March 25, 2010

VIA FIRST CLASS AND ELECTRONIC MAIL

Kristi Izzo
Secretary of the Board
State of New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102

Re: New Jersey Clean Energy Program programs and budgets for 2010
Docket No. EO07030203

Dear Ms. Izzo:

OPOWER Inc. ("OPOWER" f.k.a. Positive Energy) thanks the Board for the opportunity to participate in these proceedings. OPOWER is an energy efficiency software company working with utilities to engage customers and motivate large-scale reduction in residential energy consumption. We work with twenty-six utilities in twelve states across the country. Our clients include large investor-owned utilities, moderately sized municipal utilities, and small cooperatives. As detailed in Section II of these comments, in each deployment, OPOWER's Home Energy Reporting platform is achieving measurable, cost-effective energy savings.

We submit these comments to urge the Board to reconsider its decision to remove the OPOWER program from the 2010 Office of Clean Energy Residential Programs budget. We request that the Board reconsider its decision because the program (i) reliably generates a healthy return for New Jersey taxpayers' funds, (ii) strengthens the New Jersey economy without the need for subsidies (iii) maintain and generate jobs in the state by helping promote already existing utility programs, such as retrofits.

Two New Jersey utilities, New Jersey Natural Gas and South Jersey Gas ("NJNG" and "SJG", respectively), stand ready to deliver behavior-based programming to their ratepayers. By including OPOWER's program in the New Jersey 2011 budget, these utilities can move forward with their deployments of OPOWER's program. Based on EIA residential consumption data, as well as a 50,000 household-strong deployment as both utilities plan, behavior-based programming could if implemented statewide reliably save the state nearly 41 million therms, and 520 GWhs annually, or over $137 million in lower utility bills [2]. Moreover, at approximately three cents per kWh and fift-two cents per therm, these savings would be generated cost effectively. .
The attached comments detail more about OPOWER's approach to saving energy and the measurable, verifiable results our program has achieved to date. Specifically, these comments explain that:

(1) OPOWER's behavior-based programs empower consumers with useful information;
(2) These programs have generated measurable, verified results; and
(3) Leading states are including behavior-based programs in their efficiency portfolios

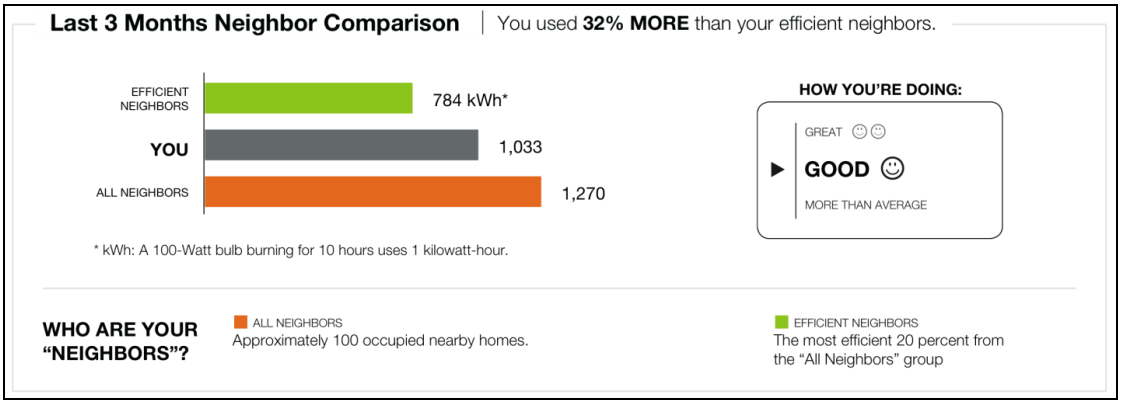
[2] source: http://www.eia.doe.gov/emeu/states/_seds_updates.html

I. OPOWER's behavior-based programs empower consumers with useful information.

Human behavior is the single largest untapped efficiency resource. The reason is straightforward – behavior impacts almost every facet of energy use in the home or business.[3] A customer's efficient furnace only delivers energy savings if the thermostat is set correctly. The value of an energy star washing machine is reduced if the consumer views the "Energy Star" label as a license to use the hot cycle. Often, the only way for renters to realize meaningful energy savings is to adjust their behavior. Behavior-based programs address this problem by motivating customers to take actions that result in measurable, large-scale energy savings.

