



# 2019 National Conference on Energy Efficiency as a Resource

## PROGRAM

Radisson Blu Minneapolis Downtown • Minneapolis, MN • October 15-17, 2019

### Tuesday, October 15

4:00–7:00 pm Registration Denmark Commons

5:00–7:00 pm Opening Reception Denmark Commons

### Wednesday, October 16

7:00 am–6:00 pm Registration Denmark Commons

7:00–8:00 am Continental Breakfast Fjords Ballroom

8:00–9:45 am Welcome, Introductions, and Keynote Address Scandinavian Ballroom

#### Welcome and Keynote Address

Welcomes: **Martin Kushler** and **Steve Nadel**, American Council for an Energy-Efficient Economy  
**The Honorable Tim Walz**, Governor of Minnesota  
**The Honorable Jacob Frey**, Mayor of the Minneapolis

#### The Importance of Energy Efficiency in Building a Sustainable Energy Future

Keynote Presenter: **Patti Poppe**, president & CEO, Consumers Energy

9:45–10:00 am Morning Break Denmark Commons

10:00–11:45 am Plenary Panel Scandinavian Ballroom

#### Regional Round-Up: Utility Energy Efficiency Highlights from around the United States

Moderator: **Rachel Gold**, American Council for an Energy-Efficiency Economy

Presenters: **Greg Wikler**, California Efficiency + Demand Management Council  
Midwest: **Stacey Paradis**, Midwest Energy Efficiency Alliance  
Northeast: **Susan Coakley**, Northeast Energy Efficiency Partnerships  
Northwest: **Susan Stratton**, Northwest Energy Efficiency Alliance  
Southwest: **Justin Brant**, Southwest Energy Efficiency Project  
South-Central: **Todd McAlister**, South-Central Partnership for Energy Efficiency as a Resource  
Southeast: **Cyrus Bhedwar**, Southeast Energy Efficiency Alliance

Lunch with an opportunity to view and discuss the following poster presentations:

**Sheri Borrelli**, The United Illuminating Company  
Heating Up Demand Response in Low-Income Programs

**Nathan Conroy**, STEMHero  
Driving Equitable Adoption of Smart Meter Customer Portals by Making Them the Centerpiece of Local STEM Education

**John-Michael Cross**, Environmental and Energy Study Institute  
Switch It Up: A Rural Electrification Financing Case Study

**Roger Ebbage**, Lane Community College  
Building Automation Systems: The Key to Maximizing

**Daygan Fowler**, MyHEAT  
Knowledge Saves Power: Driving Behavioral Change with Energy Made Visible

**Travis Hinck**, GDS Associates  
Leveraging Conservation Tools to Drive Electric Utility Infrastructure Efficiency

**Kara Jonas**, Midwest Energy Efficiency Alliance  
Air Sealing Techniques and the Impact on Indoor Air Quality

**Ben Polly**, National Renewable Energy Laboratory  
Building-, District-, and Large-Scale Modeling of Building Energy Efficiency and Flexibility

**Josh Quinell**, Center for Energy and Environment (in conjunction with AeroSeal)  
Documenting Real Energy Savings: Computer-controlled Duct Sealing Provides Verified Proof of Results

**Barb Ryan**, Applied Energy Group  
The Camera Doesn't Lie: Improving Efficiency Data with Pictures

**Jeffrey Seewald**, Trane Commercial North America  
Minnesota City Completes Energy and Infrastructure Upgrade with Thermal Storage and Cloud-Based Data Analytics

**Katherine Teiken**, Minnesota Housing; **Ashly McFarlane**, Center for Energy and Environment  
Phase II EnergyScoreCards Minnesota

