ACEEE ANNUAL REPORT

2021

A Message from ACEEE Leadership

Steven Nadel, executive director, and Penni McLean-Conner, board of directors' chair

Energy efficiency is about building better lives for everyone. Smart energy use means breathing cleaner air, creating jobs, reducing utility bills, and of course, preventing the worst impacts of climate change.

The enormous loss and disruption caused by the coronavirus pandemic has made this work even more important. Like the pandemic, the climate crisis hits the most vulnerable members of our society the hardest. Throughout our work, ACEEE is committed to ensuring that the benefits of energy efficiency are available to all.

In 2021, we launched three new initiatives to promote a just and inclusive clean energy transition: Leading with Equity holds cities, states, and utilities accountable by creating equity metrics in our scorecards; Energy Equity for Renters works with local governments to lower energy costs for renters, preserve affordable neighborhoods, and reduce planet-warming emissions; and our Climate-Forward Efficiency Initiative seeks to scale energy efficiency programs and focus them on tackling the climate crisis.

With a more receptive Congress and administration, we helped secure unprecedented investments in energy efficiency. Our policy proposals, analyses, and work with both the House and Senate contributed significantly to the bipartisan Infrastructure Investment and Jobs Act and the pending Build Back Better Act.

Based on our rigorous analysis, we urged the new administration to set ambitious standards to improve the fuel economy of cars and light trucks. This analysis contributed to the Environmental Protection Agency releasing standards that were stronger than its initial proposal.

Our research and advocacy influenced new appliance standards in six states (Maine, Massachusetts, Nevada, Oregon, Rhode Island, and New Jersey), reversed harmful rules issued by the Trump administration that created hurdles for new standards and undercut some existing ones, and led to big progress on new federal standards.

There is more work to be done. Thank you for your support as we work toward a more sustainable future—and better lives—for all.

Our Call to Action

"The decisions our leaders make now are going to affect a whole generation of buildings, vehicles, and industrial plants. We have an opportunity to make transformative investments in our future, and we should seize it."
—Executive Director Steven Nadel in *E&E Daily*, June 22, 2021

ACEEE's vision is to scale up energy efficiency to rapidly and equitably reduce greenhouse gas (GHG) emissions and combat climate change, and to do so in a way that benefits economically insecure communities. We seek a vibrant and equitable economy that uses energy more productively and promotes the health, safety, and well-being of all.

Since ACEEE's founding in 1980, energy efficiency has cut U.S. energy use in half relative to the size of the economy. The United States now saves more each year—lowering annual energy costs $2,000 per capita—than it uses from any other single energy resource, including oil, natural gas, and coal.

Yet this is not enough. Climate change, equity, and economic concerns demand urgent action. Energy efficiency and reduced energy use are vital to slow the rate of climate change and mitigate its impacts.

ACEEE will work toward a future where well before 2050, due to energy efficiency, the United States has halved domestic energy use and associated emissions. We will do all we can to accelerate the adoption of policies and technologies to achieve this vision.

We will work collaboratively so that, by 2030, we cut industrial GHG emissions by a third, increase the energy efficiency of new vehicles by at least 50%, reduce passenger and freight vehicle miles by 20–30% through improvements to transportation systems, double the rate of retrofits for existing buildings, make one-fourth of new buildings zero-energy and carbon neutral, and comprehensively weatherize one-third of buildings occupied by low-income households.

ACEEE commits to serve as a catalyst and agent for the systemic transformation needed to address climate change.

Industry

Reduce industrial GHG emissions by one-third by 2030 and decarbonize industry by 2050.

The industrial sector, which produces the goods and raw materials we all depend on, accounts for more than one-fourth of total U.S. GHG emissions. Insights from ACEEE-led convenings of more than 60 organizations across industry, nonprofits, and labor led us to develop and support policy proposals to decarbonize industry.

We proposed the first commercial-scale implementation of transformative decarbonization technologies, which was introduced in the House by Representative Castor, D-FL. The Infrastructure Investment and Jobs Act included provisions we proposed to allocate $150 million for industrial assessment centers, which provide energy audits and other assistance to small plants while training college students, $400 million for grants to help companies implement efficiency improvements recommended in the audits, and $50 million for smart manufacturing.

Above: Nora Wang Esram testifies before the Energy Subcommittee of the U.S. House Committee on Science, Space, and Technology in a hearing on Building Technologies Research for a Sustainable Future.

Politico

"Groups press Dems for reconciliation funding to cut industrial GHG emissions."
–September 1, 2021

The industrial sector offers tremendous opportunity for low-cost energy savings and carbon reductions through energy efficiency improvements.

