

ROLE OF THERMOSTATS IN DEMAND RESPONSE



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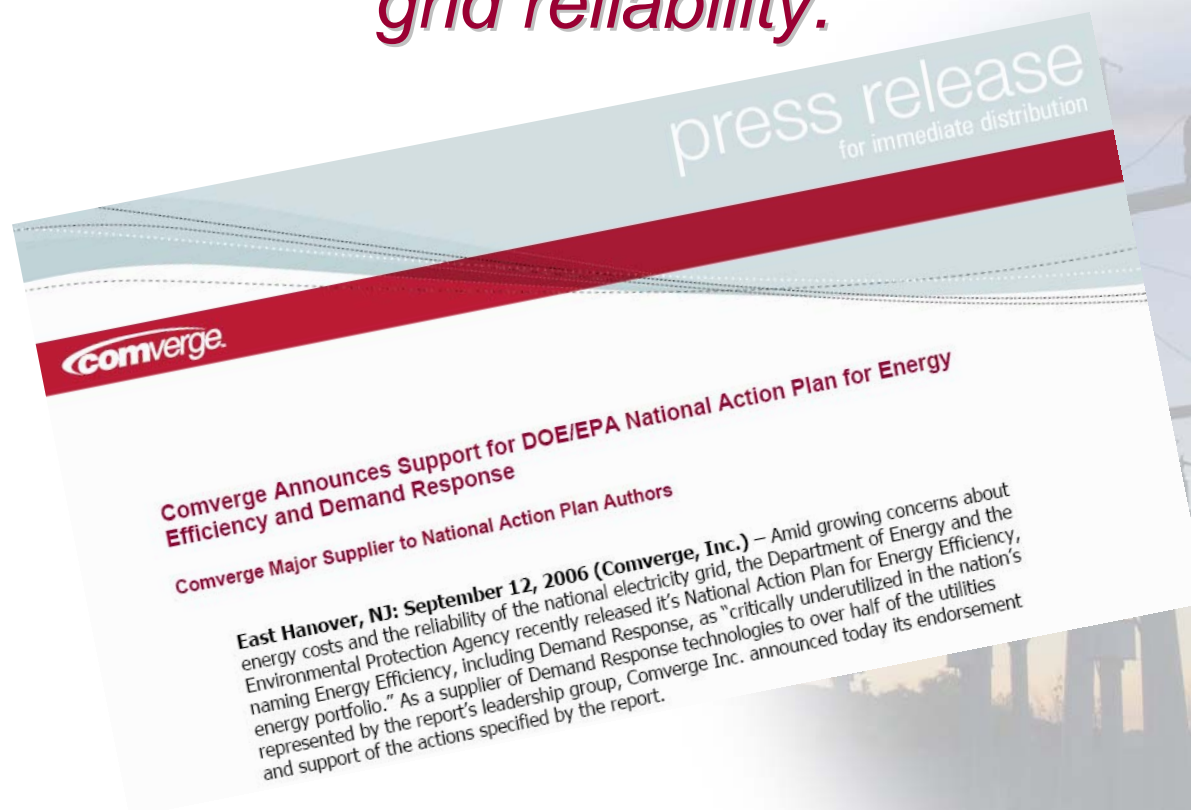
November 9, 2006

Agenda

- *Who we are*
- *Why stats for load control*
- *What to look for in a stat*
- *Utility dilemma AMI vs. DR*
- *Convergence of AMI and DR*

Company Overview

We are a leading Demand Response company that provides innovative solutions to significantly reduce an electric utility's peak power costs and enhance grid reliability.



Why Thermostats?

- *They reduce load*
- *They tend to stay in the home*
- *Branding*
- *Communication path to customer*
- *Can be combined into AMI*

SuperStat® Basic



- Two-Stage Heat / Two- Stage Cool
- Multi-stage or Heat Pump Configurable
- Power stealing with permanent memory
- Large LCD (backlit)
- Uses current wiring (no new wiring)
- No shunts required for major manufacturers
- Event notification light
- **"SAVINGS"** displayed during control

- Supports Load control (DLC) & Tier (price) model
- In-Home Message Display
 - Energy Price, Usage, Bill \$
- Remotely programmable for consumer via Web interface
- 5-1-1 Programmable and Non-Programmable
- Auto-Changeover
- Energy Management Recovery
- Combination keypad lockout
- Intuitive alerts
- Energy Star thermostat



SuperStat[®] Improvements



Features	Benefits
➤ Large backlit LCD display	➤ Improve LCD readability
➤ Flexible Control/Test Light	➤ Indicates DLC/ CPP/Test/Message
➤ Broad compatibility with HVAC systems <ul style="list-style-type: none"> ▪ 1 or 2 stage compressors ▪ Heat Pump or Conventional 	➤ Single product inventory <ul style="list-style-type: none"> ▪ Compatible with most installations ▪ Residential/Commercial Applications ➤ Less turn down
➤ State of art power stealing	➤ No shunts required in most installations
➤ Tactile buttons	➤ Improved ergonomics ➤ Easier to use and program
➤ Partnership with a recognized international thermostat manufacturer	➤ Improved quality and field reliability

Long Term Solutions

SuperStat® PRO (Price Responsive Operation)



- Time of Use (TOU) and Critical Peak Price (CPP) user interface and automation
- Display In-Home messaging
- Open Standards Compliant with Zigbee

