

ENERGY STAR Partner Meeting

Kevin Messner

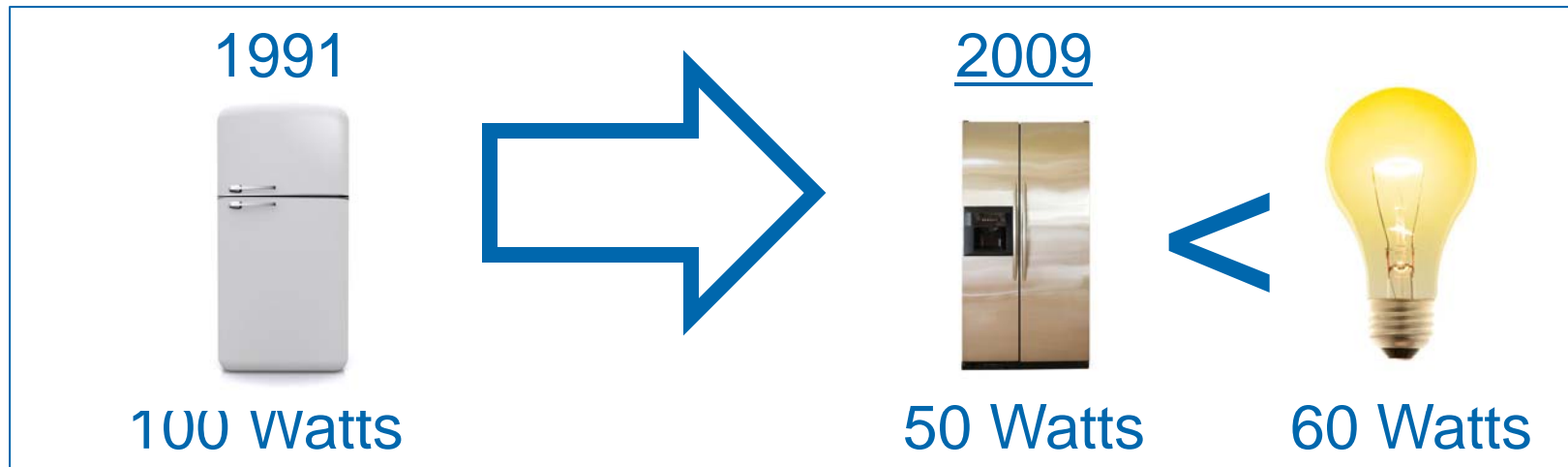
October 7, 2010



Leadership > Knowledge > Innovation

Home Appliances & Energy Efficiency

- Home appliances are a success story in terms of energy efficiency.
 - Clothes Washers use 70% less energy
 - Refrigerators use 50% less energy
 - Dishwashers use 45% less energy



What Savings Exist for Smart Appliances?

Residential Sector Key

- Largest Consumer of Electricity
- Essential Part of the Smart Grid
- Electricity use projected to increase 26%

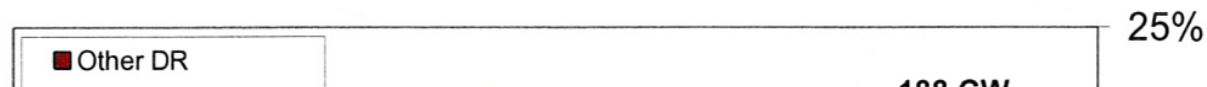
Electricity Use by Sector. 2010

Source: EIA. Annual Energy Outlook

Peak Demand Increasing & Expensive

- Peak Demand is Expensive
 - 25% of distribution/10% of generation needed less than 400 hours/year.
- Summer peak projected to increase 55%, or 430GW, from current 781GW in 2030 .
 - Forecast DOES NOT include expected demand response programs.
 - Forecast DOES include forecasted efficiency savings.

Largest Gains with Smart Appliance



Source: FERC National Assessment of Demand Response, June 2009

Smart Appliances Provide Spinning Reserves

- Spinning reserve requirements are up to 10 minutes.
- Appliance loads can be reduced for 10 minutes or less with little or no impact on the consumer.
- Appliances are more environmentally friendly “reserves.”



What Challenges Need to Be Addressed?

3 Requirements of a Smart Grid

1. Consumer is Essential

- Retains control of appliance
- No significant lifestyle changes

2. Incentives to Consumers/Pricing

3. Communication Standards

- Open
- Flexible
- Secure
- Limited in Number



Incentives to Consumers-ENERGY STAR

- ENERGY STAR Should Recognize Benefits of Smart Appliance
- Jump-start Smart Grid

Energy Efficient & Smart Appliance Agreement of 2010

ENERGY STAR 5% Credit for Smart Appliances

- Appliance Industry
- Energy Efficiency Advocates
- Water Efficiency Advocates
- Consumer Advocates
- Major Public Power Planning Agency

Conclusion

- Many requirements, which left unaddressed, will result in a Smart Grid that falls well short of the stated objectives.
- None of the requirements and concerns are insurmountable or technically intimidating.
- AHAM remains optimistic and enthusiastic about the Smart Grid and the opportunity to contribute.