OPOWER's specific approach to behavior-based efficiency is organized around two concepts – first motivating behavior change, and then providing relevant, targeted information to the motivated consumer. Combining utility supplied data with third party sources of information, our program translates individual usage patterns into meaningful insights coupled with targeted action steps.

Critically, OPOWER's Home Energy Reports, provide recipients with a context for understanding their energy use. OPOWER does this by dynamically creating a 100-home comparison group for each enrolled home. Home comparison groups are defined by a number of customizable variables, including square footage, heating type (gas or electric), and proximity (e.g., within 0.25 miles. Years of behavioral science research have demonstrated that peer based comparisons is a highly motivating way to present information. A sample neighbor comparison module is shown below.



Second, customers receive individually targeted savings tips based on their individual energy usage patterns, housing characteristics, and demographics. Instead of presenting customers with a thick booklet of ideas on how to save energy, OPOWER presents customers with only the most relevant and immediately actionable suggestions on how to save. For example, OPOWER would not suggest that a renter insulate his apartment, but might recommend smart thermostats to owner-occupied homes with high heating bills.

[3] McKinsey and Company. *Unlocking Energy Efficiency in the US Economy*. Page 22

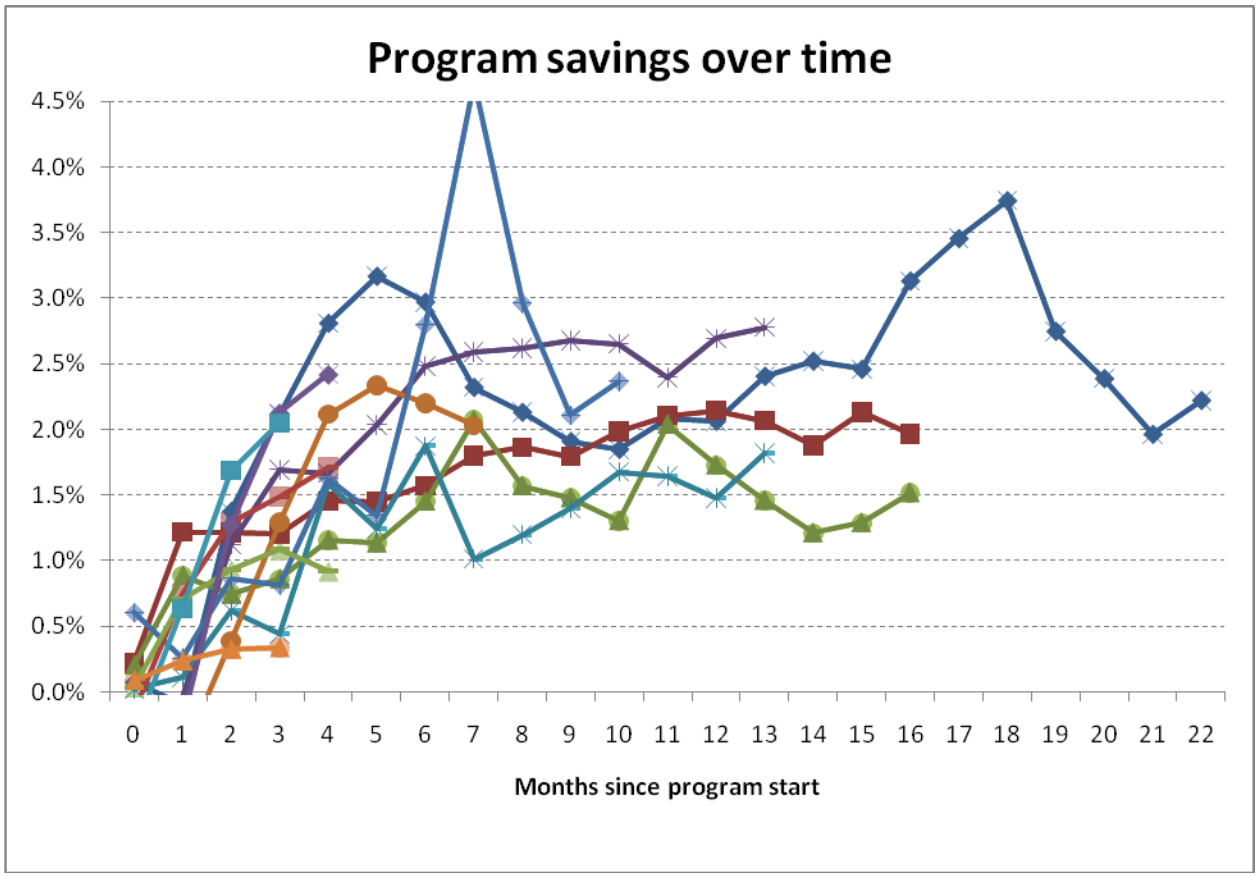
This program is able to turn small changes into large scale efficiency because of an "opt out" program design with an emphasis on mailed reporting. Mailed reports enable OPOWER to engage the majority of targeted customers and enable the delivery of large-scale energy savings – this has proven to be true even in the most computer-savvy parts of New Jersey. By using mail, OPOWER's messaging reaches all demographic groups, including low income and elderly populations. Mailed reports under the utility brand create the opportunity for a high participation rate (estimated to be as high as 85% in one study), which means that small savings on a per household basis add up to significant savings in aggregate.[4]

