

Presented by:



AGENDA

WIFI password: Bellapril22

#GridFWD

Two Brisk Days Full of Insights, Sharing and Reconnecting







- ▶ Plenary Sessions: with leaders from industry, technology, and government (Harbor Room)
- ▶ Main Conference Sessions: interactive deep-dives led by today's practitioners (Harbor Room & Bay Auditorium)
- ▶ Huddles: informal group discussions led by content experts, defined by participants (Sound, Cove, Marina & Pacific)
- ▶ White Boards: what topics do you want to learn about or share? Talk with peers and experts on the latest here
- ▶ Networking: catch up with long time contacts and make new ones multiple times each day
- ▶ Pitch Competition: Listen to the rapid fire overviews of grid innovation solutions (Bay Auditorium)

Broadcasting Main Sessions. We are streaming main sessions throughout the event as noted with this icon. Access broadcast in the event app.

"Seattle is pleased to host the GridFWD conference. We look forward to the diverse audience coming together who are all working on opportunities for smarter management of regional energy systems. And we will be happy to share many of the lessons we are learning on our pathway to modernization."

DEBRA SMITH,
GENERAL MANAGER & CEO,
SEATTLE CITY LIGHT

We have an app for that



Download the app before the event to set plans for the sessions you want to join, see people you want to meet, and suggest discussion topics. And at the event use the app to vote on your favorite innovation pitch, add comments and questions for sessions, access session details and more.

See Our Most Influential Speakers

We come together once again to renew our connections and rededicate to the modernization of our regional grid.

Grid Modernization Topics for Today

We're planning an array of timely grid modernization topics for this year's gathering. Our theme categories include:

- ► Vehicle-to-Grid & Customer
- 🏂 Investments in Resiliency
- 💠 Grid Requirements for Deep Decarbonization
- Progressed Policy
- · Al Analytics & DERs





It's Time Again for Some Networking!

While we're all together, let's do some networking. Join all the speakers, attendees, sponsors, and others in the main lobby area for drinks, heavy appetizers, music to decompress after day one, make some new connections and get those remaining questions answered. Live music by Seattle JazzED, featuring local student musicians. **April 19, 4-6pm**

Watch the Grid Innovation Pitch Competition (Bay Auditorium)

See these earlier stage companies pitch innovative technologies and services for advancing grid modernization. What's at stake? Amazon Web Services will provide selected startups with AWS credits and support up to \$100,000 (subject to terms and conditions). Come to the Bay Auditorium at 9:30am and 2:30pm on April 19.

Participating Pitch Companies include:

60Hertz Encoord Noteworthy Al Proaktif

Buzz Solutions Extensible Energy

Optiwatt Po

MC: Tanya Barham, Community Energy Labs The competition is being judged by:
Vida Asiegbi, Energy Impact Partners
Ralph Kappelhoff, Amazon Web Services
Elta Kolo, Huck Capital
Craig Lawrence, Energy Transition Ventures
Erik Steeb, IncubatEnergy, EPRI



Conference Sessions for April 19

8:00 Breakfast and Networking (Harbor Room & Pre Fuction)

8:30 Plenary Opening Session (Harbor Room)

- Debra Smith, CEO & General Manager, Seattle City Light
 - Bruce Harrell, Mayor City of Seattle
 - Michelle Manary, Acting Deputy Assistant Secretary, U.S. Department of Energy
 - Michael Pesin, Deputy Assistant Secretary, U.S. Department of Energy

9:30 Morning Break (Pre Function Sponsor Area) / Pitch Contest Group A (Bay Auditorium)

10:00 Balancing the Grid with EV Charging (Harbor Room)

- Patricia Rodriguez, Director Demand Side Management, NV Energy
 - · Larry Bekkedahl, SVP Advanced Energy Delivery, Portland General Electric
 - · Adam Morey, Charging Infrastructure Engineer, Daimler
 - Phil Jones, Executive Director, Alliance for Transportation Electrification

10:00 Leveraging Analytics for Grid Optimization to Reduce Carbon (Bay Auditorium)

- John Lemmon, Engineering Leader Global Power & Utilities, Microsoft
 - · Mark Hormann, VP US Sales, Opus One
 - Luke Penne, Sr. BDM Renewables, Constellation Energy
 - Patrick Lee, CEO & President, PXISE
 - · Maria Kretzing, Director of Innovation, Bidgely

11:00 Huddle Discussion Topics:

Making the Next Phase of Grid Mod a Reality (Sound Room)

 Carl Imhoff, PNNL Mike Brozek, Anterix

· Maria Veloso Koenig, SMUD

Lessons from Big Events and Major Grid Disruptions: How to Build Resiliency (Cove Room)