Transportation

Increase fuel efficiency 50%, increase the share of electric vehicles in the new-vehicle market to at least 50%, and decrease passenger vehicle miles 20% and freight vehicle miles 30% by 2030. Cut emissions 60% by 2050.

Transportation emits more greenhouse gases than any other sector of the U.S. economy and is a significant source of toxic air pollution. Based on our rigorous analysis, we urged the new administration to set ambitious standards to improve the fuel economy of cars and light trucks. This analysis contributed to the Environmental Protection Agency releasing standards that were stronger than its initial proposal. And our advocacy helped make the case for $39.2 billion included for public transit in the Infrastructure Investment and Jobs Act.

Our research laid the groundwork for increased adoption of electric vehicles. All-electric cars and plug-in hybrids dominated our GreenerCars rankings, which inform consumers and policymakers about the most environmentally friendly cars on the market. On Capitol Hill, we advised on a tax incentive for heavy-duty electric vehicles, championed by Representative Beyer, D-VA. To ensure the electrification transition leaves no one behind, we provided recommendations that informed legislative proposals on charging infrastructure in environmental justice communities introduced by Senator Markey, D-MA, and Representative Crow, D-CO.

Politico

"Efficiency group calls for aggressive tailpipe standard"

-July 26, 2021

Bloomberg Law

"Equity needs to be baked into transportation electrification decision-making right from the get-go."

-Transportation Program Director Shruti Vaidyanathan, February 25, 2021

MarketWatch

"We're facing a climate crisis, yet automakers are producing cars that are barely more fuel efficient on average than what they sold a year earlier, even as technology improves."

-Senior Transportation Researcher Avi Mersky, November 19, 2021

Buildings

Double energy retrofits and make one-quarter of new buildings carbon neutral by 2030. Halve building energy use by 2050. Comprehensively weatherize the homes of one-third of eligible low-income households.

In addition to reducing greenhouse gases, energy efficiency can reduce utility bills and make our homes and commercial buildings more resilient, providing a healthy and safe environment for everyone. We launched the Energy Equity for Renters Initiative to improve rental home energy performance while preserving or expanding housing affordability.

On Capitol Hill, our analysis and advocacy for greater funding for the Department of Energy's program for weatherization of low-income housing helped lead to $3.5 billion in investments in the Infrastructure Investment and Jobs Act. Our guidance informed several pending legislative proposals, including the HOPE for HOMES Act for home retrofits, the Zero Emission Homes Act for home electrification, and major reform proposals to buildings tax incentives.

An advocacy campaign organized by the ACEEE-based Appliance Standards Awareness Project culminated in passage of new or expanded appliance standards laws in six states—Massachusetts, Oregon, Nevada, Maine, Rhode Island, and New Jersey—covering a range of household and commercial products. At the federal level, we led successful efforts to persuade the new administration to prioritize reversal of harmful rules issued under the prior administration and move toward new or updated standards.

Indoor agriculture is a growing industry, whose facilities generally require powerful—and energy-consuming—lighting and HVAC systems. ACEEE engaged with utilities for successful adoption of horticulture facilities within California's building efficiency standards, and we provided guidance to ComEd, the largest electric utility in Illinois, on designing and implementing a controlled environment agriculture program for indoor agriculture facilities.

Q&A with Andrew deLaski, Director of the Appliance Standards Awareness Project (ASAP)

What does success look like for ASAP's work to advance appliance standards?

In the big picture, we envision a world where all people have access to the efficient, affordable appliances, lighting, and equipment that they need to live safely and comfortably without contributing to climate change, degradation of water resources, or other environmental harms. Strengthened standards for everything from furnaces and heat pumps to refrigerators to light bulbs can help advance us toward that goal. With about 50 federal standards due for updates by late 2024 and state interest at an all-time high—six states enacted standards in 2021—we can make unprecedented progress over the next few years.

Power

Use energy efficiency and demand flexibility to support a cost-effective clean power grid, with most states achieving at least 80% of electricity sales from carbon-free generation sources by 2030.

Utility energy efficiency programs have a proven record of saving energy and money for their customers. In 2021, ACEEE launched a new Climate-Forward Efficiency Initiative to help focus them on reducing greenhouse gas emissions as well. This work informed our engagement in several states:

In Minnesota, ACEEE assisted advocates in developing key components of two major laws. The Energy Conservation and Optimization Act increases spending for utility energy efficiency, enables efficient fuel switching, and expands funding for under-resourced households, and the Natural Gas Innovations Act helps gas utilities develop plans to reduce carbon emissions.

