

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



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Order Instituting Rulemaking Regarding
Policies, Procedures and Rules for the California
Solar Initiative, the Self-Generation Incentive
Program and Other Distributed Generation
Issues

Rulemaking 10-05-004
(Filed May 6, 2010)

**THE DIVISION OF RATEPAYER ADVOCATES' COMMENTS
ON STAFF PROPOSAL REGARDING MODIFICATIONS TO THE SELF-
GENERATION INCENTIVE PROGRAM**

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I. INTRODUCTION

Pursuant to the September 30, 2010 Administrative Law Judge's Ruling Requesting Comments on Staff Proposal Regarding Modifications to the Self-Generation Incentive Program (ALJ Ruling), the Division of Ratepayer Advocates (DRA) submits the following comments on the "Staff Proposal Regarding Modifications to the Self-Generation Program (SGIP)" issued September 7, 2010 (Staff Proposal), DRA recommends:

- SGIP should only support technologies with cost-effectiveness results that meet the Societal Total Resource Cost (TRC) Test,
- implementing a Hybrid Performance Based Incentive (PBI) model,
- adoption of a modest incentive decline to facilitate self-sufficiency and cost reductions in the market for SGIP technologies, and
- limiting export of electricity from SGIP facilities in certain circumstances to facilitate optimal and efficient sizing of Distributed Energy Resource (DER) technologies.

II. DISCUSSION

A. DRA Does Not Support Technologies With Cost-Effectiveness Results That Fail The Societal Total Resource Cost (TRC) Test.

DRA supports the staff recommendation¹ that only those technologies that meet the first guiding principle of cost-effectiveness, the second guiding principle of reducing greenhouse gas emissions (GHG) and the third guiding principle of financial need be eligible for SGIP. Only those technologies that are cost effective or have the potential to become cost effective in the near future should be considered for eligibility.

Itron presented updated cost-effectiveness and technology cost information on past and proposed technologies on November 1, 2010, which should change the preliminary recommendations of the Staff Proposal.² The Distributed Generation Cost-Effectiveness SGIP Model demonstrated the following technologies failed the Societal TRC Test:

- Wind Turbine (10kW residential wind)
- Fuel Cell - Electric Only (Natural Gas, On-site biogas, Directed biogas)
- Fuel Cell- Combined Heat and Power (CHP) (Natural Gas and Directed Biogas)
- Gas Turbine – CHP (Natural Gas 1W, On-site biogas 1W, Directed biogas 1W, 3.5W)
- Microturbine – CHP (On site biogas, Directed biogas)
- Internal Combustion (IC) Engine – CHP (On site biogas 500kW, Directed biogas 500kW, 1500kW)

Storage³

DRA wants to highlight that most of the technology scenarios listed that have on-site and directed biogas as fuel sources fail the Societal TRC Cost-Effectiveness test. The

¹ Staff Proposal, Section 4.3 Technology Recommendations, p. 28.

² SP Table 1: SGIP Technology Eligibility Preliminary Results, p. 6; SP Table 3: SGIP Technologies Considered for Eligibility, p. 21.

³ Distributed Generation Cost-Effectiveness SGIPce Model, presented at CPUC Workshop November 1, 2010, slide 63.

Societal TRC test captures the GHG benefit that is a main criterion in the evaluation of proposed SGIP technologies. Currently fuel cell technologies are participating in SGIP, with directed biogas projects being the most common fuel source. Fuel cells have been demonstrated by the Staff Proposal and models to show a negative rate of return as well as a negative societal cost/benefit. This is a concern because Level 2 Renewable fuel cells receive a \$4.50 per watt incentive, which is much higher than other proposed technologies that provide positive cost/benefits and pass the Societal TRC Cost-Effectiveness test. DRA is also concerned with fuel cells using directed biogas as a fuel source because as a technology that fails the cost-effectiveness test it using a disproportionately large share of the current SGIP budget.

B. The Hybrid PBI Model Better Protects The Interests Of Ratepayers.

DRA supports a Hybrid PBI Model.⁴ Measurement and Evaluations (M&E) studies have revealed many CHP systems funded under the SGIP have ceased operating altogether; including 26 percent of those sampled in the April 2010 CHP Performance Investigation. CHP system capacity factors declined by an average of 5.9% per year, and CHP systems' hours of operation declined by an average of 8.2 percent per year.⁵

These results raise concerns of gaming the SGIP program or at the very least failing to structure the incentive to produce the desired results. Paying the full incentive upfront to CHP systems provides inadequate motivation to perform at the expected levels of efficiency. A Hybrid PBI Model would encourage projects to maintain and maximize performance over the project life.

⁴ Staff Proposal, Section 4.4.3 Hybrid Performance Based Incentive, p. 40-42.

⁵ Staff Proposal, Section 1.2 Incentive Mechanism, p. 6-7.

C. DRA Supports The Adoption Of A Modest Incentive Decline, To Facilitate Self-Sufficiency And Cost Reductions In The Market For SGIP Technologies.

DRA supports a decline in incentives every two years, with the first decline occurring on January 1, 2012.⁶ Adopting a declining incentive structure based on market penetration volumes, similar to that used in the CSI⁷ would promote consistent incentive design among the Commission's distributed generation programs and would follow a successfully implemented model.

D. DRA Supports Only Limited Export Of Electricity From SGIP Facilities In Certain Circumstances To Facilitate Optimal And Efficient Sizing Of DER.

As mentioned in the Staff Proposal,⁸ the intent of the SGIP is to facilitate self-generation to offset customer load. Allowing customers to export to the grid without any caps would not benefit ratepayers. SGIP facilities should not be permitted to sell unlimited amounts of subsidized electricity to the grid at market rates. This is not the intent of the SGIP program, nor a proper function of ratepayer money. As proposed by the Staff Proposal, customers should only be allowed to export a limited output to the grid in order to optimize system sizing. The Commission should clarify the contract and pricing terms under which the excess electricity would be exported.⁹

III. CONCLUSION

DRA respectfully recommends that the Commission, consistent with recommendations in the Staff Proposal, limit SGIP support to technologies with cost-effectiveness results that meet the TRC Test, implement a Hybrid PBI model, adopt a modest incentive decline to facilitate self-sufficiency and cost reductions in the market

⁶ Staff Proposal, Section 1.3, Incentive Decline, p.7.

⁷ D.06-12-033, Appendix B, Tables 2 and 3.

⁸ Staff Proposal, Section 4.5.4 Export of electricity to the grid, p. 49.

⁹ Currently CHP's have a few options of selling excess electricity to the grid; Contract under AB 1613 Program with pricing determined D.09-12-042, proposed CHP settlement, or sell to market without contract at wholesale rate.

for SGIP technologies, and limit export of electricity from SGIP facilities in certain circumstances to facilitate optimal and efficient sizing of DER.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of **“THE DIVISION OF RATEPAYER ADVOCATES’ COMMENTS ON STAFF PROPOSAL REGARDING MODIFICATIONS TO THE SELF-GENERATION INCENTIVE PROGRAM”** to the official service list in **R.10-05-004** by using the following service:

E-Mail Service: sending the entire document as an attachment to all known parties of record who provided electronic mail addresses.

U.S. Mail Service: mailing by first-class mail with postage prepaid to all known parties of record who did not provide electronic mail addresses.

Executed on **November 15, 2010** at San Francisco, California.

/s/ ALBERT HILL

Albert Hill