

# **Energy Policy Forum**

July 14 – 17, 2017

Aspen Meadows Resort 845 Meadows Road Aspen, Colorado

Co-Chairs: Ernest Moniz and Anne Pramaggiore

#### FRIDAY, JULY 14

Morning/Afternoon Arrivals and Check-In

6:30 – 9:30 pm Opening Reception and Dinner – St. Regis Hotel (315 E Dean Street) Shuttles depart from the Meadows Reception Center beginning at 6:15 PM. It is also a scenic 25-minute walk into town.

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### SATURDAY, JULY 15

All sessions will take place in the Lauder Room of the Koch Building.

| 7:00 – 8:30 am   | Breakfast - The Meadows Restaurant   |   |  |
|------------------|--|---|--|
| 8:30 – 9:00 am   | Opening Session  |   |  |
|                  | Introduction:  | <b>David Monsma</b> , Executive Director, Energy and Environment Program,<br>The Aspen Institute  |  |
|                  | Welcome:   | Ernest Moniz, Professor, MIT; Former US Secretary of Energy<br>Anne Pramaggiore, President & CEO, ComEd   |  |
| 9:00 – 10:15 am  | A two-way, int<br>regulatory stru<br>successful and<br>customers it s  | tricity Distribution System – Implication of Technology on Policy<br>Policy on Technology<br>teractive, electric distribution system needs a combination of new technology,<br>ucture, appropriate rate making mechanisms, and security features to be<br>bring economic value and a clean energy future to the hundreds of millions of<br>ervices. What is the role of technology innovation in the smart grid, the value of<br>neration, and how does demand response and load shaping impact it?<br>Anne Pramaggiore<br>Peter Fox-Penner, Director, Institute for Sustainable Energy, Boston University<br>Sue Tierney, Senior Advisor, Analysis Group<br>Jeffrey Taft, Chief Architect for Electric Grid Transformation, PNNL<br>Kim Greene, Executive Vice President & COO, Southern Company |  |
| 10:15 – 10:30 am | Break  |   |  |
| 10:30 – 12:00 pm | <u>Session I</u> : Continued   |   |  |
| 12:00 – 1:30 pm  | Lunch - The Meadows Restaurant   |   |  |
| 1:30 – 2:45 pm   | Session II: Bulk Power and the Future of Baseload Generation<br>While periodically adjusted, current electricity market structures were designed for a 20 <sup>th</sup> century electricity system. New technologies, business models, and consumer demands rai concerns about the relevance of these designs in the 21 <sup>st</sup> century electricity market structure in the context of market trends? How do new technologies and business models impact reliability? How does the need for or lack of need for baseload generation with high capacit factors impact long term planning? |   |  |
|                  | Discussants:   | Joseph Hezir, Principal, Energy Futures Initiative<br>Paul Chodak, Executive Vice President, Utilities, AEP<br>Cheryl LaFleur, Acting Chairman, FERC<br>James Bushnell, Professor, Department of Economics, UC Davis  |  |

2:45 – 3:00 pmBreak3:00 – 4:30 pmSession II: Continued6:30 – 9:30 pmForum Reception and Dinner – Hotel Jerome (330 E Main Street)<br/>Shuttles depart from the Meadows Reception Center beginning at 6:15 PM. It is also a scenic<br/>20-minute walk into town.

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#### SUNDAY, JULY 16

- 7:00 8:30 am Breakfast The Meadows Restaurant
- 8:30 10:15 am <u>Session III</u>: Deep Decarbonization

To reach deep decarbonization goals, in addition to scaling up clean energy technologies, improvement must be made in the electrification of buildings, some industry, and transportation, as well as improved efficiency. What are the pathways to get to deep decarbonization and what technologies and policies are needed?

