
**DOE OE Permitting, Siting
Analysis Division:
Samples of State Technical
Assistance Work as of June
2011**

State TA: Midwest Gov Assn/NCSL/National Council on Elec Policy/NGA/NASEO

ADVANCING THE NEW ENERGY ECONOMY IN THE MIDWEST: SUSTAINED COORDINATION AND IMPLEMENTATION MEETING

June 7, 2011

RIFFE CENTER, 31st Floor | 77 South High Street | Columbus, OH

Sponsored by:
 Association of State Energy Research & Technology Transfer Institutions
 Clean Economy Network
 Corporation for a Skilled Workforce
 Great Plains Institute
 Midwestern Governors Association
 National Association of State Energy Officials

Understanding Air Quality Regulation: Fundamentals for State Decision-Makers

Wednesday January 19, 2011, 2 p.m. Eastern

Please mark your calendars to join the National Council on Electricity Policy for a one-hour webcast aimed at introducing State policy makers from State Legislatures, Governors' offices, Public Utility Commissions, Energy Offices, and others to the basics of clean air regulation in the States. We'll also be joined by the US Environmental Protection Agency to explain a number of forthcoming rules that will affect policy making where you live.

Dial-in number: 1 (800) 261-3225

Link to webcast: <https://www.livemeeting.com/cc/readypresent/join?id=9H3WWJ&role=attend&pw=NARUC1889>

Speakers:

Nancy Seidman, Deputy Assistant Commissioner for Climate Strategies, Massachusetts Department of Environmental Protection

Joe Bryson, Senior Policy Analyst, Climate Protection Partnership Division, US Environmental Protection Agency

To learn more about the National Council, please visit www.ncouncil.org



NATIONAL CONFERENCE
of STATE LEGISLATURES



National
Association of
Regulatory Utility
Commissioners

Transmission Policy Institute

Sheraton Downtown — Denver, Colorado

April 20-21, 2011

AGENDA Wednesday, April 20th 2011

1:00 – 1:15 pm

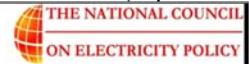
Welcome and Introductions

Transmission and Technologies 101

Speakers:

Alison Silverstein, Alison Silverstein Consulting

May 2010 - Webinar



The National Council on Electricity Policy presents

Transmission and its Alternatives: Planning in the Eastern Interconnection

Speakers:

Miles Keogh, NARUC

Dave Whiteley, Whiteley BPS Planning Ventures LLC

Chairman Doug Nazarian, Maryland PSC



State TA: Natl Conf of State Legislatures/ Natl Council on Elec Policy/Natl Gov Assn/Natl Assn of State Energy Offices



NATIONAL ASSOCIATION OF
REGULATORY UTILITY COMMISSIONERS

SUMMER COMMITTEE MEETINGS

JULY 17 - JULY 20, 2011
LA LIVE JW MARRIOTT • LOS ANGELES

Workshop

Carbon Capture & Storage for Coal without Federal Climate Legislation

Capturing CO₂

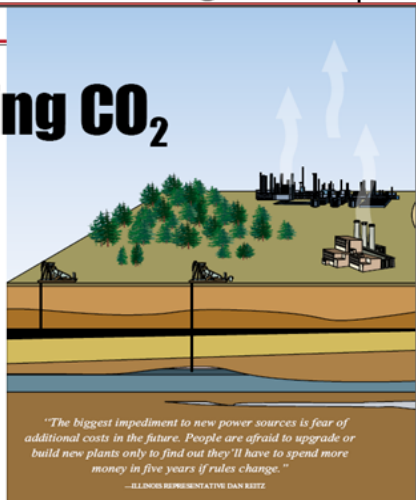
Advances in technology could make 'clean coal' a reality, but can we afford it?

BY GLEN ANDERSON

A lot of factors will shape America's energy future, and the cost of the technology needed to reduce coal emissions is among the most important. The capture and storage of carbon dioxide from coal plants has been demonstrated at a number of pilot projects. The challenge is whether this technology can be expanded to be competitive on a commercial scale, and whether the nation is willing and able to invest the resources to do so.

Generating electricity produces 40 percent of the nation's greenhouse gas emissions and coal-fired power plants are responsible for the majority of these. There are many different types of greenhouse gas emissions, but CO₂ is the one most produced by human activity.

