

BEFORE THE
PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

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COMMISSION

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In the matter of)
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HAWAIIAN ELECTRIC COMPANY, INC.)
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For Approval and/or Modification of)
Demand-Side and Load Management)
Programs and Recovery of Program Costs)
And DSM Utility Incentives.)
_____)

DOCKET NO. 05-0069
(Energy Efficiency Docket)

THE HAWAII SOLAR ENERGY ASSOCIATION'S
RESPONSE TO HAWAIIAN ELECTRIC COMPANY'S
INTERIM DSM PROPOSALS

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INTRODUCTION

The Hawaii Solar Energy Association (HSEA) submits these comments on the Hawaiian Electric Company's (HECO) Interim DSM Proposals filed with the Public Utilities Commission (PUC) on December 5, 2005 in accordance with the Schedule of Proceedings agreed to by the parties in their proposed Stipulated Prehearing Orders submitted to the PUC on October 7, 2005.

RESPONSE AND COMMENTS

HECO's interim DSM proposals are limited to a new residential CFL program and modifications to the existing Commercial and Industrial Energy Efficiency Program (CIEE), the Commercial and Industrial New Construction Program (CINC), and the Commercial and Industrial Customized Rebate Program (CICR).

The modifications to the CIEE and CINC Programs include increasing customer incentive levels to twenty-five percent (25%) of the incremental cost of the more efficient alternative measures. The modification to the CICR Program consists of eliminating the 2-year payback requirement. HECO states that these interim DSM proposals will reduce the peak load, in aggregate, by an additional 3.87 MW beyond anticipated capacity reductions without these changes.

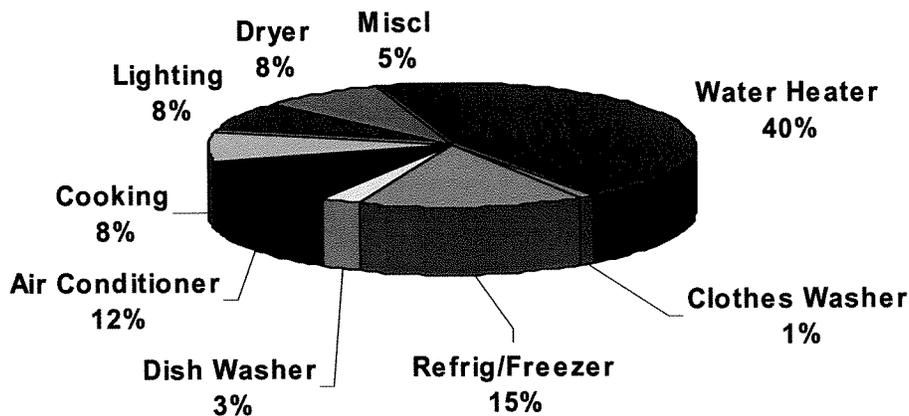
HECO's Interim DSM Proposals appear to have been chosen over other options because they are "significantly less involved and complex" than other DSM program enhancements and because they can be quickly implemented. While the HSEA concurs with HECO's characterization of the Interim DSM Proposals, i.e they are expeditious choices, we remain concerned that these Proposals fall far short of closing the reserve capacity shortfall chasm discussed in HECO's December 5, 2005 filing with the Commission.¹ Given the severity of the problem outlined – a 70 MW capacity shortfall in 2006 - the Interim Proposals are exceedingly modest.

The HSEA questions why HECO did not propose a more aggressive interim DSM package. The rationale offered by HECO for increasing the CIEE rebates, for example, appears to apply equally to the REWH and RNC programs. Participation in these programs over the past four years has declined.² In light of the fact that water heating remains THE single largest portion of the average residential bill³, i.e. the single largest residential DSM resource and a key determinant of peak demand, a more aggressive interim program is justifiable.

¹ Hawaiian Electric Co., Interim Demand-Side Management Proposals, December 5, 2005, page 6. HECO states that the magnitude of the shortfall is predicated on the implementation of the, "entire portfolio of ten DSM Programs proposed in its 2005 test year rate case".

