

California Energy Commission

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California Energy Commission Staff Workshop

Combined Heat and Power to Support California's Energy and Environmental Goals

July 14, 2014 – 9:00 a.m.

Agenda

Introduction and Workshop Goals

Jason Harville, California Energy Commission

Presentation on CHP and AB 32

Dave Mehl, California Air Resources Board

Panel 1: Value and Benefits of Combined Heat and Power (CHP)

Moderator: Jason Harville, California Energy Commission

Panelists: Tom Beach, Crossborder Energy

Cherif Youssef, Southern California Gas Company

Keith Davidson, DE Solutions

Dorothy Rothrock, California Manufacturers and Technology Association

Rizaldo Aldas, California Energy Commission

Sidney Davies, California Independent System Operator Michael Alcantar, Cogeneration Association of California

Beth Vaughan, California Cogeneration Council Evelyn Kahl, Energy Producers and Users Coalition

Joel Bluestein, ICF International

Questions for Panel

- 1. What value and/or benefits can CHP facilities provide to customers, communities, grid operators, and the state? (Some panelists will give small presentations on different benefits and/or values)
- 2. How should the State recognize these values in a way that will encourage development of new CHP projects in California?
- 3. What types of research will support the development of new CHP in California?

Questions from the Public

Panel 2: Update on Small CHP Market in California (up to 20 MW)

Moderator: Keith Davidson, DE Solutions

Panelists: Debbie Chance, Chevron

Steve Acevedo, Regatta Solutions

David Erickson, California Public Utilities Commission

Jim Reilly, Reilly Associates Adam Robinson, Solar Turbines

Casey Houweling, Houweling's Tomatoes

Questions for Panel

- 1. What are the most significant factors that contribute to the decision by a public or private developer to invest in CHP?
- 2. What economic and/or regulatory challenges lead to project delays or failure?
- 3. How can the State support the development of an active market for small CHP development?
- 4. What are new opportunities and applications for small CHP development?

Questions from the Public

Lunch

Presentation and Update on California Public Utilities Commission LTPP and QF Settlement Proceedings

Damon Franz and Noel Crisostomo, California Public Utilities Commission

Questions from the Public

Overview of Papers Evaluating CHP Performance

Presentation of Evaluating the Greenhouse Gas Performance of Combined Heat and Power Systems: A Summary for Californian Policymakers – Ray Williams, Pacific Gas & Electric

Presentation of CHP's Potential to Reduce GHG Emissions in California: Evaluation of a June 2013 CRRI Conference Paper – Joel Bluestein, ICF International

Presentation of CHP and Greening the Grid - Cliff Rochlin, Southern California Gas Company

Questions from the Public

Overview of CHP Performance Standards

Presentation on the Reference Electrical Generation Unit and Boiler Efficiency used to calculate CHP Program Performance Standards – Jason Harville, California Energy Commission

Presentation on Boiler Efficiencies - Dale Fontanez, Southern California Gas Company

Presentation of a Proposed Methodology for Estimating Fuel Displacement for California Electricity Reductions - Bryan Neff, California Energy Commission

Panel 3: Calculating GHG Emissions Reductions from CHP

Moderator: Ivin Rhyne, California Energy Commission

Panelists: Michael Alcantar, Cogeneration Association of California

Dave Barker, San Diego Gas & Electric

Joel Bluestein, ICF International

Sonika Choudhary, Pacific Gas & Electric

Keith Davidson, DE Solutions

Evelyn Kahl, Energy Producers and Users Coalition

Bryan Neff, California Energy Commission
Cliff Rochlin, Southern California Gas Company

Katie Sloan, Southern California Edison

Beth Vaughan, California Cogeneration Council

Ray Williams, Pacific Gas & Electric

Questions for Panel

1. What type of CHP program performance standards should be used in California and why?

- 2. Should there just be one or should we continue to use different standards for different programs? Please explain why.
- 3. What are the most effective methods for determining boiler efficiency and grid electric heat rate for displaced resources?
- 4. Is the Energy Commission staff's proposed approach to estimating fuel displacement reasonable? If not, please explain why.

Questions and Summary Comments from the Public

Next Steps - Jason Harville