



**California Energy Commission
IEPR Committee Workshop
Energy Storage for Renewable Integration**

April 28, 2011 – 9:30 AM

Hearing Room A

AGENDA

Introduction

Suzanne Korosec, IEPR Lead

Opening Comments

Chair Robert Weisenmiller, Presiding Member
Commissioner Karen Douglas, Associate Member

Presentations

Workshop Overview - Energy Storage for Renewable Integration

Mike Gravely, Energy Commission

Strategic Analysis and 2020 Energy Storage Vision for California

Ethan Elkind, University of California, Berkeley / Byron Washom, University of California, San Diego

CPUC's AB 2514 Energy Storage Systems Proceeding - An Update

Michael Colvin, California Public Utilities Commission

Energy Storage for Managing the California Grid and Integrating 33% Renewables

Mark Rothleder, California Independent System Operator

Federal Perspective of Energy Storage and its Role in the Energy System

Michael Kintner-Meyer (Imre Gyuk), United States Department of Energy

Panel Moderator: Mike Gravely

**PANEL 1: Need for Energy Storage (Renewable Portfolio Standard, AB 32 Greenhouse Gas Reductions,
Smart Grid and Demand Response)**

Amanda Stevenson, Xtreme Power (California Energy Storage Alliance)

Mark Rothleder, California Independent System Operator

Dan Rastler (Robert Schainker), Electric Power Research Institute

How can Energy Storage help California achieve the Renewable Portfolio Standard?

How will Energy Storage help California achieve AB 32 Goal?

How can distributed energy storage be used to help California achieve its future energy goals?

*What can be done to better define the role of energy storage in the California Grid of the future?
What can be done to support the implementation of the Assembly Bill 2514 Energy Storage
development, demonstration, and deployment plan activities?*

LUNCH (12:30 p.m. – 1:30 p.m.)

PANEL 2: Energy Storage Applications and Economics (Costs, Benefits and Revenue)

David Nemptzow, Ice Energy (California Energy Storage Alliance)

Dave Hawkins, KEMA Inc.

Dan Rastler (Robert Schainker), Electric Power Research Institute

Doug Divine, Eagle Crest Energy

Michael Kintner-Meyer, Pacific Northwest National Laboratory

John Bryan, Fleet Energy Company

Matt Stucky, Abengoa Solar, Inc.

David Ashuckian, California Public Utilities Commission

What are the cost estimates for the increased use of energy storage?

How can the benefits of energy storage best be quantified?

*What revenue mechanisms are available to ensure energy storage plays the appropriate role in the
California grid of the future?*

*What will be the specific economics and cost-benefit data that needs to be developed to support
the implementation of the Assembly Bill 2514 Energy Storage development,
demonstration, and deployment plan activities?*

PANEL 3: Utilities' (Investor and Publicly Owned) Perspective of Energy Storage

Mark Irwin, Southern California Edison

Antonio Alvarez, Pacific Gas and Electric

Mike Turner, San Diego Gas and Electric

Mark Rawson, Sacramento Metropolitan Utility District

Mohammed Beshir, Los Angeles Department of Water and Power

Michael Colvin, California Public Utilities Commission

How does the role of energy storage differ from the utility or market perspective?

Who should own grid connected energy storage?

*How will the utilities implement the Energy Storage development, demonstration and deployment
plan for meeting the AB 2514 requirements?*

Next Steps for Developing Recommendations on Energy Storage

Mike Gravely, Energy Commission

Public Comments

Closing Remarks

Adjourn 4:30 p.m.