In Michigan, by filing written comments and working informally with Public Service Commission staff, we played a major role in improving a study being conducted as part of Governor Whitmer's grid modernization initiative to identify savings that efficiency could deliver.

In Maryland, we supported a working group aligning the state's utility efficiency efforts with climate and equity, and our recommendations were included in the Maryland Building Decarbonization Roadmap.

In Virginia, we developed a tool to help Dominion, the state's largest utility, identify ways to meet and exceed its energy efficiency targets. We helped state agency staff deliver energy efficiency programs to low-income households using proceeds from the Regional Greenhouse Gas Initiative, a cap-and-trade program covering 11 northeastern and mid-Atlantic states.

Utility Dive

"Home efficiency upgrades and technology that shifts when electricity is used simply costs less than building new plants"
-Executive Director Steven Nadel, October 14, 2021

Canary Media

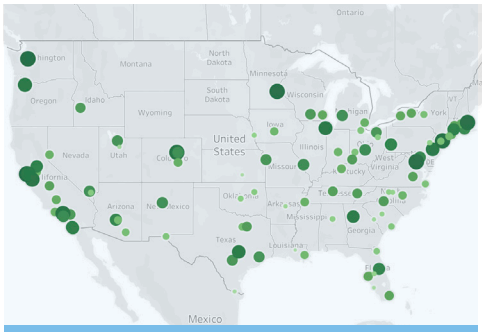
"How to reduce winter grid peaks from behind the meter"
-April 21, 2021

Scorecards

ACEEE's scorecards benchmark and drive clean energy action among states, localities, and utilities.

"We're really, really proud of ACEEE for this increased emphasis on equity and how important it is," said Maribeth DeLorenzo, sustainability director of the District of Columbia, which ranked third in the *2021 City Clean Energy Scorecard*. The report documented 177 city actions in the past year.

The *State Transportation Electrification Scorecard*, ACEEE's first ranking of states' electric utility efforts to electrify transportation, prompted and informed engagement. In Nevada, for example, we provided testimony on legislation, later signed into law, to mandate transportation electrification plans with large carveouts for low-income and disadvantaged communities.



Our *2021 City Clean Energy Scorecard* featured interactive data visualizations on our website.

Governing

"States show limited progress with electric vehicle policies"
- February 2, 2021

Q&A with Stefen Samarripas, Local Policy Manager

What city-level trends are you most excited about?

While not all cities are tracking their energy use and greenhouse gas emissions, those that are have seen declines even as their populations and economies have continued to grow. Witnessing this trend and understanding cities' critical role in achieving our climate goals, federal and state government leaders are increasingly stepping up to support and expand local clean energy efforts.

How are cities tackling energy affordability and equity issues?

Cities are increasingly engaging with historically marginalized communities and empowering them to take a leading role in local climate action and energy planning, but more is needed. Few cities have adopted policies and programs to specifically address these communities' needs.

Outreach

We believe in bringing minds together to tackle the biggest questions facing the energy sector today. Due to COVID-19, we held all 2021 convenings virtually: Hot Water Forum, Energy Efficiency Finance Forum, the Summer Study on Energy Efficiency in Industry, and the National Conference on Energy Efficiency as a Resource. We also co-hosted the Behavior, Energy & Climate Change Conference (BECC) with Stanford University and the University of California.

Our free webinars reached thousands of participants on topics including rural energy efficiency, winter grid reliability, efficiency in rental housing, and remote home energy assessments. We also reached 300 participants in a working group series on incorporating health and health funding in efficiency programs.

With a coalition of fellow advocacy organizations, we co-led Energy Efficiency Day, an annual event to increase public awareness of and support for reducing energy waste. More than 940 local governments, universities, organizations, corporations, and utilities participated, and a record 65 states, cities, and counties adopted proclamations hailing efficiency's multiple benefits.

> "The Energy Efficiency as a Resource conference is a great resource in an ever-evolving energy industry."
>
> **–Patrick Mathwig, Dakota Electric Association**

> "I cannot think of a better conference than BECC to connect with practitioners and policymakers in the energy and climate space."
>
> **–Elke Weber, Princeton University**

> "The ACEEE Hot Water Forum was a great event! I would recommend the forum to anyone from a newcomer to the topic (like me) to an industry expert. I appreciated the forum's focus on equity as a lens across multiple sessions."
>
> **–Gina Palino, Climate Resolve**

Right: A panel of experts discuss energy equity at our Energy Efficiency as a Resource virtual conference.

