Investing in Customers, Not Power Plants

ALEX LASKEY, PRESIDENT AND FOUNDER
NOVEMBER, 2009
Introduction to OPOWER – Energy Efficiency, Delivered

Unique Approach

- Multi-channel platform
- Applied behavioral science
- Mass marketing expertise
- Clearly measured energy savings

Unprecedented Results

- 85% customer engagement
- 1.5% – 3.5% demand reduction
- 50 GWhs delivered this year alone
One of the Most Impactful and Cost Effective Residential Efficiency Programs

Energy savings verified by ACEEE, Summit Blue and Yale and MIT economists

3-Year Program Energy Savings per 100,000 Targeted Households* (GWh)

- In-Home Audit: 0.6
- Weatherization: 1
- E-Star Fridge: 3
- CFL Lighting: 33
- OPOWER: 75

Lifetime Cost-Effectiveness $ / kWh

- Weatherization: $0.12
- In-Home Audit: $0.10
- E-Star Fridge: $0.03
- OPOWER: $0.03
- CFL Lighting: $0.02

Enormous Potential Savings & Cost Effective - Electric

<table>
<thead>
<tr>
<th>Region</th>
<th>Potential annual savings</th>
<th>TRC cost/benefit estimate</th>
<th>Cost per avoided kWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>775 GWh</td>
<td>3.17 – 4.58</td>
<td>1.7 - 2.5 cents</td>
</tr>
<tr>
<td>Colorado</td>
<td>397 GWh</td>
<td>1.95 – 2.82</td>
<td>2.8 - 4.1 cents</td>
</tr>
<tr>
<td>Nevada</td>
<td>279 GWh</td>
<td>2.73 – 3.94</td>
<td>2.0 - 2.9 cents</td>
</tr>
<tr>
<td>New Mexico</td>
<td>144 GWh</td>
<td>1.76 – 2.54</td>
<td>3.1 - 4.5 cents</td>
</tr>
<tr>
<td>Utah</td>
<td>197 GWh</td>
<td>2.22 – 3.21</td>
<td>2.5 - 3.6 cents</td>
</tr>
<tr>
<td>Wyoming</td>
<td>58 GWh</td>
<td>2.40 – 3.46</td>
<td>2.4 - 3.3 cents</td>
</tr>
<tr>
<td>SOUTHWEST</td>
<td>1,849 GWh</td>
<td>2.49 – 3.59</td>
<td>2.2 – 3.2 cents</td>
</tr>
</tbody>
</table>
Enormous Potential Savings & Cost Effective - Gas

<table>
<thead>
<tr>
<th>State</th>
<th>Potential annual savings</th>
<th>TRC cost/benefit estimate</th>
<th>Cost per avoided therm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>769 MDth</td>
<td>1.01 – 1.52</td>
<td>53 – 79 cents</td>
</tr>
<tr>
<td>Colorado</td>
<td>2,997 MDth</td>
<td>1.81 – 2.72</td>
<td>29 – 44 cents</td>
</tr>
<tr>
<td>Nevada</td>
<td>898 MDth</td>
<td>1.14 – 1.72</td>
<td>47 – 70 cents</td>
</tr>
<tr>
<td>New Mexico</td>
<td>712 MDth</td>
<td>1.37 – 2.06</td>
<td>39 – 58 cents</td>
</tr>
<tr>
<td>Utah</td>
<td>1,449 MDth</td>
<td>1.78 – 2.67</td>
<td>30 – 45 cents</td>
</tr>
<tr>
<td>Wyoming</td>
<td>290 MDth</td>
<td>3.50 – 5.25</td>
<td>15 – 23 cents</td>
</tr>
<tr>
<td>SOUTHWEST</td>
<td>7,175 MDth</td>
<td>1.54 – 2.31</td>
<td>35 – 52 cents</td>
</tr>
</tbody>
</table>
OPOWER’s Energy Efficiency Platform