**Keith Tonkinson**, Lincus  
Small Pump Program

**William Xia**, ConEdison  
Oil-to-Electric Conversion Pilot Program

*EE Programs and Measures Track*

Norway 1/2

**1A: Industrial Programs**Moderator: **Ed Rightor**, American Council for an Energy-Efficient Economy

Next-Level Energy Efficiency: The Future of Large Industrial Opportunities

Presenter: **Claire Cameron**, Dunsky Energy Consulting

Strategic Energy Management as a Resource through 50001 Ready

Presenter: **Peter Therkelsen**, Lawrence Berkeley National Laboratory

Midwest Industrial EE Policy

Presenter: **Nick Dreher**, Midwest Energy Efficiency Alliance

The Future of CHP Programs: How Today's Policies Are Driving the Evolution of Tomorrow's CHP Programs

Presenter: **Meegan Kelly**, ICF*Assessing EE as a Resource Track*

Scandinavian 1

**1B: Maintaining Aggressive Energy Efficiency Goals**Moderator: **Ted Ykimoff**, Consumers Energy

Statewide Programs Find Savings beyond Lighting

Presenter: **Carol Weston**, Efficiency Vermont

When Modeling of Energy Efficiency Gets Real: Connecting the Minnesota Potential Study to Xcel's Long-Term Carbon Reduction Plans

Presenters: **Carl Nelson**, Center for Energy and Environment  
**Nick Minderman**, Xcel Energy

Inside a Government Start-Up: Energy Efficiency Alberta's Quick Start Leads to New Benchmark for Success

Presenter: **Steve Ottoni**, Energy Efficiency Alberta

Policy Implications and Implementation Challenges from Adoption of EE Goals Based on Actual Future Loads vs More Traditional EM&amp;V Methods

Presenter: **Philip Mosenthal**, Optimal Energy*EE Multiple Benefits Track*

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**1C: Non-Energy Benefits of Energy Efficiency**Moderator: **Jessica Peterson**, Xcel Energy

Impact of Non-Energy Benefits on the Cost-Effectiveness of Energy Efficiency Is Significant: Case Studies and Approaches for Not Undervaluing

Presenter: **Ali Bozorgi**, ICF

Navigating Policy and Systems Change Approaches to Non-Energy Health Valuation

Presenters: **Liz Curry** and **Emily Levin**, VEIC

Bringing It Together: Situating Non-Energy Health and Economic Impacts Research in Context of Policy and Evaluation

Presenter: **Ann Collier**, Opinion Dynamics

Quantifying the Dollar Value of Health Benefits for Building Occupants

Presenter: **Cassandra Kubes**, American Council for an Energy-Efficient Economy

**1D: Energy Efficiency as a Distributed Energy Resource**

Moderator: **Marisa Uchin**, Oracle

The Future of Distributed Energy Resources

Presenters: **Brian Doyle**, Xcel Energy  
**Jenny Roehm**, Schneider Electric

Breaking Down Silos: Emerging Opportunities for Integrated EE and DER Programs

Presenters: **Grace Relf**, American Council for an Energy-Efficient Economy  
**Rohini Srivastava**, American Council for an Energy-Efficient Economy

Re-Envisioning the Role of Evaluation to Support the Grid of the Future

Presenter: **Hilary Polis**, Opinion Dynamics

Los Angeles Department of Water and Power’s Efforts on Integrating DSM and DER as a Reliable Resource Alternatives

Presenter: **Armen Saiyan**, Los Angeles Department of Water and Power

**1E: Natural Gas Energy Efficiency as a Resource**

Moderator: **Ian Maddock**, MyHEAT

Now More than Ever: The Case for Natural Gas EE in a Time of Low Prices and Electrification

Presenter: **Nick Mark**, CenterPoint Energy

Energy Efficiency Gas Resources: Providing Relief of Capacity Constraints on Gas-Fired Electric Generation During Polar Vortex Conditions

Presenter: **David Dobratz**, Eversource

Natural Gas IRP

Presenter: **Jeff Mazzei**, Enbridge Gas Distribution

**3:00–3:30 pm**

**Afternoon Networking Break**

*Denmark Commons*

**3:30–5:30 pm**

**Breakout Sessions**

**2A: Emerging Technology: Lightning Round**

Moderator: **Stefen Samarripas**, American Council for an Energy-Efficient Economy

Finally, a Reason to Get Excited about Pumps – Yes, Pumps!

