This included recognizing how the year's many challenges were playing out across the geography of the region — be it the lingering fallout from the COVID pandemic, the dual economic threats of persistent inflation and potential recession along with the ongoing disparities they exacerbated, or the accelerating crisis posed by our heating climate.

Likewise, we took advantage of the diversity of opportunities to advance our mission wherever we could find them, be it in state legislatures, with public utility commission dockets, or in local energy code adoption processes. An overarching focus of the year was, and will continue to be, helping state and local governments harness the unprecedented investment of federal dollars from the Bipartisan Infrastructure Law (BIL) and Inflation Reduction Act (IRA) to accelerate clean energy and transportation progress in the ways that work best for each location.

And the results? Indefatigable progress as we transition to a new energy and mobility future that is more efficient, clean, and affordable for everyone. Yes, we have a long way still to go to meet this lofty vision. But 2022 represented another year of important progress towards achieving it.

The following pages of SWEET's annual report walk through some of the highlights of what this progress looks like in the uniquely wonderful places of the Southwest. Of course, none of it would be possible without the backing of our many partners and supporters — so, thank you.

With gratitude for your support and optimism for the future,

A handwritten signature in black ink, appearing to read 'Elise Jones'.


**Elise Jones**

## Organizational highlights


2022 marked the first year of implementing our new 2022-25 Strategic Plan. Despite the ongoing challenges of the COVID pandemic and surging inflation, SWEEP had a banner year of growth and accomplishment, with the addition of a Communications Fellow and two new staff hired to help Southwest states and local governments to use federal funding to leverage clean, efficient, and equitable energy improvements. Additionally, the enthusiastic generosity of board members and supporters made the organization's first-ever participation in Giving Tuesday a resounding success, resulting in nearly \$40,000 in donations to propel SWEEP's important work forward in the coming year.

### Southwest region:

SWEEP worked across the six states of the Southwest to leverage region-wide progress to increase spending on energy efficiency and clean energy solutions, and promote the transition from fossil-fueled space and water heating to electric as a key pathway to achieving our collective goals on greenhouse gas (GHG) reductions and a clean, healthy, and affordable energy future.


 **Expanding federal investments in climate and equity action:** A top priority for SWEEP was maximizing the equity and climate benefits of the new federal dollars approved by Congress by using them to replicate and amplify the best innovations in efficiency, electrification, and decarbonization around the Southwest region. On top of the \$1.2 trillion already passed in the 2021 BIL, federal lawmakers adopted the IRA in August, providing an unprecedented \$369 billion to tackle the climate crisis — the biggest tranche of climate funding in the history of our country. What's more, the Biden Administration directed that 40 percent of these funds go towards benefiting disadvantaged communities overburdened by pollution as part of its Justice40 Initiative.

To take advantage of this historic opportunity, SWEEP hired two Federal Funding Implementation Coordinators to work with our program directors and state representatives to ensure timely and effective spending of these new federal dollars at the state and local levels. With their assistance, SWEEP organized and sent statewide coalition letters to over 500 state, Tribal, city, and county leaders across the region urging them to leverage these federal funds to save people money on energy and transportation, create new jobs, and expand prosperity while improving public health and protecting the climate. We provided recommendations to State Energy Offices and other state agencies on how these monies could best meet clean energy and greenhouse gas reduction objectives. SWEEP hosted federal funding informational webinars for government officials and staff to inform them of the various pots of funding available, how to access them, and what these investments could do for their communities. In addition, we expanded our communications work to shine the media spotlight on the various projects funded by BIL and IRA funds, from electric school buses to multimodal transportation projects.



**Accelerating heat pump adoption:** With improved technologies, higher fossil fuel prices, expanded consumer education, and promotion by advocates like SWEEP, heat pumps are growing in popularity as a clean alternative to fossil-fueled furnaces and water heaters. In 2022, SWEEP released updated research on the benefits of heat pumps and heat pump water heaters (HPWHs), concluding that they are now even more cost-effective than they were only one or two years ago, due to improvements in heat pump technology and increases in gas prices. New homes built with heat pumps rather than gas furnaces can reduce annual heating costs by up to 30 percent depending on the climate zone they're in, while both new and retrofitted homes can decrease their climate emissions by 44-60 percent.

Additionally, SWEEP has been promoting heat pump uptake through its leadership of the Beneficial Electrification League's Colorado chapter (BEL-CO), a coalition of utilities, local governments, and other stakeholders advocating for the use of energy-efficient electric appliances in buildings and industrial facilities. SWEEP organized a successful and sold-out Beneficial Electrification Summit in October, attended by more than 120 people and featuring presentations on state policies, federal incentives, local building codes, and examples of electrification in new and existing homes. We also updated the BEL-CO website, LoveElectric.org, with case studies profiling homeowners who have performed home electrification retrofits or purchased new electric homes to tell the story of the comfort, financial, and climate benefits of going electric. BEL-CO's work has helped lead to a tripling of heat pump installations in Colorado from 2021 to 2022 — a model we hope to replicate in other Southwest states.



**Decarbonizing the building sector:** As we look to decrease climate emissions from the built environment and reduce our reliance on fossil fuels, SWEEP is engaging in the dialogue about how to transition away from using natural gas for space and water heating in the Southwest and embrace cleaner, electric equipment and appliances like heat pumps and HPWHs. This transition requires envisioning a new future for gas utilities, modernizing and expanding the grid to handle the increased load, preventing the burden of stranded assets from landing on consumers who can least afford it, and ensuring that utility bills are affordable, especially for poorer households. A work in progress, SWEEP has been furthering this conversation across the region, in numerous forums, from legislatures to public utility commission dockets.

