



Northwest

# TOWARDS ACCELERATING DECARBONIZATION IN THE PACIFIC NORTHWEST

Regional Grid-Interactive Efficient Building (GEB Adoption)

ULI Northwest Technical Assistance Panel | May 21–22, 2025

# About

## Urban Land Institute

Urban Land Institute is a global, member-driven organization comprising more than 48,000 real estate and urban development professionals dedicated to advancing the Institute's mission of shaping the future of the built environment for transformative impact in communities worldwide. ULI's interdisciplinary membership represents all aspects of the industry, including developers, property owners, investors, architects, urban planners, public officials, real estate brokers, appraisers, attorneys, engineers, financiers, and academics. Established in 1936, the Institute has a presence in the Americas, Europe, and Asia Pacific regions, with members in 84 countries.

Cover: PAE Living Building, Portland, Oregon. (PAE)

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20036-4948

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## ULI Northwest

ULI Northwest is a District Council of the Urban Land Institute, a nonprofit education and research organization supported by its members. ULI Northwest carries out the ULI mission locally by serving as the preeminent real estate forum in the Pacific Northwest, facilitating the open exchange of ideas, information, and experiences among local, national, and international industry leaders and policy makers.

## ULI Randall Lewis Center for Sustainability in Real Estate

The ULI Randall Lewis Center for Sustainability in Real Estate (the Center) leads the real estate industry in creating places and buildings where people and the environment thrive. In collaboration with ULI members and partners, the Lewis Center drives industry transformation, cultivates leaders and champions, and helps foster solutions for sustainable, resilient, healthy and equitable cities and communities. The Center pursues these goals via cutting-edge research, global convenings, community technical assistance, and other strategies. The Center's main programs are Decarbonization, Urban Resilience, and Healthy Places.

## The Net Zero Imperative

Thanks to a generous gift from Owen Thomas, ULI has launched the Net Zero Imperative—a multi-year initiative to accelerate decarbonization in the built environment. Additional gifts from Lynn Thurber, Joe Azrack, Franz Colloredo-Mansfeld, and Dan Cashdan further support and bolster the NZI program's scale and impact. Work to advance the initiative includes technical assistance panels in five global cities each year, designed to help developers, building owners, cities, and other relevant constituents reduce carbon emissions associated with buildings, communities, and cities.



The fundamental goal of the effort is to provide concrete ideas and strategies to real estate owners, public sector leaders, and the general public to eliminate carbon emissions from the built environment to reach net zero. Through its work, the initiative will create global resources (research, toolkits, and other tools) to help all ULI members accelerate decarbonization in their real estate operations and in their cities.

# TAP Supporters

## Portland General Electric

Portland General Electric (PGE) is a leading utility in Oregon, serving over 900,000 customers and playing a central role in accelerating the state's transition to a decarbonized energy future. As a proactive utility partner, PGE invests in grid modernization, distributed energy resources, and demand-flexibility solutions that support building electrification and grid-interactive efficient buildings (GEBs). Through initiatives such as its Smart Grid Test Bed, Virtual Power Plant pilot, and flexible load programs, PGE explores how commercial buildings can actively participate in balancing supply and demand. PGE's partnership is essential for unlocking scalable GEB adoption and enhancing energy resilience across the Pacific Northwest. <https://portlandgeneral.com/>

## Energy Trust of Oregon

Energy Trust of Oregon is an independent nonprofit organization dedicated to advancing energy efficiency and renewable energy across the state. Serving customers of Portland General Electric, Pacific Power, NW Natural, Cascade Natural Gas, and Avista, ETO provides technical support and financial incentives to help building owners reduce energy use, cut costs, and lower emissions. Energy Trust has been a key driver in promoting high-performance buildings, including support for early design assistance, solar integration, and battery storage. Its New Buildings and Existing Buildings programs are well-positioned to support the adoption of Grid-Interactive Efficient Building (GEB) strategies and help meet Oregon's climate and energy goals. <https://www.energytrust.org/>

## Northwest Energy Efficiency Alliance (NEEA)

The Northwest Energy Efficiency Alliance (NEEA) is a regional nonprofit that collaborates with over 140 utilities, energy efficiency organizations, and market partners to accelerate the adoption of energy-efficient products, services, and practices. NEEA plays a vital role in transforming markets across the Northwest by investing in emerging technologies, advanced building practices, as well as codes and standards that improve energy performance at scale. With a long-standing focus on commercial building innovation, NEEA supports strategies aligned with Grid-Interactive Efficient Buildings (GEBs), including advanced controls, system integration, and load flexibility. NEEA's market transformation expertise is a key resource for scaling GEB adoption across Oregon and the broader region. <https://neea.org/>



