

Educating on Effective Energy (Power) Management

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ENERGY STAR Consumer Electronics Meeting

I have a task for you...

- October 2006 – NYSERDA's version of residential Power Management was born
- Alternative to incentive-based consumer electronics initiative
- “The Energy Detective” – focus on behavior change and behavior enabling tools

What is Power Management?

- Power Management uses technology combined with behavior changes to reduce energy consumption.
- Whole-House, not just electronics.
- **Behavior Change + Power Managing Tools = Power Management**

Components of Power Management

1. Tips (**Behavior Change**)
2. Techniques (**Behavior Change**)
3. Tools (**Power Managing Tools**)

Tips

- Basic Tips
 - Buy ENERGY STAR products
 - Wash your clothes only in full loads
 - Use a Programmable Thermostat and set back the temperature when you're not at home
- Used in all marketing materials, i.e. print, web site, television, radio
- Easy to understand, implement

Techniques

- Tips in Action
- **Problem solving:** educate a consumer so they can size up a situation and determine how to get the most savings out of it
- Scenarios for Working, Surfing, Watching, Gaming, Rocking, Charging, Relaxing

Tools

- Power Managing Tools that can assist a consumer in saving energy:
 - Advanced Power Strips
 - Energy Monitors
 - Whole House Switches
 - Home Automation Systems
 - Controls
- No simple plug-and-play savings
- Consumer needs to be educated in how to use and save energy

Enables Behavior Change

- Tips enable consumers to make small changes in their daily lives to save energy
 - Consumers are busy and they need easy things to do to save energy
- Techniques enable consumers to solve problems and save energy in their home
 - Consumers want to learn how to save energy
- Tools enable consumers to save energy by changing the way they use electronics, lighting, HVAC
 - Consumers want to be able to control how their home operates

Example – Home Entertainment

Using Rebate Model

- Purchases most efficient ENERGY STAR TV possible and receives rebate
- EEP claims energy savings
- Consumer uses less energy

Using Power Management Model

- Purchases most efficient ENERGY STAR TV possible
- Investigates most efficient cable enabler to use
- Purchases advanced power strip to use on non-essential electronics
- EEP claims savings on TV, advanced power strip, and/or cable enabler
- Consumer uses less energy

Long-Term Strategy

- **Phase I** – introduce the concept to retailers and consumers, work with plug-and-play manufacturers
- **Phase II** – integrate into standard marketing practices, assist retailers with buys, work with hardwired manufacturers, build relationships with builders/contractors
- **Phase III** – continue Phases I & II, integrate efforts into Smart Grid

Response from Industry

- "Smart" is replacing "Green" as the new industry buzz word
- Several retailers are carrying power management tools and don't even know it!
- Manufacturers are developing new power managing products at fast pace

THE CHALLENGE – Support within OUR industry

- Growing interest from energy-efficiency partners (EEPs) across the country
- Increased focus on Smart Grid, Connected Home, Energy Monitoring
- Needed support by ENERGY STAR

THE BIG CHALLENGE – Evaluating Power Management

- Behavior change is very hard to quantify
- No two evaluation reports will be the same because of caveats, i.e. number of hours in use, connected electronics & appliances, etc.
 - NYSERDA has Deemed Savings for select power management products
 - Advanced Power Strip (APS) Calculator
- Need for continuous M&V for power management

Conclusion

- New concept, new industry, fulfills missing gap of behavior change
- Support is needed from OUR industry to move forward
- Power Management will save energy, but evaluation effort is going to be tough

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