DATA STREAMS

UTILITY SOURCED
• MONTHLY & AMI METER DATA
• PROGRAM PARTICIPATION
• REBATE REDEMPTIONS
• BILLING & ACCOUNT DATA

THIRD PARTY SOURCED
• HOUSING
• DEMOGRAPHICS
• WEATHER
• GIS DATA

CUSTOMER FACING

Mailed Paper Energy Reports

Online Data & Community

Smart Grid Features

UTILITY FACING

CSR Tools

Analysis + M&V

Insight Engine
Best-in-Class Online Energy Management Portal

Key Components

- Online Energy Report
- Sophisticated Usage Data Browser
- High-bill Analyzer
- Progress Home Audit
- Friendly EE tips
- New Rate Plans / What-If Scenarios
- Community / Best-practice sharing
Clearly Defined Measurement & Verification Approach

Large-Scale Data Analysis
- Follows experimental design blueprint
- Clearly isolates impact of reports
- Follows NAPEE guidelines
- Endorsed by ACEEE
- Used in PUC filings in several states
SMUD Results – Nation’s Longest Running Program

Overall Program Impact

Pre-Pilot Delta = ~ 0%

Post-Pilot Delta = ~ 2.4%
Results Predictable, Consistent and Sustained For All Utility Partners

Avg. Steady State Savings = ~2.5%
High Participation Rate Drives Large Energy Savings

100,000 Household Efficiency Plan Deployment Comparison

<table>
<thead>
<tr>
<th>Energy Savings / HH (kWh)</th>
<th>Program Participation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Star Fridge</td>
<td>3 GWh</td>
</tr>
<tr>
<td>Weatherization</td>
<td>1 GWh</td>
</tr>
<tr>
<td>Home Audit</td>
<td>0.6 GWh</td>
</tr>
<tr>
<td>CFL</td>
<td>33 GWh</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participation Rate</th>
<th>Annual kWh Savings/Participant</th>
<th>3 Year kWh Savings/Participant</th>
<th>Multiplier (Additional Enrollment in Years 2 &amp; 3)</th>
<th>Total Three Year Impact (GWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPOWER</td>
<td>85.0%</td>
<td>294</td>
<td>882</td>
<td>75</td>
</tr>
<tr>
<td>National CFL</td>
<td>28.0%</td>
<td>132</td>
<td>396</td>
<td>33</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>2.6%</td>
<td>141</td>
<td>423</td>
<td>3</td>
</tr>
<tr>
<td>Weatherization</td>
<td>0.3%</td>
<td>482</td>
<td>1,446</td>
<td>3</td>
</tr>
<tr>
<td>Home Audit</td>
<td>3.0%</td>
<td>22</td>
<td>66</td>
<td>0.6</td>
</tr>
</tbody>
</table>
OPOWER Approach Receives National Attention

Energy Companies Compare Customers
By LAURA MARQUEZ and NICOLE YOUNG for Good Morning America

Positive Energy’s Alex Laskey meets with President Obama, Energy Secretary Chu, and senior administration & utility officials to discuss the future of energy and the clean economy.

Obama Meets with Energy Executives
By Alexander Burns | 7/30/09 8:05 PM EDT

“All the News That’s Fit to Print”

The New York Times

Utilities Turn Their Customers Green, With Envy

The Boston Globe

Energy report card aims to boost conservation
Bills to compare power use among neighbors

By Erin Atworth, October 9, 2009

Want to know who is the energy hog or miser in your neighborhood? Some National Grid utility customers in Massachusetts will soon have a hint in the mail.

Starting today, 50,000 National Grid customers in the Boston area will receive a monthly report that compares their usage habits with The average household in Massachusetts uses 635 kilowatt-hours of electricity a month, according to the US Energy Information Administration.

Dan Ariely, a professor of behavioral economics at Duke University, said that making personal energy consumption public is generally a good thing that will motivate image-conscious consumers to reduce their consumption.

Los Angeles Times

California’s ‘psychology of influence’ to slash energy use

By Susan Carpenter, October 21, 2009

thought there might be some opportunity to provide people with better context for under- The recipients are randomly selected utilities and targeted with personalized