Building Performance Tracking and Control Systems Pilot Process Evaluation

Conservation Advisory Council Meeting
February 13, 2013

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Building Performance Tracking and Control Systems Pilot (BPTaC)

- Pilot predicated on the assumption that that substantial energy savings can be achieved through improved O&M
- Testing services that offer monitoring systems that provide participants with “real-time” feedback and active consulting support about their buildings’ energy use and performance
- Three services being tested:
    1. EMS is offered to small buildings between 50,000 and 100,000 square feet.
    2. EIS is targeted to buildings over 100,000 square feet with direct digital controls.
    3. AOS serves chiller plants with a capacity greater than 600 tons.

Pilot Participation Goals and Progress as of August 2012

System	Initial Goal	Current Goal	Systems Installed	In Progress	Prospects
EMS	20	15	5	0	7
EIS	10	10	6	1	5
AOS	5	2	0	1	1

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EIS and EMS Vendor Interviews

- Motivated for business development purposes
- Vendors find pilot staff supportive but would like more marketing support
- EMS vendor did not understand why some prospects were not accepted by Energy Trust
- Both described ideal customers as those willing to address building maintenance issues and “stick with it”
- EIS relies on customers to actively make improvements to their building operations, while the EMS includes active and passive savings sources
- Both vendors offered similar approaches to help customers make changes by providing reports in the case of EMS and through the EIS online portal
- Both solutions also alert customers if detecting high demand

Customer Interviews

- Customers cited the incentive bringing down the cost and payback as determining factors in pilot participation
- Paperwork confusing to some
- Most participants expressed satisfaction with the vendor support and monitoring system
- Participants found the training user friendly and of adequate length and valued follow-up Q&A sessions to maintain momentum
- EMS and EIS participants made operational changes to their buildings , with some savings seen, though many felt it was too soon to tell whether any energy savings had been achieved
- Most participants used the systems to monitor energy spikes and equipment health, and to diagnose maintenance problems
- Participants with tenants also used monitoring to better manage their tenants

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Customer Interviews (cont.)

- Understand they are responsible for taking actions to obtain or maximize energy savings
- Barriers to implementing vendor recommendations:
  - Building occupant tolerance
  - Capital constraints prevent participants from moving forward with higher-cost actions
  - Staffing constraints prevented participants from spending time addressing operational changes

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Recommendations

- Energy Trust and ICF should continue to help vendors with recruitment
- Vendors should work closely with prospects to understand their internal barriers and hone marketing messages/strategies
- Vendors should fill out application forms
- Program and vendors should continue to check in on customers regularly, documenting and encouraging energy-saving changes
- Energy Trust should examine if changing from an customer incentive to a vendor pay-for-performance model would be more cost effective
- Vendor reports should include total kWh and therm savings as well as demand savings

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Energy Trust Take

- Pilot is providing insight into what types and levels of savings is achievable when energy management systems are bundled with O&M expert systems
- The pilot's satisfied customers taking action and engaged vendors allow Energy Trust to be cautiously optimistic about the future of this type of offering

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