Energy Trust of Oregon

## Technical Assistance Panel

### Panel Chair

**Renee Loveland**

Senior Manager, ESG Programs  
RE Tech Advisors

### Panel Members

**Clark Brockman**

Brockman Climate Strategies

**Meghan Brookler**

Director of Impact & Partnerships  
Nova Top Down Climate Construction &  
Development  
*ULI NW NZI Cohort Co-Chair*

**Clarence Clipper**

Director, District Energy Development PNW  
Corix

**Rob Countryman**

President  
Countryman Capital Partners, LLC

**Cara Carmichael**

Principal  
Rocky Mountain Institute

**Perry England**

VP Building Performance  
MacDonald-Miller Facility Solutions

**Karina Hershberg**

Senior Associate  
PAE

**Srinivas Katipamula**

Scientist  
Pacific Northwest National Lab (PNNL)

**Devesh Nirmul**

Director, Energy and Innovation  
REAL Building Consultants  
*ULI N NZI Cohort Co-Chair*

### Stakeholders

Perry Brooks, Roost Development

Theddi Chappel, Utah C-PACE

Michael Frank, McKinstry

Michael Greiner, Elexity

Chris Kanoff, Pacificorp

Kurt Pollem, Counterpointe SRE

Bill Shevlin, Mavericks Microgrid

Mon Wig, Wig Properties

## ULI Northwest Project Team

**Andrea Newton**, Executive Director

**Jen Kelly**, Senior Manager

**Jane Green**, TAP Project Manager

**Ray Gastil**, Report Writer

## ULI Randall Lewis Center for Sustainability in Real Estate (TAP Participants/Sponsors)

**Shraeya Madhu**, Program Manager,  
Decarbonization

**Celeste Smith**, Manager, ULI Greenprint



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The PAE Living Building in Portland, Oregon, opened 2022. In 2024, the building was fully certified as a Living Building by the International Living Future Institute. The building is grid-interactive and generates 113% of its annual energy needs. The building was the site for this ULI Northwest TAP.





# Executive Summary

## Executive Summary

Despite the Pacific Northwest's ambitious decarbonization goals, policies, and legislation, the commercial real estate sector has been slow to adopt a widely available, proven technology that could help achieve these goals—Grid-Interactive Efficient Buildings (GEB). The May 2025 Net Zero Imperative (NZI) Technical Assistance Panel (TAP) aimed to foster cross-sector collaboration to understand why this has been the case so far and how to speed up the adoption of Grid-Interactive Efficient Buildings. There is a critical need for better coordination, as a TAP participant aptly described the problem: "We're playing tennis in two different courts."

Using the ULI TAP model, ULI Northwest brought together stakeholders from commercial real estate, utilities, public policy, sustainable finance, and the design and construction industries to develop regionally grounded, actionable strategies for advancing smart, net-zero-ready buildings and enhancing grid resilience. ULI's Net Zero Imperative program sponsored the TAP, a multiyear global initiative aimed at accelerating decarbonization in the built environment. Key regional supporters of the TAP included [Portland General Electric](#) (PGE), [Energy Trust of Oregon](#) (ETO), and the Northwest Energy Efficiency Alliance (NEEA) [BetterBricks](#) program.

The Panel, through a two-day process of

briefings, stakeholder interviews, deliberation, and recommendations, addressed key barriers to GEB adoption and identified the types of policies, education, and partnerships necessary to overcome these obstacles. They organized their recommendations by Education, Intervention, Business Case, and Strategic Initiatives.

### Education

Identify funding sources and pathways. Strengthen the framework and standards for GEBs and improve both existing and new **case studies**. Educate key stakeholders on the costs and benefits of GEBs, emphasizing the **importance of future-proofing the grid** to address current and future challenges, demands, and opportunities for building owners and utilities. As a panelist stated, "GEBs are an energy transition risk mitigation strategy."

### Intervention

Identify the "who" of **load aggregation**, and the "how" of individual buildings reaching a manageable scale for grid-interactive programs with utilities. Identify the right stakeholders and integrate the GEB/efficiency Statement of Work (SOW) bundling at the right time in the building lifecycle. Utilities should engage customers across all building sectors. Leverage granular load **data** and implement sustained optimization of load. Load shift matters because, as stated at the

TAP, "the more you reduce the peaks, the cleaner these systems will be."

### Business Case

Make demand flexibility a more prominent and visible priority. More signals (e.g., dynamic rates) and incentives from utilities and distribution system operators to buildings. Establish and strengthen the GEB funding and underwriting template. Do creative GEB-friendly financing and funding, including off-balance-sheet structures and Commercial Property Assessed Clean Energy ([C-PACE](#)) financing.

### Strategic Initiatives

Develop roadmaps for the market. Translate outputs for multiple audiences. **Map the aggregator ecosystem**. Develop pathways for aggregators to enter the PNW market (with utility support). Advocate strategically, including ULI Product Councils, the ULI Lewis Center audience, and conferences within and outside of ULI. Engage utilities. **Align focus with utility needs** (e.g., map priority and constrained areas to target).