Since coal produces nearly half the nation's electricity—and more than 75 percent in many states—the federal government, utilities, states and many interest groups want to find a viable way to capture carbon dioxide



move for any state with coal reserves," says Illinois Representative Dan Reitz.

The future of carbon capture and storage, however, is uncertain. In the past two years, numerous coal-fired power plants have been canceled, and many will be phased out because of the cost of meeting new clean air requirements, local opposition, uncertainty

about the costs of potential greenhouse gas regulation and lack of financial support. If a carbon tax, cap-and-trade program or EPA efforts to reduce greenhouse gases are established, the costs of operating coal-fired power plants are likely to increase. Since coal plants

last 40 to 60 years, lenders and investors realize that higher operational costs, even if they occur 10 or 15 years in the future, could hurt the profitability of plants and the ability of plant owners to pay back loans.

"The biggest impediment to new power sources is fear of additional costs in the future," says Reitz. "People are afraid to upgrade or build new plants only to find out they'll have to spend more money in five years if rules change."

These concerns are especially serious in states that export or are highly reliant on coal, Colorado, Indiana, Iowa, Kentucky, New



REPRESENTATIVE
DAN REITZ
ILLINOIS

Glen Anderson directs the Energy program at NCSL.

March 2011



Fuel Cells—Clean and Reliable Energy

Content Items

- Overview
- State Fuel Cell Programs
 - State Loan Programs
 - Rebate Programs
 - Renewable Standards
 - Tax Incentives
 - Incentives
 - Green Jobs
 - Other Financing
- Federal Incentives

NCSL Staff Contact
For more information, contact Jacquelyn Pless.

Fuel cells can provide a clean, consistent source of electricity and can be easily relied on as a sole power source, unlike some other renewable energy sources, such as solar energy and wind power. Many states do not promote their



Carbon Capture and Storage in the States

Contents

- How CCS Works
- Carbon Capture Technologies
- CCS Transportation and Storage
- Liability of Captured CO₂
- Map
- Federal Action
- Resources

NCSL Contact

For more information, contact Jacquelyn Pless at NCSL.

dioxide (CO₂) from power plants, reducing greenhouse gas emissions.

Coal is one of the most abundant sources of energy for the United States. One quarter of the world's coal reserves is found within the United States, and it provides nearly half of the electricity consumed by Americans. The U.S. Department of Energy (DOE) forecasts



Financing the Decarbonized Electric Future

NARUC Summer 2010 Committee Meetings
Sacramento, California

State TA: NCSL/NGA/NASEO/ National Council on Electricity Policy



Experts Roundtable on State Strategies for Advancing Electricity Transmission

January 25th, 2011

Hall of the States, Room 231
444 North Capitol Street Washington, DC 20001

*** AGENDA ***

9:00 am	Welcome, Introductions and Overview of Goals for Meeting • Sue Gander, NGA Center for Best Practices
9:15 am	The Transmission Grid Beyond 2011 Participants will receive a brief overview of the current landscape of transmission policy and development, including proposed revisions to FERC Order 890 and the status of ARRA-funded interconnection-wide planning efforts. This will be followed by a discussion of the implications of recent state, federal, and industry transmission actions for states.
10:00 am	The 3300 from the States
11:00 am	
12:45 pm	
2:15 pm	
2:30 pm	Concl



Governors' Energy Advisors Policy Institute

Renaissance Arlington Capital View
2800 South Potomac Avenue, Arlington, VA 22202. Phone: 703.413.1400

April 5-6, 2011

AGENDA

This Policy Institute will provide participants the opportunity to meet with national experts and state peers to learn about a diverse set of energy policy best practices. The meeting is a key opportunity for governors' staff to network in a small group setting and hear about concrete energy strategies that can reduce costs, promote economic development and address environmental goals.

Monday, April 4, 2011

ENERGY TECHNOLOGIES 101

ing Goals

who will discuss the status of key energy efficiency, renewable energy, carbon capture and storage.

