















2024 Annual Report

THE ENERGY 2040 COMISSION

ROAD AHEAD

THE LEADERSHIP

INTRODUCTION TO ENERGY 2040

The Alliance to Save Energy launched <u>the Energy 2040 initiative</u> in response to substantive concerns that energy efficiency and demand-side policies had not yet taken their place in U.S. strategies to combat climate change. Following a review of decades of data, research, and analysis, all pointing to the value of energy efficiency in lowering carbon emissions, the Alliance challenged the perspective that the energy transition would be achieved primarily by supply-side solutions.

Emission Reductions

Although the Inflation Reduction Act (IRA), and the Infrastructure Investments and Jobs Act (IIJA) resulted in the largest U.S. energy efficiency investments in history, these investments still did not signal the paradigm shift consistent with projections from the international Energy Agency (IEA), which proposed that energy efficiency alone could achieve 40% of the emissions reductions required by the Paris Agreement.

Grid Reliability

Beyond the value of capturing 40% of the emission reductions required by the Paris Agreement, the Alliance also proposed that energy efficiency would be essential for energy system reliability, particularly in the context of a decarbonized grid and increased electricity demand. The Alliance further proposed that if a full participant in the energy transition, energy efficiency and demand-side solutions would avoid unnecessary supply-side generation, transmission, and distribution investments, resulting in greater energy cost savings, and affordability.

Affordability

In addition to energy affordability resulted from avoided supply-side generation and infrastructure costs (which would be reflected in rates), consumers and businesses would also achieve greater energy affordability due to sealing and insulating the building envelope, and installing highly efficient equipment and appliances. Both aspects of energy affordability (avoided supply-side generation / infrastructure costs, and utilization of efficient equipment /appliances) lower energy costs overall, and are critical to low-income and disadvantaged communities, where energy burdens are highest.

Equity

Equity is a centerpiece of the Energy 2040 initiative— and achieving a successful and just energy transition will require that everyone has access to the benefits of energy efficiency.

There are significant opportunities to reduce energy insecurity, improve energy equity, and lower greenhouse gas emissions by supporting low-income homeowners and renters in making their homes more energy efficient.

Equity also requires that beyond receiving energy efficiency services and products, all communities have the opportunity to take part in the energy efficiency workforce. The overarching philosophy of "Efficiency First" not only contributes to environmental sustainability but also yields substantive advantages in terms of grid reliability, emissions reductions, energy affordability, enhanced public health, and the creation of jobs and economic prospects for all communities.

Achieving equity in terms of energy security, building improvements, and workforce participation will require policy and regulatory actions, and the Energy 2040 initiative will lead to ensure that energy efficiency policy benefits all, equitably.

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THE ENERGY 2040 STRUCTURE

To complete the task of developing the next generation of energy efficiency policy, the Alliance to Save Energy developed the Energy 2040 Leadership Circle and the Energy 2040 Commission. The Leadership Circle serves as an executive advisory group and is part of the larger Commission, all of whom are identified as Energy 2040 Commissioners.

To commence its work, the Commission identified a Workflow structure covering five areas of initiative operations. Commissioners may choose their Workflow of interest, with each Workflow being led by an appointed chair.

Policy Workflow

The Policy Workflow is the primary structure from which policy is developed through Energy 2040. In 2023 the Policy Workflow identified the 2023 Energy 2040 Policy Priorities, and was also responsible for leading in the development of the Energy 2040 issue priorities. The Policy Workflow is chaired by Helen Burt, Chief Consumer Officer, National Grid. Helen Burt also serves as the Energy 2040 Chair and leads the Commission, and Leadership Circle.

Research Workflow

The Research Workflow is responsible for guiding the development of research, analysis and modeling to support Energy 2040 policy development, and is further responsible for identifying viable metrics by which to measure the equity, reliability, affordability, and emissions reductions impacts of current and future policy making. In 2023, the Research Workflow completed the metrics by which it would measure equity, reliability, affordability, and also successfully launched the Energy 2040 Phase II Research Scope of Work, which will serve as the leading research effort to guide Energy 2040 policy development and the development of the Energy 2040 policy roadmap. The Research Workflow is chaired by Nathaniel Smith, Founder and Chief Equity Officer/CEO, Partnership for Southern Equity.

