

AMR & Regulatory Update

“Tools & Technology For Today”

UTC Annual Conference
Nashville, TN
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Presented By:
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Knowledge to Shape Your Future

Metering Status Quo

Metering has remained basically unchanged since the Public Utility Holding Act was passed in 1935



The Energy and Water Industry

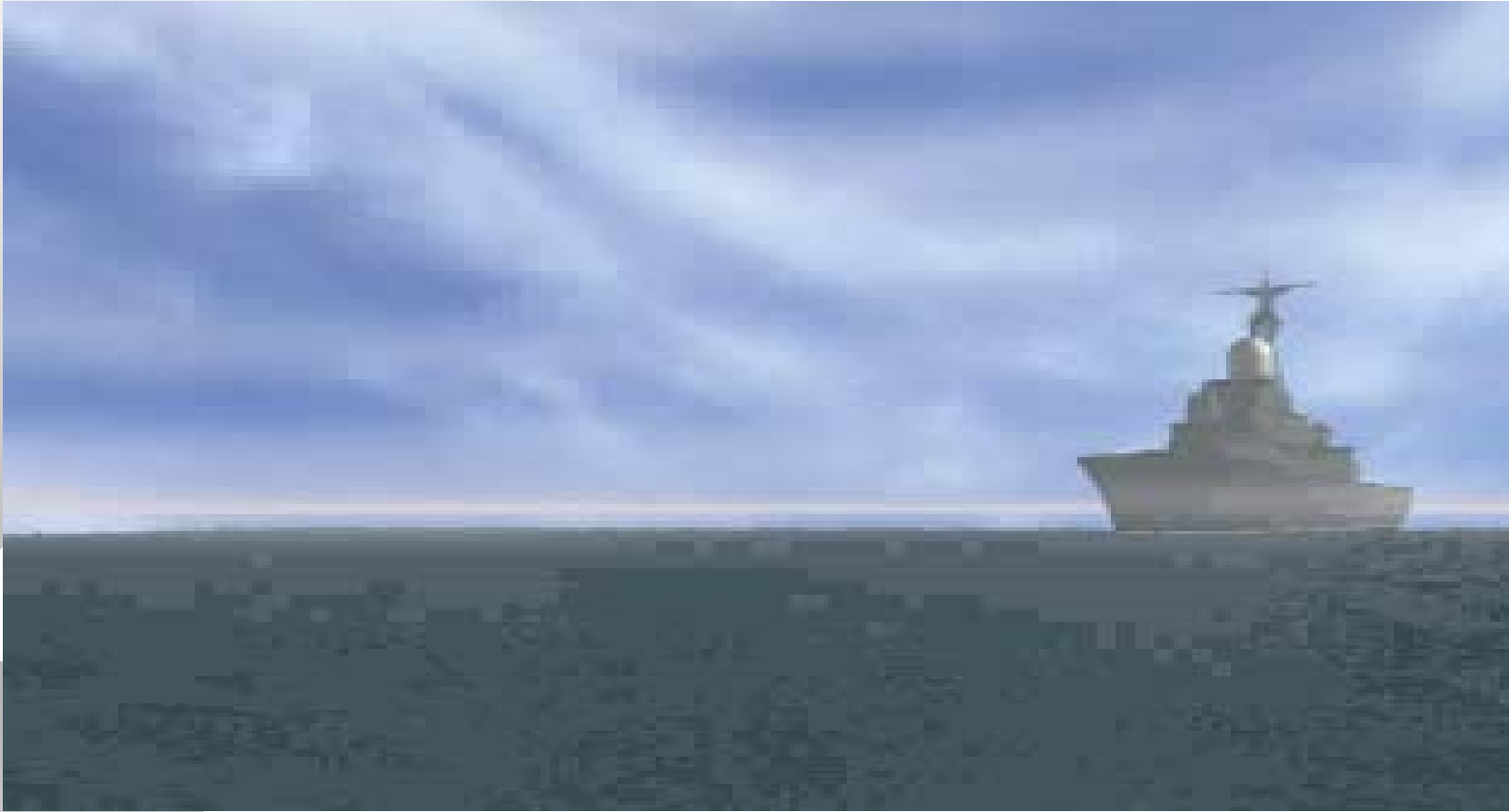
Only major change in the industry over the years has been in the method of recording the reading information into a handheld device



AMR & Restructuring

- The two go hand and hand
- Is there current progress ?

Restructuring Status!!!!!!!!!!!!!!!



