Program Opportunities for Consideration

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Below are some potential ideas to consider during the 2006 - 08 program planning process.

1) Refrigerated Beverage Vending Machines

New beverage vending machines are shipped with a low power mode feature that lets the machine owner/operator set the times at which the machine can operate with the lights off and/or have the machine operate at a slightly higher temperature. For example, for a machine located outdoors, it may not be necessary to have the lights on during the day, but you would want the machine to continue to operate normally from a refrigeration point of view. For a school, it is unlikely that a machine would be used during the period from 9 at night to 8 am. Same thing for an office building.

The machines have programmable settings that would allow the machine to be set to the site specific requirements.

Due to the split incentives at play – the machine is owned by the beverage company and the site owner pays the electric bill – the low power mode is rarely enabled.

A program could easily target institutions that have a large number of machines on their properties such as universities, public schools, and grocery store chains.

As new machines use roughly 3,000 kWh/yr, such a program could deliver 500 to 1,000 kWh per machine.

Another opportunity is to retrofit the existing machines that have T-12 lamps and magnetic ballasts to more efficient and longer lasting T-8 lamps and electronic ballasts. The key here is to engage the bottlers who periodically pull all machines roughly once every three years to service them.

2) Monitor and Computer Enabling

Many computers in the office environment remain on during periods when an employee is away from their desk attending a meeting, and even at night and during the weekends. The power saving sleep mode is rarely enabled on these machines and for computers the sleep mode setting is frequently over ridden by the system operator.

The EPA is running a program under their Million Monitor enabling program to enable the sleep mode for monitors in a networked environment. Similar programs are available for networked computers such as a program offered by Verdeem that was developed by NEEA, that can be used by the network administrator.

3) Ceiling Fan Light Kits
Most ceiling fans have lights on them and the most frequent configuration uses 5 screw based sockets, each using a 45 to 60W lamp. More efficient designs use a central dome approach and use a dedicated pin based lamp of up to 60W. This solution provides long term savings (prevents bounce back to an incandescent) and can save up 240W. Up or down stream rebates for fans sold with lights and for the light kits should be considered.

4) Hotel/Assisted Living Bathroom Light

Bathroom lights are often left on for extended periods of time because the occupant or maid forgets to turn the light off, or the lights are serving as an overpowered night light.

The CA Lighting Technology Center (CLTC) under PIER has developed some very innovative and energy efficient products for this market that have been successfully piloted during 2004. Given the massive savings potential, consideration should be given to include this product in retrofit and new construction programs.

5) LED Holiday Lights

PGE and SMUD have actively pursued LED holiday light programs. These lights use a small fraction of the energy compared to conventional ones. Despite recent inroads, availability is still limited and one normally can not find them at mass marketers such as Target, Longs, etc.

While the combined savings are relatively small, I see them as a great prop and door opener for high visibility tree lighting ceremonies at the Capitol, and city halls across the state. This provides the government official the opportunity to say “Buy energy efficient holiday lights but most importantly look for Energy Star lighting and appliance products whenever you shop. They are the gift that keeps giving all year long – They save you money and help protect our environment.

Program designs might include buy a CFL 4 pack, get a set of energy saving holiday lights free, or some variant of this.

6) Hospital Retrofits and New Construction

Due to seismic upgrade regulations, hundreds of millions of dollars of new hospital construction are due to occur in the next few years. This market has several unique challenges, but many of the “normal” energy savings opportunities exist for lighting, vending machines, windows, commercial kitchens, ice makers, etc. In many respects, these facilities offer many of the same energy savings opportunities as a hotel – bathroom in every room, large scale food service, laundry facility, etc.

7) Bulk procurement

A lot of opportunities exist to leverage bulk purchasing opportunities with large corporate and institutional purchasers. With a little bit of effort, we could do a better job of incorporating ENERGY STAR and CEE Tiered specs into the large scale purchasing specs and RFPs that these institutions use.

8) Energy Efficient Recessed Cans for the Home Remodeling Market
Home remodelers continue to gravitate toward installing recessed cans when remodeling their homes in particular their kitchens. Unfortunately, they commonly choose to put into 4 or more screw based cans that use approximately 75W lamps. Instead we should move them to use the new easy to install pin based lamp system developed by the California lighting technology center, which uses 26W lamps and delivers the same amount of light.