Part I
by federal energy experts. After the meeting, the Department of Energy will be

the Office of Electricity Delivery and Energy Reliability
Secretary for Fossil Energy



For Immediate Release Contact: Bill Becker, NACAA, (202) 624-7864
David Terry, NASEO, (703) 395-1076
Rob Thormeyer, NARUC, (202) 898-9382

Coalition of State Air, Electricity, and Energy Officials Meet to Discuss Common Regulatory Issues

(Washington, D.C.) – On Thursday, December 2, 2010, a joint meeting attended by representatives from NASEO, the National Association of Clean Air Agencies (NACAA), and the National Association of Regulatory Utility Commissioners (NARUC) was held in Washington, D.C. The meeting served as a forum for participants to get acquainted and learn more about their peer agencies. Presenters focused on the critical issues facing environmental regulators, utility regulators, and the energy offices. Participants recognized the need to more closely study the interrelated nature of their work, share best practices, and conduct ongoing dialogues on clean air and energy related issues as the federal government moves forward with new environmental regulations.

A second meeting of the coalition is scheduled for June 2011; topic: U.S. EPA regulatory issues.

The National Council on Electricity presents: Carbon Capture and Storage: Technological and Regulatory Considerations

June 18, 2010
Webinar

Regulatory Assistance Project

Sample Products: Utility Planning

Climate Realities and Utility Policies: Why States & Commissions Are So Important

Richard Cowart

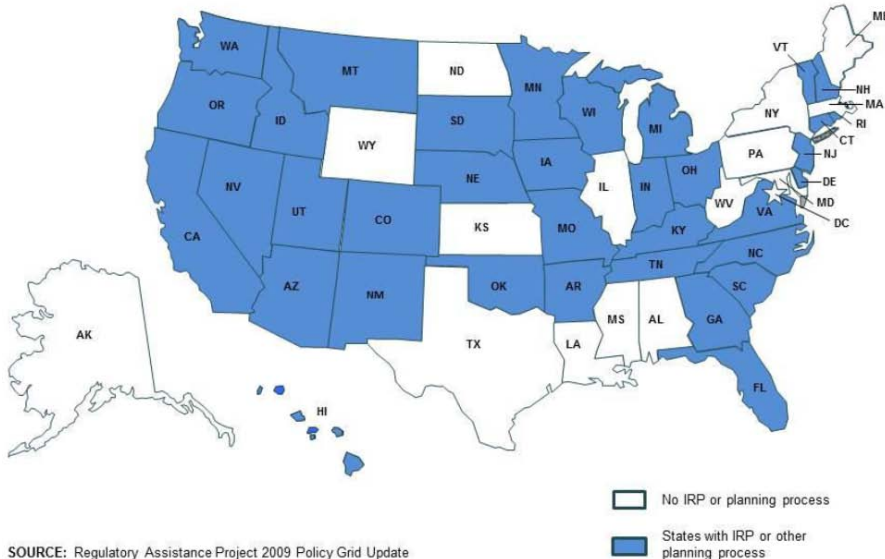
NARUC - Sacramento
July 21, 2010

The Regulatory Assistance Project

China ♦ India ♦ European Union ♦ Latin America ♦ United States

Website: <http://www.raponline.org>

DRAFT
**U.S. STATES WITH INTEGRATED RESOURCE PLANNING
OR SIMILAR PLANNING PROCESS**
Effective December 2009



SOURCE: Regulatory Assistance Project 2009 Policy Grid Update

Clean First:

Aligning Power Sector Regulation
With Environmental and Climate Goals



RAP Energy solutions
for a changing world




Electricity Regulation In the US: A Guide

REGULATORY ASSISTANCE PROJECT

September 2010

Lawrence Berkeley Nat'l Lab (LBNL) Sample Products: Smart Grid & Demand Response


Smart Grid Technical Advisory Project 

NARUC Webinar #1.
Overview of the NIST Standards and Priority Action Plan Activity
December 1, 2009

Chuck Goldman, Project Manager
Electricity Markets and Policy Group
Lawrence Berkeley National Laboratory

Roger Levy, Levy Associates
Doug Houseman, EnerNex

3/5/2011 Lawrence Berkeley National Laboratory - Smart Grid Technical Advisory Project

Smart Grid Technical Advisory Project 

NARUC Webinar #2.
Engaging the Customer
December 16, 2009

Chuck Goldman, Project Manager
Electricity Markets and Policy Group
Lawrence Berkeley National Laboratory

Roger Levy, Levy Associates
Ron Hofmann, CaRon Energy Strategies

3/5/2011 Lawrence Berkeley National Laboratory - Smart Grid Technical Advisory Project

Demand Response
NARUC Webinar
May 4, 2011

Roger Levy, Levy Associates
Sila Kiliccote, Deputy Group Leader
Demand Response Research Center
Lawrence Berkeley National Laboratory

Chuck Goldman, Staff Scientist
Electricity Markets and Policy Group
Lawrence Berkeley National Laboratory

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Fundamentals of Dynamic Pricing

Theresa Flaim, Ph.D.*
Presentation to the Public Utility Commission of Ohio
December 8, 2009

*Energy Resource Economics, LLC. Work was sponsored by the Lawrence Berkeley Laboratory under Contract No. 6898299. Support and advice also provided by Bernie Neenan and Christopher Holmes.