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# Background

## What is a ULI Technical Assistance Panel (TAP)?

Urban Land Institute harnesses its members' technical expertise to help communities solve complex land use, development, and redevelopment challenges. Technical Assistance Panels (TAPs) provide expert, multidisciplinary, unbiased advice to local governments, public agencies, and nonprofit organizations facing complex land use and real estate issues in the region. Drawing from its seasoned professional membership base, ULI Northwest offers objective and responsible guidance on various land use and real estate issues ranging from site-specific projects to public policy questions. The sponsoring organization is responsible for gathering the background information necessary to brief the panel about the topic and challenge at hand. Tap members spend two days developing an understanding of the problem and discussing a range of viable solutions. The process culminates in a presentation of the panel's findings and recommendations to the sponsoring organization.

## Net Zero Imperative TAP

The Pacific Northwest is at a critical juncture in its quest for energy decarbonization and resilience. States like Oregon and Washington have set the bar high with progressive building performance standards, such as Oregon's Energy Performance Standards (HB 3409) and Washington's Clean Buildings Performance Standard. These standards aim for ambitious targets in energy efficiency and emissions reductions in commercial buildings. The increasing frequency of extreme climate events and the rapid growth of energy-intensive sectors, such as data centers, further underscore the need for action. These factors highlight the pressing need for innovative solutions in the built environment, making the TAP's mission even more crucial.

Grid-Interactive Efficient Buildings (GEBs) offer a powerful solution to these challenges. By enabling buildings to reduce and shift energy use based on grid conditions, GEBs can help stabilize the grid, reduce peak demand, and cut emissions. Despite providing measurable benefits in both emissions reductions and economics—often exceeding those of existing energy technologies—**GEB technologies continue to have very low adoption rates among CRE stakeholders.** This is due in part to a lack of technical standards, integration challenges, conservative investment criteria, and the absence of strong economic signals in a region with historically low energy prices.

Overcoming these real and perceived challenges is the key focus of this TAP.

## ULI Net Zero Imperative (NZI)

Multi-year global initiative to accelerate decarbonization in the built environment

-  Leverage a 2-day technical assistance event in 4-8 cities annually to help the public and private sector develop a "roadmap to decarbonization"
-  Run long-term on-the-ground campaigns in each of the global cities to accelerate decarbonization of the built environment
-  Build a global cohort who can receive ongoing technical assistance to refine their on the ground campaigns, and work together to share best practices and lessons learned
-  Create global resources (research, toolkits, and other tools) to help all ULI members accelerate decarbonization in their real estate operations (and in their cities)



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# The Assignment

The TAP has been designed to foster cross-sector collaboration in identifying a technically feasible and economically viable path for accelerating Grid-Interactive Efficient Building (GEB) adoption across the Northwest. By convening stakeholders from commercial real estate, utilities, public policy, sustainable finance, and the design and construction industries, the TAP develops regionally grounded, actionable strategies to advance smart, net-zero-ready buildings and support grid resilience.

The outcomes of this panel will serve not only the Pacific Northwest but also inform national efforts, offering a replicable model for regions facing similar adoption challenges. The TAP strengthens partnerships between utilities and the CRE sector, paving the way for the practical implementation of GEB solutions that reduce emissions and enhance community energy resilience.



TAP panelists in PAE Living Building bike storage room.

## TAP Questions

*How can the adoption of Grid-Interactive Efficient Building (GEB) technologies be accelerated in the built environment in the Pacific Northwest?*

- What are the primary economic or operational **barriers** preventing commercial real estate stakeholders in the Pacific Northwest from adopting Grid-Interactive Efficient Building technologies, despite their proven benefits?
- How can policy, incentive structures, or utility programs be redesigned or expanded to make **GEB adoption more attractive** and feasible for CRE developers and building owners?
- What role can **education, data transparency, and demonstration projects** play in building trust and awareness among decision-makers in the CRE sector regarding GEB technologies?
- What types of **partnerships** between developers, utilities, technology providers, and policymakers are most needed to accelerate the adoption of GEB technologies at scale?

## Stakeholder Interviews

As part of the TAP process, panelists interviewed eight stakeholders from various industry sectors, including energy management, finance, development, and contracting.