Presenter: **Mark Chaffee**, Taco Comfort Solutions

How AMI Is Directly Creating EE Results: A NMEC/M&V 2.0 Evaluated SMB Program

Presenter: **Peter Widmer**, Power TakeOff

Applying an Integrated Approach to Engage, Activate, Orchestrate for a Clean, Resilient, and Consumer Centric Grid

Presenter: **Adam Farabaugh**, Uplight

Safely Scaling Networked Lighting Programs through Device-Level Data

Presenter: **Wesley Whited**, DNV GL

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Emerging AI Tech for Demand Side Management Program Optimization

Presenter: **Colin Gibbs**, Bidgely

Choice Engines Deliver Visible Efficiency, Empowered Consumers, and Quantifiable Savings

Presenter: **Anne Arquit Niederberger**, Enervee

Telecommunications: Explosive Growth = Investment – Be Part of the Energy Savings Potential

Presenter: **Steve Hiersche**, Franklin Energy

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*Scandinavian 1*

**2B: Energy Efficiency and Integrated Resource Planning**

Moderator: **Julia Gauthier**, Xcel Energy

Opportunities and Example Practices for Use in Efficiency in Resource Planning

Presenter: **Natalie Frick**, Lawrence Berkeley National Laboratory

The Level Playing Field for Future Energy Efficiency Potential is Tilted: How to Fix

Presenter: **Richard Spellman**, GDS Associates

Is It Local? Valuing Energy Efficiency in Distribution Planning

Presenter: **Jennifer Edwards**, Center for Energy and Environment

Leveling the Playing Field: How to Support Energy Efficiency Competing with Traditional ‘Wires’ Solutions to Meet Regional System Needs

Presenter: **Bronwen Smith**, IESO

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**2C: Innovations in Policy Support for Energy Efficiency**

Moderator: **Jenah Zweig**, US Department of Energy

Policy Drivers to Decarbonize the Built Environment

Presenter: **Samantha Caputo**, Northeast Energy Efficiency Partnerships

Shaping the Future: Next-Generation Energy Efficiency Targets

Presenter: **Weston Berg**, American Council for an Energy-Efficient Economy

Can Treating Energy Efficiency as a Capital Asset Be a More Effective Cost Recovery Tool?

Presenter: **Mathieu Poirier**, Dunsky Energy Consulting

Supporting Energy Efficiency as a Resource in Connecticut: A New Business Model

Presenter: **Stephen Bruno**, Eversource

**2D: Energy Efficiency as a Non-Wires Alternative**

Moderator: **Tim Pettit**, Siemens

Turning Up the Heat: A Non-Wires Alternative Assessment of a Winter Peaking Feeder in the South-Central United States

Presenter: **David Pudleiner**, ICF

Low-Income, Multifamily, and Small Business Customers Deliver New York’s Resource Need through EE

Presenters: **Rachel Seraspe**, Willdan  
**Margaux Nguyen**, Willdan

Non-Wires Alternatives to Building a New Substation in Washington, DC: Key Takeaways for Other Jurisdictions

Presenter: **Kenji Takahashi**, Synapse Energy Economics

Efficiency as a Non-Wires Alternative in the Midwest: Lessons from a Michigan Pilot

Presenters: **Chris Neme**, Energy Futures Group  
**Mark Luoma**, Consumers Energy

**2E: Energy Efficiency for the Low-Income Sector**

Moderator: **Ariel Dreihobl**, American Council for an Energy-Efficient Economy

ComEd’s Call for Ideas: Soliciting the Community for New Low-Income Program Concepts

Presenter: **Jacob Stoll**, ComEd

Low Income Household EE Potential: New Estimates by Income Level, County, and High-Impact Regions

Presenter: **Chioke Harris**, National Renewable Energy Laboratory

Scaling Low-Income Energy Efficiency Program Delivery

Presenters: **Elizabeth Parsons**, Tennessee Valley Authority  
**Michaela Marincic**, Three<sup>3</sup>