An Overview of Smart Grid Issues

Oregon Public Utility Commission
Smart Grid Workshop
September 9, 2009

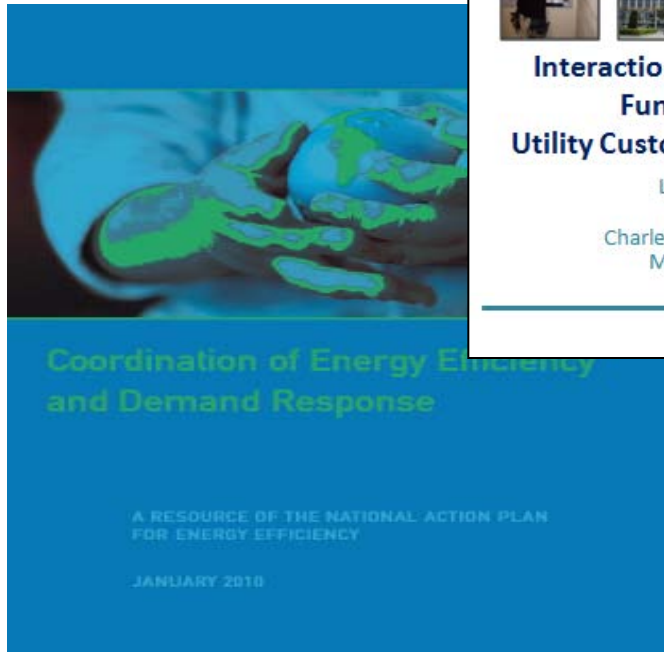
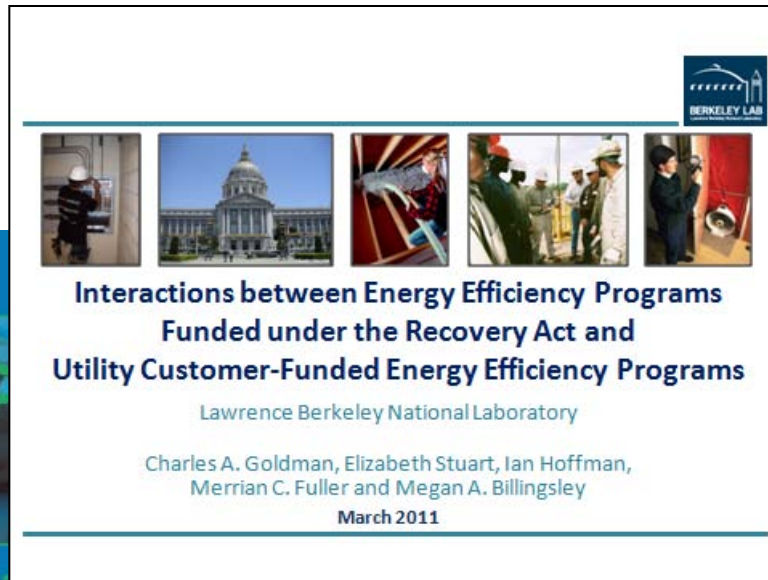
Roger Levy, Lead Consultant
Smart Grid Technical Advisory Project

Charles Goldman, Program Manager
Electricity Markets and Policy Group
Lawrence Berkeley National Laboratory

3/5/2011 Smart Grid Technical Advisory Project 1

And mgt consulting & presentations to
NARUC-FERC Smart Response Collaborative

LBNL Sample Products: Ratepayer-Financed Energy Efficiency



The Shifting Landscape of Ratepayer-Funded Energy Efficiency in the U.S.

An unprecedented expansion of ratepayer-funded energy efficiency is underway. Can it be done, and what are the implications for the country's broader energy goals and energy policies?