II. Behavior-based programs generate measureable, verified results.

OPOWER's behavior-based approach has been consistently effective. Results have been particularly strong with current OPOWER clients, such as Puget Sound Energy ("PSE") in Seattle. PSE households receive information about both gas and electric consumption in a single report. PSE households are saving an average of 187 kwh and 11.2 therms per year, the equivalent of 1.7% and 1.2% of their overall consumption. Moreover, these savings have been increasing as the program matures. Savings for the first six months of the program were 1.15% for electricity and 0.87% for natural gas; for the last six months savings have been 2.04% and 1.43% for electricity and natural gas, respectively.

Figure 1 shows the consistency of savings that OPOWER utility partners achieve through Home Energy Reporting:

[4] Summit Blue. *Impact Evaluation of OPOWER SMUD Study*. September 2009. <http://www.opower.com/LinkClick.aspx?fileticket=naU7NN5-430%3d&tabid=72> In its letter of March 19, 2010, Public Counsel missed this critical point. There is no question that a 1.5% percent energy savings is an individual home is not particularly significant. Behavior-based programs, however, are demonstrated to save an *average* of 1.5% percent per home.



These results have been independently verified. Summit Blue, an industry leading evaluation firm, has verified OPOWER's impact in Sacramento.[5] Professor Ian Ayers, of Yale University, has verified OPOWER's impact with Puget Sound.[6] Professor Hunt Allcott, of the Massachusetts Institute of Technology, has verified OPOWER's savings with Connexus Energy.[7] Moreover, Professor Allcott and Professor Sendhil Mullainathan, of Harvard University, recently published a peer reviewed discussion of OPOWER's approach in *Science*, the leading journal of the natural sciences. [8] Each evaluation has come to the same, simple conclusion: OPOWER's behavior-based programs are a significant and cost-effective source of energy savings.

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[5] Summit Blue. *Impact Evaluation of OPOWER SMUD Study*. September 2009. <http://www.opower.com/LinkClick.aspx?fileticket=naU7NN5-430%3d&tabid=72>

[6] Ayres, Ian. *Evidence from Two Large Field Experiments that Peer Comparison Feedback Can Reduce Residential Energy Usage.* July 2009. Available online at: <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1434950>

[7] Alcott, Hunt. *Social Norms and Energy Conservation.* February 2010. Availabe online at: <http://web.mit.edu/allcott/www/Allcott%202010%20-20Social%20Norms%20and%20Energy%20Conservation.pdf>

[8] Alcott, Hunt and and Sendhil Mullainathan. *Behavior and Energy Policy.* Science. March 2010. Available online at: <http://web.mit.edu/allcott/www/Allcott%20and%20Mullainathan%202010%20-%20Behavioral%20Science%20and%20Energy%20Policy.pdf>

III. Leading states are including behavior-based programs in their efficiency portfolios.

The strong, verified results from these large-scale pilots have been central to the support of regulatory authorities in several states for utility filings that include large behavior-based savings. So far, decision makers in Massachusetts, Minnesota, and now California have supported utilities in including behavior-based programs as part of a broad energy efficiency portfolio.

