



Active Efficiency
COLLABORATIVE



2024 **Annual Report**

INTRODUCTION TO ACTIVE EFFICIENCY

2023 was an energetic and pivotal year for the Active Efficiency Collaborative, registering the most productive period to date to scale-up adoption of active efficiency technologies. The Alliance used the year to push for the inclusion and expansion of active efficiency policy in the implementation of the [Inflation Reduction Act \(IRA\)](#) and the [Infrastructure Investment Jobs Act \(IIJA\)](#); and the Alliance developed a series of roundtables throughout the year to jumpstart and commence active efficiency policy development.

In the final quarter of 2023, Collaborative members answered the call from the [Department of Energy's VPP Lift-Off Report](#), and began constructing the framework for policy development to drive demand flexibility and virtual power plant (VPP) market scale-up and adoption.

To move the work forward in 2024, the Collaborative will rely on research efforts conducted inside the Energy 2040 initiative, including the Lawrence Berkeley National Laboratory (LBNL)-Brattle Group study, [U.S. Building Sector Decarbonization Scenarios to 2050](#); Additional Brattle Group research and analysis from the Energy 2040 Phase II Research Scope of Work; the Energy 2040 policy roadmap; [U.S. Department of Energy Virtual Power Plant Lift-Off Report](#); and other resources, including but not limited to the Alliance to Save Energy White Paper funded by Carrier, [Demand is the New Supply: Affordable Grid Stability Through Demand-Side Solutions](#), which was completed by DNV.



From the Experts

LBNL-Brattle: "Demand-side solutions in the US building sector could achieve deep emissions reductions and avoid over \$100 billion in power sector costs."

DOE-VPP Lift-Off Report: "Deploying 80-160 GW of VPPs by 2030 to help address national capacity needs could save on the order of \$10B in annual grid costs and will direct grid spending back to electricity consumers."

DNV- Demand is the New Supply: "As the energy landscape grapples with the challenges of environmental sustainability, technological evolution, and increasing energy demands, the need to effectively manage grid load is increasingly apparent. Demand-side solutions not only address these challenges but do so in a way that is both cost-effective and environmentally responsible."



THE 2023 ACTIVE EFFICIENCY ROUNDTABLE SERIES

Charting the Course for the Next Generation of Energy Efficiency Policy

Roundtable 1: Existing Investments in Demand Flexibility

Roundtable 1 was conducted in February 2023 with the objective to define the landscape of existing Active Efficiency technologies and their penetration in relevant U.S. markets. U.S. Department of Energy Deputy Director of the Buildings Technology Office (BTO), Ram Narayanamurthy led the discussion prioritizing federal policy.

Roundtable 2: What's Happening in the States?

Following a federal action discussion in February, the Active Efficiency Collaborative next gathered in March to identify state activity in active efficiency, focusing on demand flexibility and grid-interactive buildings (GEBs) technologies. Jeff Loiter, Technical Director, CPI - NARUC, and Elliott Nethercutt, Principal Regulatory Policy Specialist, NARUC, presented.

Roundtable 3: Equity in Active Efficiency

Pairing equity policy with Active Efficiency policy development will be critical as the Collaborative identifies legislative and regulatory frameworks to guide scale-up of demand flexibility, virtual power plants, and other Active Efficiency technologies. Applying these technologies to the energy transition will be critical in meeting emissions and grid reliability targets, and policies must be in place to ensure that early access is provided for low-income and disadvantaged communities. Presenters at the Equity in Active Efficiency Roundtable included: Craig Smith, Chief Customer Officer, Seattle City Lights; Mary Sprayragan, Global Head, Regulatory Affairs and Market Development, OPower; and Adam Farabaugh, Market Development Manager, presented.

Roundtable 4: Identifying and Developing Next Steps in Demand Flexibility

The Collaborative met again in June to articulate important next steps in scaling-up demand flexibility technologies. Adam Farabaugh, Market Development Manager, Uplight, led the discussion.

Roundtable 5: Demand Side Solutions: Advanced Technologies for a more Flexible Grid

This panel discussion of experts was moderated by Active Efficiency Chair, Bert Van Hoof, President & COO, Willow, and the discussion explored how demand flexibility contributes to a cleaner and more reliable grid. Panel members included: Jeffrey Loiter, Technical Director, CPI, National Association of Regulatory Utility Commissioners; Aaron Berndt, Head of Industry Partnerships, Google; Dr. Dena Jefferson, Director of Regulatory Affairs, Franklin Energy; Dr. Vanessa Chan, Chief Commercialization Officer, U.S. Department of Energy; Robert Horton, VP Environmental Affairs & Sustainability, Dallas Fort Worth International Airport

Roundtable 6: Introduction to VPP Lift-Off

In October, the Collaborative met to hear a presentation from David Nemtzwow, Senior Advisor, of DOE Loan Program Office, VPPs, who presented on the recently released DOE VPP Lift-Off Report. Following David's presentation, Alliance staff proposed that the Collaborative workshop identified challenges to VPP Lift-Off, after which policy recommendations would be provided to DOE.