In Colorado, the Public Utilities Commission (PUC) approved the West Metro Gas Expansion, a significant expansion of Xcel Energy's gas distribution system in parts of Denver, Lakewood, and Edgewater, against the opposition of SWEEP and other parties. However, the Commission stated that Xcel must do better in the future at considering non-pipeline alternatives to such investments. This type of analysis will be furthered by the PUC's completion of new rules governing gas energy efficiency, gas system planning, and Clean Heat Plans, which will require utilities to undergo such planning and to submit Clean Heat decarbonization plans in the coming years. SWEEP also recommended strengthened planning processes for long-term gas infrastructure and investments in Arizona as part of Southwest Gas' rate case.

SWEEP also opposed a significant gas plant expansion from the Salt River Project that did not follow resource planning best practices or properly engage impacted community members from the historic Black community in the unincorporated Town of Randolph. We hope to work with the Arizona Corporation Commission (ACC), utilities, and other stakeholders on developing gas system planning protocols in the future that assure a rigorous analysis of cost-effective alternatives.



## Arizona

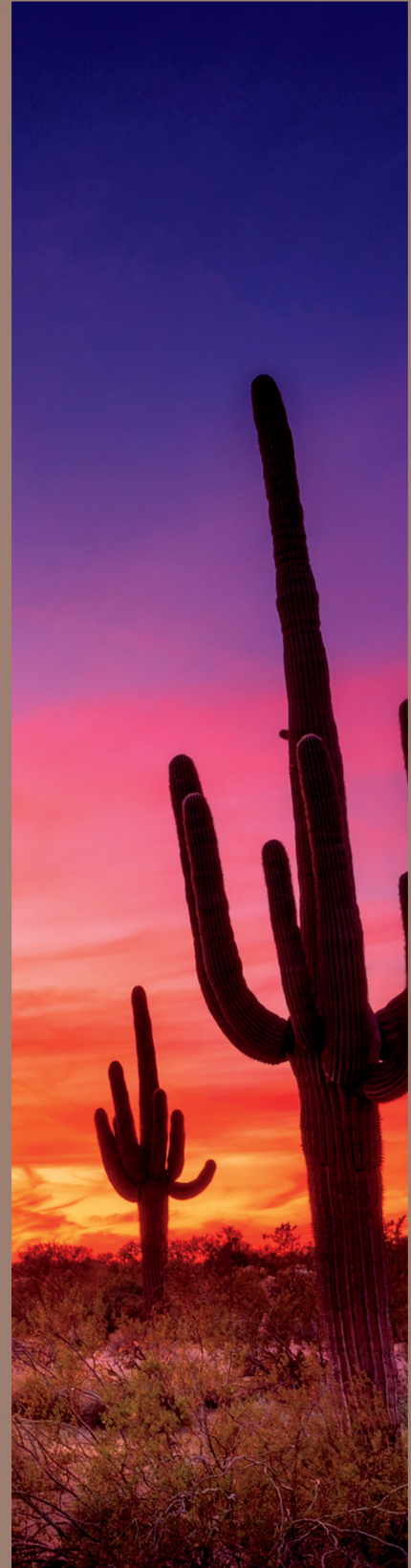
SWEEP had several key wins in Arizona in 2022, centered around enhancing the role of energy efficiency and transportation electrification in utility resource decision-making, as well as green code adoption by local communities.

### **Advancing utility demand-side management (DSM) plans:**

Encouraging utilities to provide their customers with incentives to decrease energy use and waste in their homes and businesses has been a long-time SWEEP priority. In November, the ACC approved the DSM plans for Arizona Public Service (APS) and Tucson Electric Power (TEP), greenlighting nearly \$100 million annually for both utilities, including new offerings like Advanced Rooftop Controls that improve indoor air quality for public schools and expanded access to home weatherization services. This important progress required direct involvement by SWEEP staff to achieve plan adoption and to secure APS' Performance Incentive, which gives the utility adequate financial signals to invest in greater levels of DSM.

**Requiring energy efficiency reinvestment by TEP:** SWEEP works across the region to maximize the impact and investment of utility programs designed to reduce energy waste. At SWEEP's prompting, rather than reward ineffective implementation of utility programs to reduce energy waste, the ACC denied TEP's attempt to refund the DSM surcharge money the utility underspent on their Demand-Side Management program. Instead, in a significant victory for SWEEP, regulators required the \$12 million to be redeployed to energy efficiency programs to weatherize low-income homes and improve efficiency in multifamily homes, nonprofits, and schools.

**Ensuring robust implementation of transportation electrification plans:** A key component of SWEEP's clean transportation mission is working with utilities to craft, achieve approval of, and then effectively implement transportation electrification plans that support the adoption of electric vehicles (EVs) and the charging infrastructure they require. In the wake of regulators' approval of Arizona's Statewide Transportation Electrification Plan in 2021, SWEEP




## Arizona

participated in stakeholder meetings to shape the implementation plans for TEP and UNS Electric, which the ACC approved in early November. Some of the strongest in the Southwest, these plans will help reduce barriers to EV adoption, include studies to minimize grid impacts, and provide programs for low-income customers.