• Tim Barat, GridWare Eli King, WA Dept of Commerce David Morton, BC Utilities Commission

The Role of EV Fleets on the Grid (Marina A Room)

 Joe Beer, Amazon Andrew Dillon, West Monroe Partners

What do Customers Really think About DR and How To Make it Worth It (Marina B Room)

 Luis Castro, Enel X Erin D'Amato, Uplight

Digital Technologies to Drive Distributed Markets (Pacific Room)

• Hanna Grene, Microsoft • Devin Hampton, UtilityAPI • Shawn Chandler, Guidehouse

11:45 Networking Lunch (Harbor Room)

Working Lunch options:

12:00 - Overview and Discussion of Advanced Grid Efforts at DOE & National Labs (Sound Room)

- Michael Pesin, Deputy Assistant Secretary Grid, US Dept of Energy
- · Carl Imhoff, Manager Electricity Market Sector, PNNL

12:00 - Introducing DOE's Transmission Facilitation Program (Cove Room)

- · Michelle Manary, Acting Deputy Assistant Secretary Grid, US Dept of Energy
- Ryan Josephson, Manager Transmission Facilitation Program, US Dept. of Energy

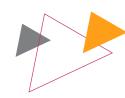
12:30 FERC Commissioner Allison Clements on Equity with Grid Modernization: (Harbor Room)

- How to Ensure Benefits Flow to the Communities that Need them Most
 - · Conversation guided by Paul Lau, CEO, SMUD



9:30 Pitch Content **Group A - Vote for** vour favorites (Bay Auditorium)

60Hertz Proaktif









- 🏡 Stephen Murdock, Director of Sales, Pano.ai
 - Darin Johnson, Lead Convener, Wildfire Mitigation Consortium (IWRMC)
 - Kristy McDermott, VP Commercial, Sharper Shape
 - Andre Coleman, Sr Research Scientist, PNNL
 - · Matthew O'Connor, Strategic Accounts, EPRI

1:00 Planning the Distribution System of the Future:



♦ Challenges and Audience Perspectives (Bay Auditorium)

- Fred Schaefer, Principal, Cadeo
- Cynthia Hall, Vice Chair, New Mexico Public Regulation Commission
- · Shaun Moran, Director Electric Consulting, EN Engineering
- Marguerite Behringer, Director of Research, E9 Energy Insight

2:00 Huddle Discussion Topics:



Non-technical Barriers to Accelerating Grid Modernization (Sound Room)

• Roz Jenkins, Seattle City Light • Dana Houston Jackson, 1898 & Co.



Can Virtual Power Scale to be a Significant Regional Resource (Cove Room)

Alex Pratt, AutoGrid

• Jill Powers, California ISO

- Effective Integration and Aggregation of DERs on Distribution Grids (Marina A Room)
 - · Kevin Gowan, Puget Sound Energy
- Jessica Raker, Puget Sound Energy
- Shelly Hagerman, West Monroe Partners



EV Communication Protocols (Marina B room)

 James Mater, Quality Logic Adam Morey, Daimler



Tild Data Quality vs Data Analytics: Where are We and What's the Opportunity (Pacific Room)

Alex Boyd, PSC Group

• Phil Sheppard, Harmonic Analytics



· Josh Keeling, Cadeo



Data Models to Prepare for Significant DERs and a Digitized Grid (Harbor Room)

Mischa Steiner, Awesense

Michael Pesin, US Dept of Energy

3:00 Cities Paving the Way Toward 100% Decarbonization (Harbor Room)



- Jaquelin Cochran, Director Grid Planning, NREL
 - · Alex Robart, Global GM Sustainability, Microsoft
 - · Louis Ting, Director of Power Engineering and Technical Services, LADWP
 - David Logsdon, Director of Electrification, Seattle City Light

3:00 Advanced Rate Designs for Integrated Demand Side (Bay Auditorium)



- Jennie Potter, Commissioner HI PUC
 - Scott Enstrom, VP Strategy, GridX
 - Peter Dauenhauer, Principal Economist, SnoPUD
 - Ron Nelson, Senior Director, Strategen

4:00 Main Event Networking Social

Food + drinks + music + Whiteboard discussion topics



Enjoying the content and lessons from the event?

Share #GridFWD on your LinkedIN updates or other social channels.