Honor Roll of Donors

ACEEE is grateful for the generous support from our many friends and supporters in 2021. Every effort was made to ensure the accuracy of this report. Due to space constraints, we are not able to include General Fund donors under $100, but we are grateful for donations of all size.

Climate Response Leaders ($10,000+)

Hunter Family Giving Fund
Anonymous (1)

Climate Response Champions ($1,000–9,999)

Jan Berman
Natalie Buike
Lizzie Bunnen
Helena Chum
Celeste Cizik
Roger Easily
Karen and Neal Elliott Fund
EMWIGA Foundation
Ariane Habets
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Yassen Roussev
Alison Silverstein
Rob Socolow
Harriet Tregoning
K.L. Wedemeyer
Stephen Wiel
Bart Wilking
Cody Work

Climate Response Pace-Setters ($500–999)

Calvin Calix
Rosa C. Cassidy
Benedict and Mary Feinberg
Robert Jackson
Henry Kelly
Deron Lovaas
Duncan McVey
Susan Richman
Danielle Sass-Byrnett
Susan Stratton
TJS Sigma Earth Foundation
William Thibault
James L. Wolf
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Climate Response Advocates ($100–499)

Corinne Abbott
Lydia Baek
Samuel F. Baldwin
Naomi Baum
Mary Bobbitt
Rick Counihan
Tom Cox
James Emhoff
Andrew Garvey
Annie Gilleo
John Byron Harvey
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Brian Widowski
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**Doubled by a corporate matching gift*

ACEEE is grateful for grants from the following foundations from January 1, 2021, to December 31, 2021.

Barr Foundation
Bloomberg Philanthropies
Breakthrough Energy Foundation
E4TheFuture
The Energy Foundation
Heising-Simons Foundation
The JPB Foundation
The Kresge Foundation
Merck Family Fund
Cynthia and George Mitchell Foundation
Robert Wood Johnson Foundation
The Rockefeller Foundation
The Tilia Fund
United Nations Foundation
U.S. Climate Alliance
Anonymous (2)

2021 RESEARCH REPORTS

- *Pathways to Residential Deep Energy Reductions and Decarbonization*
- *The 2021 City Clean Energy Scorecard*
- *Remote Home Energy Assessments*
- *The Need for Climate-Forward Efficiency: Early Experience and Principles for Evolution*
- *Increasing Sustainability of Multifamily Buildings with Heat Pump Water Heaters*
- *Canadian Strategic Energy Management Market Study*
- *Fostering Equity through Community-Led Clean Energy Strategies*
- *Meeting State Climate Goals: Energy Efficiency Will Be Critical*
- *Community Choice Aggregation and Energy Efficiency: Opportunities, Challenges, and Lessons Learned*
- *A New Lease on Energy: Guidance for Improving Rental Housing Efficiency at the Local Level*
- *Electrifying Trucks: From Delivery Vans to Buses to 18-Wheelers*
- *Strategic Energy Management Program Persistence and Cost Effectiveness*
- *Demand-Side Solutions to Winter Peaks and Constraints*
- *State and Provincial Efforts to Put a Price on Greenhouse Gas Emissions, with Implications for Energy Efficiency*
- *ACEEE State Transportation Electrification Scorecard*
- *Supporting Rural Communities with State Energy Efficiency Policy*

Scholarships & Awards

The Linda Latham Scholarship Fund was created in memory of Linda Latham, a visionary leader who helped launch the ENERGY STAR® program and served as ACEEE's chief operating officer. The fund supports undergraduate and graduate students interested in careers in energy and the environment to attend ACEEE's Summer Study conferences. ACEEE received donations to the Linda Latham Scholarship Fund from the following people from January 1, 2021, to December 31, 2021.

Linda Latham Donors

Corinne Abbott
Todd Amundson
Naomi Baum*
Carl Blumstein
Tom Cox*
Marianne DiMascio
Karen and Neal Elliott Fund*
Richard Hackner
Geneva Jones*
Penni McLean-Conner
Glee Murray*
Clay Nesler
William Prindle
Gene Rodrigues
Harvey Sachs*
Michael Socks
Patrick Sullivan
Bing Tso
Kathrin Winkler
Dan York

**In memory of Susan Sachs*

Linda Latham Scholars

Rebecca Avilés, Brandeis University
Suzane Carneiro, Illinois Institute of Technology
Alex Lawton, Northwestern School of Law
Satu Lipiäinen, LUT University, Finland
Tais Mitchell, University of Idaho
Brendan Mongeon, BC Institute of Technology
Javier Montes, Boise State University
Yalda Nael, University of Colorado
Adrian Odamtten, Washington University
Navva Sedigh, Amherst College
Saurabh Shekhadar, Texas A&M University
Patrick Timothy Sullivan, UW-Madison
Ella Tyler, University of California, Berkeley

Champions of Energy Efficiency

These efficiency leaders were recognized at Summer Study 2021 for their extraordinary contributions to the field.

