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Creating a Return on EnvironmentSM

Implications of a Smarter Grid For Utility Consumer Programs

National Action Plan Pre-Conference Workshop Panel Session

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Smart Grid Utility Program Impacts



- **Introduction to MetaVu/Smart Grid experience**
- **Consumer Program Portfolio**
- **Consumer Program Designs**
- **Consumer Program Marketing**

About MetaVu

Creating a *Return on Environment* SM



What we do:

- **Innovate products, services and business models** employing sustainability as a strategy for value creation.

- **Build organizational capabilities** to integrate social and environmental performance throughout the value chain

- **Measure performance** with evaluation and assurance products / services

Utility Practice

- Sustainability Strategy
- Renewable Energy Strategy
- Consumer Program Development
 - DSM
 - Pricing
- Smart Grid Deployment Evaluation

VERDANTIX 2010 "Smart Innovator Award – Top Sustainability Consultant"

Representative MetaVu Clients....



Consumer Program Portfolio

What New Consumer Programs Does the Smart Grid Facilitate?



Time-Differentiated Rates

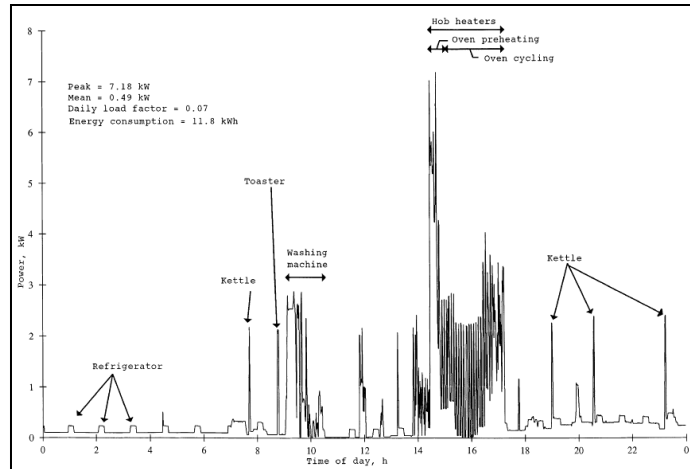


Home Area Networks

- Equipment Reseller?
- Service Provider?
- 3rd Party Sales Channel?
- Data Provider?
- HAN DSM Rebates?



Interactive Volt/VAR Control



Appliance Monitoring Service



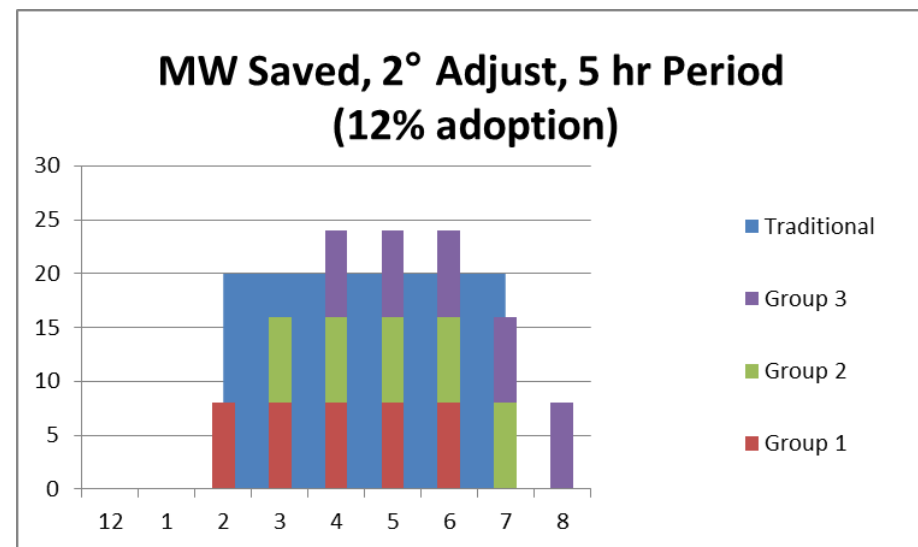
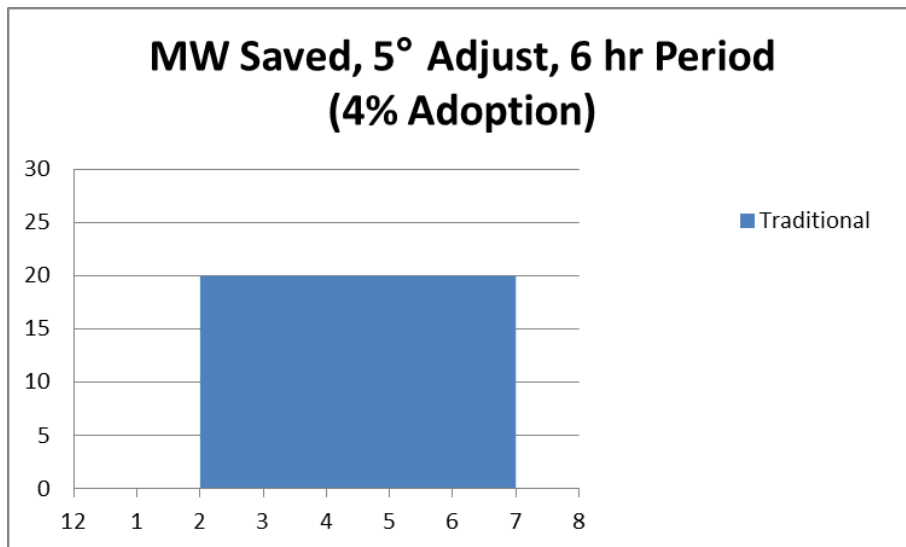
Prepaid Metering

Consumer Program Designs

How Do Smart Grid Capabilities Enable New Program Features?



