Xcel Energy Conservation Rebate and Incentive Programs

ESC Meeting
March 14, 2006
Overall History of Xcel Programs for 2006

- Settlement agreement hammered out between group of (mostly environmental) parties and Xcel
- Xcel can build Comanche 3 coal plant without opposition from the parties
- Xcel is obligated to implement DSM programs, using TRC as primary test
- Approved by PUC
Program Portfolio Development

- Xcel Minnesota has had a very robust set of DSM programs for years
- Xcel Colorado is adopting many of the same programs
- Staff is shared between the two main offices for Xcel
- Various roundtable discussions and DSM meetings over the past year
The Offerings: Rebates for Energy Efficiency and Conservation Measures

- Prescriptive rebates
- Custom Efficiency
- Design Assistance
## Lighting Rebates: Existing Buildings

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Rebate levels[1]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluorescent T8 lamps with electronic ballasts</td>
<td>$5-$10</td>
</tr>
<tr>
<td>Fluorescent Super T8 lamps with electronic ballasts</td>
<td>$10-$18</td>
</tr>
<tr>
<td>Fluorescent T5 lamps with electronic ballasts</td>
<td>$5-$16</td>
</tr>
<tr>
<td>High-bay fluorescent T8 lamps with electronic ballasts</td>
<td>$75</td>
</tr>
<tr>
<td>High-bay fluorescent T5 HO lamps with electronic ballasts</td>
<td>$75</td>
</tr>
<tr>
<td>Hardwired compact fluorescent fixtures (CFLs)</td>
<td>$8-$24</td>
</tr>
<tr>
<td>Industrial multi-CFL fixtures</td>
<td>$25</td>
</tr>
<tr>
<td>Metal halide &amp; high pressure sodium fixtures</td>
<td>$17-$45</td>
</tr>
<tr>
<td>Pulse start metal halide fixtures</td>
<td>$25-$65</td>
</tr>
<tr>
<td>Reflectors</td>
<td>$0.50/sq.ft.</td>
</tr>
<tr>
<td>Occupancy sensors and photocells</td>
<td>$12-$36</td>
</tr>
<tr>
<td>LED exits signs</td>
<td>$6</td>
</tr>
</tbody>
</table>
### Lighting Rebates: New Buildings

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Rebate levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluorescent Super T8 lamps with electronic ballasts</td>
<td>$1.75-$2.25</td>
</tr>
<tr>
<td>Fluorescent T5 lamps with electronic ballasts</td>
<td>$2-$2.50</td>
</tr>
<tr>
<td>High-bay fluorescent T8 lamps with electronic ballasts</td>
<td>$12</td>
</tr>
<tr>
<td>High-bay fluorescent T5 HO lamps with electronic ballasts</td>
<td>$12</td>
</tr>
<tr>
<td>Hardwired compact fluorescent fixtures (CFLs)</td>
<td>$3-$8</td>
</tr>
<tr>
<td>Metal halide &amp; high pressure sodium fixtures ≥ $150 kW</td>
<td>$6</td>
</tr>
<tr>
<td>Pulse start metal halide fixtures</td>
<td>$6-$18</td>
</tr>
</tbody>
</table>
# Cooling Efficiency Rebates

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Rebate levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packaged terminal air conditioners (PTAC)</td>
<td>$50/ton plus $4/ton for higher efficiency</td>
</tr>
<tr>
<td>Water source heat pumps</td>
<td>$50/ton plus $4/ton for higher efficiency</td>
</tr>
<tr>
<td>Rooftop AC units</td>
<td>$50/ton plus $4/ton for higher efficiency</td>
</tr>
<tr>
<td>Condensing units</td>
<td>$25/ton plus $4/ton for higher efficiency</td>
</tr>
<tr>
<td>Split systems</td>
<td>$25/ton plus $3/ton for higher efficiency</td>
</tr>
<tr>
<td>Variable air volume (VAV) boxes</td>
<td>$200 per box</td>
</tr>
<tr>
<td>Cooling towers</td>
<td>$3 per ton</td>
</tr>
<tr>
<td>Chillers – scroll or rotary screw</td>
<td>$10/ton plus $3/ton for higher efficiency</td>
</tr>
<tr>
<td>Chillers - centrifugal</td>
<td>$12/ton plus $3/ton for higher efficiency</td>
</tr>
</tbody>
</table>
Motor Efficiency Rebates