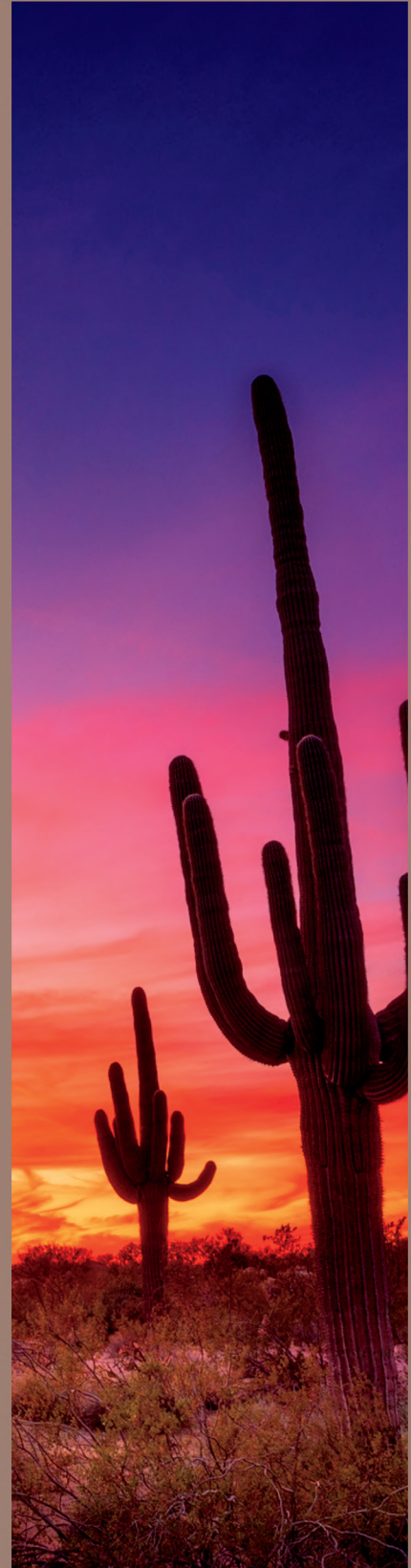
### **Adopting clean building codes in Scottsdale and Tucson:**

SWEEP partners with cities and towns across the Southwest to help them adopt the most modern and efficient building energy codes to ensure new buildings are sustainable, comfortable, healthy, and wired to support electric equipment like heat pumps and HPWHs, as well as charging for EVs. In 2022, SWEEP worked extensively with Scottsdale to help the city achieve the adoption of the most up-to-date building energy code — the 2021 International Energy Conservation Code (IECC) — along with the International Green Construction Code, and requirements that new residential and commercial development be built ready to accommodate EV charging. Further south, SWEEP helped the City of Tucson approve an EV-Readiness Code for multi-family and commercial construction.



"Energy efficiency is the underbelly of Arizona's economy. Simply put, eliminating energy waste improves economic productivity, all the while reducing the need to generate power from more expensive options while supporting more local jobs"

*Caryn Potter, Arizona Representative*



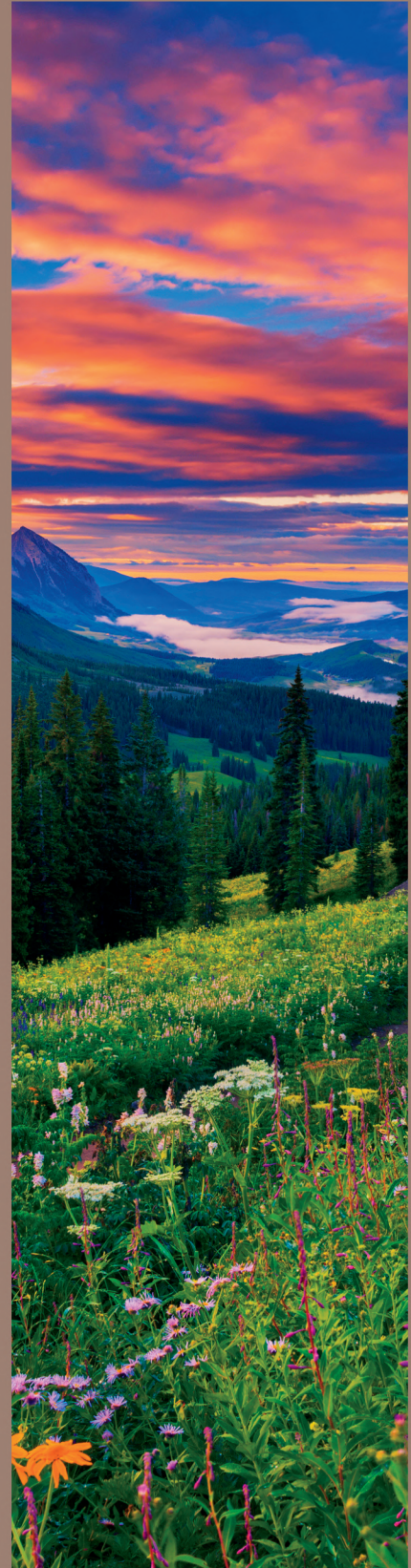
## Colorado

SWEEP had another very successful year in Colorado, shaping new decarbonization policies at the state legislature and spurring green code adoption in communities across the state.