## Challenges

- **Systemic Education Gap:** A persistent lack of awareness across developers, utilities, and stakeholders—especially in smaller building markets—limits momentum and investment confidence.
- **Utility Engagement is Uneven:** While critical to GEB success, utility involvement varies widely by region. Most stakeholders struggle to access utility programs or align their incentives.
- **Lender Mistrust is Ongoing:** Lenders remain skeptical of pro forma savings and C-PACE's senior position. Education and robust case studies are needed to overcome this resistance.
- **Developer Friction Points:** Barriers include upfront costs, phasing challenges, utilities not being seen as partners, and difficulty passing savings to tenants—especially in multifamily housing. Upfront grants are often preferred over uncertain pay-for-performance arrangements.
- **Data & Valuation Challenges:** Appraisers and lenders require comparable data, independent evaluations, and proof of

return on investment. Lack of standardized metrics continues to stall adoption.

## Evolving Attitudes

- **Load Shifting > Net Zero:** Some stakeholders are increasingly viewing dynamic energy flexibility (e.g., peak load management) as a more valuable asset than traditional net-zero designs alone.
- **Rising Interest in Load Flexibility:** Batteries, thermal storage, and load-shifting strategies are gaining traction, but few stakeholders have access to clear examples or supportive financing models.
- **Investor Expectations Are Shifting:** Institutional and private equity investors are increasingly prioritizing energy performance and resilience, pressuring developers to demonstrate savings and long-term value.

## Opportunities

- **C-PACE as a Capital Bridge:** C-PACE is viewed as a valuable funding tool, particularly for construction and retrofit projects. However, it remains passive in reporting, with limited alignment to utility programs.
- **Policy Levers Have a Role to Play:** Legislation, stronger building codes, clean energy performance standards, and well-aligned incentives are necessary

to drive market transformation—especially for mid-size properties.

- **Operational Technology Matters:** Long-term tech solutions (automation, monitoring, and energy audits) are showing strong returns—but adoption is hindered by modeling uncertainty and performance risk.

## Paths Forward

- **Aggregators:** Virtual power plant providers (e.g., [CPower](#), [Elexity](#)) show potential to monetize DERs through demand response, but are not yet active in the Northwest.
- **Special Purpose Entities (SPEs) as Scalable Models:** SPEs are recommended for aggregating energy projects and unlocking tax credits, enabling developers to monetize assets at scale efficiently.
- **Pilot Projects and Case Studies Provide Proof:** Projects like [Catalyst Building and South Landing EcoDistrict](#) (Spokane, with its first phase completed) offer practical blueprints for integrating GEBs into real-world developments.
- **Strategic Opportunity for ULI:** ULI can lead by convening aggregators, utilities, and developers, promoting transparency, sharing replicable models, and facilitating regional GEB pilots.



# Recommendations

## Major Themes

### Education

Identifying capital and funding pathways is key to education. The task ahead includes educating major stakeholders (building owners, investors, banks, legislators) on the costs and benefits of GEBs, including **the urgency of future-proofing the grid** in response to current and future constraints, demands, and opportunities for building owners and utilities.

Also critical is **improving and clarifying the framework and standards for GEB**, including

identifying gaps in GEB standards, such as control protocols like CTA 2045, AHRI 1380, and 1390, and advocating for additional necessary standards.

Moreover, **elevate existing case studies and develop new ones**. No educational approach is more effective than a demonstration.

### Intervention

Identify the “who” of **load aggregation**, and the “how” of individual buildings reaching a manageable scale for grid-interactive programs with utilities. Identify the right stakeholders and integrate GEB efficiency

Statement of Work (SOW) bundling at the right time in the building lifecycle. Utilities should engage customers across all building sectors. **Leverage granular load data** and implement sustained optimization of load over the long run. **Building Performance Standards (BPS) should include GEB** to effectively align with ongoing energy performance targets.

Fundamentally, find ways to improve the deal economics to get existing commercial real estate projects (new construction and existing building) off the ground.

### Business Case

**Make demand flexibility a more appealing and widely recognized priority**. Signals (e.g., dynamic rates) and incentives from utilities and distribution system operators to buildings. Establish and strengthen the GEB funding and underwriting template. Do creative GEB-friendly financing and funding, including off-balance-sheet structures and Commercial Property Assessed Clean Energy (C-PACE) financing.



TAP panelists discussing recommendations.

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# Conclusion

*Strategic Initiatives for  
2025 and Beyond*

## ROADMAPS FOR MARKET TRANSFORMATION

Develop roadmaps and strategic plans for market transformation, revisited every two years. These will redefine the financial landscape for GEB implementation, set timing for identifying champions and targeting legislation, and break out initiatives by asset class.

## TRANSLATE OUTPUTS FOR MULTIPLE AUDIENCES

Translate outputs for multiple audiences including utilities, owners, finance, design and engineering) and develop related NZI implementation grants.

## MAP THE AGGREGATOR ECOSYSTEM

Map the aggregator ecosystem to better develop pathways for aggregators to enter the Pacific Northwest market, with support from utilities. For example, initiate a >10-megawatt challenge, highlighting the critical role of aggregators for reaching a scale relevant to utilities.