Galen Barbose, Charles Goldman and Jeff Schlegel

LBNL Sample Products:

EE Business Models for Use by PUCs

Financial Impacts of Achieving Aggressive EE Program Savings Goals in Massachusetts: *Building Stakeholder Support*

Peter Cappers, Andrew Satchwell, Charles Goldman
Lawrence Berkeley National Laboratory

Jeff Schlegel
Independent Consultant

Report Summary
August 2010



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Financial Implications of using Energy Efficiency to contribute towards meeting a Federal RES: Case Study of Kansas

Peter Cappers

Charles Goldman

Lawrence Berkeley National Laboratory

ACEEE 5th National Conference on Energy Efficiency as a
Resource
Chicago, IL
September 29, 2009

This work was supported by the Office of Electricity Delivery and Energy Reliability of the U.S. Department of Energy under Contract No. DE-AC02-06CH11231.



Energy Analysis Department • Electricity Markets and Policy Group

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Analysis of the Energy Efficiency Standard (EES) and Decoupling on Arizona Public Service and Tucson Electric Power

Prepared for the
Arizona Corporation Commission
Peter Cappers, Chuck Goldman, Andrew Satchwell
Lawrence Berkeley National Laboratory

ACC Open Meeting
June 10, 2010



Energy Analysis Department • Electricity Markets and Policy Group

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Decoupling Workshop: Arizona Corporation Commission

Presentation by
Wayne Shirley and Jim Lazar
April 15-16, 2010

The Regulatory Assistance Project

China • India • European Union • Latin America • United States

Website: <http://www.raponline.org>



LBNL Sample Products:

EE Evaluation, Measurement & Verification (EM&V)

Development of EM&V Protocols and a Standardized Savings System for Tracking Energy Efficiency Resources: A Pacific Northwest case study

Tom Eckman

Northwest Power and Conservation Council

Illinois Commerce Commission Workshop on Energy Efficiency and Demand Response
October 16, 2008

National Energy Efficiency EM&V Standard

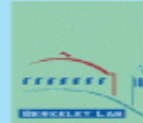
Presentation for
SEE Action EM&V Committee

Steve Schiller, Schiller Consulting, Inc.

Charles Goldman
Lawrence Berkeley National Laboratory (LBNL)

2 December, 2010

LBNL-4265E



ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY

National Energy Efficiency Evaluation, Measurement and Verification (EM&V) Standard: Scoping Study of Issues and Implementation Requirements

Steven R. Schiller
Schiller Consulting, Inc

Charles A. Goldman
LBNL Environmental Energy Technologies Division

Elsia Galawish
Itron

April 2011

Now supporting development
of voluntary national EM&V protocols

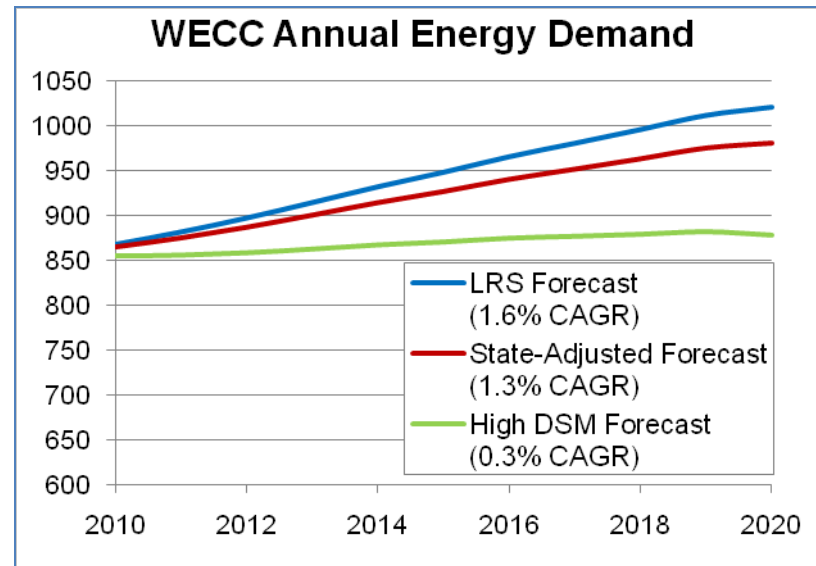

LBNL: Incorporating DSM in Interconnection-Wide Transmission Planning

Developing DSM Assumptions for the 2020 TEPPC Study: SPSC Reference Case and High DSM Scenario