**Advancing net zero building codes:** SWEEP drafted and championed another successful building decarbonization bill in the Colorado legislature in 2022. House Bill 1362 sets the 2021 IECC as the minimum for local government adoption, along with electric-ready, EV-ready and solar-ready codes, followed by an even stronger low-energy and low-carbon code starting in 2026. Colorado is the first home-rule state in the nation to accomplish this, and one of the first to set in motion a required low energy and carbon code. This statewide work was complemented by equally exciting progress towards net zero energy codes at the local level, including approval of electric-preferred and, in some cases, all-electric codes combined with stronger energy efficiency. In all, SWEEP helped more than a dozen local communities adopt stronger energy codes, from Denver and Fort Collins to Crested Butte and Louisville.

**Approving green funding measures:** Another significant victory supported through SWEEP's advocacy was the Colorado legislature's approval of an ample financial package incentivizing a long list of climate solutions. Highlights included: \$65 million for electric school buses, \$12 million for e-bikes in low-income communities, \$25 million for industrial emission reduction projects, a month of fare-free transit across the state for the next two Augusts, and \$20 million to fund green, resilient rebuilding after climate disasters like the Marshall Fire. In addition to this tranche of new dollars, SWEEP successfully championed adoption of a 10 percent tax credit for heat pumps, HPWHs, and associated electrical equipment to help spur building electrification.

**Implementing landmark transportation rule:** In late 2021, with SWEEP's prompting, the Colorado Department of Transportation (CDOT) adopted a nation-leading policy to establish GHG reduction targets for transportation plans and better align infrastructure investments with projects that cut pollution, improve efficiency, advance equity, and save people






## Colorado

money on transportation. In 2022, we then successfully implemented this new climate rule to redirect funding away from costly and polluting highway expansion projects and towards multimodal transportation projects that support transit, biking, walking, and more efficient land use. Specifically, we helped shift \$2.2 billion to climate-friendly transportation projects, including removing from CDOT's revised 10 Year Plan the I-25 Central Highway expansion that would have replaced homes and businesses with more car traffic and pollution, and updating the Denver Regional Council of Government's Regional Transportation Plan to include the construction of four new regional bus rapid transit corridors.

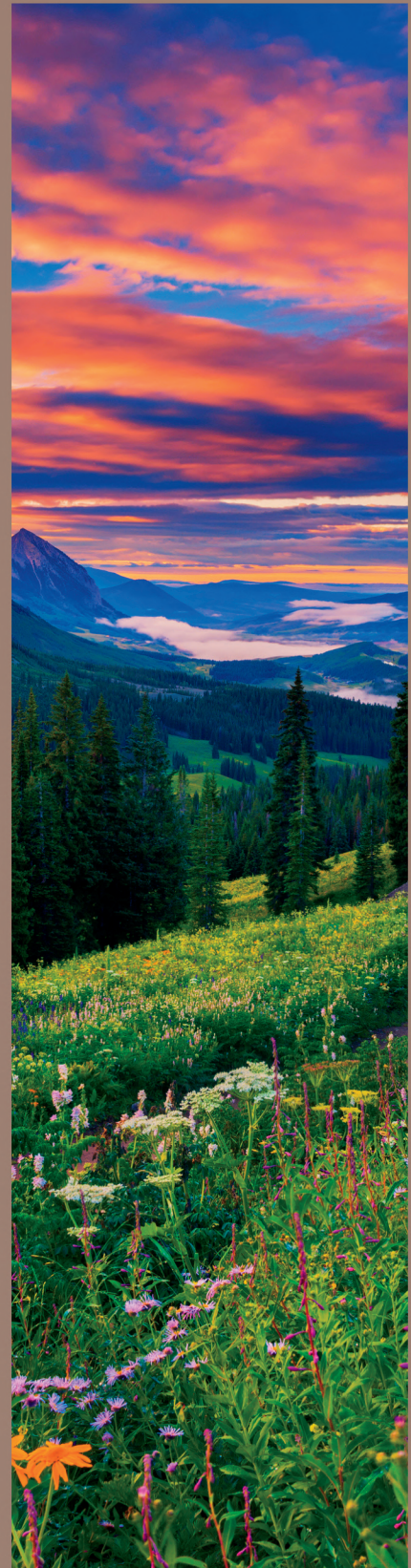
### Securing milestone Tri-State Electric Resource Plan (ERP)

**Settlement:** Another big win for SWEEP and our partners was the settlement reached on Tri-State Generation and Transmission Association's 2020 ERP in January. SWEEP intervened at the PUC on this docket, providing testimony that identified energy efficiency as the lowest cost energy resource for this wholesale energy supplier of 42 rural co-ops across the region. The settlement established GHG emission reduction, energy efficiency, and demand response targets, marking the first time the utility has committed to near-term GHG benchmarks and putting it on a glide path to align with the state's climate goals.



"People are starting to understand that these highway expansions are really city killers. And in Colorado we're trying to build more livable cities. It is essential to leave the capacity as-is."

