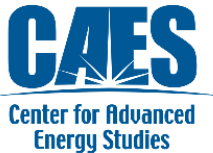


9th Annual Energy Policy Research Conference

**ENERGY DECISION-MAKING in TIMES
of DISRUPTIVE CHANGE**



SUMMARY PROGRAM

Sunday, September 29

11:30 am - 1:30 pm

Boise's Geothermal History Tour with Idaho National Laboratory's Efficiency-optimized Bus

A shuttle bus ride and walking tour will review Boise's historic and currently used geothermal sites, including the only U.S. Capitol to be heated by geothermal energy. The INL bus for the tour has maximized efficiency with a no idle, solar/battery-powered air conditioning and heating system to reduce fuel consumption and emissions.

Departure: Front Street next to the Grove Hotel

3:15 pm - 4:30 pm **Roundtable: The Energy Workforce of the Future**
Co-Leads: Kathy Araújo, Boise State University,
and Tom Ptak, University of Idaho
Trueblood Room, Student Union Building, Boise State campus

6:00 pm - 8:00 pm **Women in Clean Energy Reception (All are welcome)**
Co-hosted by the Energy Policy Institute and Women in Clean
Energy (C3E)
Bodovino, 404 S. 8th Street, Boise

Monday, September 30

8:00 am - 3:00 pm Registration - Boise Centre East, 4th Floor, top of escalators

8:00 am - 9:45 am Breakfast - Northwest Foyer, outside Room 420

9:00 am - 9:45 am Welcoming Remarks - Room 420
Dr. Marlene Tromp, University President, Boise State University
Dr. Kathy Araújo, Director, Energy Policy Institute
Dr. Noel Bakhtian, Director, Center for Advanced Energy Studies

Keynote Address
Ms. Carol Battershell

10:15 am - 11:30 am Session 1 - Rooms 410A-C

12:00 pm - 1:30 pm Lunch, networking and moderated discussion - Room 420

Moderated panel: ***“Decision-making for Energy Utilities in the Current Policy
Environment”***
Moderators: Dr. David Gattie, University of Georgia
and Dr. Kathy Araújo, Energy Policy Institute

Panel:
Barbara Lockwood, Arizona Public Service
Mitch Colburn, Idaho Power Company
Mark Chiles, Montana-Dakota Group Utilities Group
Jeff Grubb, Georgia Power/Southern Company

RESEARCH PRESENTER SESSIONS

SESSION 1

1A. Cross-sectoral Challenges and Opportunities (410A)

Moderator: John Chatburn, Idaho State Office of Energy and Mineral Resources

Emily Grubert Georgia Institute of Technology	Conventional Hydroelectricity and the Future of Energy
Jenny Frank The State University of New York	Assessing Indian Points Electricity Generation through Renewable Energy Pathways: A Technical and Economic Analysis
John Bell University of Idaho	Fuel Supply Chains in the Western Interconnect: Evaluating Availability during Extreme Weather Events
Robert Schmitt U.S. Department of Energy	Pursuing Innovative Finance Models to Enable Beneficial Energy and Water Infrastructure and Systems in Times of Disruptive Change

1B. Adaptive Practices and Regulation of Emergent Technology in Energy Systems (410B)

**Moderator: Leah Guzowski, Center for Advanced Energy Studies and Idaho National
Laboratory**

Kortney Short University of Utah	Comparison of Combined Heat and Power vs. Solar for Industrial Distributed Energy: A Technical, Policy, Economic, and Emissions Analysis
Will Frazier National Renewable Energy Laboratory	Assessing the Role of Energy Storage as a Peaking Capacity Resource in the United States
Juan Pablo Carvallo Lawrence Berkeley National Laboratory	The Economic Value of Integrating Distributed Energy Resources in Electric Utility Resource Planning
Anna Karmazina Oregon State University	Barriers and Facilitators of Demand-side Management in the U.S. Electricity Sector: Comparative Case Study

1C. Market Redesign and New Business Models (410C)