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Restructurings Impact On AMR

- Has slowed many projects
- Has put many AMR projects on hold
- Has created much uncertainty across the industry

Impediments To Implementation

- **Who pays for the metering upgrade**
- **Who owns the meter**
- **Stranded cost issues**
- **Will utility stay in metering business**
- **Regulated/Non-Regulated**
- **Pass on in rates**
- **Tax Incentives not clear**
- **PBR incentives undefined**

There may be hope!!!!!!!

*Electrical
World* 1967

**Distribution, Metering,
Relays and Safety
in the
Electric Power Industry**

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Electrical World, June 12, 1967

“Automatic meter reading will reach practical developments in the foreseeable future” predicts W.J.Clapp, president of Edison Electric Institute and Florida Power Corp.

“Automatic meter reading has been a want of the industry for many years but now is rapidly becoming a must” said R. Warren, Westinghouse Electric Corp.

Electrical World, June 12, 1967 (cont.)

“Westinghouse would be pleased to enter into a remote-meter-reading development contract with electric utilities.” R. Warren Westinghouse Electric Corp.

AMR Market Penetration

20%

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Opportunity Statement

“The energy and water industry as a whole has yet to discover the true value of a commodity that is abundantly available in its own backyard.”

Metering Data!



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Who Needs This Metering Data ?

Yesterday/Today:

- Utilities

Today/Tomorrow:

- Utilities
- Energy Service Providers
- Marketers
- Meter Service Providers
- Consumers

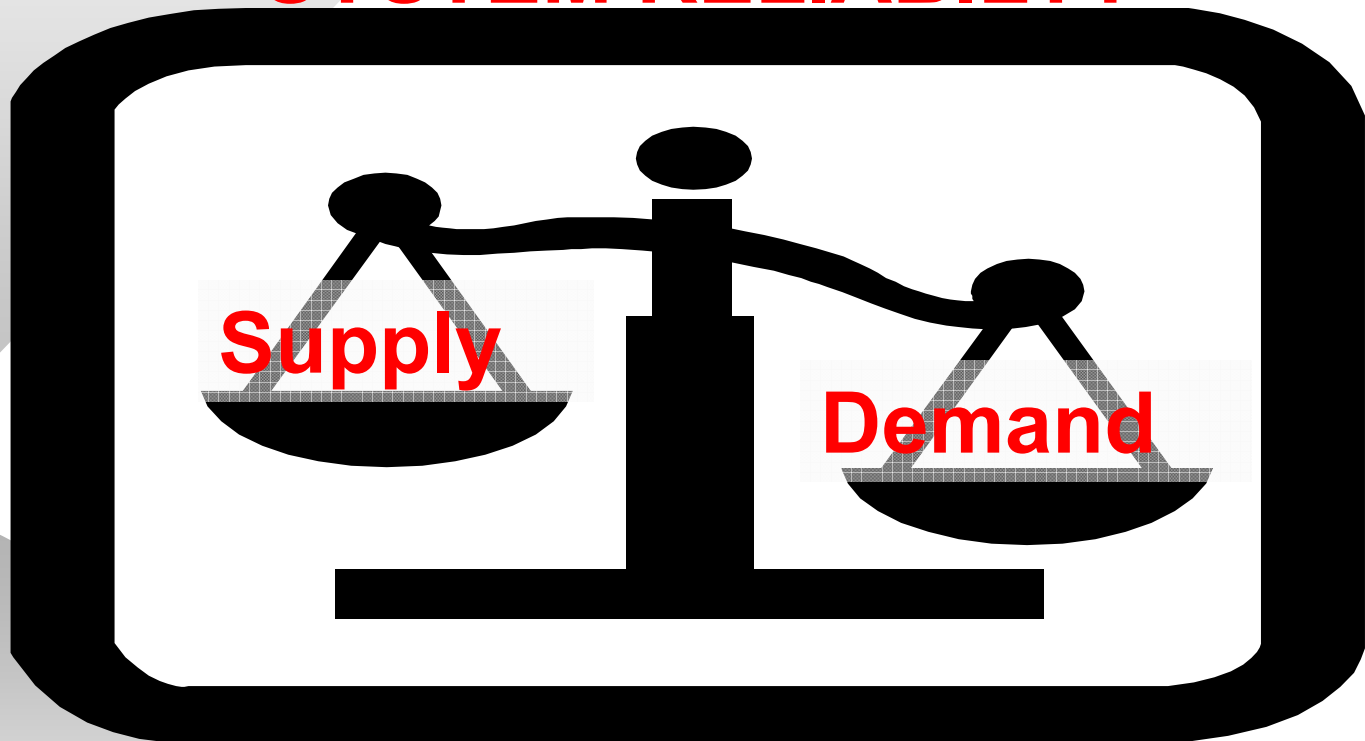
Future

- All of the above
- ISOs
- Regulators
- Others

Users
Users
Users

Why Is The Metering Data Needed?