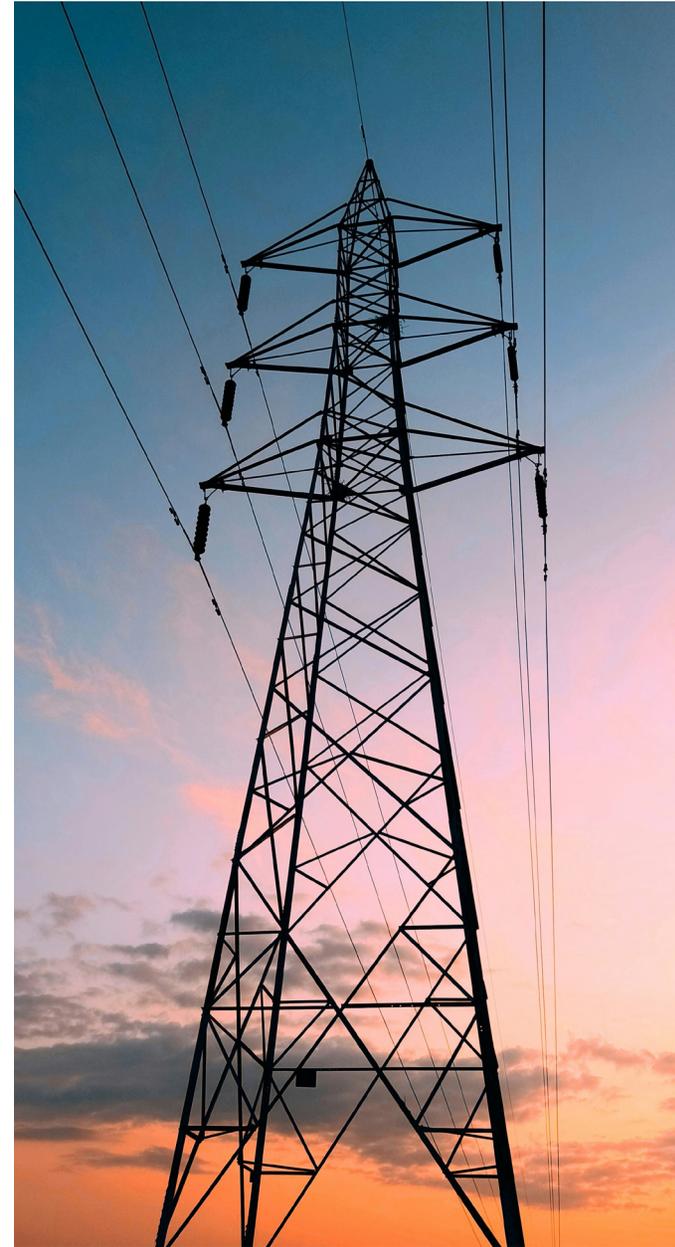
## STRATEGIC ADVOCACY

Strategic advocacy connecting to ULI product councils, ULI Lewis Center audience, and conferences and platforms outside of ULI.

## ENGAGE UTILITIES

Engage utilities by aligning focus with utility needs, with approaches including mapping priority and/or constrained areas to target