*Matt Frommer, Senior  
Transportation Associate*



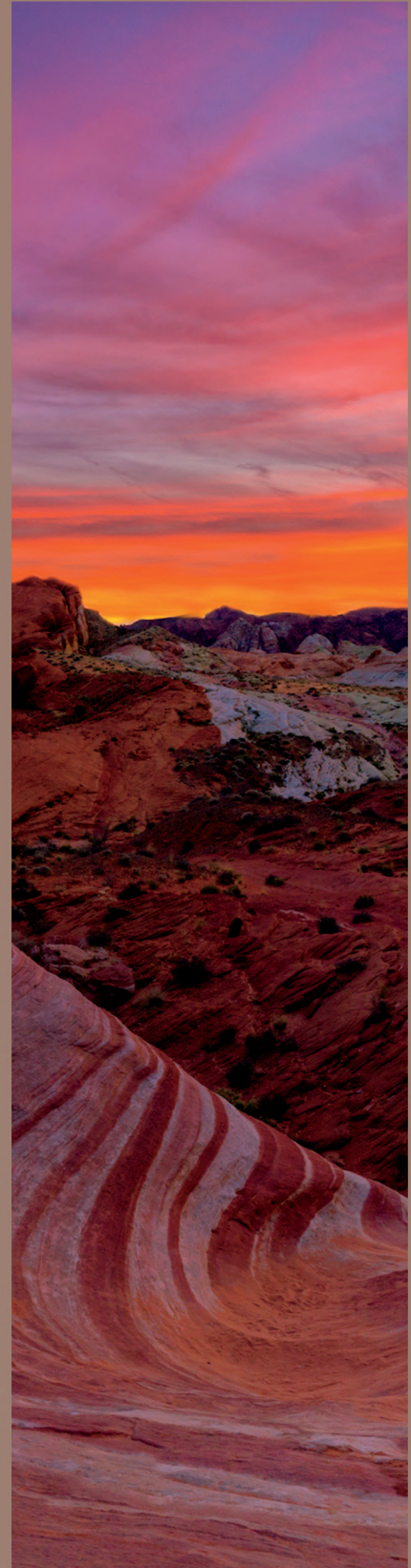
## Nevada

During the past year, SWEEP focused on successfully implementing prior legislative policy wins on transportation electrification, as well as helping Nevada communities embrace a more sustainable future.

**Advancing NV Energy's Transportation Electrification Plan (TEP):** In 2021, the Nevada legislature passed an omnibus energy bill, Senate Bill 448, that required utilities to develop transportation electrification plans. To implement this law, SWEEP staff provided input on program ideas to NV Energy, encouraging the company to draft a strong, well-funded TEP proposal. In September 2022, the utility submitted its plan to Nevada's Public Utilities Commission (PUCN), proposing an unprecedented \$350 million investment, taking a significant amount of our advice. If adopted, this plan would be one of the largest utility plans in the country. In the coming year, as an intervenor at the PUCN, SWEEP will be working to finetune this approval and secure Commission approval of an effective, robustly-resourced plan.


**Embracing cleaner trucks in Nevada:** In March 2022, Governor Sisolak joined 16 other states and the District of Columbia in signing a memorandum of understanding committing the state to strive to make 30 percent or more of new medium- and heavy-duty vehicle sales zero emission vehicles by 2030, at the urging of SWEEP and our partners. The Memorandum of Understanding prioritized benefits for communities that have historically suffered from higher exposure to air pollution, such as neighborhoods located near busy freight corridors. Not only is cleaning up truck pollution essential for meeting climate goals, it will also have significant public health benefits, improve energy efficiency, and save fleets money.

**Preparing Clark County for an EV Future:** SWEEP has participated in the Clark County Transportation Electrification Working Group for over a year, working with other stakeholders to help advance transportation electrification in southern Nevada. A key task has been developing recommendations on a model EV-Ready Infrastructure Ordinance, to ensure new buildings are constructed with the



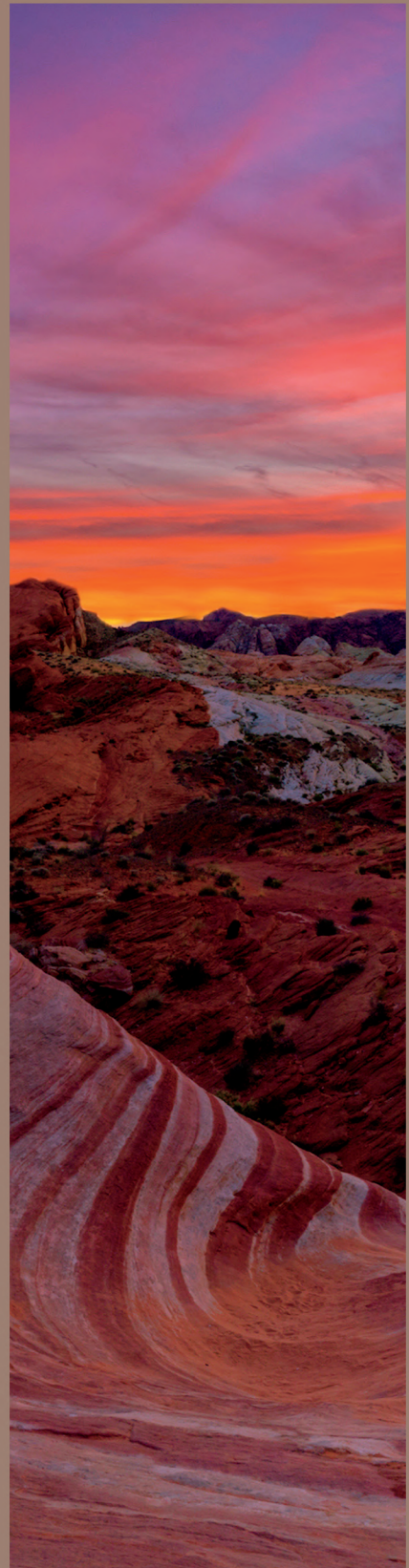
## Nevada

electrical wiring and equipment necessary to support installation of EV charging capabilities. In December, the county commissioners adopted this measure to ensure new development was future-ready for EVs; this work will be finalized in the coming year through the Title 30 update process.