- **Improved Demand Response M&V**
 - Free Rider Reductions
 - Count TOU/DR as Spinning Reserves
- **Improved Demand Response Program Development & Testing**



- **Call Events for Economic Conditions? Grid Conditions?**

Consumer Program Promotion

How Can Smart Grid Capabilities Help Grow Program Adoption?



True or False? Utilities can use interval data to target customers for DSM marketing activities

Per NISTIR 7628 Volume 2, 'Data Privacy', Customers should be informed about:

- What data is being collected
- For what purposes it is being used
- Options offered to customers regarding collection and use
- Disclosure prohibitions and authorized exceptions/processes
- Safeguards
- Stakeholder engagement (policy challenge and change process)

Customer Engagement

Emerging Trends



(Mis) Perceptions:

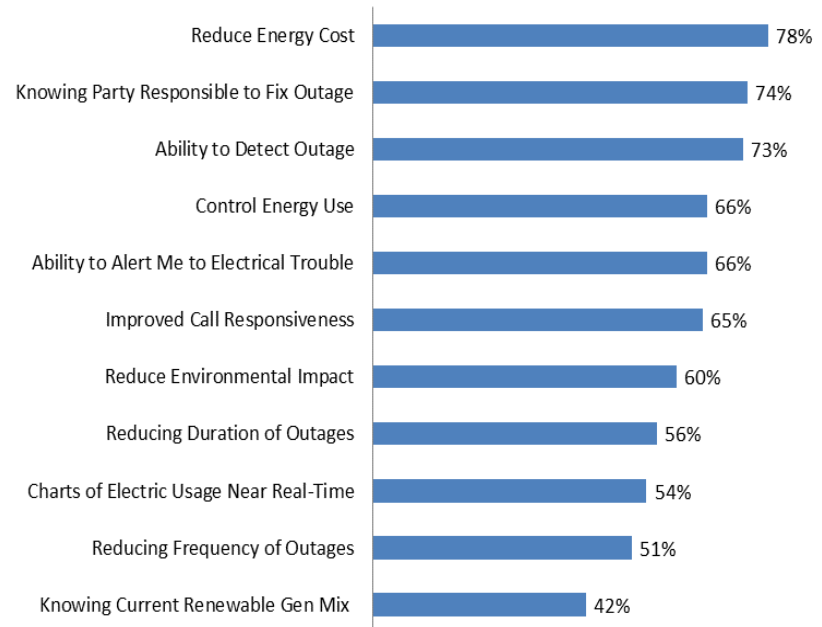
- ▶ *“I can’t (I don’t have the opportunities to) manage my electricity use”*
- ▶ *“I don’t know how to manage my electricity use”*
- ▶ *“The utility makes more money when I change behavior”*
- ▶ *“This (capability or program) cost a lot to implement, and I’m paying for it”*
- ▶ *“This is too much work relative to benefits”*
- ▶ *“I think my efforts should be worth (10%? 25%? 50%?) reduction in my electric bill”*

Opportunities:

- ▶ Portfolio (what is offered)
- ▶ Program Designs (features and options)
- ▶ Promotions
 - ▶ Messaging (Recycling analogy: higher calling; environmental benefits; community benefits)
 - ▶ Education (capacity; electric economics; energy management methods)
 - ▶ Targeting

Percent of Customers Rating Various Smart Grid Capabilities as Important

Survey of 800 Consumers



Consumer Programs Part of Broader Changes

Customer Program Design and Marketing to be More Critical Than Ever



ROE Risk

- **Regulators are holding IOUs accountable for smart grid benefits**
 - O&M cost reductions
 - Distribution efficiency
 - Time-differentiated rate and Demand Response adoption and impact

Change Management

- **Operational and Organizational changes are required to maximize benefits**
 - Grid: Distribution Control, Capacity Planning, Reliability Engineering, Service Centers, Subs
 - Marketing: Portfolio, Program Design, and Promotion
 - Service: Call Center
 - Information Technology
 - Regulatory Administration: Getting the Rules Right

Customer

- **Customer behavior and program adoption is critical to maximizing benefits**
 - What strategies will be used to maximize participation?
 - What products and services will facilitate behavior change?
 - What business model changes are available? Advisable?
 - Which messages will minimize risk and stimulate action?
 - How will behavior change be measured?

Thank You!



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