Galen Barbose and Andy Satchwell
Lawrence Berkeley National Laboratory

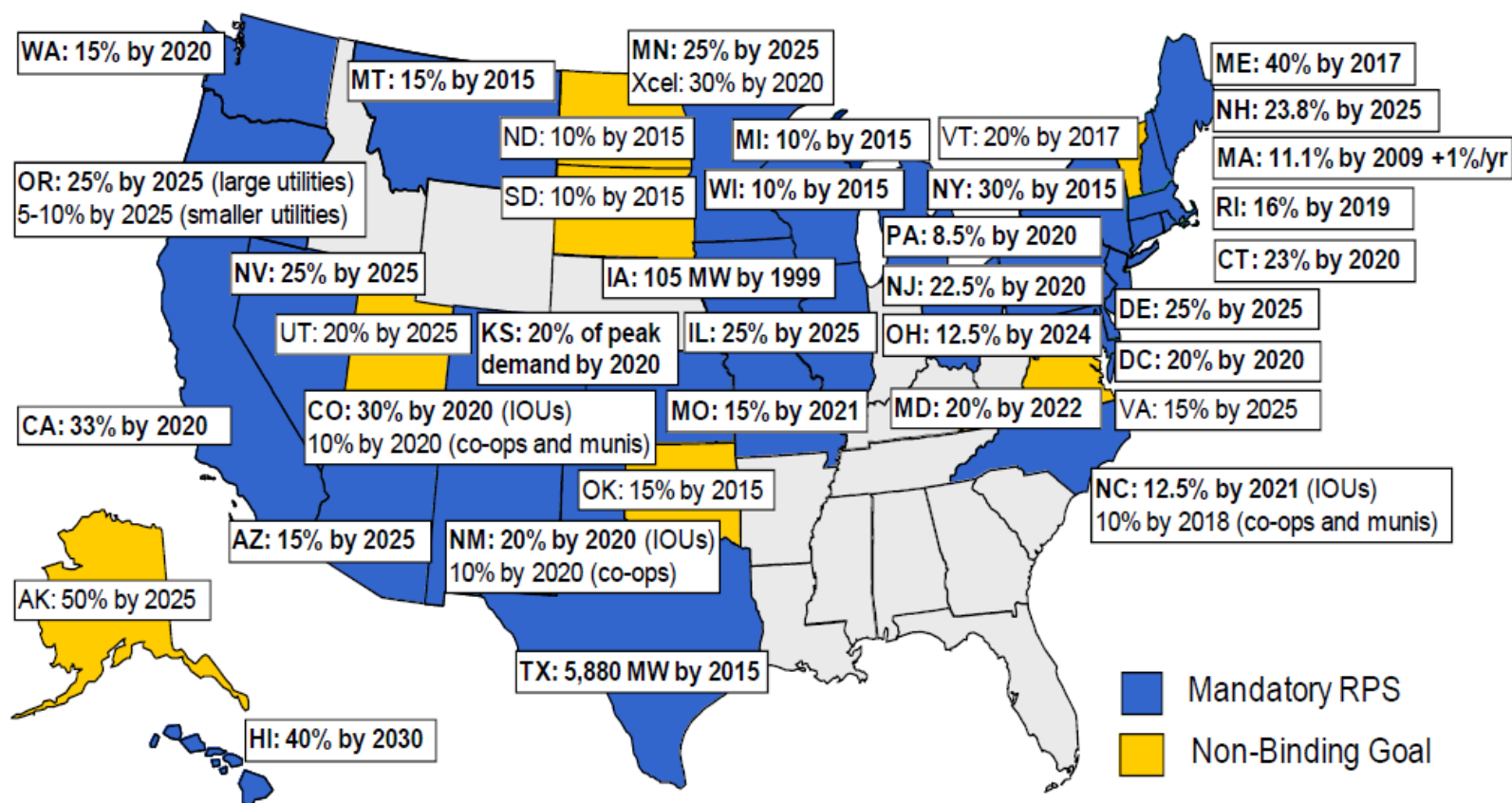
WECC Webinar on TEPPC Load, Energy Efficiency, and Demand-Side Management Modeling
October 27, 2010

