



California Energy Commission
Staff Workshop
***An Exploration of Advancements in Energy Storage in California since the
American Recovery and Reinvestment Act***
December 1, 2014 – 9:00 a.m.
Sacramento, California
Hearing Room A

Introduction

Mike Gravely, California Energy Commission

Opening Comments

Chair Robert Weisenmiller, California Energy Commission
Commissioner Carla Peterman, California Public Utilities Commission

A Federal Perspective on Energy Storage Technologies

Dan Borneo, Sandia National Laboratories

Energy Commission Funded Activities that are Supporting Energy Storage

1) California's Energy Storage Roadmap

Presenter, Heather Sanders, California Independent System Operator

2) California's Energy Storage Protocol

Presenter, Mike Gravely, California Energy Commission

Research Showcase: Energy Storage

Moderator, Eli Harland, California Energy Commission

- 1) Bret Adams, EnerVault Corporation
Iron Chromium Redox Flow Battery
- 2) Andrew Marshall, Primus Power Company
Zinc Halogen Flow Battery
- 3) Michael Firenze, Harper Construction and Quantum Energy Storage Corporation
Camp Pendleton Fractional Grid with Advanced Energy Storage
- 4) Mark Rawson, Sacramento Municipal Utility District
Smart Grid Pilot at Anatolia
- 5) Camron Gorguinpour, United States Air Force
Los Angeles Air Force Base Vehicle-to-Grid
- 6) Jon Erik Thalman, Pacific Gas and Electric Company and Robert Schainker, Electric Power Research Institute
Sodium Sulfur Batteries and Performance Monitoring

Perspectives on the Future Role of Energy Storage from California Investor Owned Utilities

- 1) Charlie Post, Pacific Gas and Electric Company
- 2) Armando Infanzon, San Diego Gas and Electric
- 3) Mark Irwin, Southern California Edison

Next Steps for Energy Storage at the California Energy Commission

Presenter, Fernando Pina, California Energy Commission

- 1) First EPIC Investment Plan for “Developing Advanced Energy Storage Technology Solutions to Lower Costs and Achieve Policy Goals”
- 2) Next Steps for Energy Storage under the EPIC Program

Open Discussion and Closing Comments