ACTIVE EFFICIENCY VPP LIFT-OFF WORKSHOPS

The objective of the VPP Lift-Off Workshops is to use the DOE VPP Lift-Off Report as a springboard to accelerate the Collaborative's demand flexibility and VPP policy development efforts. The Collaborative is focusing on five key imperatives and challenges:

- 1 Expand DER Adoption with Equitable Benefits
- 2 Simplify VPP Enrollment
- 3 Increase Standardization in VPP Operations
- 4 Integrate Demand Flexibility and VPPs into Utility Planning and Incentives
- 5 Integrate VPPs into the Wholesale Markets

The Collaborative held its first workshop in November, followed by a second meeting in December, wherein the Collaborative identified Imperatives #3 and #5 as necessary priorities. Workshops will continue in 2024 and will culminate in a report of VPP Lift-Off Policy Recommendations.

The policy development work led by the Collaborative will be folded into the policy work of Energy 2040, and will also include strategies and incentives to accelerate adoption of other active efficiency technologies, including but not limited to grid-interactive efficient buildings (GEBs), digital twinning, lighting, windows and shading, and others. The Collaborative will also help lead in the development of related pay-fors.

To participate in policy development as a Collaborative member or as an Alliance Influencer-level associate member, contact Alexia Jordan at ajordan@ase.org.



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David Nemtzow

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Kevin Self

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Alex Buell

Consolidated
Edison (Con ED)
Director, Portfolio
Planning & Analysis

Alex Buell

Consolidated
Edison (Con ED)
Director, Portfolio
Planning & Analysis

Charlie McCrudden

Daikin US
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Kelley Raymond

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Lee Smith

Daikin US
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DOE
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DOE
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Aaron Berndt

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Jeff Hamel

Google
Sr. Director, Enterprise
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Michael Mernick

ICF
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Market Development &
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ICF
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Mark Lessans

Johnson Controls
Sr Director, Sustainability
& Regulatory Affairs

Mary Ann Piette

Lawrence Berkeley
National Laboratory
Associate Lab
Director of the Energy
Technologies Area

Samanvitha Murthy

Lawrence Berkeley
National Laboratory
Scientific Engineering
Associate (Energy Markets
& Policy Department)

Shaun Taylor

Lutron Electronics
Government Relations
Supervisor

Kelly Kempf

Michaels Energy
DOE
Product Development
Manager

Jason Liechty

Midwest Energy
Efficiency Alliance
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Timothy Unruh

NAESCO
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Danielle Sass Byrnett

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Partnerships & Innovation

Jeff Loiter

NARUC
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David Terry

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John Cordi

New York Power Authority
Director, Dem& Flexibility
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Joshua Rasin

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Jeannie Salo

Schneider Electric
Director, Vice President,
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Kevin Self

Schneider Electric
Sr. Vice President Strategy,
Business Development
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Amanda Corrado

Schneider Electric
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Schneider Electric
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Government Relations

Colm Otten

Seattle City Light
Portfolio Segment
Manager, Solution
Design & Management

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Melissa Horton

Southern Company
Government Affairs
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TRC Companies
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Communications

Adam Farabaugh

Uplight
Senior Manager of
Market Development

Neil Veilleux

Uplight
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Development and
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TO SAVE ENERGY**
using less. doing more.



BE A CATALYST FOR CHANGE:

JOIN THE ACTIVE EFFICIENCY MOVEMENT

The journey toward a more sustainable and energy-efficient future hinges on embracing Active Efficiency. The Active Efficiency Annual Report illuminates the progress we've made, the obstacles we face, and the immense potential for future advancements. We invite you to explore this report and discover how you can contribute to this transformative movement.

Why Your Involvement Matters:

- ✓ **Innovate:** In an ever-evolving world, your innovative solutions and insights are crucial for driving advancements in Active Efficiency, leading to a sustainable and resilient future.
- ✓ **Collaborate:** Collaboration is key to achieving significant impact. By working together with industry leaders, policymakers, and communities, we can accelerate the adoption of Active Efficiency practices.
- ✓ **Act:** Your actions today are vital for shaping the energy landscape of tomorrow. Whether you're a business leader, a policymaker, an academic, or a concerned citizen, your engagement is essential.

How You Can Get Involved:

- ✓ **Join the Conversation:** Participate in our upcoming forums, webinars, and discussions. Share your insights 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 Active Efficiency 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 Initiative Member:** Express your interest in joining the Active Efficiency initiative by filling out [this form](#). 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 Active Efficiency

The Active Efficiency Annual Report is more than just a document; it's a call to action. It's an invitation to join a movement redefining energy efficiency for a sustainable future. We believe in the power of collective action and the impact we can make when we work together.

Join the conversation, partner with us, and let's build a brighter, more sustainable future—together.

