APPENDIX EXHIBIT 8

Evaluation Report: OPOWER SMUD Pilot Year2

Presented to

OPOWER , Inc.

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Executive Summary

Information technologies designed to assist and encourage customers to use less energy are increasing in the industry. OPOWER, Inc. offers an information program to help residential customers manage their electricity use by providing regular reports –called Home Electricity Reports—about the customer's electricity consumption. Along with other information, these reports compare a household's electricity use to that of its neighbors and suggest actions the household can take to reduce its electricity use. It is hypothesized that presentation of energy use in this comparative fashion creates a "social nudge" that induces households to reduce their electricity use.

This hypothesis is being tested in a three-year pilot of the OPOWER program in the Sacramento Municipal Utility District (SMUD) that began in spring 2008. The program consists of an experimental design across Census blocks in which blocks were randomly assigned to treatment and control groups. 35,000 single-family residential customers in the treatment group receive regular reports on how their energy use compares to their neighbors' energy use. Treatment households with high consumption in 2007 receive monthly reports, and households with low consumption receive quarterly reports. 50,000 single-family customers in the control group did not receive any reports. Billing data has been assembled for all customers beginning the year prior to the start of the program.

Several studies have examined the results of the first year of the SMUD OPOWER pilot program, including an analysis done by Summit Blue Consulting (now part of Navigant Consulting). All studies concluded that program savings in the first year was about 2.1%. The robustness of the savings estimates across studies is due largely to the experimental design of the program. The experimental design makes the identification of program savings robust to the specification of the econometric model used to estimate savings.

This report presents an evaluation of the first 29 months of the program, with an emphasis on the second year of the program. The main research questions addressed in the evaluation and presented in this report are the following:

A. Does the program continue to generate savings?
B. What is the trend in program savings? Is there a ramp-up period to savings? If so, for how long? Are savings now relatively stable, increasing, or falling?
C. Do program savings increase with usage?

A. Does the program continue to generate savings?

The program continues to generate savings:

- Average savings in program Year 2 were 2.89% for high consumption (HC) households receiving monthly reports, and 1.70% for low consumption (LC) households receiving quarterly reports.
- Year 2 average household savings is 381 kWh for HC households and 104 kWh for LC households.
- Average household savings through the first 29 months of the program is 878 kWh for HC households and 234 kWh for LC households.

B. What is the trend in program savings?

Program savings are characterized by temperature-driven seasonal fluctuations around a baseline trend. For HC households, the baseline trend ramped up through the first 10-12 months and appears to have remained fairly constant since then:

- Average percent savings in program Year 2 are higher than in Year 1, 2.89% compared to 2.37%, which is a 22% increase in savings in the second year. The increase is statistically significant.
- Statistical analysis indicates that the long term trend for savings leveled off at about 10-12 months, and has remained fairly constant since then. In other words, after the first year of the program the fundamental effectiveness of the program does not appear to have changed substantially.
- Statistical analysis supports a long term savings trend of about 380 kWh per year, approximately 2.9% per year.
- Additional analysis after the program has been in place for a full three years, with data for at least three occurrences of each season, should give a better indication of whether the long term trend in savings is indeed constant or instead showing signs of rising or falling.

For LC households, program savings continue to trend upward:

- Average percent savings in program Year 2 are higher than in Year 1, 1.70% compared to 1.25%, which represents a 36% increase in savings.
- Statistical analysis indicates that program savings continue to trend upward through the first 29 months of the program.

C. Do program savings increase with electricity use?

For both HC and LC households, program savings reveal strong seasonal effects, with savings highest in the seasons of highest electricity use, summer and winter. For instance, in Year 2 (spring 2009-winter 2010) the average kWh savings for HC households in the seasonal sequence spring-summer-fall-winter was 80-123-84-97 kWh. The same sequence for LC households was 13-36-20-33 kWh.