SMALL BUSINESS AND BEHAVIORAL ENERGY EFFICIENCY:
DIVING DEEP INTO DATA TO ESTIMATE STATEWIDE POTENTIAL

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STATEWIDE COMMERCIAL BEHAVIOR SEGMENTATION AND POTENTIAL STUDY

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SMALL BUSINESSES & BEHAVIOR CHANGE
245 Million kWh
ENOUGH TO POWER NEARLY 23,000 HOMES

7.8 Million Therms
ENOUGH TO HEAT NEARLY 12,600 HOMES IN THE WINTER

$28 Million IN CUSTOMER UTILITY BILL SAVINGS
APPROACH
CONTROLS VS REPEATED ACTIONS

LIGHTS

TEMP

FANS
EXTRAPOLATION

FROM THIS...
1,440 SURVEY RESPONDENTS

TO THIS...
79,695 IN-SCOPE BUSINESSES
NATURAL GAS SERVICE TERRITORIES

1. Identify communities with natural gas
   - From natural gas provider web sites

2. Location of businesses relative to communities
   - Is business within a served community or how far away?

3. Predict probability of business using natural gas
   - Use survey data to develop propensity models
SEGMENT RESULTS
FOOD SERVICE

WHICH UTILITY BILLS DOES YOUR BUSINESS PAY?

- Electric Only: 72%
- Natural Gas Only: 22%
- Does not pay utilities: 3%

BUILDING OWNERSHIP

- 47% Free standing, one tenant
- 39% Owns and occupies
- 28% Mall
- 25% Multi-tenant Commercial

WHO PURCHASES AND REPLACES EQUIPMENT?

- HVAC Equipment:
  - Business owner: 54%
  - Facility manager/employee: 25%
  - Property manager/landlord: 15%
  - Corporate/external: 6%

- Overhead Lighting:
  - Business owner: 51%
  - Facility manager/employee: 41%
  - Property manager/landlord: 5%

- Computer Equipment:
  - Business owner: 82%
  - Facility manager/employee: 7%
  - Property manager/landlord: 5%
1. Create startup/shutdown schedule.
2. Engage staff and assign responsibility
3. Post the startup/shutdown schedule.

1. Focus on energy-saving action.
2. Use competition to kick-start long-term behavior change.
3. Reward all new participants.
4. Track communication progress.

1. Partnership with industry leaders.
2. Partnership with utilities.
CONCLUSIONS

Small businesses have opportunities to save energy through behavior changes.

Pilots and programs should align opportunities, business characteristics, research-based behavior change approaches, and business processes.

Opportunities to save vary by segment and by characteristics within segments.
Conservation Applied Research and Development

Funds projects to identify new technologies or strategies to maximize energy savings, improve the effectiveness of energy conservation programs, or document the carbon dioxide reductions from energy conservation projects.

Background

The Next Generation Energy Act of 2007 (the Act) established energy conservation as a primary resource for meeting Minnesota’s energy needs while reducing greenhouse gases and other harmful emissions. The Act also established a savings goal of 1.5 percent of annual retail electricity and natural gas sales for all utilities in the state. The utilities may reach this annual goal directly through its utility Conservation Improvement Program (CIP) and, indirectly, through energy codes, appliance standards, behavioral and other market transformation programs.

To help utilities reach their energy savings goal, the Act authorizes the commissioner to assess utilities $3,600,000 annually for grants for applied...
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