Recommendations for Grid Efficient Adoption





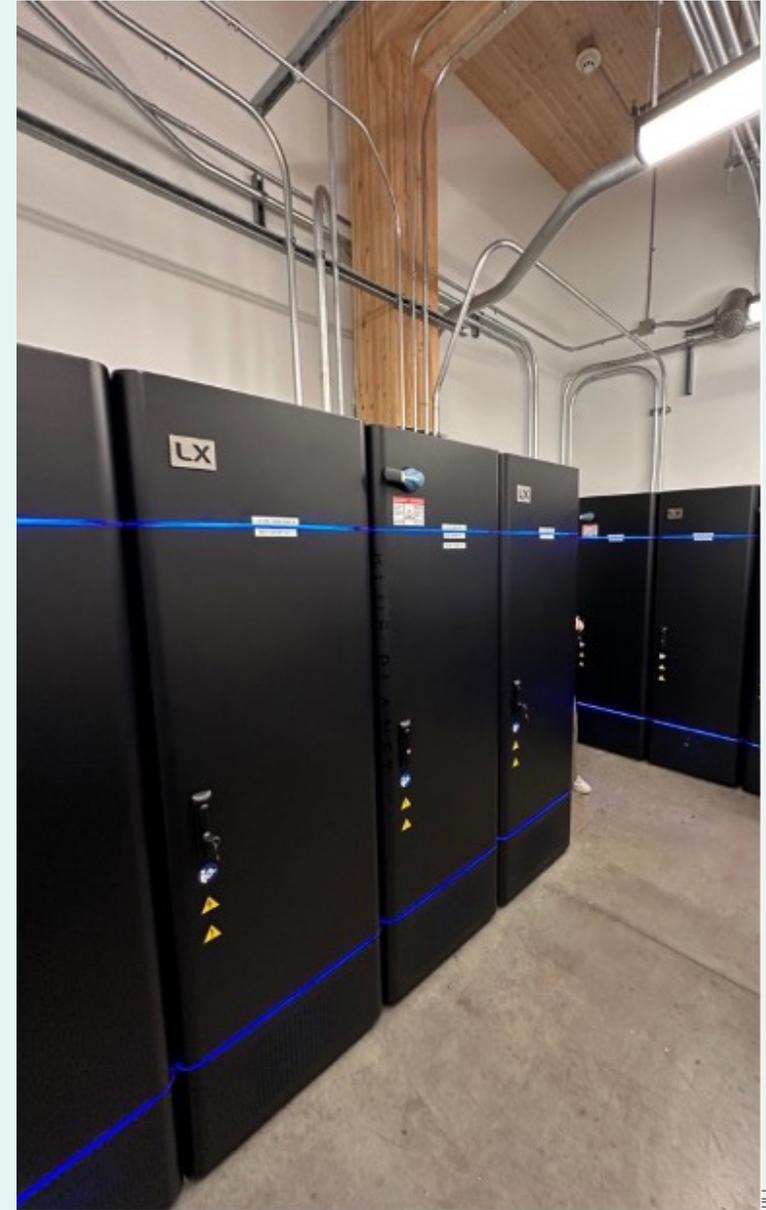
# Case Study

*PAE Living Building  
Portland, Oregon*

The PAE Living Building in Portland, Oregon, is a pioneering example of Grid-Interactive Efficient Building (GEB) design, offering valuable insights for ULI Northwest's Net Zero Imperative Technical Assistance Panel (NZI TAP). This developer-led, five-story, 58,000-square-foot structure not only meets the rigorous standards of the Living Building Challenge but also exemplifies how commercial real estate can integrate advanced energy strategies to enhance grid resilience and sustainability. [Project Overview](#).

### Grid Interactivity and Energy Performance

- **Net-Positive Energy Production:** The building generates 113% of its annual energy needs through a combination of a 133-kW rooftop solar array and a 215-kW off-site solar installation. This surplus energy supports both the building and the local grid.
- **Battery Storage and Grid Support:** Equipped with a photovoltaic-powered battery storage system, the building can store excess energy and return it to the grid during peak demand periods, enhancing grid stability.
- **Demand Flexibility:** Advanced building automation systems allow for real-time adjustments in energy usage based on grid conditions, contributing to peak load reduction and improved energy efficiency.



Energy control center and battery room, PAE Living Building.

## Lessons for NZI TAP

- **Replicability in Urban Settings:** As the world's first developer-driven Living Building in a metropolitan area, the PAE Living Building demonstrates that high-performance, grid-interactive buildings are feasible and financially viable in dense urban environments.
- **Economic Viability:** The project's success in achieving a return on investment while meeting stringent sustainability standards provides a compelling case for integrating GEB strategies in commercial real estate developments.
- **Policy Alignment:** The building's features align with Oregon's climate goals, achieving the city's 2050 renewable energy targets 30 years ahead of schedule, showcasing how GEBs can contribute to broader policy objectives.



The PAE Living Building 2nd floor lobby and water management equipment in the lower level. The building meets 100% of its water needs through rainwater capture and treatment.

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# Resources

## Programs and Incentives for GEB Adoption

### Local Programs

Oregon offers various programs and incentives to support the adoption of Grid-Interactive Efficient Buildings (GEBs), which integrate energy efficiency, smart technologies, and renewable energy systems to enhance grid resilience and reduce emissions. These initiatives are primarily administered by the [Energy Trust of Oregon](#) (ETO) and the Oregon Department of Energy (ODOE).

### Energy Trust of Oregon – New Buildings Program

For new construction and major renovations, the Energy Trust offers:

- **Whole Building Incentives:** Utilize energy modeling to assess building performance and receive cash incentives based on projected energy savings.
- **Early Design Assistance:** Receive up to \$6,500 to offset the cost of early design charrettes, facilitating the integration of energy-efficient strategies from the project's inception.
- **Technical Assistance Incentives:** The Energy Trust covers up to 60% of the cost of energy modeling and technical studies, up to a total of \$40,000
- **Energy Metering:** Cover up to 50% of the installation cost for energy metering

equipment, up to \$20,000, to monitor and optimize building energy performance.

- **Path to Net Zero:** Projects aiming to reduce energy use intensity by at least 80% beyond the average building can receive increased incentives for every therm and kWh saved.