Building Capacity through Resource Efficiency

Presenters: **Haven Bills**, Southface Institute  
**Gretchen Gigley**, Southface Institute

**6:00–7:00 pm** **Women in Energy Efficiency Reception** *Finland Room*

**6:30–8:00 pm** **Welcome Reception** *Denmark Commons*

## Thursday, October 17

**7:00 am–4:30 pm** **Registration** *Denmark Commons*

**7:00–8:00 am** **Continental Breakfast** *Fjords Ballroom*

**8:00–9:45 am** **Plenary Panel** *Scandinavian Ballroom*

### Plenary Panel: Energy Efficiency, Decarbonization, and Electrification

Moderator: **Steve Nadel**, American Council for an Energy-Efficient Economy

Presenters: **Ken Colburn**, Principal and Director, US Programs, Regulatory Assistance Project  
**Scott Blunk**, Strategic Business Planner II, Sacramento Municipal Utility District  
**Ryan Bracken**, Principal Economist, NW Natural  
**Abigail Anthony**, Commissioner, Rhode Island Public Utilities

**9:45–10:15 am** **Networking Break** *Denmark Commons*

**10:15 am–12:00 pm** **Breakout Sessions**

*Energy Efficiency Programs and Measures Track*

*Norway 1-2*

#### **3A: Natural Gas Energy Efficiency Programs**

Moderator: **Carter Dedolph**, CenterPoint Energy

Cooking with and Saving Gas!

Presenter: **Jennifer Parsons**, National Grid

Natural Gas Savings in Industry

Presenter: **Jerry Zolkowski**, DNV GL

The Nexus between Data, Real Gas Savings, and Good Building Operation: Why Gas Equipment Rebates Are Not Enough

Presenter: **Marty Davey**, New Ecology

*Assessing EE as a Resource Track*

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#### **3B: Issues in Avoided Costs**

Moderator: **Grace Relf**, American Council for an Energy-Efficient Economy

Rethinking Avoided Costs of EE

Presenters: **Audrey Partridge**, Center for Energy and Environment  
**Joe Daniel**, Union of Concerned Scientists

Is It Finally Peak Energy Efficiency (in a good way)?

Presenters: **David Nemetzow**, US Department of Energy  
**Natalie Frick**, Lawrence Berkeley National Laboratory

The Time Value of Energy Efficiency Measures

Presenters: **Chris Baker**, Willdan Group  
**Shawn White**, Xcel Energy

Valuing Deferred Transmission and Distribution for Energy Efficiency

Presenter: **Tina Jayaweera**, Northwest Power & Conservation Council

**3C: Energy Efficiency and the Water-Energy Nexus**

Moderator: **R. Neal Elliott**, American Council for an Energy-Efficient Economy

Redefining Affordability in a Struggling Community Context: Using Energy Efficiency to Help with Water and Energy Affordability in Flint, MI

Presenter: **Scott Bernstein**, Center for Neighborhood Technology

WISE™ as an Innovative Utility and Public Partnership to Leveraging Energy Efficiency

Presenter: **Abhishek Pal**, Lincus, Inc.

Leading New Hampshire’s Wastewater Treatment Facilities to Energy Efficiency

Presenters: **Mark Toussaint**, Eversource  
**Sharon Nall**, New Hampshire Department of Environmental Service

**3D: Grid Interactive Efficient Buildings**

Moderator: **Dan York**, American Council for an Energy-Efficient Economy

Technical Report Series: Opportunities for Energy Efficiency and Flexibility

Presenters: **Monica Neukomm**, US Department of Energy  
**Karma Sawyer**, US Department of Energy