- Rebates are available for NEMA Premium™ efficiency motors in new and existing facilities. Motors must be sized from 1-200 HP and meet the following features:
  - AC Polyphase induction motors
  - Squirrel cage rotor design
  - NEMA design B torque characteristic
  - Synchronous speed of 3600, 1800, or 1200 RPM
- $10 to $600 per motor, $30/HP for VFD
Recommissioning

**Step 1 – Diagnosis**
- Xcel funds up to 50 percent of cost of the recommissioning study not to exceed $15,000 in rebates. Building must be at least 50,000 square feet to qualify.
- Select your own contractor or choose from Xcel’s provider list
- The study includes:
  - An assessment of operating mechanical systems
  - A written report that includes energy-saving recommendations

**Step 2 – Implementation**
- Your Recommissioning study report becomes the Recommissioning plan
- Electric rebates can cover up to half the cost of implementation
- If you did a Recommissioning study without Xcel’s involvement, you still can qualify for implementation rebates using the Xcel Fast Track Recommissioning Form
Energy Design Assistance

- New construction, additions or major renovations
- Projects 50,000 sq. ft. or more in early design stages
- Housing & condominium projects qualify at 150,000 sq. ft. not including garage space.
Energy Design Assistance

- Energy design team meets
- Energy model is created
- Energy savings strategies are created
Custom Efficiency

- Covers equipment and measures not found under prescriptive rebates
- Rebates of up to $200/kW energy savings
- Calculations are done for each application, and rebate levels are determined
- Xcel says they will turn around application approval in 10 days.
Custom Efficiency: Examples of Areas of Rebates

- High-efficiency compressors, motors and other equipment
- Controls for ventilation, energy recovery, lighting, refrigeration
- Energy-efficient windows, humidification, elevator modernization (DC to AC)
- Process equipment
Federal Tax Credits: Commercial Buildings (2006-7)

- Tax **deduction** (if public building, can go to the “designer”) of up to $1.80/ft² (whole building) for buildings that use 50% less energy than ASHRAE 90.1-2001
- Partial deductions of up to $.60/ft² from any one of three building systems—the building envelope, lighting, or heating and cooling system—that meets 50% target
- Partial lighting deduction of $.30-.60/ft² may be available for savings between 25-50%
Federal Tax Credits: Solar and Alternative Generation

- Incentive Type: Corporate Tax Credit (in service 2006&7 only)
- Eligible Renewable/Other Technologies:
- Amount:
  - Credit is 30% for solar, solar hybrid lighting, and fuel cells, and 10% for microturbines. The geothermal credit remains at 10%.
  - Maximum Incentive:$500 per 0.5 kW for fuel cells; $200 per kW for microturbines; no maximum specified for other technologies
  - Eligible System Size: Microturbines less than 2 MW; fuel cells at least 0.5 kW

- Source: http://www.dsireusa.org/index.cfm?EE=0&RE=1
Xcel Rebates for PV Installations

- Only small system rebates have been approved so far (up to 10KW)
- Small system rebates = $2/Watt of capacity plus $2.50/Watt Renewable Energy Credit which could be adjusted based on performance
Additional Information Sources

- American Council for an Energy-Efficient Economy (ACEEE)
  http://www.aceee.org/energy/legsttus.htm
- Alliance to Save Energy
  http://www.ase.org/content/article/detail/2683
- Tax Incentives Assistance Project
  http://www.energytaxincentives.org/tiap-businesses.html
- Commercial Building Tax Deduction Coalition
  http://www.efficientbuildings.org/
- National Electrical Manufacturers Association
  http://www.nema.org
- Environmental Protection Agency (EPA)
- Lighting Controls Association
  http://www.aboutlightingcontrols.org
- Washington State University