### Oregon Department of Energy (ODOE) Programs

ODOE administers several programs to support energy efficiency and GEB adoption:

- **Home Energy Rebate Programs:** Funded by the U.S. Department of Energy, these programs provide financial incentives to single-family and multifamily households for eligible high-efficiency home improvements, appliances, and equipment.
- **Energy Efficient Wildfire Rebuilding Incentive:** This program incentivizes energy-efficient rebuilding of residential and commercial structures destroyed during the 2020 Labor Day wildfires.
- **Heat Pump Purchase Program:** Launching in Spring 2025, this program will offer \$2,000 incentives for homeowners, rental property owners, and developers/builders to install heat pumps, promoting energy-efficient heating and cooling solutions.
- **Energy Efficiency and Conservation Block Grant Program:** This initiative aims to reduce fossil fuel emissions, improve

energy efficiency in various sectors, and build a clean and equitable energy economy, aligning with the Justice40 Initiative.

### State Policies Supporting GEB Adoption

Oregon's Building Performance Standard (BPS).

Established by House Bill 3409 in 2023, Oregon's BPS:

- **Applies to Existing Commercial Buildings:** Targets large commercial buildings to enhance energy management practices.
- **Energy Use Targets:** Requires buildings to meet specific energy use intensity targets, encouraging efficiency measures.
- **Based on ASHRAE Standard 100-2024:** Incorporates Oregon-specific amendments to align with state energy goals.

Oregon Reach Code and Executive Order 20-04.

Executive Order 20-04 directs the adoption of energy efficiency goals for new construction, aiming for a 60% reduction in annual site energy consumption from 2006 levels by 2030. The Oregon Reach Code is a voluntary, more stringent building code to facilitate this transition.

## Additional Resources

- Pathways to Grid-Interactive Efficient Buildings: The Energy Trust of Oregon offers educational events and resources to help design professionals and stakeholders understand the benefits and implementation strategies for GEBs
- CLEAResult Partnership: Energy Trust of Oregon has partnered with CLEAResult to deliver energy efficiency services, focusing on whole-building energy modeling and efficient design principles from the initial design stages.

## Reports

### **Grid-Interactive Efficient Buildings (GEB) Implementation in the GSA Portfolio.** [Full Report](#)

Overview: The GSA conducted a nationwide GEB pilot study across 30 sites to evaluate technical and financial feasibility. The project closely aligns with ULI's goals for energy decarbonization and resilience in the built environment. The results can inform scalable strategies for GEB adoption in the Northwest.

### **ULI GET SMART 2024: The Business Case for Grid-Interactive, Efficient Buildings** [Full Report](#)

The ULI Get Smart 2024 report presents a compelling business case for Grid-Interactive Efficient Buildings (GEBs), highlighting their ability to reduce energy costs, enhance resilience, improve occupant comfort, minimize carbon emissions, and enhance long-term asset value. It describes how GEBs leverage innovative technologies—such as advanced HVAC controls, battery storage, and demand response capabilities—to interact dynamically with the electric grid. The report also outlines practical implementation strategies, short-term upgrades, and real estate case studies, while addressing critical barriers such as system interoperability, upfront costs, and stakeholder engagement. Overall, it provides a nationally relevant and actionable framework for accelerating the adoption of GEB across commercial real estate portfolios.



## About the Panel

## Renee Loveland

### Panel Chair

Senior Manager, ESG  
RE Tech Advisor



Recognized sustainability expert with over 15 years in commercial real estate leading sustainability program development and implementation. Experience includes climate risk assessment and resiliency strategies, health and wellbeing frameworks, net zero portfolio decarbonization planning (Scopes 1, 2 and 3), materiality assessment and developing internal ESG frameworks; data collection and analysis, ESG disclosures and reporting, corporate social responsibility, sustainable building operations, tenant and community engagement, certification management, energy efficiency & renewable energy, integrated design.

## Meghan Brookler

NZI Co-Chair  
Director of Impact & Partnerships  
NOVA Top Down Development & Construction



Meghan works at the intersection of energy, environmental health, commercial real estate, green technology, sustainable agriculture, and social impact. As a systems thinker, she connects the dots between these sectors to advocate passionately for the planet and all who inhabit it.

Her work channels a deep understanding of nutrition, soil health, environmental toxicology, and planetary resilience into projects spanning renewables, waste-to-energy, sustainable agriculture, climate tech and real estate development. She believes that aligning capital with climate technology and ESG-focused real estate is one of the most powerful ways we can build healthier communities, stronger systems, and a thriving planet.

With expertise in capital syndication, venture capital, private equity, fundraising, partnership development, and impact investing, Meghan helps bridge the gap between innovators, investors, and communities. Her background includes structuring complex real estate and energy deals, building cross-sector partnerships, and driving sustainable growth strategies for mission-driven ventures. energy, integrated design.

## Devesh Nirmul

NZI Co-Chair  
Director, Energy + Innovation  
REAL Building Consultants



Devesh leads REAL's green finance, incentive and existing building efforts, helping our clients in utilizing innovative financing tools to help them integrate energy efficiency, resilience and health into their projects and buildings.

