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**California Energy Commission
IEPR Lead Commissioner Workshop**

Evaluating and Capturing Benefits of Renewable Energy for California

April 12, 2012 – 9:00 a.m.

AGENDA

Introduction

Suzanne Korosec, IEPR Lead

Opening Comments

Commissioner Carla Peterman, Lead Commissioner
Chair Robert Weisenmiller

Workshop Goals

Katie Moore, Energy Commission staff

Panel 1: Assessing Public Benefits of Renewable Energy Generation

Moderator: Al Alvarado, Energy Commission staff

Panelists: Arne Olson, E3 Consulting
James Nelson, UC Berkeley
Warren Leon, Clean Energy States Alliance
Mark Rothleder, California Independent System Operator
Shana Lazerow, Communities for a Better Environment
Ben Machol, US Environmental Protection Agency
Margaret Mann, National Renewable Energy Laboratory

Questions to consider

1. *Aside from those that are already sufficiently captured in current policies, what public benefits can various renewable technologies provide? Which benefit(s) is the most important driver for increased penetration of renewable energy?*
2. *To what extent do renewable energy resources reduce localized pollution impacts and provide public health benefits?*
 - a. *Are there particular locations or siting strategies to maximize public health benefits?*

3. *How should we determine the best renewable energy resources, development locations, or siting strategies to maximize the reliability benefits of renewable energy resources?*
4. *Under what circumstances will renewable resources displace and/or replace higher pollution generation (or generators with higher environmental impacts) in the short-term and for long-term resource planning studies (2020, 2030, 2050)?*
5. *What is the size and significance of the public benefits that have been identified by the panel? What's the value (e.g., estimated \$/MWh)?*
6. *What is the size and significance of renewable energy benefits for local government such as tax revenues, property taxes, sales tax, and land leases?*
7. *To what extent do methods and tools sufficiently assess the benefits of renewable energy? Are those methods and tools publicly available?*
8. *What drives the uncertainties in estimates of future benefits of renewable energy? How can these uncertainties be reduced?*
9. *How can the state maximize the value of renewable resources? For example, what can the state do to further improve forecasting and visibility of generation from systems connected to distribution lines?*

Panel 2: State and Local Policies and Programs to Capture Public Benefits of Renewable Energy

Moderator: Gary O'Neill, Energy Commission staff

Panelists: Damon Franz, California Public Utilities Commission
 Steve Cliff, California Air Resources Board
 Sandra Schubert, California Department of Food and Agriculture
 Bill Snyder, CAL FIRE
 Mark Rothleder, California Independent System Operator
 Tim Snellings, Butte County Dept. of Development Services
 Steve Weissman, UC Berkeley's Center for Law, Energy, & the Environment

Questions to consider

1. *How does your agency incorporate the benefits of renewable energy into its policy decisions?*
 - a. *Describe your agency's policies or programs that use benefit values of renewable energy.*
 - b. *What benefits are considered? Which ones are not and why?*
 - c. *How are the benefits quantified?*
 - d. *What assumptions are used?*
2. *What are the barriers to incorporating those factors that are not yet accounted for into policy decisions?*
 - a. *Are there data and information gaps that should be addressed? Where are these gaps?*

- b. *Is your agency's statutory authority sufficient to appropriately identify, quantify, and incorporate these benefits into its policy decisions?*
 - c. *Are there other priorities or policies that prevent your agency from incorporating these factors into decisions?*
 - d. *What regulatory barriers or revenue impacts do cities/counties face in siting new renewable energy projects in locations that best capture these benefits? What work is underway to address these issues?*
- 3. *What would be required to overcome the barriers identified in the answers to question 2 above?*
- 4. *To what extent does electricity procurement by utilities address the public benefits of renewable energy generation?*
- 5. *Are renewable resources that displace fossil fuel resources, distribution upgrades, or transmission upgrades being appropriately rewarded?*
- 6. *Are renewable technologies that minimize integration costs and contribute to a diverse energy portfolio being appropriately rewarded?*
- 7. *How can public policy better incentivize social benefits from renewable energy?*
- 8. *What non-energy programs can provide revenue streams to help capture social benefits from renewable energy for California (e.g., grants to improve forest health and reduce wildfire hazard, income generated from fertilizers and fiber resulting from anaerobic digestion, the sale of fly ash to cement manufacturers)?*

Lunch (approximately 12:30 - 1:30 p.m.)

Panel 3: Stakeholder Experience and New Ideas to Better Capture Benefits of Renewable Energy

Moderator: Kate Zocchetti, Energy Commission staff

Panelists: Aaron Johnson, Pacific Gas & Electric
 TBD, San Diego Gas & Electric
 Marc Ulrich, Southern California Edison
 Andrew McAllister, California Center for Sustainable Energy
 Cindy Montanez, Los Angeles Department of Water & Power
 Nicole Capretz, California Environmental Justice Alliance
 Steven Kelly, Independent Energy Producers Association
 Craig Lewis, Clean Coalition
 Lori Schell, UC Irvine/Empowered Energy
 Laura Wisland, Union of Concerned Scientists

Questions to consider

- 1. *How do current policies or programs capture benefit values of renewable energy?*
 - a. *What benefits are considered? Are these benefits evenly distributed across communities, including low income and environmental justice communities?*
 - b. *How are the benefits quantified?*

- c. What assumptions are used?*
- 2. What are the barriers to expanding the inclusion of other benefits of renewable energy into policies and programs?*
 - a. Are there data and information gaps that should be addressed? Where are these gaps?*
 - b. Do state agencies have authority to appropriately identify, quantify, and incorporate these benefits into current programs?*
 - c. Are there other priorities or policies that prevent providing incentives to better capture benefits of renewable energy?*
- 3. What would be required to overcome the barriers identified in the answer to Question 2?*
- 4. What are the major uncertainties about benefits of renewable energy and how can we reduce these uncertainties?*
- 5. How is renewable energy valued for resource adequacy?*

Public Comments

Adjourn (approximately 5:00 p.m.)

Links for Discussion at the April 12, 2012 IEPR Workshop on Evaluating and Capturing Renewable Energy Benefits

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