Assessing the Potential for Energy Flexibility Alongside Energy Efficiency

Presenter: **Jared Langevin**, Lawrence Berkeley National Laboratory

Grid Interactive Building in the Midwest

Presenter: **Alison Lindburg**, Midwest Energy Efficiency Alliance

Grid Interactive Building Programs in the Southwest

Presenter: **Justin Brant**, Southwest Energy Efficiency Project

**3E: Energy Efficiency and Market Transformation**

Moderator: **Margie Gardner**, Resource Innovations

The Market Transformation Impact of EPA’s ENERGY STAR® Retail Products Platform

Presenter: **Daniel Lawlor**, Cadmus

A Market Transformation Framework: Recommendations and Approaches

Presenter: **Kevin Thompson**, Southern California Edison

Transforming Markets and Communities through EE Pilot Programs

Presenter: **Kaylan Meinecke**, Consumers Energy

**12:00 noon–1:15 pm**

**Lunch and Keynote**

**The Energy Efficiency Resource Is Larger and Less Expensive than You Think**

*Scandinavian Ballroom*

Keynote Presenter: **Amory Lovins**, co-founder and chief scientist, Rocky Mountain Institute



*EE Programs and Measures Track*

Norway 1-2

**4A: Commercial Programs**Moderator: **Leslie Baer**, Xcel Energy

Turn-Key Smart Building Solutions SMBs

Presenter: **Maria Fields**, JouleSmart Solutions, Inc.

Scalable Deep Energy Retrofits in Commercial Buildings

Presenter: **Gwelen Paliaga**, TRC

Paving a Path for Community Involvement in Energy Efficiency

Presenter: **Edward Musz**, Pepco Holdings Inc.

Turn-Key Services Program Provides Full Circle Solutions: Engaging Businesses with No Cost Energy Efficiency Implementation Services

Presenter: **Taylor Thelemann**, Xcel Energy*Assessing EE as a Resource Track*

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**4B: Issues in Cost-Effectiveness Testing**Moderator: **Bill Norton**, Opinion Dynamics

How States Value Energy Efficiency as a Resource

Presenter: **Erin Malone**, Synapse Energy Economics

Principles, Key Steps and Process: On-the-Ground Experience with the NSPM

Presenter: **Julie Michals**, E4theFuture

EE Cost-Effectiveness

Presenter: **Gregory Ehrendreich**, Midwest Energy Efficiency Alliance

Resource Curves: Time to Value Efficiency

Presenter: **Carmen Best**, Recurve*EE Multiple Benefits Track*

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**4C: Energy Efficiency and the Environment**Moderator: **Asa Hopkins**, Synapse Energy Economics

Alberta Carbon-Centric Energy Efficiency Programming

Presenter: **Karen Maoz**, Navigant Consulting

Quantifying the Health Benefits of Energy Efficiency and Renewable Energy

Presenter: **Beth Conlin**, US Environmental Protection Agency

Energy Efficiency and Carbon Reduction Goals

Presenter: **Nick Hromalik**, Midwest Energy Efficiency Alliance

Reducing Visibility Impairing Pollutants through Energy Efficiency

Presenters: **Tricia Treece**, Arkansas Department of Energy and Environment  
**Nancy Seidman**, Regulatory Assistance Project

**4D: Energy Efficiency and Electrification**

Moderator: **Maggie Molina**, American Council for an Energy-Efficient Economy

Allies in the Climate Fight: The Interplay between Efficiency and Beneficial Electrification

Presenter: **Erika Niedowski**, Acadia Center

Energy Efficiency and Electrification: Strategic Partners

Presenter: **Emily Levin**, VEIC

Electrification in Minnesota: Perspectives from a Regulator and an Implementer

Presenters: **Anthony Fryer**, Minnesota Department of Commerce  
**Josh Quinnell**, Center for Energy and Environment

Peak Heat and the Capacity Benefits of Energy Efficiency

Presenter: **Daniel Aas**, Energy + Environmental Economics, Inc.

**4E: New Construction Programs**

Moderator: **Amanda Formica**, National Grid

The Sum Is Greater than the Parts: How Advanced Analytics Find Cost Effective Approaches for Residential New Construction through Volume and Efficiency

Presenter: **Tim McConkie**, Lockheed Martin Energy

Enbridge Gas: Building Energy Efficiency into Affordable Housing

Presenter: **Corrie Morton**, Enbridge Gas Inc.