Session











Policy



Idea You Want to Discuss? -Suggest it in the App

In the **Discussion section** of the app all attendees can suggest a topic for discussion. You can vote on ideas you like. Most topics will be during the beginning of the social on the 19th and over breakfast on the 20th. Not in the app? send Rebecca your idea rebecca@the2rgroup.com

2:30 Pitch Content **Group A - Vote for** your favorites (Sound Room)





Conference Sessions for April 20

8:00 Breakfast and Networking (Harbor & Pre Fuction)

8:30 Plenary Opening Session (Harbor Room)

- Jackie Flowers, Director, Tacoma Public Utilities
 - US Rep. Adam Smith, Chair of Armed Services Committee
 - · John Hairston, Administrator, BPA
 - Bud Vos, President, Generac Grid Services
 - Scott Harden, CTO Innovation, Schneider Electric

9:30 Morning Break (Pre Function) Pitch Contest Finals (Bay Auditorium)

10:30 Demystifying Equity: Tracking Progress and Building Capacity

for Engagement (Harbor Room)

- Emeka Anyanwu, Chief Resources Officer, Seattle City Light
- Alberto Rodriguez, Seattle Office of Sustainability & Environment
- · Matt Piper, Global Director Utility & Infrastructure, ESRI
- Kate Griffith, Energy Policy Advisor, WA UTC
- · Jen Yoshimura, Energy Justice and Equity Leader, PNNL
- Michael Colgrove, Executive Director, Energy Trust Oregon
- · Charity Fain, Executive Director, Community Energy Project

10:30 An Evolutionary Path to a Regional Transmission Organization (Bay Auditorium)

- - Emily Watt, Director of Energy Markets, Microsoft
 - Spencer Gray, Executive Director, NIPPC
 - Ian White, GM West Markets Regulatory, Shell Trading

11:30 Huddle Discussion Topics

FERC 2222 Overview and Compliance Process (Sound Room)

· Heather Donaldson, Black & Veatch



Share Your EV Experience and Expectations (Cove Room)



• Nicole Businelli, FERC

Chris Darby, EV.Energy
 Hilary Polis, Opinion Dynamics



Advanced Techniques for Optimal Energy Storage Dispatch (Marina A Room) Scott Gibson, SnoPUD
 John Glassmire, Hitachi





Connecting Rate Design to Intelligent DERs (Pacific Room)

Rich Barone, TRC

- · Eric van Orden, Virtual Peaker
- Andy Macklin, Portland General Electric



10:00 Pitch Content Finals - Vote for the Winner (Sound Room) The finalists from day

one will hone their pitch and vie for the crown as winner of the Grid Innovation Pitch Contest



"GridFWD brings together an important and diverse audience that is working to figure out what roles advanced technologies and solutions will play as they come on the energy system. Even though we are on the front lines working on these topics in Hawaii, we learned a lot by participating in the event and look forward to contributing to the discussion in years ahead."

JENNIFER M. POTTER, COMMISSIONER, HAWAII PUC

12:00 Networking Lunch (Harbor Room)

Working Lunch options

12:15 - Grid Innovation Investment Strategies with Active Funds & Corporates (Sound Room)

- · Vida Asiegbi, Principal, Energy Impact Partners
- Ralph Kappelhoff, Executive Power & Utilities, Amazon Web Services
- · Elta Kolo, VP, Huck Capital
- Craig Lawrence, Partner, Energy Transition Ventures
- Erik Steeb, Sr Technology Leader IncubatEnergy, EPRI

12:15 - Updates and Overview of Federal Infrastructure Funds for Grid Resiliency and other Advanced Grid Deployments (Cove Room)

- · Aurora Edington, Policy Director, GridWise Alliance
- · Bo Poats, Managing Director, Black & Veatch Management Consulting

1:00 Utilizing Advanced Research Techniques to Solve Hard Integration Challenges (Harbor Auditorium)



- 🔉 Marissa Hummon, CTO, Utilidata
 - · Matt Thornton, Principal Engineer, NREL
 - · Kevin Schneider, Lab Fellow and Manager Distributed Energy Systems, PNNL
 - Uzma Siddigi, Sr Manager Grid Modernization, Seattle City Light
 - · Andy Macklin, Director Grid Products & Integration, Portland General Electric

1:00 Passive Customers & Active-Grid Participants: Fostering flexible



- · Casey Donahue, Founder, Optiwatt
- · McCrea Dunton, Director of Energy Services, Sunnova
- Obadiah Bartholomy, Manager Distributed Energy Strategy, SMUD
- · Nicollette Sowa, VP Energy Markets, Enersponse
- Doug Middleton, Director of Business Development, LEAP

2:00 State Regulatory Perspectives: What's Driving The Grid and



♠ How to Keep Pace (Bay Auditorium)

- David Danner, Chair WA Utilities & Transportation Commission
- David Morton, Chair BC Utilities Commission
- · Jennie Potter, Commissioner HI PUC

2:00 Grid Resiliency Toolkit: Lessons from the Field (Sound Room)



- 🌋 Martin Miller, Sr Project Manager, Coffman
 - Kristina Kelly, Director Grid Modernization, DNV
 - Nathan Bingham, Director of Stragety and Technology, POWER Engineers
 - · Shannon Souza, Policy Chair, OSSIA



· John Haarlow, GM & CEO, SnoPUD

Listen and follow Grid Forward Chats anywhere you get podcasts.