"Energy efficiency and demand management programs save money for all utility customers and reduce greenhouse gas emissions. These programs are especially essential to help customers in Nevada's most vulnerable communities save money during this time of increased energy prices."

*Angie Dykema, Nevada Representative*



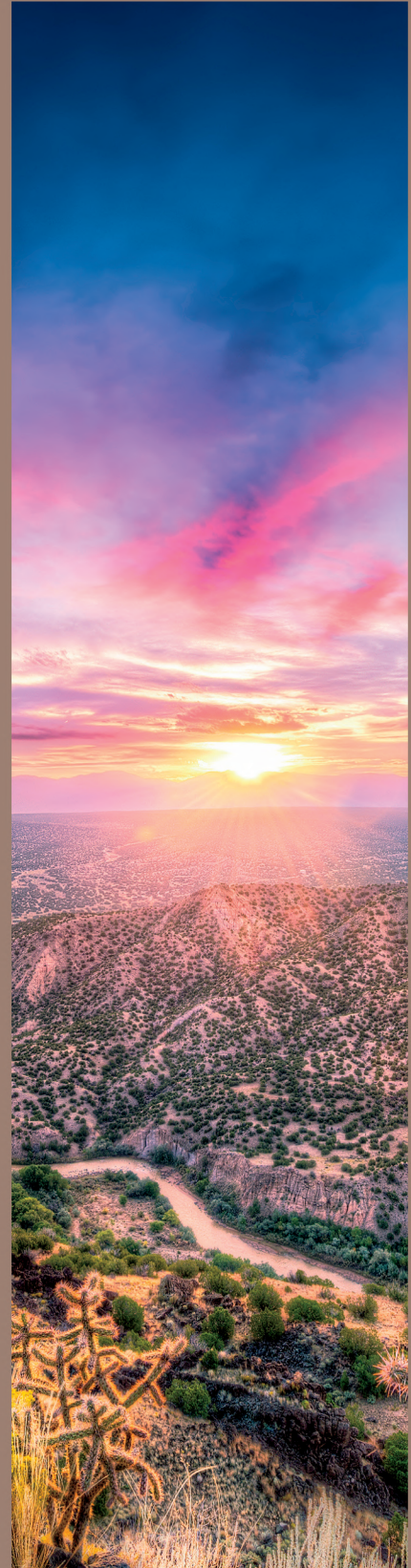
## New Mexico

SWEEP led the way towards greater energy equity and cleaner air in New Mexico in 2022 through completion of several long-term projects including final passage of landmark low-income efficiency legislation, adoption of key rules on clean vehicles, and implementation of statewide energy conservation codes.

**Adopting the Clean Cars standards:** Last May, New Mexico became the third Southwest state (joining 16 other states and the District of Columbia) to adopt the Advanced Clean Cars I low and zero emission vehicle (LEV and ZEV) standards. The ZEV standards ensure that automakers make increasing numbers of EVs available for sale in a state, while the LEV standards require automakers to manufacture cars that emit fewer GHGs and other harmful air pollutants. This action helps accelerate transportation electrification in New Mexico, and lay the foundation for adoption of the even stronger Clean Cars II standards.


**Passing the Community Energy Efficiency Development (CEED) Block Grant Act:** After two previous tries, SWEEP and our partners were finally successful in convincing the state legislature to adopt the CEED bill, along with approving a \$10 million fund at the New Mexico Department of Energy, Minerals, and Natural Resources to launch it. This pivotal measure targets energy efficiency improvements in underserved communities with high energy burdens, in partnership with local community organizations who have the trust of local residents in low-income neighborhoods and can go door to door in the most impoverished zip codes to recruit homes for weatherization and home improvement projects, doing an entire block at a time to achieve economies of scale. The CEED program is an effective model for advancing equity and SWEEP is now working to use new federal funding to expand its reach in New Mexico and export it to other states.

**Improving building code outcomes:** SWEEP uses its technical expertise on building performance to research whether building codes are being effectively implemented on the ground to achieve the desired efficiencies and performance in newly constructed homes and commercial facilities. Under a



