Smart Meters

Implementation and Use in North St. Paul
## North St. Paul Implementation

<table>
<thead>
<tr>
<th></th>
<th>Residential</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>151</td>
<td>52</td>
</tr>
<tr>
<td>Future</td>
<td>~4500</td>
<td>~800</td>
</tr>
<tr>
<td>Total Budget</td>
<td></td>
<td>$250,000</td>
</tr>
</tbody>
</table>

As of November 27th, 2013

### Current Benefits:
- Enhanced outage restoration
- More accurate energy use measurement

### Potential Benefits:
- Improved monitoring of energy consumption
- Incentive programs
- Remote thermostat
- Pre-pay options
- Dynamic Pricing
For more information

- **Smart Meter Video**

http://www.youtube.com/watch?v=pJEkMggn-sM&feature=youtu.be
Recap of Potential Benefits

• Real-time capabilities:
  • Monitoring Energy use by week, day or hour
  • Can curtail energy use if over budget
  • Can reduce energy use 5 – 20%

• Remote thermostat control
• Options to pre-pay options
• Dynamic pricing
Recommendations

1. Install In-Home Display Panels
2. Look to Online Energy Use Feedback

Approximate cost:
$180 (retail: $200 assume 10% discount for bulk order)
$950,000 for the 5300 installations
Example of Recommendations

Municipal Utility in Eugene, Oregon (2012)

In-home display:
• 87% used it
• 63% used online tools less given a panel

Online Access:
• 85% used website
• 11% used Smart Phone App

Primary Uses
• 63% Appliance use
• 54% Cost per day
• 54% Use Trends

MVEC in Jordan, MN (Current)

Programs:
• Beat the Peak Energy Challenge
• Wifi thermostats
• Energy Wise

Online Access:
• Bills
• Energy consumption
• Pay as you monitoring

Ability to make system upgrade systematically

Questions