Communications and Events Workflow

The Communications and Events Workflow is responsible for developing the initial and subsequent communications for the Commission and its work, and leads in developing events. In 2023, the Workflow completed the initial comms architecture and additionally moved toward finalization of an <u>Energy 2040</u> infomercial. The Communications Workflow is chaired by Erica Borggren, Vice President, Customer Solutions, ComEd.

Recruiting Workflow

The Recruiting Workflow is responsible for identifying and recruiting participants to serve on the Energy 2040 Commission. The Commission established an initial target of 37 members, which was achieved in 2023. The Commission may expand at a later date, however those seeking to participate in the development of policy through Energy 2040 may participate through an Influencer-level Alliance associate membership, or Active Efficiency Collaborative membership. In 2023, Darcy McCay, formally with CBRE, chaired the Recruiting workflow.

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MOVING THE WORK FORWARD

Reporting and Accountability: All workflows meet quarterly to identify objectives for completion during the next quarter and to discuss progress and completion of objectives from the previous quarter. Following a review of proposed quarterly objectives by the workflows, Alliance staff then has the responsibility for completing all related tasks.

Additional Expertise Around the Table:

2024 will be a busy year of the Commission, and Energy 2040 will need additional expertise around the table to effectively commence policy development based on the Phase II Research Scope of Work. To participate in the development of the next generation of energy efficiency policy through Influencer-level membership or the Active Efficiency Collaborative, **please contact Alexia Jordan at ajordan@ase.org.**

ENERGY 2040 SECURES 2023 POLICY PRIORITY WINS

First Things First

Appreciating the monumental task for developing the next generation of energy efficiency policy, one of the first task of the Energy 2040 Commission was to identify the Energy 2040 2023 policy priorities. At the top of the list, was implementation of key energy efficiency wins within the Inflation Reduction Act (IRA) and the Infrastructure Investment and Jobs Development Act (IIJA).

Alliance to Save Energy leads the advocacy charge to pair energy efficiency with solar, as part of the \$7 billion Greenhouse Gas Reduction Fund (GGRF) Solar for All Program.

Result: Energy efficiency is identified as an **enabling upgrade** in the Solar for All program: **Investments** in energy and building infrastructure that are necessary to deploy and/or maximize the benefits of a residential rooftop and residential-serving community solar project.

Alliance to Save Energy leads the advocacy charge for Energy Efficiency First, as a necessary strategy for reducing greenhouse gas emissions through the Greenhouse Gas Reduction Fund (GGRF).

Result: GGRF National Clean Invest Fund (NCIF) and the Clean Communities Investment Accelerator (CCIA) (\$20 Billion) identify energy efficiency as one of three key pillars of the Net-Zero Emissions Buildings priority project types.

Result: a net-zero emissions building is one that has been verified to be: **highly energy efficient**, free of on-site emissions from energy use, and powered solely from renewable energy sources.

Result: "Highly energy efficient" means: (i) an existing building that achieves an ENERGY STAR certified score of 75 or higher or performs 35% better than median EUI for buildings ineligible for the score or (ii) a new building that has energy use at least 10% lower than the energy use according to the latest model energy code.

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Alliance to Save Energy leads and secures inclusion of energy efficiency investments as part of the Distributed Energy Generation and Storage priority project types in the Greenhouse Gas Reduction Fund (GGRF).

Result: GGRF National Clean Invest Fund (NCIF) and the Clean Communities Investment Accelerator (CCIA) **(\$20 Billion) Distributed Energy Generation and Storage priority project types** encompass energy efficiency investments, inclusive of demand flexibility and virtual power plant (VPP) investments.

Alliance to Save Energy collaborates with DOE on best practice strategies to market energy efficiency tax incentives.

Energy 2040 Comms and Events Workflow commences development of an energy efficiency tax incentive marketing strategy.

Alliance to Save Energy supports development of key state guidelines related to the IRA energy efficiency rebate programs.

Alliance seeks to identify best practices and policies to address maintenance and repair strategies for low-income rebate program participants.