Todd Amundson, Bonneville Power Administration
Lauren Casentini, Resource Innovations
Cristina Garcia, Building Electrification Institute
Chante Harris, SecondMuse
Michael Stowe, Advanced Energy
Peter Gourlay

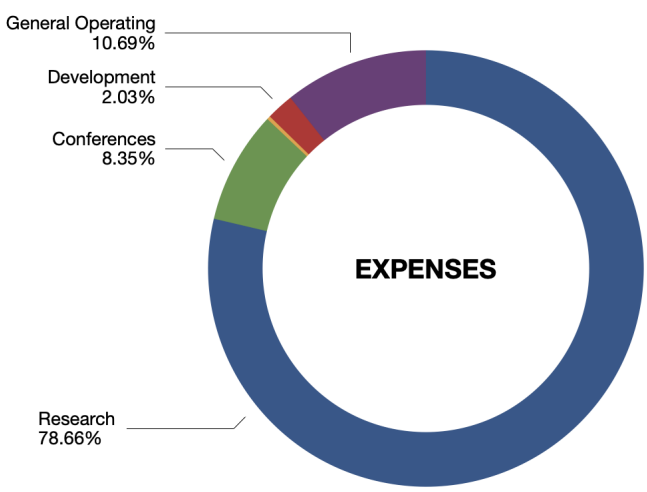
RAY Clean Energy Diversity Fellow

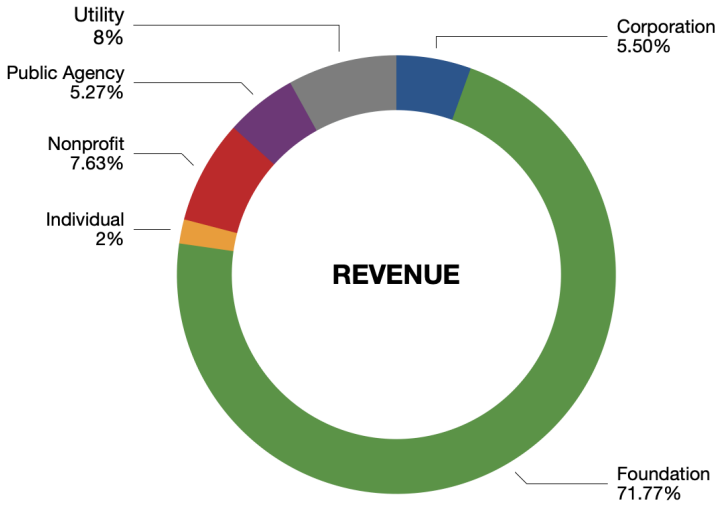
Carolin Tolentino

Financial Overview

In 2021, ACEEE's total unrestricted revenues totalled $11.52 million, including contributions from foundations, public agencies, utilities, corporations, nonprofit organizations, and individuals.

Total unrestricted operating expenses for the year were $10.72 million. Expenditures for research programs and conferences accounted for 78.7% of these expenses. Development costs and lobbying costs were 2% and 0.3%, respectively. Conferences accounted for 8.4% of expenses, with the remaining 10.7% attributable to general operating costs.





Leadership

Executive Team

Steven Nadel, *Executive Director*

Naomi Baum, *Chief Operating Officer*

Nora Wang Esram, *Senior Director, Research*

Wendy Koch, *Senior Director, Marketing and Communications*

Board of Directors

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Pacific Gas and Electric Company

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Founder and Emeritus President,
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Rosa Cassidy
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Susan E. Stratton
Northwest Energy Efficiency Alliance

Harriet Tregoning
New Urban Mobility Alliance

Our thanks also to Mandy Mahoney, Clay Nesler, Gene Rodrigues, and Kathrin Winkler, who rotated off of the board in 2021.

> ACEEE has been an important partner, offering expertise and recommendations for bipartisan energy efficiency policy.
>
> **–Senator Rob Portman, R-Ohio**

> We're really, really proud of ACEEE for this increased emphasis on equity and how important it is.
>
> **–Maribeth DeLorenzo, District of Columbia's Department of Energy & Environment**

The **American Council for an Energy-Efficient Economy** (ACEEE), a nonprofit research organization, develops policies to reduce energy waste and combat climate change. Its independent analysis advances investments, programs, and behaviors that use energy more effectively and help build an equitable clean energy future.

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