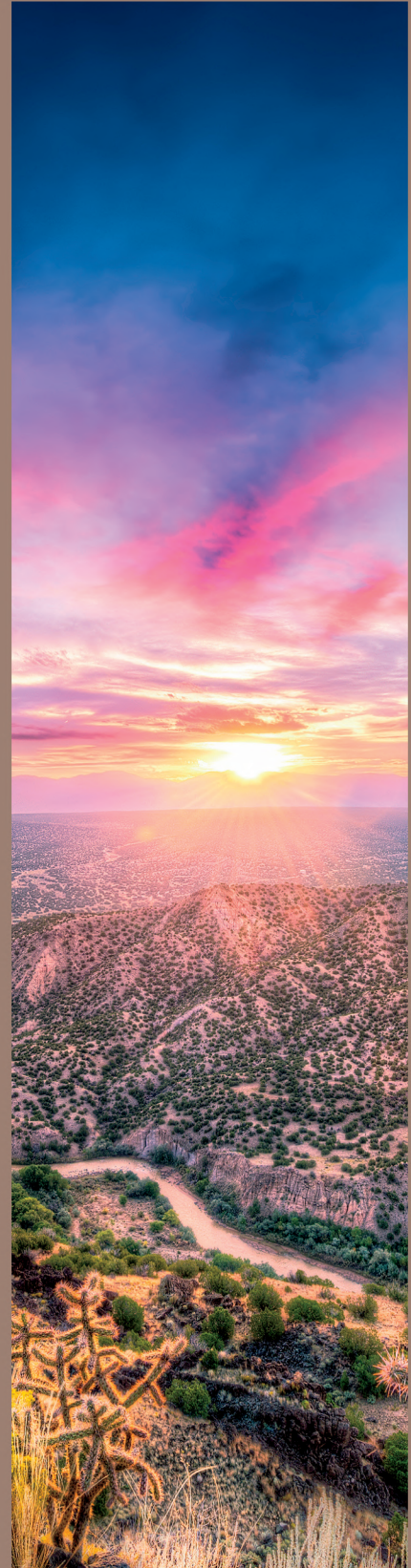
## New Mexico

new Department of Energy grant, SWEEP's Buildings Program team has been working to improve code adoption, compliance, and enforcement in New Mexico by administering research and field studies and overseeing a new technical support circuit rider to directly assist local governments. These efforts will support the building industry to construct efficient, affordable, and equitable homes and workspaces for hard-working New Mexicans.



"Electric school buses save New Mexico school districts money. Transitioning to them lowers long-term maintenance costs, eliminates unpredictable fossil fuel costs, and reduces pollution. Federal funding jumpstarts a sustainable and stable future for our students and communities, and all school districts should pursue future rounds of this funding."

*Tammy Fiebelkorn, New Mexico Representative*



## Utah

In Utah, SWEEP collaborates with our partner Utah Clean Energy (UCE) to achieve cleaner and more efficient buildings and transportation systems. With sustained effort, UCE and SWEEP logged important progress on building codes and transportation electrification in 2022.

**Advancing updated statewide building energy codes:** A major Utah focus in 2022 was advocating for state adoption of the latest building energy code, the 2021 IECC. While the electric-ready amendment was tabled by the state's Uniform Building Code Commission, after many meetings and lots of technical support, the Commission recommended adoption of the 2021 IECC (specifically, the full commercial code and an amended version of the residential code). In the coming year, we will work to get the Commission's recommendations approved by the state legislature.

**Organizing local communities around green building stretch codes:** While it's not possible to require net zero and all-electric construction at the local level in Utah, UCE convened a group of nearly a dozen interested communities to explore pursuing voluntary stretch codes to achieve these goals. This outreach and education work has built the foundation and momentum for several local governments to hopefully adopt stretch codes in 2023.

**Achieving transportation electrification wins at the legislature:** In a hard-fought compromise that will hopefully end the annual attempts to punitively increase EV fees, UCE helped negotiate a compromise that ramps up annual registration fees for EVs more slowly than drastic proposals from prior years. Due to UCE's advocacy, the final bill also lowers the per mile charge for EV drivers who participate in the state's voluntary "road usage program" over the next decade, providing cost savings for most average EV drivers. Additionally, we helped win approval of Senate Bill 152 to prohibit homeowner associations from preventing residents from installing EV charging equipment in their own parking spaces. Lastly, the approved state budget also included \$3 million in state matching grants to support rural EV charging in Utah, as well as significant new funding for clean



## Utah

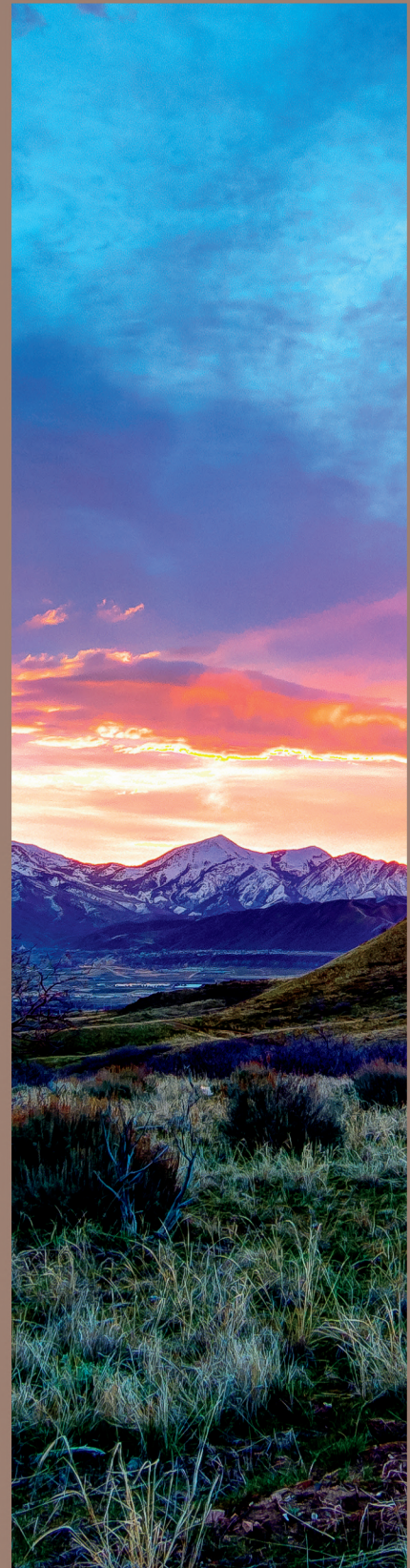


transportation alternatives such as rail, bus, and bike and pedestrian paths.