Moderator: Britt Ide, Ide Energy & Strategy

Steve Dahlke
Colorado School of Mines
Integrating Energy Markets: Implications of Increasing Electricity Trade on Prices and Emissions in the Western United States

Shaun McRae
Instituto Tecnológico
Autónomo de México
Retail Pricing in Colombia to Support the Efficient Deployment of Distributed Generation and Electric Vehicles

James Van Nostrand
West Virginia University
College of Law
Quantifying the Resilience Value of Distributed Energy Resources

SESSION 2

2A. Cross-policy Complexities (410A)

Moderator: Terry Jester, Solpad

Youngbok Ryu
New Mexico Tech.
Comparing the Sustainability Performance of U.S. Smart Cities

Braeton Smith
Argonne Natl. Laboratory
Does Participation in Green Pricing Programs Hinder the Adoption of Net Meters?

Robert Godby
University of Wyoming
Estimating the Impact of State Taxation Policies on the Cost of Wind Development in the West

Sarah Mills
University of Michigan
The Role of Politics and Place in Support for Renewable Energy Policy

2B. Adaptive Practices and Regulation of Emergent Technology in Energy Systems (410B)

Moderator: Steve Burgos, City of Boise - Public Works

Hanna Breetz
Arizona State
University
Political Feedbacks can Undermine Ambitious Energy Policy Goals

Chelsea Schelly
Michigan Technological
University
Improving Solar Development Policy and Planning through Stakeholder Engagement: The Long Island Solar Roadmap Project

Naim Darghouth
Lawrence Berkeley
National Laboratory

Implications of Rate Design for the Customer-Economics
of Behind-the-Meter Storage

Gerald Braun
The Integrated
Ren. Energy Systems
Network, Inc.

Policies for Local Energy Collaboration

2C. Market Redesign and New Business Models (410C)

Moderator: Seth Blumsack, Pennsylvania State University

Gabriel Chan
University of Minnesota

Analyzing the Drivers of Green Power Programs:
Insights from Minnesota Cooperatives

Valerie Brader
Rivenoak Consulting, Inc.

Virtual Power Reduction Agreements

Ashwin Ramdas
National Ren. Energy
Laboratory

California Time-of-Use (TOU) Transition:
Effects on Distributed Wind and Solar Economic Potential

SESSION 3

3B. Geopolitics and International Complexity (410B)

Moderator: Zachary Tudor, Idaho National Laboratory

David Gattie
University of Georgia

U.S. Energy Policy: In the World As It Is

Alexander Nagel
University of Idaho

A Nexus Approach to Understanding Chile's Renewable
Energy Landscape

Tom Ptak
University of Idaho

From Powershed to Energy Conduit and Integrative Energy
Center: Tracing the Evolution of Southwest Chinas Yunnan
Province

3C. Market Redesign and New Business Models (410C)

Moderator: Jetta Wong, Clean Tech Incubator

Lynne Kiesling Carnegie Mellon University	From Airbnb to Solar: Toward a Transaction Cost Model of a Retail Electricity Distribution Platform
David Bernell Oregon State University	The Role of Community Choice Aggregation in California's Transition to Renewable Energy
Galen Barbose Lawrence Berkeley National Laboratory	Utility-Owned Residential Rooftop Solar: An Analysis of Ratepayer and Shareholder Impacts
Evvan Morton Arizona State University	Emissions Trading and Climate Change: The Consequences of Pairing Old Solutions with New Problems

SESSION 4

4B. Adaptive Practices and Regulation of Emergent Technology in Energy Systems (410B)

Moderator: Juan Pablo Carvallo, Lawrence Berkeley Laboratory

Wesley Cole National Renewable Energy Laboratory	Challenges of High Penetration Renewables for the U.S. Power System
John Gardner Boise State Univ.	Mesh Network Communication for Robust Aggregation of Distributed Resources
Brady Stoll National Renewable Energy Laboratory	Contributions of Solar and Storage to Future Power Needs
Youngsun Baek Union of Concerned Scientists	The Economic Feasibility of Solar Plus Storage System in Illinois