Devesh is accredited as a LEED AP with Operations and Maintenance Specialty, Certified Energy Manager (CEM) and Certified Sustainable Development Professional (CSDP) credentials. He also volunteers his time with the Urban Land Institute, including work on ULI Northwest's Net Zero Energy Imperative.

As Director of Energy and Innovation at REAL BUILDING CONSULTANTS, Devesh helped to Grow the existing building operations and maintenance sustainability focus for clientele portfolios aligned with green certification protocols and core NOI-driven enhancement: Evaluating the use of data analytics and technology to impact organizational operating procedures and occupant behavior through pilot projects for client's properties

## Clark Brockman

**Founder - Principal  
Brockman Climate  
Strategies LLC**



Clark has 40+ years of architectural experience, including over 20 years at SERA Architects in Portland, OR which he retired from in 2023. He is a long-time champion for energy-efficient, climate-responsive design and decarbonizing the built environment. Clark's an experienced facilitator who helps guide groups striving for excellence in the arenas of high performance buildings, sustainability strategy, and district scale systems, while also volunteering on multiple boards and committees doing market transforming policy advocacy.

He's a 2012 LEED Fellow, past Chair of the Cascadia Green Building Council, and a past board member of the International Living Future Institute of which he was a founder. He has keynoted nationally and internationally on the climate change impacts of the built environment. He's a member of the AIA COTE's Advocacy Committee, AIA Government Affairs Committee, GSA Professional Peers, Climate Solutions Board, and was a juror for the 2012 AIA COTE Top 10 national sustainable design awards.

## Cara Carmichael

**Principal  
Rocky Mountain  
Institute**



Cara Carmichael is a Principal at RMI, where she advances building decarbonization through strategic initiatives and partnerships. She previously proudly served as the Director for Federal Buildings at the White House Council on Environmental Quality, leading efforts to decarbonize over 3 billion square feet of federal space and developing the first Federal Building Performance Standard.

Cara has advised on state carbon-neutral roadmaps, launched demand flexibility initiatives, and helped double federal energy savings through performance contracting. Her work focuses on delivering scalable, efficient, all-electric building solutions to drive climate action.

## Clarence Clipper

**Director District Energy  
Development, PNW  
Corix**



Clarence Clipper is a highly experienced General Manager with a demonstrated history of working in the utilities and real estate industry. He has an extensive background in MEP Engineering, Facility, Construction and Contract Management.

He has educational background including an Executive Development Program Certificate from the UW Michael G Foster School of Business, training in Building and Property Maintenance, electrical and Electronics Engineering, and served four years in the US Navy.

## Rob Countryman

**President /CEO  
Countryman Capital  
Partners**



Robert has over 25 years of leadership experience in the banking and financial services industry. Prior to forming Countryman Capital Partners, Rob was at First Interstate Bank, and held Executive and Senior level positions at other financial institutions in the Portland, Seattle and Dallas, TX markets. In 2003, he was instrumental in launching Capital Pacific Bank a new Portland-based business bank as the Executive Vice President overseeing the sales team, marketing and business development. He and his team were successful in growing the bank's balance sheet to over \$200 million in loans and \$100 million in deposits in its first 5 years and the bank was eventually acquired by Columbia Bank.

Robert is experienced with CPACE lending programs and successfully integrated PACE loans into two flagship commercial projects that First Interstate financed in Portland – “Premier Gear & Machine Works Building” (Class-A office adaptive reuse) and “The PAE Living Building” (zero- carbon office ground-up construction project). Robert is very active in the Portland community and has held numerous volunteer leadership positions with local non-profits and business organizations.

## Perry England

**Vice President Building  
Performance  
MacDonald-Miller**



Perry is a construction and business development senior management executive with decades of experience encompassing the pursuit and execution of life cycle delivery models for the finance, design, construction, ownership, operation and maintenance of public and private buildings - new and existing.

He specializes in Energy conservation, building systems operational efficiency, public private partnerships, alternative delivery models that provide the lowest total cost of ownership, strategic alliances, business development, risk management, personnel development.

## Karina Hershberg

**Associate Principal  
PAE Engineers**



Passionate about sustainability, Karina has over 15 years of experience with systems modeling, data analysis and electrical engineering for high performance buildings and renewable energy systems. She brings a unique perspective to her dual roles in analysis and engineering at PAE. Through data-driven analytics and innovative design, Karina helps projects implement regenerative and resilient solutions. She leads the development of microgrid design, emissions analysis, and campus-scale solutions for the firm and is a regional leader for PAE's Regenerative Design Group.

Karina has a Master of Science, Engineering and Technology Management from Portland State University and a Bachelor of Science in Electrical Engineering from Oregon State University.