ENERGY 2040 ISSUE PRIORITIES AND THE ROAD AHEAD

Built Environment- Residential

- Residential Energy Codes
- Federally Supported Mortgage Products
- Tax and Other Incentives
- Federal Programs for Disaster Relief and Affordable Housing
- High-Efficiency Products and Equipment
- Equity Priorities

Built Environment- Commercial

- Commercial Energy Codes
- Embodied Carbon
- Green Leasing
- Green Certification
- High Efficiency Products and Equipment
- C-Pace
- Building Performance Standards
- Environmental Product Declarations
- Equity Priorities

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Transportation	In	dustry		Consumers	
Heavy Duty Vel	hicles •	Assessments and Up	ogrades	Consumer-Focused	

• Vehicle Grid Integration

THE ENERGY 20/0 STRUCTURE

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- Vehicle Miles Traveled
- Freight Miles Traveled
- Outdoor and Roadway Lighting

• Equity Priorities

• Equity Priorities

Utilities

- Demand Flexibility
- Grid-Integrated Efficient Buildings
- Equity Priorities

Incentives

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Equity Priorities

In 2023, as the Alliance to Save Energy and Energy 2040 began development of the Phase II Research Scope of Work (which is designed to define the value of energy efficiency in U.S. energy and climate policy), and the Brattle Group was identified as a potential candidate to lead the research effort. At the time, Brattle informed the Alliance of a nearly completed study with LBNL, that would address 85%-90% of the Energy 2040 proposed research scope.

The LBNL-Brattle research, U.S. Building Sector Decarbonization Scenarios to 2050, focuses on effective strategies to achieve building decarbonization, and identifies the value and role of energy efficiency in U.S. energy and climate policy. The study finds that but for immediate and accelerated investments in energy efficiency and demand flexibility, the transition could be prohibitive.

The Alliance will continue the work Brattle commenced with LBNL, with additional research, which will assess the incremental benefits associated with distribution investment deferral and avoided heating system investment costs due to energy efficiency investments and improvements.

The research and analysis from the original LBNL-Brattle work, in addition to the subsequent research assessing distribution and heating system benefits, will be primary resources of the Energy 2040 Commission for policy development, and creation of Energy 2040 Policy Roadmap.

Other resources include but are not limited to the Department of Energy's (DOE) VPP Lift off Report and Alliance to Save Energy-led research completed by DNV and funded by Carrier, Demand is the New Supply: Affordable Grid Stability Through Demand-Side Solutions.

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2023 POLICY PRIORITY WINS

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MEET THE ENERGY 2040 COMISSION

ACEEE Steve Nadel

Steve Nadel Executive Director

American Gas Association Karen Harbert President and CEO

Air Conditioning, Heating & Refrigeration Institute Samantha Slater Vice President of Government Affairs

American Public Transportation Association, Paul Skoutelas President and CEO

Booz Allen Josh Sweetin Senior Consultant

Blue-Green Alliance Jason Walsh, Executive Director

Carrier Corporation Jason Thomas. Director of Regulatory Affairs

Clean Energy Works Holmes Hummel Founder

ComEd Gil Quiniones, CEO

Cruise Prashanthi Raman Executive Government Affairs Leader

Dallas Fort Worth International Airport Robert Horton

Vice President, Environmental Affairs & Sustainability

Dentons

Clint Vince Chair, U.S. Energy Practice and Co-Chair of Global Energy Sector DuPont Jeff Hansbro Global Advocacy Director

Edison Electric Institute Adam Cooper Executive Director

Emerald Cities Collaborative Meishka L. Mitchell President & Chief Executive Officer

Enterprise Community Partners John Fox Clean Energy Development Manager

Google Jeff Hamel Senior Director, Enterprise Partnerships

Greenlining Institute Debra Gore-Mann President

Patuxent Infrastructure Bob Johnson President

ICF Bill Prindle Principal

Lawrence Berkeley National Laboratory Jessica Granderson Senior Scientist and Interim Director

MD Energy Advisors Phil Croskey CEO and Co-Founder

Measurabl Johanna Buurman Vice President of Professional Services

National Association of State Energy Officials David Terry President National Energy and Utility Affordability Coalition Katrina Metzler Executive Director

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National Grid Helen Burt Chief Customer Officer

Natural Resources Defense Council

Ashok Gupta Chief Program Officer

New York Power Authority Justin Driscoll President and Chief Executive Officer

New York State Energy Research & Development Authority Doreen Harris President and CEO

