Educating on Effective Energy (Power) Management

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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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