

Advanced Metering Infrastructure

"A Critical Asset to Manage
The Utility of the Future"

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“A Critical Asset to Manage the Utility of the Future”

Strategy

Technology

Benefits

State of the Industry



AMI

- Was a sophisticated alternative to the meter reader
- Now is a building block to transform the Utility into a competitive, customer focused enterprise
- Will provide the customer with choice



✦ Customer Knowledge

- Know them well and individually
- Use knowledge to build relationships
- A Value Proposition “Customer Intimacy”

✦ AMI System

- Cash register to Information Device
- 12 to 365 to 8760 Data Points



☀ Gathering Customer Data is Strategic

Information → Intelligence → VALUE

Value is what the customer wants



✦ Simply Put

- Information is Power
- Grows the Utility
- Maintains Control of Revenue Cycle Services
- AMI is a Transformational Asset



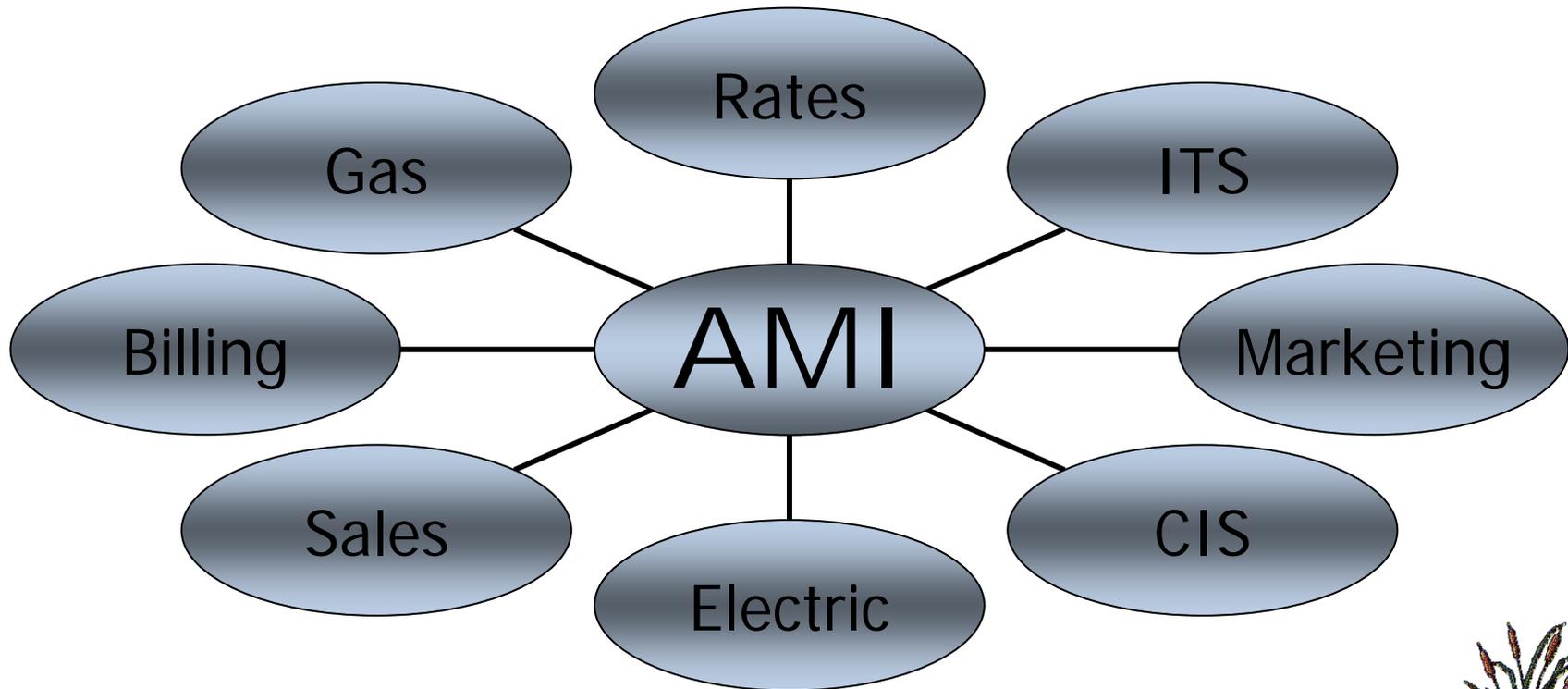
Some Issues

- ✿ Data Integration – A Key Issue for Success
- ✿ Important to Understand the Processes that must be Changed
- ✿ Standardizing the Process
- ✿ Data Overload will be a Challenge – MDM a “Must”
- ✿ Imperative that all Functional Areas Buy-in to the Strategy



The Strategy

- ✦ AMI Must Build Process Relationships
- ✦ The Asset Must be Leveraged



The Technology

✦ Power Line

✦ Wireless

✦ Telephone



The Technology

- ✿ Key Issues
 - What data will you need?
 - Monthly, Daily, Hourly, 15 minute
 - Demand, Hourly or 15 minute
- ✿ Geography
 - Flat, mountainous, wooded
- ✿ Data Security
- ✿ Meter Density
- ✿ Urban vs. Rural
- ✿ The Purchase
 - Buy from a Vendor
 - Develop a Business Partnership



Benefits

- ☀ Reduction of Field Visits
 - Virtual Turn On/Offs
 - Special Reads
 - Ability to Disconnect from Office
- ☀ Reduction in Energy Theft
- ☀ Enhance Outage Detection and Service Restoration
- ☀ Improvement in Cash Flow



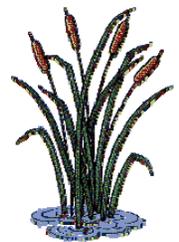
Benefits

- ✿ Improvement of Meter Reading Accuracy
- ✿ Direct Load Control/Demand Side Management
 - Uses Current Infrastructure
 - Affirmed System Load Reduction
 - Available to all Customers
- ✿ Potential of New Revenues
 - Energy Information
 - Load Profiling
 - Consumption Monitoring



Benefits

- ✿ Reduce Meter Costs for Time of Use
- ✿ Ability to Offer Real Time Pricing
- ✿ Reduction in Bill Complaints



Benefits

- ✿ Ability to Disconnect from Office
- ✿ Flexibility to Generate New Rates
- ✿ Reduction in Estimated Bills and Associated Costs



✿ Key Drivers and Issues Facing the Market

- Gas and electric prices are on the rise
- End users are looking for ways to control costs
- Large customers have increasingly savvy energy managers
- Energy management costs in USA total \$1 billion annually
- Energy costs and the percentage of total operation costs they represent are on the rise



✿ Key Drivers and Issues Facing the Market

- Increased pressure for reliability
- Capital budget constraints – competition for dollars
- Little utility distribution automation exists
- Vision of advanced applications and models to run and optimize the system like transmission
- Energy Policy Act of 2005



✦ AMI is a Critical Asset to
Managing the Utility
Of the Future