North American Insulation Manufacturers Association Curt Rich President and CEO

Pacific Gas & Electric Yvonne McIntyre Vice President, Federal Affairs

Partnership for Southern Equity Nathaniel Smith Founder and Chief Equity Officer

PSEG Rick Thigpen Senior VP

Seattle City Light Craig Smith Chief Customer Officer

Snohomish County Public Utility District

Jeff Feinberg Senior Manager, Energy Services and Customer Innovations

Southern Company

Kenneth Shiver Chief Economist, Director of Planning, Regulatory & Strategy Support

Tennessee Valley Authority Jessica Hogle Vice President, Federal Affairs

The City of Denver Mayor Robert Hancock

The State of New Mexico Governor Michelle Lujan Grisham

TRC Companies Duane Baldwin Vice President

Uplight Indy Ratnathicam Head of Professional Services

Willow Bert Van Hoof Founder and COO

ZePlug Adam Procell CEO INTRODUCTION TO ENERGY 2040

THE ENERGY 2040 STRUCTURE

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ENERGY 2040 LEADERSHIP CIRCLE

Air Conditioning, Heating & Refrigeration Institute

Samantha Slater Vice President of Government Affairs

Clean Energy Works

Holmes Hummel Founder

ComEd

Erica Borggren Vice President, Customer Solution

Dallas Fort Worth International Airport Robert Horton Vice President, Environmental Affairs & Sustainability

DuPont Jeff Hansbro Global Advocacy Director

National Grid Helen Burt Chief Customer Officer

New York Power Authority Justin Driscoll President and Chief Executive Officer

North American Insulation Manufacturers Association Curt Rich President and CEO Pacific Gas & Electric Yvonne McIntyre Vice President, Federal Affairs

Partnership for Southern Equity Nathaniel Smith Founder and Chief Equity Officer

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Craig Sharman Johnson Controls, Inc

Aimee Skrzekut Southeast Energy Efficiency Alliance

Mary Sprayregen Oracle Utilities (Opower) Rick (Richard) Thigpen

Bert Van Hoof Willow, Inc.



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BE A PART OF THE FUTURE: JOIN US IN SHAPING ENERGY 2040

As we look toward 2040, the path to a sustainable and energy-efficient future requires bold action, innovative thinking, and collaborative efforts. The Energy 2040 Annual Report highlights the strides we've made, the challenges we face, and the opportunities that lie ahead. We invite you to delve into this comprehensive report and discover how you can play a pivotal role in driving change.

Why Your Involvement Matters:

- **Innovate:** Our world is rapidly evolving, and so are the solutions for a sustainable future. Your innovative ideas and contributions can lead to groundbreaking advancements in energy efficiency and sustainability.
- **Collaborate:** Together, we are stronger. By joining forces with industry leaders, policymakers, and communities, we can achieve greater impact and accelerate the transition to a sustainable energy future.
- Act: Now is the time for action. Whether you're a business leader, a policy maker, an academic, or a concerned citizen, your actions today will shape the energy landscape of tomorrow.

How You Can Get Involved:

- Join the Conversation: Participate in our upcoming forums, webinars, and discussions. Share your perspectives and learn from others in the field.
- **Partner with Us:** Explore partnership opportunities with the Alliance to Save Energy. Together, we can develop and implement projects that make a real difference.
- **Take Action:** Implement sustainable practices in your organization or community. Advocate for policies that promote energy efficiency and sustainability.
- **Support Our Mission:** Consider contributing to the Alliance to Save Energy. Your support enables us to continue our work and expand our reach.
- Become an Alliance Member: Express your interest in becoming a member of the Alliance to Save Energy by
 filling out <u>this form</u>. As a member, you'll have access to exclusive resources, networking opportunities, and the
 ability to directly impact the future of energy efficiency.
- **Contact Us Directly**: For more information or to express your interest in joining the initiative, please email Alexia Jordan, Manager of Stakeholder Relations, at ajordan@ase.org.

Together, We Can Achieve Energy 2040

The Energy 2040 Annual Report is more than just a document; it's a call to action. It's an invitation to be part of a movement that is shaping a sustainable and energy-efficient future. We believe in the power of collective action and the impact we can make when we work together.

Read the report, join the conversation, and let's build a brighter, more sustainable future—together.













ENERGY 2040

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