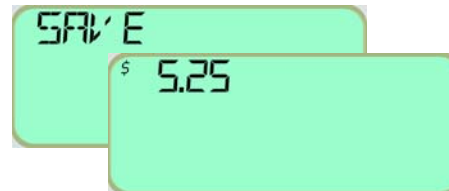
SuperStat® PRO Display Flexibility



All Segments ON



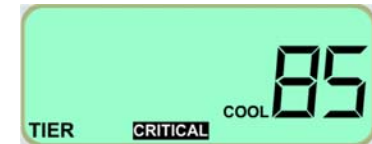
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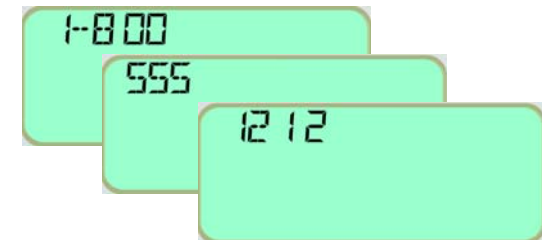
Info



Idle



Programming



Service Number

Utility Dilemma

- AMI is difficult to justify because of the benefits received
- Demand response is difficult to justify because of the benefits received vs. the cost (two way is not cost justifiable, you need to be able to measure)
- DR-AMI combines the benefits of both while combining the two way cost of communications

Itron OpenWay™

Compatible Thermostat

Key Features

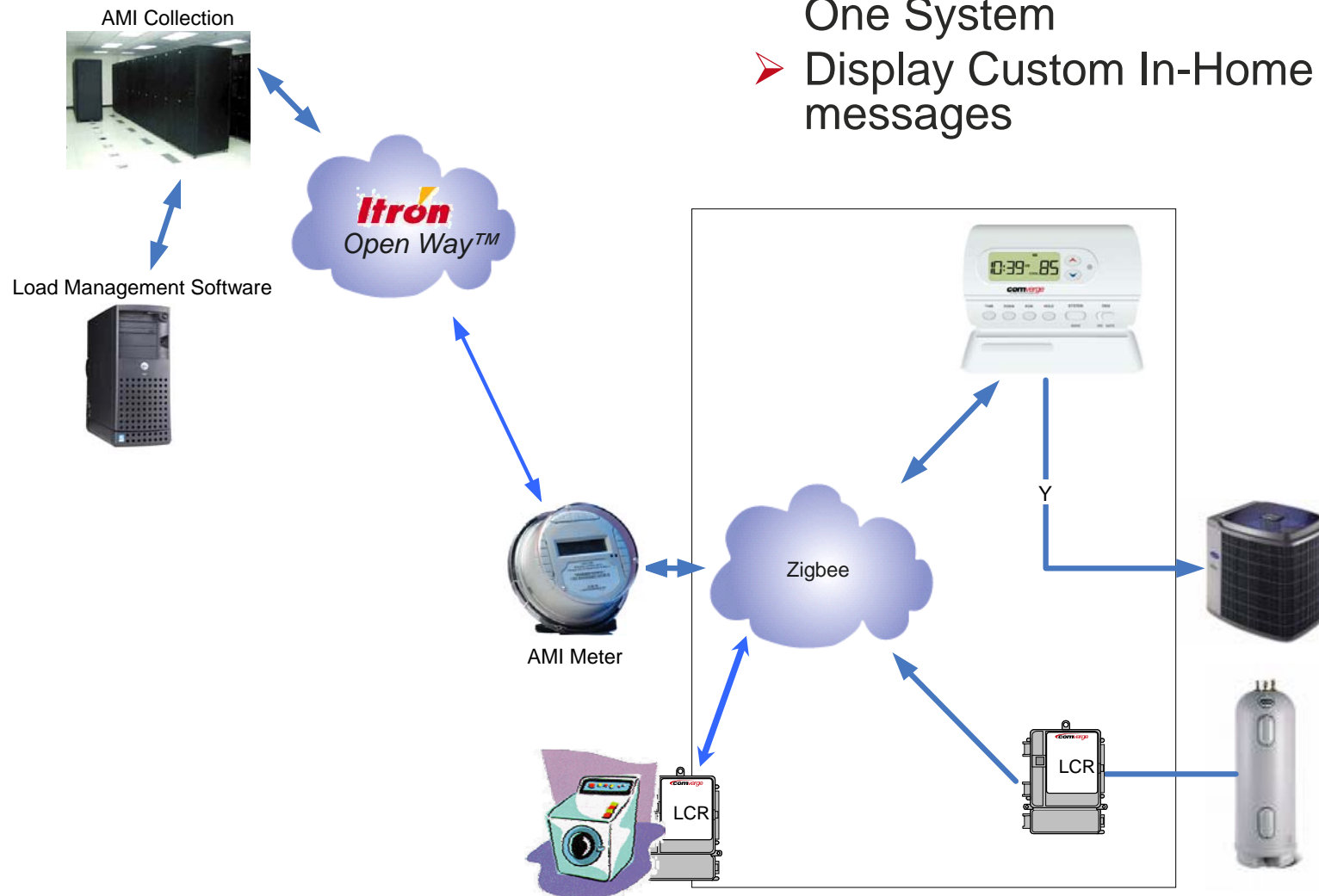
- Partnership with a recognized industry leaders
 - AMR - Itron
 - Demand Response - Comverge
 - Thermostat – White-Rodgers
- Two way Zigbee™ thermostat
 - Designed for Itron – OpenWay AMI Networks
 - Demand Response dispatched
 - TOU-CPP Schedules
 - Automatic Measurement & Verification
 - Web controllable and Programmable



Long Term Solutions

SuperStat® OpenWay

- Open Standards
- AMI and Demand Response in One System
- Display Custom In-Home messages



Summary

- **Price Response / Demand Response Today**
 - Programming and demand response based upon “Critical Events” at the consumers option.

- **Benefits Today**
 - Demand response when needed
 - Display TOU rates and CPP

- **DR-AMI Tomorrow**
 - One two-way communication network

- **DR-AMI Benefits Tomorrow**
 - Utility justifiable business case

- **Partnerships that deliver**
 - **White Rodgers, Itron**