

I&M gridSMARTSM Project

Indiana Utility Regulatory Commission Update

June 3, 2008

I&M gridSMARTsm initiative

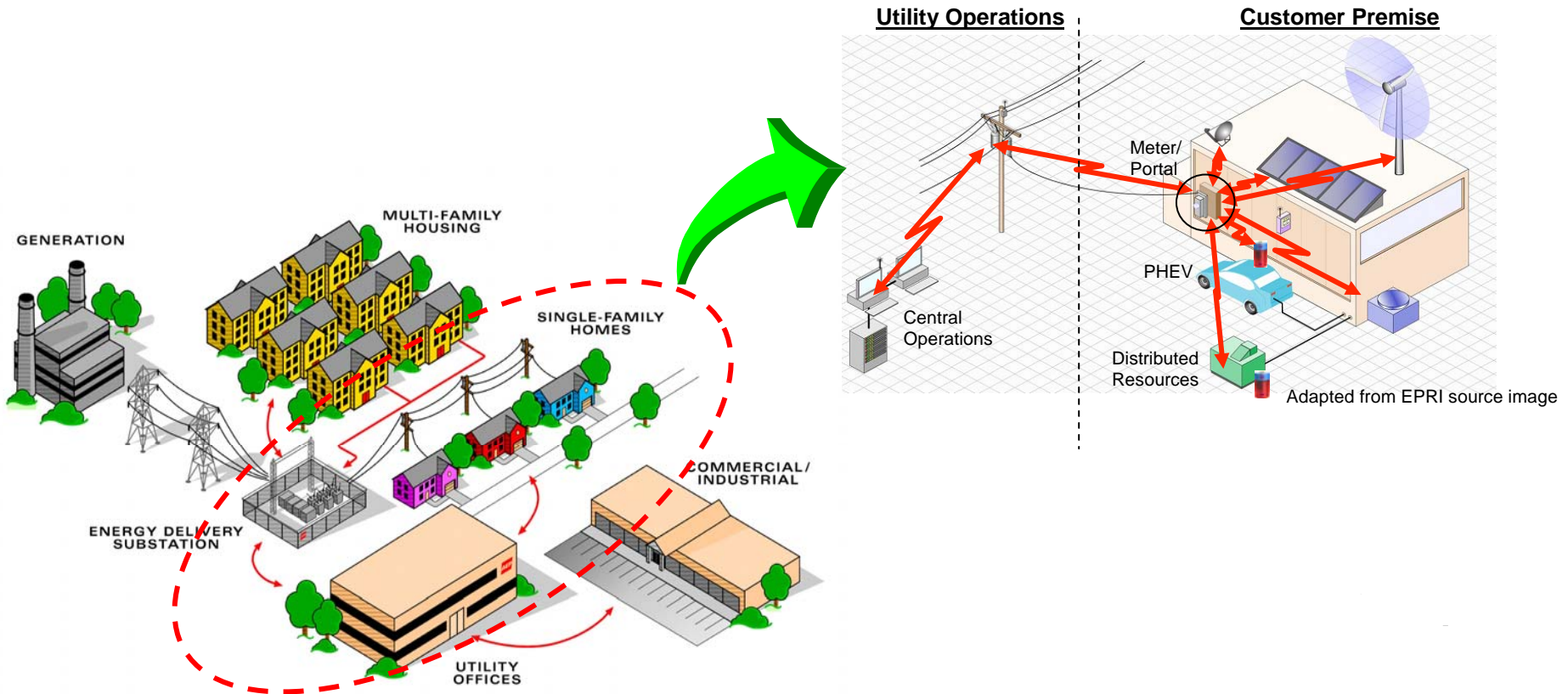
We are pursuing a set of integrated programs and technology initiatives that can improve energy control, customer service and utility operations

Key Components

- ❑ Advanced, two-way communication infrastructure coupled with smart meters and automated distribution devices
 - Customer programs and new technologies that provide customers better usage control and savings opportunities
 - Distribution automation with automated circuit reconfiguration and enhanced customer notification and operational control
- ❑ Distributed resources - generation and storage devices - that respond to local energy needs
- ❑ Customer and internal demand side management and energy efficiency programs
- ❑ Integrated back office systems that enable streamlined work processes and enhanced customer service

I&M Future gridSMARTsm Vision

I&M envisions an advanced system leveraging a two-way communications infrastructure and intelligent devices to benefit our customers and our operations



gridSMARTsm Capabilities

I&M envisions a comprehensive set of technologies and programs that can transform utility operations and shift customer behavior

Advanced Metering Infrastructure

- “Smart” meters for every customer
- Enhanced Time-of-Use rates
- Direct load control via programmable communicating thermostat
- Prepay metering using in-home display
- Remote meter reading with hourly interval data
- Remote connect and disconnect
- Enhanced customer care options
- Customer portal for enhanced energy monitoring, management and analysis

Distribution Automation

- Automated outage and restoration detection and reporting
- Automated outage and restoration communication
- Distribution grid monitoring & control – circuit breakers, reclosers, capacitor banks
- Remote meter voltage check (ping)
- Automated switching order creation and verification
- Automated circuit reconfiguration
- Automated volt/VAR control
- Real-time load flow analysis

Two-Way Communication Infrastructure

Back Office Enhancements and Integration

Our South Bend Smart Metering Pilot Project will test many of these capabilities

Utility Process Impacts

With a full implementation, the gridSMARTSM technologies will fundamentally change core customer services and distribution business functions

Reduce

- Outage response/restoration times
- Customer calls
- Billing exceptions
- Field residential disconnect/ reconnect orders
- Field inspection costs
- Energy theft and use on inactive accounts

Increase

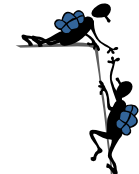
- Support for new gridSMARTSM components
- Expanded SCADA Support
- Engineering and analytical support for distribution planning & operations

Eliminate

- Manual meter reading
- Field check reads and re-reads
- Response to non-interruption calls

Enable

- Proactive identification of reliability issues
- Reduced system losses
- Focused capital spend
- Automatic system reconfigurations



Customer Benefits

Customers will experience significant service enhancements that should lead to more control over their energy consumption and higher satisfaction

Key Customer Benefits

- ❑ **Improve reliability – power will go out less often and be restored faster**
- ❑ **Reduce bill estimations leading to more accurate bills**
- ❑ **Enhance energy consumption information**
 - Detailed consumption on bill
 - Customer web portal
- ❑ **Better control of energy consumption**
 - Direct load control
 - Prepay for consumption
- ❑ **Enabling tools to permit future services:**
 - Proactive notification when power goes out/restored
 - Billing notifications
 - Consumption alerts
 - Bill date flexibility

Current Goals & Initiatives

A coordinated set of goals will provide our customers greater energy usage control as well as improving our operational and environmental performance

Key Initiatives & Goals

Advanced Metering Infrastructure

- Complete South Bend Pilot Project (10,000 meters) in 2008
- File for implementation of ~1M smart meters in Texas
- Identify two city-scale deployment of 100,000 customers each in 2008
- Smart meters to all 5M+ customers by 2015

Distributed Energy Resources

- Implement 6MW NaS batteries in Ohio, Indiana, and West Virginia
- Implement first 2MW commercial-scale fuel cell in Columbus, OH
- Install 25MW of NaS capacity by 2010

Demand Side Management/Energy Efficiency

- Achieve 1,000 MW demand reduction from customers and internal sources by 2012