"Each new building constructed in Utah has the potential to last for 50 to 100 years. Utah Clean Energy fully supports the Commission's recommendation that Utah adopt the 2021 IECC for commercial buildings."

*Kevin Emerson, UCE  
Building Efficiency &  
Decarbonization Director*





### By-The-Numbers



### Financials



*SWEEP's achievements*

#### ENERGY SAVINGS *gigawatt hours*

<b>AZ</b>	1,054
<b>CO</b>	598
<b>NM</b>	159
<b>NV</b>	247
<b>UT</b>	347
<b>WY</b>	62

**TOTAL**  
**2,467**

#### NET BENEFITS *\$ millions*

286
287
31
115
168
4

**TOTAL**  
**\$891,000,000**

#### 2022 REVENUES

Grants & Contributions	\$1,526,701
Contracts	\$592,865
Memberships	\$215,000
Events	\$55,500

**TOTAL**  
**\$2,390,066**

#### 2022 EXPENSES

Programs	\$1,926,496
General & Administrative	\$354,089
Fundraising	\$36,100

**TOTAL**  
**\$2,316,685**



The results of SWEEP's work are apparent in the market share of light-duty plug-in vehicles, which has been growing at a rate of about 50 percent per year.



In 2022, plug-in vehicles claimed more than 8 percent of the light-duty market, up from half a percent in 2015.



Additionally, the number of public charging ports installed annually has been increasing steadily by about 40 percent per year.

*Savings and benefits listed above are preliminary as of spring 2023.*



#### WEBINARS

**A dozen** webinars both produced and co-organized by SWEEP staff, attended by over **500** attendees.



#### PRESS COVERAGE

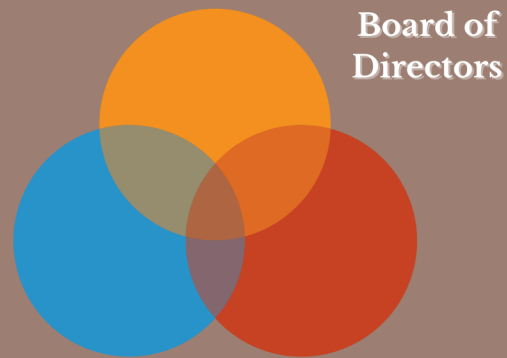
**Nearly 200** pieces of press coverage in both regional and national news sources.



#### BILLS PASSED

**11 bills** passed in state legislatures with active support from SWEEP and UCE.





**Elise Jones** *Executive Director*

**Justin Brant** *Utility Program Director*

**Christine Brinker** *Senior Buildings Policy Manager*

**Angie Dykema** *Nevada Representative*

**Rachel Ellis** *Communications Fellow*

**Nissa Erickson** *Federal Funding Implementation Coordinator*

**Kevin Emerson** *UCE Building Efficiency & Decarbonization Director*

**Tammy Fiebelkorn** *New Mexico Representative*

**Matt Frommer** *Senior Transportation Associate*

**Kirsten Frysinger** *Operations Director*

**Howard Geller** *Senior Policy Advisor*

**Michael Kenney** *Senior Program Manager*

**Neil Kolwey** *Industrial Program Director*

**Travis Madsen** *Transportation Program Director*

**Tyler Merriweather** *Federal Funding Implementation Coordinator*

**Jim Meyers** *Buildings Program Director*

**Caryn Potter** *Arizona Representative*

**Josh Valentine** *Communications Director*

**Sue Reilly**, Board Chair  
*Group 14 Engineering*

**Patricia Rodriguez**, Board Vice-Chair  
*NV Energy*

**Roderick Jackson**, Board Treasurer  
*National Renewable Energy Laboratory*

**Ron Binz**  
*Public Policy Consulting*

**Mary Caulkins**  
*Caulkins Family Foundation*

**Mayane Chavez Barudin**  
*Vote Solar*

**Howard Geller**  
*SWEEP*

**Dr. Mary L. House**  
*CHR, Inc (Caring, Helping Restoring Lives)*

**Elise Jones**  
*SWEEP*

**Michael Orton**  
*Dominion Energy*

**Tony Schaffhauser**  
*ACS Energy*

**Daniel Sperling**  
*University of California, Davis*

**Brody Wilson**  
*IBM*

**Ellen Zuckerman**

# SWEEP Allies



SWEEP's business Allies in 2022 helped expand our work with utilities, state and local governments, and in the transportation sector through their annual contribution of \$5000 (or \$2500 for nonprofits). The Allies program is a collaborative and immersive partnership designed to directly benefit Ally organizations and companies through SWEEP's advocacy work, policy positions, and mission.



- American Chemistry Council
- American Council for an Energy-Efficient Economy (ACEEE)
- Bernhard
- Cascade Energy
- ChargePoint
- CLEAResult
- Daikin
- DNV
- E4TheFuture
- Energy Solutions
- Evergreen Consulting Group
- EZ Green Home
- The Franklin Energy Group
- General Motors
- Google Nest
- Group 14 Engineering
- Guidehouse
- ICAST (International Center for Appropriate and Sustainable Technology)
- Johns Manville
- Michaels Energy
- NAIMA (North American Insulation Manufacturers Association)
- Noresco
- Opinion Dynamics
- Oracle Utilities
- Owens Corning
- Pearl Certification
- Power TakeOff
- Proctor Engineering Group
- Recurve
- Resource Innovations
- Shell Recharge Solutions
- Tesla
- Trane Technologies
- Uplight
- Western Mechanical Solutions



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