4C. Organizational Change, Framing, and Indicators (410C)

Moderator: Hanna Breetz, Arizona State University

Matthew Grimley University of Minnesota	An Innovation System Perspective on Load Management: Technology Deployment in Midwestern Electric Cooperatives, 1940s to Present
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Stephanie Lenhart
Boise State University,
Energy Policy Institute

Comparing and Contrasting the Institutional Relationships,
Regulatory Frameworks, and Energy System Governance
of European and U.S. Electric Cooperatives

Will Gorman
Lawrence Berkeley
National Laboratory

Integrating Transmission Expenditures for Utility-Scale
Wind and Solar into LCOE Estimates for New Generating
Technologies

Camila Apablaza
Georgia Inst. of Technology

An Evolutionary Game Theory Approach to the Role
of Government in Technology Transitions

SESSION 5

5B. Cross-policy Complexities (410B)

Moderator: Sarah Robey, Idaho State University

Daniel Raimi
Resources for the Future

Greenhouse Gas Impacts of Increased US Oil and Gas
Production

Elisabeth Graffy
Arizona State University

Integrating Governance of Energy Transitions and Climate
Engineering

Gabriel Chan
University of Minnesota

Co-Benefits of California Climate Policies: How Are Local
Air Pollution and Health Benefits Distributed?

5C. Organizational Change, Framing, and Indicators (410C)

Moderator: Wesley Cole, National Renewable Energy Laboratory

Brian Sergi
Carnegie Mellon University

Aligning Climate and Health Benefits of Power Plant Siting
and Retirement Decisions

Gregory Stelmach
Oregon State University

Issue Framing in the LNG Export Terminal Siting Process

Benjamin Larsen
Boise State University,
Idaho Policy Institute

Urban Energy Planning: Policy through Consultative Surveys

Esteban Soto
Purdue University

An Estimation of the Reduction of Health Effects Caused by Air
Pollution by Implementing New Technology to Reduce the
Emissions of Particulate Matter: The Case of Chile

SESSION 6

6B. Cross-sectoral Challenges and Opportunities (410B)

Moderator: Andrew Cockerill, Consultancy

Andrew Kleit Pennsylvania State University	Reaching the Limits of Capacity Markets
Joachim Seel Lawrence Berkley Natl. Laboratory	Impact of High Variable Renewable Energy Futures on Wholesale Power Prices and Electric Sector Decision-Making: Demand-Side Effects
Sandra Sattler Union of Concerned Scientists	Opportunities in Energy: Climate Change, a National Low- Carbon Electricity Standard and the Green New Deal

Posters

Camila Apablaza Georgia Inst. of Technology	An Evolutionary Game Theory Approach to the Role of Government in Technology Transitions
Michelle Arnold Utah State University	Biofuel Commentary: Investigating National Opinions on Biofuels Using Discourse Analysis
Mayur Bandekar University of Michigan	Assessing the Social Dynamics of Wind Energy Sites in Michigan to Predict Contention among Prospective Wind Projects
Ben Chou Pennsylvania State University	Plugging In and Charging Up: Increasing Plug-in Electric Vehicle Adoption by Residents of Multifamily Buildings in Los Angeles County
Daniel Garz Idaho State University	A Disaster Response Complex for Training of Emergency Responders in Idaho
Jason Johnson Technical Univ. of Berlin	Blockchain Technology in the Energy Sector: A Review of the Role of Policy Makers and Regulatory Sandboxes in Bringing the Technology into the Mainstream
Kristin McGill Walden University	Exploring Potential Solar Consumers' Understanding of Energy Policy Development in Hawaii

Evvan Morton
Arizona State University

Emissions Trading and Climate Change: The Consequences
of Pairing Old Solutions with New Problems

John Peterson
University of Idaho

Informing Electrical Grid Policy with a Nuclear Power Plant
Simulator

Esteban Soto
Purdue University

An Estimation of the Reduction of Health Effects Caused
by Air Pollution by Implementing New Technology to Reduce the
Emissions of Particulate Matter: The Case of Chile