Balancing Supply vs. Demand
SYSTEM RELIABILITY



New Metering/Data Requirements

- **More frequent reads/data to facilitate:**
 - SYSTEM RELIABILITY
 - Demand Response
 - Load Control
 - Dynamic Pricing
 - Real Time Pricing
 - Load Balancing
 - Load Forecasting

 - Oh Yeah: Customer Billing!!!

AMR Technologies Available Today

Mobile AMR

Wireless Network AMR

Telephone-based AMR

C&I Solutions - wireless and wired

Energy Gateways

PLC

Broadband

Others...

It is unlikely that a single technology alone is the most cost effective way to reach all meters in an entire service territory



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AMR System Benefits

- **SYSTEM RELIABILITY**
- **Load forecasting and balancing**
- **Demand-side management and incentives**
- **Load management and control**
- **Forecasting supply requirements**
- **Real time pricing**
- **Customer Choice**
- **Conservation**
- **Tamper Detection**
- **Damaged/Stopped Meters**



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Customer Benefits

- **“SYSTEM RELIABILITY”**
- **Accurate Timely Consumption Information**
- **Information To Allow For Educated Choice**
- **Facilitates Customer Choice**
- **Conservation Tool**
- **Improved Customer Service**
- **Reduced Emissions**
- **Conservation Incentives**
- **Increased Public Safety**



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California & Texas PUC Workshops

Metering Data is Crucial!!!!!!

Advanced Metering Is Needed System Wide!!

AMR is needed to provide Customer Choice!

**Reliable, Timely Data needed to provide
educated customer choice and response!!!**

**More metering information/data needed to
promote Demand Response!!!!!!!!!!**

“Encouraging but how do we make it happen?”



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How Do We Get There

- Define future metering needs for regulated as well as non-regulated industry
- Define customer needs as industry moves forward
- Regulations to incent AMR deployment
- Performance Based Rates
- Define and improve current tax credits and incentives
- ***“SUPPORT” Smart Metering Credit in Energy Bill***

Energy Bill Promotes Smart Meters

Tax Incentive

- \$30 deduction for each smart meter device
- 3 year depreciation (vs. 5-20 years now)
- Effectively cuts cost by about 25%
- Identical language in Senate and House versions.
- Strong support by Republicans and Democrats

Time-of-Use Pricing

- Senate version mandates that states consider adoption
- No House language, but there is talk of adding provision similar to Senate's
- Growing awareness of importance of demand response



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Energy Bill Breaking News

- **FSC/ETI - Foreign Sales Corporation / Extraterritorial Income Legislation**
 - A must pass in light of WTO rulings
- **Senator Domenici Moves Tax Provisions**
 - Tax provisions of the Comprehensive Energy Bill which include the Smart Meter tax incentive attached to the FSC/ETI bill
 - Senate to vote before the end of April 2004
 - Good chance of movement???????????

Workshops & Orders

- **California**

- Rulemaking 02-06-001

- Order instituting rulemaking on policies and practices for advanced metering, demand response, and dynamic pricing

- **Texas**

- Rulemaking Project No. 26359

- Rulemaking to address Competitive Metering

Workshops & Orders (cont.)

- **Idaho**
 - Order 29362
 - Late October 2003
 - TOU & AMR mandated
- **New Hampshire**
 - Order 24,231
 - October 2003
 - Cost adjustments allowed for AMR

** Other states are considering AMR and metering initiatives*

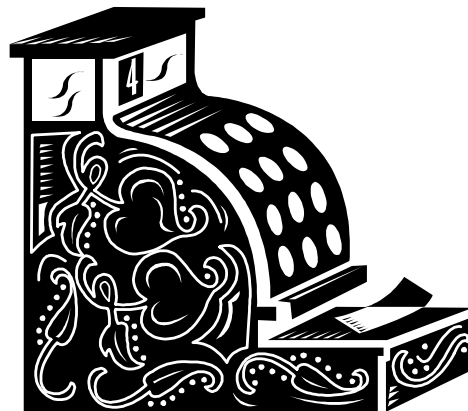


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Will It Change!!!

The “Meter” will remain the cash register and the link to providing vital energy information. To facilitate customer choice and demand response and improve System Reliability smart metering is essential!!



Conclusion

The question is not whether we can afford advanced metering, but how long can we afford to be without it and the opportunities it brings!!

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