The Midwest is Zero Net Energy Ready

Presenters: **Benjamin Glendening**, Consumers Energy  
**Annie Koch**, DNV GL

Future of Commercial and Industrial New Construction Energy Efficiency Programs: Moving Toward a Holistic Approach and Zero Energy Building Design

Presenters: **Jillian Corley**, Eversource  
**Jordan Schellens**, Eversource

**3:15 pm–3:30 pm**

**Afternoon Break**

*Denmark Commons*

**3:30 pm–5:00 pm**

**Breakout Sessions**

**5A: Energy Efficiency in Multifamily Buildings**

Moderator: **Rebecca Olson**, Center for Energy and Environment

A New Ultra-Flexible, High-Impact Design to Engage Affordable Housing Projects

Presenter: **Stephanie Berkland**, TRC

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## Energy Efficiency's Expanding Role in Affordable Multifamily Housing

Presenter: **Stefen Samarripas**, American Council for an Energy-Efficient Economy

## Serving Multifamily Customers through a Joint Electric/Gas Utility Program

Presenters: **Yvonne Pfeifer**, Xcel Energy  
**Emma Ingebretsen**, CenterPoint Energy

### *Assessing EE as a Resource Track*

*Fjords 4*

#### **5B: Partnerships to Leverage Energy Efficiency**

Moderator: **Bridget French**, VEIC

#### Leveraging Rate Payer Funds with Private Buy-down Financing Programs

Presenter: **Josh Patton**, Ascentium Capital

#### Levering "Investment Grade" Energy Savings Predictions to Enable EE as a Resource

Presenter: **Andy Frank**, Sealed

#### Time of Sale Energy Disclosure: Minneapolis and the Utility Working together to Achieve Energy Savings through Policy

Presenter: **Isaac Smith**, Center for Energy and Environment

### *EE Multiple Benefits Track*

*Bergen 3*

#### **5C: Energy Efficiency and Resilience**

Moderator: **Emma Schoppe**, CenterPoint Energy

#### Quantifying EE's Value for Reducing Resilience Costs in Critical Facilities

Presenter: **John Agan**, US Department of Energy

#### Strategic Electrification and Winter Cold Snaps: A Resource and a Challenge

Presenter: **Asa Hopkins**, Synapse Energy Economics

#### CHP: An Energy-Efficient Resiliency Measure that Can be a Local Solution for Meeting Climate Goals

Presenter: **Neeharika Naik-Dhungel**, US Environmental Protection Agency

### *EE as a Distributed Resource Track*

*Bergen 2*

#### **5D: Energy Efficiency as a Capacity Resource**

Moderator: **Chris Duffin**, Center for Energy and Environment

#### Rapid Deployment of Energy Efficiency as a Peak Demand Reduction Strategy

Presenters: **Quinn Cherf**, Energy Trust of Oregon  
**Angela Long**, Pacific Power

#### New England Forward Capacity Market (FMC) Developments: Encouraging or Discouraging EE?

Presenters: **Elizabeth Titus**, Northeast Energy Efficiency Partnerships  
**Mark Laabs**, Modern Energy

#### Hard-to-Reach Customers Tapped to Deliver 18.5 MW of Local Capacity through EE

Presenter: **Gwen Snodgrass**, Willdan Energy Solutions

**5E: Energy Efficiency and Rural Programs**

Moderator: **Duane Watson**, Consumers Energy

Integrated Energy Efficiency and Disaster Recovery Program Approaches

Presenter: **Scott Bloedorn**, APTIM

Findings from Michigan's Agriculture and Rural Communities Energy Roadmap

Presenters: **Eric Pardini**, Public Sector Consultants

**Mary Shoemaker**, American Council for an Energy-Efficient Economy

No Customer Left Behind: Engaging Small Businesses through Turn-Key Services

Presenter: **Rose Shannon**, Franklin Energy