

CENTER for  
ENVIRONMENTAL ECONOMICS  
& SUSTAINABILITY POLICY



**Renewable Energy Capacity and Environmental Policy Design:  
Complementarity or Conflict?**

**Tempe Mission Palms Hotel**

**May 2, 2014**

This workshop uses a new conference platform to consider challenges at the nexus of energy policy, environmental policy and climate policy. There are three distinguishing features.

- (1) Four speakers are paired with four session chairs. Each session chair is given discretion to provoke research initiatives before or after each speaker. These comments are not those of a traditional discussant but rather reflect upon the themes of the speakers' research. They are intended to prompt discussion.
- (2) Each paper will be presented and discussed for 90 minutes. Workshop participants have been invited not as observers but as engaged commentators.
- (3) The overall group is deliberately small to allow dialog and share learning.

The objective of this conference is to bring together economists, energy analysts and environmental policy makers to consider future developments in the energy industry in the face of challenges at the nexus of energy policy, environmental policy and climate policy.

## Focal Questions

- New environmental rules raise uncertainty for power generators unnecessarily. What are the options for flexible implementation and what do they cost?
- Renewable portfolio standards and other incentive programs (e.g. net metering) for decentralized capacity have raised challenges in providing reliable power as the composition of interruptible renewable capacity increases; the current pricing structure is incompatible with balancing economic sustainability.
- The emergence of internet based control of energy-using appliances by the end user and others allows real-time demand management as a substitute for generating capacity.
- Dramatic changes in the availability of natural gas create opportunities to ease the transition or confound the long-term challenges of designing climate policy with potential for “lock-in” effects of natural gas.

## Focal Participants

Severin Borenstein	E.T. Grether Professor, Co-Director of Energy Institute, University of California, Berkeley, and Director of University of California Energy Institute
Dallas Burtraw	Darius Gaskins Senior Fellow, and Associate Director, Center for Climate and Electricity Policy, Resources for the Future
James Bushnell	Associate Professor, University of California, Davis
Meredith Fowlie	Associate Professor, University of California, Berkeley and Faculty Research Fellow, NBER
Michael Hanemann	Julie A. Wrigley Chair in Sustainability, Professor of Economics, and Director, Center for Environmental Economics & Sustainability Policy, Arizona State University
Derek Lemoine	Assistant Professor, University of Arizona
Kevin Novan	Assistant Professor, University of California, Davis
V. Kerry Smith	Regents' Professor, W. P. Carey Professor of Economics, Arizona State University
Matthew White	Chief Economist, ISO New England

# Renewable Energy Capacity and Environmental Policy Design Conference Schedule May 2, 2014

7:45 am – 8:25 am	<b>Continental Breakfast</b>
8:30 am – 8:40 am	<b><u>Opening Welcome</u></b> Michael Hanemann – Arizona State University
8:45 am – 10:15 am	<b><u>Session 1</u></b> Speaker: Severin Borenstein – UC Berkeley Session Leader: Matthew White – ISO New England Topic: Designing Permit Markets in Presence of Policy and Market Uncertainty
10:15 am – 10:25 am	<b>Break</b>
10:30 am – 12:00 pm	<b><u>Session 2</u></b> Speaker: Kevin Novan – UC Davis Session Leader: Derek Lemoine - University of Arizona Topic: When Do Combined Environmental Policies Become Subsidies?
12:10 pm – 1:00 pm	<b>Lunch</b>
1:15 pm – 2:45 pm	<b><u>Session 3</u></b> Speaker: Dallas Burtraw – Resources for the Future Session Leader: James Bushnell – UC Davis Topic: Interactions between Federal and State-level Policies for GHG under the Clean Air Act
2:45 pm – 2:55 pm	<b>Break</b>
3:00 pm – 4:30 pm	<b><u>Session 4</u></b> Speaker: Meredith Fowlie – UC Berkeley Session Leader: Kerry Smith – Arizona State University Topic: Can Economic Analysis Inform the Supreme Court’s Hearing on Cross State Rule?
4:30 pm – 5:00 pm	<b><u>Wrap-up</u></b> Michael Hanemann and Kerry Smith
6:00 pm	<b>Dinner / Departure</b>

## Conference Participants

Kelly Bishop	Arizona State University	Kelly.Bishop@asu.edu
Severin Borenstein	University of California, Berkeley	borenste@haas.berkeley.edu
Jesse Burkhardt	Yale University	jesse.burkhardt@yale.edu
Dallas Burtraw	Resources for the Future	Burtraw@rff.org
James (Jim) Bushnell	University of California, Davis	jbbushnell@ucdavis.edu
Antonio J. Conejo	Ohio State University	conejonavarro.1@osu.edu
Gary Dirks	Arizona State University	garydirks@asu.edu
Steve Dundas	North Carolina State University	sjdundas@ncsu.edu
Jeffrey Englin	Arizona State University	Jeffrey.Englin@asu.edu
Meredith Fowlie	University of California, Berkeley	fowlie@berkeley.edu
H. Michael Hanemann	Arizona State University	Michael.Hanemann@asu.edu
Kory Hedman	Arizona State University	Kory.Hedman@asu.edu
Amanda Ho	Arizona Corporation Commission	AHHo@azcc.gov
Timothy James	Arizona State University	Timothy.James@asu.edu
Nicolai Kuminoff	Arizona State University	Kuminoff@asu.edu
Ashley Langer	University of Arizona	alanger@gmail.com
Derek Lemoine	University of Arizona	dlemoine@email.arizona.edu
Kris Mayes	Arizona State University	Kris.Mayes@asu.edu
Alvin Murphy	Arizona State University	Alvin.Murphy@asu.edu
Kevin Novan	University of California, Davis	knovan@ucdavis.edu
Martin (Mike) Pasqualetti	Arizona State University	pasqualetti@asu.edu
Subhrendu Pattanayak	Duke University	subhrendu.pattanayak@duke.edu
Michael Price	Georgia State University	mprice25@gsu.edu
Yueming (Lucy) Qiu	Arizona State University	Yueming.Qiu@asu.edu
Stan Reynolds	University of Arizona	reynolds@eller.arizona.edu
V. Kerry Smith	Arizona State University	Kerry.Smith@asu.edu
James (Jim) Sweeney	Stanford University	jim.sweeney@stanford.edu
Jie-Sheng Tan-Soo	Duke University	jiesheng.tan@duke.edu
Roger von Haefen	North Carolina State University	rhhaefen@ncsu.edu
Matthew White	ISO New England	mwhite@iso-ne.com
Laurie Woodall	Arizona Corporation Commission	lwoodall@azcc.gov