² HSEA, Informal Comments on HECO's Interim DSM Proposals, November 17, 2005.

³<http://www.heco.com/CDA/default/0,1999,TCID%253D2%2526EmbedCID%253D0%2526CCID%253D2311%2526LCID%253D2321%2526CTYP%253DARTC,00.html>



From 1997 – 2000, an average of 2,313 REWH /RNC solar water heating systems were installed in the HECO service territory. From 2001 – 2004, this number **declined twenty-seven percent** to a yearly average of 1,700 installations. In 2005 the number of installations increased to 1,999, an improvement to be sure, but still significantly below previous yearly averages.⁴

As a point of reference, from 2001 – 2004, average MECO and HELCO program installations **increased** by 29% and 12% respectively over average annual sales for the period from 1997 – 2000. In 1995, a full year **before** program sales began on Oahu, 1,542 resident taxpayers claimed the State of Hawaii “energy device” tax credit according to the Department of Taxation.⁵ HSEA believes that nearly all of these claimants were homeowners.

MECO and HELCO currently provide a flat \$1,000 rebate for both retrofit and new construction. MECO, with approximately 11% of the state’s population, has provided 24% of the overall program installations since their inception in 1996. The Big Island, with 13% of the

⁴ HECO, Energy Services Department, Tri-Company Solar Count, 1996 – 2005.

⁵ State of Hawaii, Department of Taxation, Tax Credits Claimed By Hawaii Residents, 1995, Table 2, page 24.

state population, has provided 14% of the installations. With 72% of the state's population, Oahu has been responsible for only 63% of DSM system sales.⁶

An interim increase in ex ante REWH and RNC inducements should positively impact consumer perceptions of "cost effectiveness". In light of HECO's severe reserve margin shortfall, an increase in REWH and RNC rebates is relatively straight forward and easily implemented. Other program modifications, improvements and ex post issues relating to either program participants (contractors) and customer assurance issues require additional discussion and are best left for full debate during the Energy Efficiency Docket.

HECO states in their December 5, 2005 filing that the federal tax credit for solar water heating systems is expected to increase customer participation in the REWH and RNC programs. The HSEA concurs. The federal credits, however, were enacted in August, 2005 long after HECO had submitted their DSM and energy efficiency requests in the November 12, 2004 rate case (Docket No. 04-0113). Despite lagging participation in the REWH and RNC programs that was clearly apparent at the time, HECO **did not** request higher rebate levels for these two programs in their rate case filing. HSEA concludes that in November, 2004 HECO either did not believe higher rebate levels were justified despite declining program participation, which is troubling, or they assumed higher rebates would adversely impact the REWH and RNC program cost-effectiveness. This too is troubling, given the paucity of DSM options for residential ratepayers, and raises questions about the limitations of conventional measures of "cost-effectiveness".

In general, the HSEA supports HECO's interim CFL and C & I proposals. Appropriate rebate levels, however, remain the least quantifiable aspect of the entire DSM program process. HSEA presumes that all program rebates stand in relationship to avoided capacity costs, but

⁶ HECO, Energy Services Department, Tri-Company Solar Count, 1996 – 2005.

there are other market and behavioral considerations that may – or should - skew individual program rebates from a simple value proportionate to their overall system benefit. HSEA does not believe that a simple proportionate rebate structure for all DSM measures will necessarily lead to the desired adoption rate of the proposed program measures and technologies.

Markets for energy products and market conditions can vary considerably within the same community. More important, perhaps, both information about energy products per se and basic access to information is also inconsistent. This is especially relevant in regard to ratepayer/decision maker perceptions of the “cost effectiveness” of various energy efficiency technologies. Rebate levels should be designed to address and overcome known market barriers and failures as well as decision making impediments, such as incomplete or inaccurate information regarding costs, benefits and savings that may cause consumers/decision makers to undervalue rather than adopt new energy technologies, renewables and efficiency measures.