- Massachusetts – The Massachusetts Department of Energy Resources ("DOER") is allowing IOUs in Massachusetts to count savings generated by OPOWER's program towards their state-mandated energy savings targets. In a filing approving these goals, the DOER noted that "one successful organization upon whose work the Program Administrators [utilities] would like to build is Positive Energy [now OPOWER], a corporation that is committed to persuading consumers to save energy through a combination of technology, analytic direct marketing, and behavioral science."[10] In total, OPOWER's programs will account for 24% of the residential efficiency portfolio for electric consumption and 20% for gas.

Savings claimed for OPOWER's program by National Grid (MA)

	Total kWh saved	Number of Households	Total Annual kWh saved per HH
2010	26,000,000	100,000	260 kWh
2011	52,000,000	200,000	260 kWh
2012	74,520,000	300,000	248 kWh

- Minnesota – Minnesota's OES has approved two of the state's largest utilities, Centerpoint Energy and Minnesota Energy Resources Corporation (MERC) to count savings generated by OPOWER's programs to their state-mandated energy efficiency targets.

Savings claimed for OPOWER's program by Centerpoint Energy (MN)

	Total Mcf Saved	Number of Households	Total Annual Mcf saved per Household
2010	85,250	50,000	1.71 Mcf
2011	127,875	75,000	1.71 Mcf
2012	139,035	100,000	1.71 Mcf

[10] Massachusetts Joint Statewide Three-Year Electric Efficiency Plan: 2010-2012. Page 238

After reviewing filings including OPOWER's program, OES was effusive in its praise of behavior-based programming:

> *OES Staff are pleased to see that CPE [Centerpoint Energy] will be starting the Residential Home Energy Reports project in 2010. Recent evaluations of programs across the country and in Minnesota suggest that home energy reports are a cost-effective way to educate customers and encourage energy saving behavior. CPE plans to include 225,000 residential customers, approximately 30 percent of the Company's residential customers, in this program by the third year of its triennial plan. This project is also expected to be one of the largest drivers of new energy savings in the Company's Residential Segment. CPE's program provider, Positive Energy [now OPOWER], reports that customers receiving a home energy report typically reduce their energy use by 1.5 to 3 percent. Based on this information, the Company estimates that households receiving home energy reports will reduce their energy use by 1.55 percent or 1.71 MCF annually. OES Staff believe that this is a reasonable assumption at this time. In future filings, the energy savings claimed by the Company should reflect the actual energy savings associated with the project based on measurement and verification by Positive Energy [now OPOWER].*[11]

- California – Earlier this month, the California Public Utilities Board issued a proposed decision allowing California's investor owned utilities to "count" savings achieved through behavior based programs, like OPOWER's. The Board noted that experimental design, as described above, "is well equipped to deal with most of the analytical issues raised by the overlap of the savings targeted by comparative energy use reports."[12] A final decision is expected in April.

IV. Conclusion

With more than a year of results in Massachusetts, and nearly two-years of results from comparable deployments, behavior-based programs are now a proven, measureable efficiency resource. Moreover, because the program's results are measured after they are achieved, the risk of expansion is borne entirely by OPOWER. OPOWER urges the Board to support behavior-based energy efficiency programs and to provide the necessary resources for NJNG and SJG to move forward with their Home Energy Reporting deployments.

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[11] Minnesota Office of Energy Security. *Proposed Decision.* October 2009. Page 23. Behavior-based programming was approved in the Final Decision dated November 23, 2009.

[12] California Public Utilities Commission, Proposed Decision, March 9, 2010, available at http://docs.cpuc.ca.gov/efile/PD/114662.pdf.

Kate Morecraft

From: Robinson, Maria [robinsonm@conedenergy.com]
Sent: Wednesday, March 31, 2010 1:00 PM
To: OCE
Subject: RPS Rule Revisions Stakeholder Group

Please add the following people to the mailing list for the RPS Rule Revisions Stakeholder Group, as well as the RE listserv. When and where will the next meeting be held? Will the meeting include a discussion of the recent utility SREC solicitations, as directed by the Board?

Thank you.

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