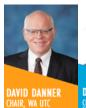


Winner Announced

12:00 Pitch Content

At the beginning of lunch we will congratulate and award the winner of the Grid Innovation Pitch Contest.









DAVID MORTON

3:00 Closing Session: Live Grid Forward Chats Podcast — How Can We



- Anne Hoskins, Chief Policy Officer, Sunrun

3:30 Event End and Final Networking



Session







Regional Market

Developments



in Resiliency





Progressed Policy







Join Us Face-to-Face at the Bell Harbor Convention Center

Located on the waterfront in Seattle, Washington, Bell Harbor International Conference Center features 180-degree panoramic views of the Olympic Mountains, Mt. Rainier, Puget Sound's Elliott Bay and the Seattle skyline. You'll find us on the third floor of the venue. This space has a large outside patio — bring a jacket to get some fresh air while you network. Find more information here >

Parking and venue instructions

Elliott Avenue Parking Garage 2323 Elliott Ave Seattle, WA 98121

Park across the street from Bell Harbor in the Elliott Avenue Parking Garage.

There are two entrances to the garage

– main entrance is on Elliott Avenue; the secondary entrance is on Wall Street.

Entering Bell Harbor Center

Inside the garage, go to the 4th floor and walk across the sky bridge. At the end of the Skybridge, take the elevator or stairs down one level to the 3rd floor and you will enter Bell Harbor Center and main registration. From ground level take the stairs or elevator up to the 3rd floor.





Broadcasting Main Sessions for Virtual Attendees

We plan to stream our main sessions to virtual attendees to allow them to watch and submit questions of our key speakers and presenters. Register for a virtual ticket here >

Speaker Green Room is Coastal: prep and meet up with other speakers

Mother's Room is Port: if you need a private, quieter space.

Media Room is Pierside: for use with any press meetings.

Bell Harbor Center

2211 Alaskan Way Seattle, WA 98121

LEVEL THREE

Following COVID Guidelines For Your Safety

The GridFWD event will follow any remaining COVID requirements from King County and the State of Washington to have a safe gathering. Our health and safety protocols for the event (which will be updated online) include:



- Vaccination required (confirmed with initial registration)
- Name badge notation of comfort level with contact (selected at on-site registration)
- Mask recommended (indoors especially)
- Testing available to anyone interested
- Extra sanitation throughout venue

- Safety point-of-contact in place for monitoring and support
- Physical distancing when possible
- Training and preparation with team
- Cleaning of spaces
- Everyone pitching in to support a safe gathering
- Ample event space for comfortable gathering

Thank you Supporters and Team

Doing an event of this scale and quality takes more people that we can mention here but a huge thanks to the Grid Forward team:

Teague Douglas Rebecca Goold
Mary Ann Gray Alaina Hawley
Steve Kerns Gerard OSullivan
Steve Parr Jane Peters
David Smith Kelly Strand
Miki Usyak Kitty Wang
Bryce Yonker Isla Ziyat
Sam Zuckerman

Event Contacts:

Questions/Issues with the App: isla@gridforward.org Ideas for Whiteboard Session: rebecca@the2rgroup.com

Sponsorship Details: sam@gridforward.org

Registration & Billing: maryann@westsidesec.com
Other Questions & Feedback: bryce@gridforward.org

And thanks to all the additional session organizers, volunteers and others including:

Connor Almon Griffin, University of Washington

Lily Bowdler, University of Washington

Matt Brown, LO3

Mack Hopen, University of Washington

Ryan Lane, 1898 & Co.

Danny Ma, University of Washington

Ron Nelson, Strategen Jordan Thorpe, Publitek Kelsey Winter, Publitek Zach Hynoski, Publitek Marguerite Behringer, e9 Insights

Stina Brock, Proterra

Skip Dise, AES

Chidera Kingley Emu, Awesense

Aria Levanti, Zpryme

Andrew Mathes, Awesense

Emily Thacher, University of Washington Tess Williams, Sound Grid Partners Andy Yanoshek, Coffman Engineers

Amy Keck

Supporting Children and Family Impacted in Ukraine

\$20 of each registration goes toward affected children and families in Ukraine including via CARE and UNICEF.