HSEA strongly supports a concept that we call ratepayer “off ramps”. Off ramps refer to efficiency and on-site renewable generation measures and options that provide ratepayers with more stable and predictable long-term energy costs, and lower their exposure to huge oil related rate increases. Renewable off ramps may conflict, on occasion, with the established regulatory definition of “economical electricity” generated at the “lowest reasonable cost”, but much hinges, of course, on what one considers reasonable.

Conflicting State of Hawaii policies and objectives that support or require the use of indigenous renewable energy resources to generate or displace fossil fuel fired electricity (RPS, Act 95 for example) while also requiring these measures to be immediately “cost effective” relative to non-renewable generation resources (and let us also add polluting, finite and declining)

is vexing. HSEA hopes that through this process the Commission and the participants will bring clarity to this paradox.

Can we have more renewables of all kinds, for example, **without** higher electricity prices? If so, why has the renewable procurement process been so doggedly slow? If not, how do we, as a state, propose to meet our obligations under HRS 226-18, HRS 334-3, and RPS? More centrally, how do we insulate ourselves from higher long-term electric rates by **increasing**, rather than decreasing, our dependence on oil to generate electricity if oil, or coal, happens to be more “cost effective” than some or all renewable options at a specific moment in time?

The PUC has stated that a key purpose of the Energy Efficiency Docket shall be to determine whether HECO’s Proposed DSM Programs are the most cost-effective methods of meeting increasing demand for electric services”.⁷ Elsewhere the PUC writes that more information is required to determine whether HECO’s DSM proposals are, “the best means of achieving energy savings”.⁸ HSEA believes that the best measures – especially renewable options that support RPS and benefit all categories of ratepayer – may not necessarily be the most immediately cost-effective options, but will provide other ratepayers benefits, e.g. insurance against future oil driven rate increases and price stability that our current models and analyses of “cost-effectiveness” seem to miss entirely.

Electric rates on Oahu have risen substantially over the past 12 months. Residential rates on Oahu in January (**excluding** customer charges) were 15.1 cents/kWh. In November, 2005 they had risen to 18.8 cents/kWh.⁹ The average Oahu residential ratepayer using 700 kWh per month has seen his electric bill increase by \$21.70 per month, or over \$260 a year. The situation is **much** worse on the neighbor islands where rates are even higher. HECO’s interim

⁷ PUC Docket 04-0113, Order No. 21698, establishing the Energy Efficiency Docket, page 10.

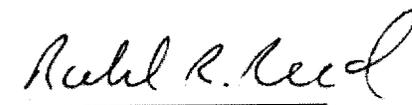
⁸ Ibid., page 11.

⁹ HECO rate summaries are filed with the PUC on a monthly basis.

6.6% residential rate increase, approved on September 28, 2005 is a small component of this increase, but high oil prices remain the real rate driver.

The HSEA hopes that the PUC will use the Energy Efficiency Docket to delineate more clearly the roll of energy efficiency and DSM within a comprehensive State of Hawaii energy strategy. Presently RPS, Act 95, allows HECO to count both renewables and “quantifiable energy conservation measures”. RPS does not establish goals or specific percentages for either renewables or efficiency within the statute. The HSEA believes that a Renewable Portfolio Standard should be just that: **Renewable**. The percentages required by RPS should reflect net electricity sales generated or displaced solely by qualifying renewables. The Energy Efficiency Docket is the proper forum in which to address the full costs and benefits of Hawaii’s energy efficiency and DSM resources, and to establish specific resource goals, an Energy Efficiency Portfolio Standard if you will, if deemed appropriate by the parties after full discussion.

Dated: January 10, 2006, Honolulu, Hawaii



Richard R. Reed, President

Hawaii Solar Energy Association

CERTIFICATE OF SERVICE

I hereby certify that I have this date served a copy of the foregoing Motion to Intervene upon the following parties, by causing a copy hereof to be personally served, or mailed, U.S. postage prepaid, and properly addressed to each such party.

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