



**HARVARD ELECTRICITY POLICY GROUP
NINETY-SEVENTH PLENARY SESSION**

The Ritz Carlton Dove Mountain
Marana, Arizona
THURSDAY AND FRIDAY, DECEMBER 12-13, 2019

DRAFT AGENDA

Thursday, December 12

8:30 am **Breakfast and Informal Discussion**

9:00 am **Session One.**
Forming Expectations for Price Formation

The technological transformation of the electricity system presents challenges for market design and price formation. Expanded intermittent resources, whether distributed or centralized, will steadily increase the importance of demand bidding, scarcity pricing, intertemporal price consistency and overall system flexibility. The recent experience in ERCOT illustrates both the importance and the power of enhanced scarcity pricing with an operating reserve demand curve. Other Regional Transmission Organizations are moving in related directions. What have been the impacts and lessons? What are the next steps in developing more granular representations of scarcity impacts through locational extensions of the operating reserve co-optimization with energy dispatch? How can day-ahead markets accommodate? How will intertemporal products and prices be integrated in future pricing reforms? What are the greatest long-term challenges for price formation, and how does the evolutionary path compare with these objectives?

Moderator: **Kenneth Anderson**, Public Utility Commission of Texas 2008-2017

Beth Garza, Potomac Economics
Michael Hogan, Regulatory Assistance Project
Travis Kavulla, NRG Energy
Mark Rothleder, California ISO

10:30 am **Coffee Break**

10:45 am **Discussion**

Thursday, December 12 (continued)

12:00 pm **Lunch**

1:00 pm **Session Two.**
**Coherence or Confusion: What is the Environmental Agenda
for the Power Sector?**

Is the environmental agenda for the power sector clear or confused? Do multiple, often contradictory, directions by multiple advocates representing specific interests produce positive results or just costs? While there are some shared objectives, most notably reduction of greenhouse gas and other emissions, the means of achieving those objectives are hardly consensus matters in the environmental community. Some of the competing, if not conflicting, points-of-view include: Is the responsibility for emission reduction being disproportionately imposed on the power sector, as opposed to reductions to be obtained from other sectors, such as transportation? Beyond simply extracting emission reductions, are sector-specific policy focuses reconcilable with a society-wide focus? Is it better to promote specific zero or low emission technologies than to price carbon appropriately through a tax or cap and trade regime? Should electricity pricing be used to promote specific technologies? Are these two approaches inherently conflicting or can they be reconciled? Are there contradictions between advocates of air quality vs. advocates for land and water quality (e.g. views on siting transmission lines and role of natural gas/fracking)? Which is preferable, when applied to reducing emissions, command and control or market-based approaches?

Moderator: **Ann McCabe**, Illinois Commerce Commission 2012-2017

Peter Behr, Energywire
Ben Hobbs, Johns Hopkins University
John Moore, Natural Resources Defense Council
Raya Salter, NY Renews

2:30 pm **Coffee Break**

2:45 pm **Discussion**

4:00 pm **Adjourn**

6:30 pm **Reception and Dinner on property**

Friday, December 13

8:30 am **Breakfast and Informal Discussion**

9:00 am **Session Three.**
Offshore Wind: Barriers and Challenges to Meaningful Market Entry

Offshore wind offers many attractions. With zero generation emissions and, as a general matter, a higher capacity factor than other intermittent renewable sources the benefits seem clear. That being said, offshore wind also has disadvantages in terms of cost and potentially severe engineering and scientific challenges. There are also complications that relate to policy. One is the question, of how the energy is moved to market. Obviously, it will require marine transmission lines, but what are the terms under which such a transmission system would be put in place and who should pay. One option is to enable developers of wind generation to simply build their own interconnection line to the mainland. That has the benefit of allocating costs to the beneficiary, but is unlikely to capture economies of scale or open access to competitors. An alternative option is to build out a large transmission system that would enable all generators to interconnect. That option may socialize, rather than allocate costs, at least initially, but would likely capture economies of scale, ease access, and increase competition. These issues are similar to debates that have characterized the development of onshore wind in Texas and California. But the environmental and siting requirements are more complex. Underwater construction affects commercial fishing and impacts aquatic life and ambience. Jurisdiction over such matters is split between federal authority offshore (Bureau of Ocean Energy Management) and state jurisdiction. How have the state and federal authorities interacted? Does the potential for such conflict impact the choice of the transmission development model?

Carrie Cullen Hitt, National Offshore Wind Research and Development Office

Kevin Knobloch, Anbaric Development Partners

Hannes Pfeifenberger, Brattle Group

10:30 am **Coffee Break**

10:45 am **Discussion**

12:00 pm **Adjourn**