If you would like to add to our donation contact bryce@gridforward.org

Have an Idea You Want to Discuss - Suggest it in the App



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Not in the app? send Rebecca your idea rebecca@the2rgroup.com

Getting Ready for Federal Infrastructure Resources

We have been closely tracking and involved with the work of the U.S. Department of Energy to get resources in motion for the infrastructure package. Our working groups on smart grid, grid resiliency, cyber security, and other grid enhancing deployments will be meeting at the event to prepare for these opportunities. Experts from DOE will also be here with us to discuss these opportunities.



Our Thanks to the Sponsors for GridFWD Seattle

Lead



For over 15 years, Amazon Web Services has been the world's most comprehensive and broadly adopted cloud offering. AWS has been continually expanding its services to support virtually any cloud workload, and it now has more than 200 fully featured services for compute, storage, databases, networking, analytics, machine learning and artificial intelligence (AI), Internet of Things (IoT), mobile, security, hybrid, virtual and augmented reality (VR and AR), media, and application development, deployment, and management from Availability Zones around the world. To learn more about AWS, visit https://aws.amazon.com/power-and-utilities



Bidgely is an Al-powered SaaS Company accelerating a clean energy future by enabling energy companies and consumers to make data-driven energy-related decisions. Powered by our unique patented technology, Bidgely's UtilityAl™ Platform transforms multiple dimensions of customer data into deeply accurate and actionable consumer energy insights. Whether it is smart thermostats to EV chargers, solar PVs to TOU rate designs and tariffs; UtilityAl™ energy analytics provides deep visibility into generation, consumption for better peak load shaping and grid planning, and delivers targeted recommendations for new value-added products and services. Bidgely has over 17 energy patents, retains 30+ data scientists, and brings a passion for AI to utilities serving residential and commercial customers around the world. For more information, please visit www.bidgely.



Black & Veatch is a 100-percent employee-owned global engineering, procurement, consulting and construction company with a more than 100-year track record of innovation in sustainable infrastructure. Since 1915, we have helped our clients improve the lives of people around the world by addressing the resilience and reliability of our most important infrastructure assets. Our revenues in 2020 exceeded US\$3.0 billion. Follow us on www. bv.com and on social media.



Opus One Solutions from GE Digital is enabling the digital utility with the most advanced distribution energy management platform, GridOS®. We offer a suite of interoperable software solutions purpose built for Transmission, Distribution, and Market Operators to plan, manage, optimize and trade renewables and DERs across the energy network.



Microsoft enables energy companies to drive digital transformation, achieve growth, and accelerate decarbonization. By uniting advanced, industry-focused technology solutions for infrastructure, cloud, productivity, Al, big data, and sustainability, Microsoft helps companies and their workforce innovate quickly to achieve better customer and social outcomes. With Microsoft, energy companies have access to a global ecosystem with the modern productivity platform they need, the scalability and reach to be where they are, and the security to help protect their IP assets, operations, and data.



Seattle City Light, a department of the City of Seattle, is one of the nation's largest municipally owned utilities, serving a population of more than 906,000 people in the greater Seattle metropolitan area. Over the years, we have worked very hard to keep Seattle's electricity affordable, reliable, and environmentally responsible. Today, City Light is a recognized national leader in energy efficiency and environmental stewardship. As the first utility in the nation to provide carbon-neutral power in 2005, we are committed to investing in a sustainable future. Through a diverse portfolio of projects, we will put these values into action by accelerating electrification, modernizing the grid, integrating renewables, and enabling equitable workforce development for the next generation of energy workers.

Premier

































Supporting













































Community Partners











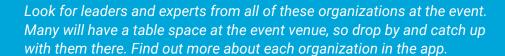














"With today's pressures and threats, it is more critical than ever to advance the capabilities of a cleaner grid. National and regional resources are in motion to progress grid resiliency but the best minds need to come together to quickly accelerate these solutions. The GridFWD community brings these leading voices together and we would welcome them into the great state of Colorado for this meeting."

ADRIAN TUCK, CEO Uplight

Denver, CO Late October, 2022

Grid FVVD

Ensuring a Resilient 21st Century Energy System

Plan for GridFWD 2022, this fall in Denver, CO.

Presented by:

Thanks for joining us this year. Hope we can see you in Denver.

Grid Forward

Grid Forward is a 501(c)(6) non-profit, member-driven trade association dedicated to promoting and accelerating innovation on the regional electric system. We deliver community, expertise and resources for leaders who are working to modernize the grid. Learn more and become a member at GridForward.org.