Moderator: Ernest Moniz
 Discussants: Judi Greenwald, Principal, Greenwald Consulting
 Kateri Callahan, President, Alliance to Save Energy
 Julio Friedmann, Senior Advisor, Lawrence Livermore National Laboratory
 David Sandalow, Inaugural Fellow, Center on Global Energy Policy, Columbia
 University

10:15 – 10:30 am Break

| 10:30 – 12:30 pm | Session IV: Rapidly Changing Electricity System and Technology-Enabled Value<br>Creation – The Internet of Things and Transportation The electricity system is changing rapidly. Two key areas that enable value creation for both<br>the utility and the consumer are the Internet of Things (IoT) and transportation. What are the<br>ways in which new technology add value to the system and what policies would help to enable<br>this?   |  |  |
|------------------|--|--|--|
|                  | Moderator:Anne PramaggioreDiscussants:Hannah Bascom, Head of Regulated Energy Partnerships, Nest Labs<br>Tim Healy, Chairman & CEO, EnerNOC<br>Jan Vrins, Managing Director, Global Energy Practice Leader, Navigant<br>Bob Rowe, President & CEO, NorthWestern Energy   |  |  |
| 12:30 – 2:00 pm  | Lunch - The Meadows Restaurant   |  |  |
| 2:00 – 3:00 pm   | <ul> <li>Session V: National Security and Cyber Security – The Role of the Electricity Sector<br/>and Regulatory Implications</li> <li>Without access to reliable electricity, much of the economy and all electricity-enabled critical<br/>infrastructures are at risk. These infrastructures include our national security and homeland<br/>defense networks, which depend on electricity to carry out their missions to ensure the safety<br/>and prosperity of the American people. What are the cyber and physical issues with regard to<br/>the grid and how can utilities prepare?</li> <li>Moderator: Clint Vince, Chair, Global Energy Sector, Dentons US<br/>Discussants: Melanie Kenderdine, Principal, Energy Futures Initiative &amp; EJM Associates<br/>Philip Moeller, Executive Vice President, Business Operations Group and<br/>Regulatory Affairs, Edison Electric Institute</li> </ul> |  |  |
| 3:00 – 3:15 pm   | Break  |  |  |
| 3:15 – 4:00 pm   | Session V: Continued   |  |  |
| 4:30 – 6:00 pm   | <b>Optional – Aspen: A Walking Tour</b><br>This easy, guided hike will explore the Roaring Fork River and the town of Aspen. Participants are<br>asked to meet in the lobby of the Aspen Meadows Reception Center by 4:30pm.   |  |  |
|                  | No dinner is planned for this evening to allow participants to gather in small groups<br>and explore Aspen – restaurant suggestions and reviews are available<br>at <u>www.eataspen.com</u> or the Aspen Meadows Reception Center.   |  |  |

## MONDAY, JULY 17

| 7:00 – 8:30 am   | Breakfast - The Meadows Restaurant   |   |  |
|------------------|--|---|--|
| 8:30 – 10:00 am  | Session VI: North America – Grid Security and Integration<br>Historically, integration of the power systems of Canada, Mexico, and the US occurred by<br>gradual, ad hoc, and regional adjustments implemented by an array of regional, public, and<br>private stakeholders, reflecting the complex and fragmented jurisdictions in all countries. How<br>will this collaboration on electricity and natural gas occur in the future? What are the other<br>ways the countries can work together to enable a more secure grid? |   |  |
|                  | Moderator:<br>Discussants:   | Ernest Moniz<br>César Emiliano Hernández Ochoa, Deputy Secretary of Energy for Electricity,<br>Ministry of Energy of Mexico<br>Drew Leyburne, Director General, Strategic Policy, Department of Natural<br>Resources of Canada<br>Nelson Cunningham, President & Co-founder, McLarty Associates |  |
| 10:00 – 10:15 am | Break  |   |  |
| 10:15 – 11:30 am | <u>Closing Session</u> : Wrap Up   |   |  |
|                  | Moderators:  | Ernest Moniz and Anne Pramaggiore   |  |
| 11:30 am         | Forum Adjourns   |   |  |
| 12:00 – 2:00 pm  | Optional Lunch - The Meadows Restaurant  |   |  |

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