Energy Analysis Department Electricity Markets and Policy Group



- LBNL assisted WGA and WECC with modeling energy efficiency and demand response in western transmission planning at direction of PUC commissioners
- Developed reference case and High DSM scenarios
- Found errors in energy efficiency savings embedded in load forecasts – West needs ~20 less large pwr plants in 2020

LBNL: Tracking Design and Experience with State RPS Policies



Source: Berkeley Lab

- Provided April 2011 targeted technical analysis for DOE PI on Federal–State issues for POTUS CES analyses

LBNL: Analysis of Short-Term Variability of Solar Power

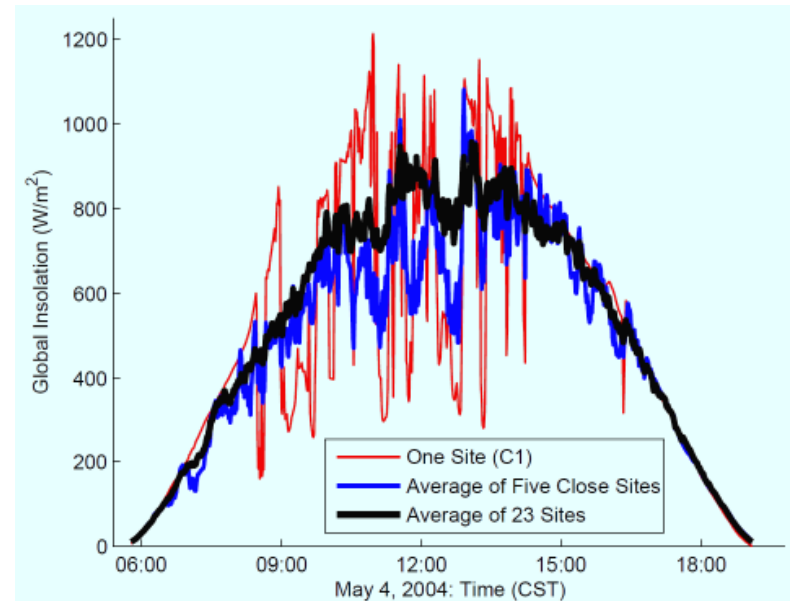
Implications of Wide-Area Geographic Diversity for Short-Term Variability of Solar Power

Andrew Mills and Ryan Wiser
Lawrence Berkeley National Laboratory

September 2010

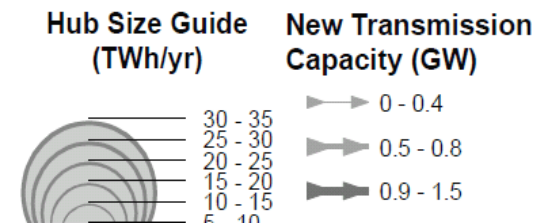
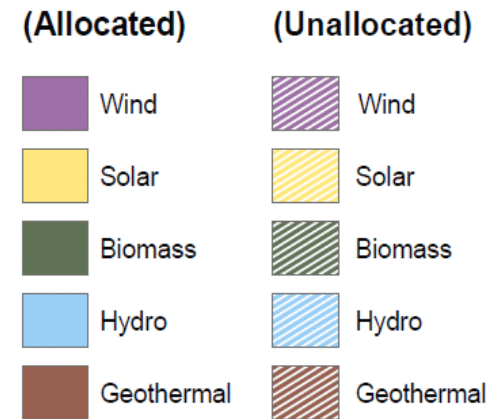
This analysis was funded by the U.S. Department of Energy, Office of Electricity Delivery and Energy Reliability and Office of Energy Efficiency and Renewable Energy

Energy Analysis Department



- Building of large PV plants is causing integration concerns worse than for wind due to fast ramp rates from clouds -- how to address??
- Assessed short-term variability of PV due to clouds for individual large vs using dispersed aggregated central station sites
- Estimated reduction in costs of short-term balancing reserves with geographic smoothing

LBNL Modeling for WGA'S WREZ Initiative Confirmed Load Serving Entities Desires to Buy Nearby RE & Use Less Long Transmission Than Many Assumed



Source: Mills, A., A. Phadke, and R. Wiser. 2011. "Exploration of resource and transmission expansion decisions in the Western Renewable Energy Zone initiative." *Energy Policy* 39 (3) (March): 1732-1745.