



PA PUC AMI Discussion

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Agenda

- AMR & AMI Definitions
- Who is Cellnet?
- Levels of AMR/AMI & Associated Benefits
- The Opportunity Curve
- Components of an AMI System
- The Intelligent Grid



AMR/AMI Definitions

- Automatic Meter Reading (AMR): a system to read aggregated utility (electric, gas, water) usage electronically. Examples include handheld readers, drive-by readers and other read-only devices used to capture a simple aggregated monthly billing read.
- Advanced Metering Infrastructure (AMI): The two-way fixed network and associated systems that enable near real time communication to and from advanced metering.



Cellnet Corporate Profile

- **Provides network solutions for AMI, SCADA, and DA for electric, gas, and water utilities**
- **400+ employees in offices in 14 states across the U.S. (Hired over 100 people in 2006) HQ in Atlanta, GA.**
- **Dominant install base with over 12 million endpoints (Almost 15 million under contract) and 8 of the 10 largest projects, including PECO which is the largest system currently deployed in U.S.**
- **\$150 million annual revenue with \$2.9 billion in future contracted revenue spanning 14 years**
- **Services provided account for \$25 billion in annual customer revenue**
- **10% average annual growth for the business (3 million in 2005, 1.3 million in 2006)**



Enabling the Reality of Advanced Infrastructure

Baseline AMR Benefits

Baseline Benefits for walk-by/drive-by systems			
Meter Operations	Meter Reading	Revenue Management	Customer Service & Billing
<ul style="list-style-type: none">• Reduction in labor force• Workers Comp issues• Fewer estimated bills	<ul style="list-style-type: none">• Reduction in clerical staff	<ul style="list-style-type: none">• Compressing Read-to-Bill time• Database clean-up unbilled customers• More accurate metering devices	<ul style="list-style-type: none">• More accurate meter reads• Less estimated readings• Faster off-cycle reads



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Baseline AMI Benefits

Basic Benefits of Fixed Networks

Operational Improvements

- Outage Management Capabilities
- Leak Detection
- Theft Detection
- Decreased cost of tenant turnover and off-cycle reads
- Bill reconciliation (in deregulated market)
- Trouble call reduction

Supply-Side Savings

- Load balancing and forecasting
- Distribution / Transmission Planning
- Asset management and utilization
- Transformer Load Management

New Revenue Opportunities

- Notification / monitoring services
 - Power outage / water and gas leakage
 - Threshold alerts
- Online customer profiles
- Consolidated Billing

Customer Service Improvements

- Billing dispute resolution
- Increased number of pricing plans
- Billing cycle flexibility



Enabling the Reality of Advanced Infrastructure

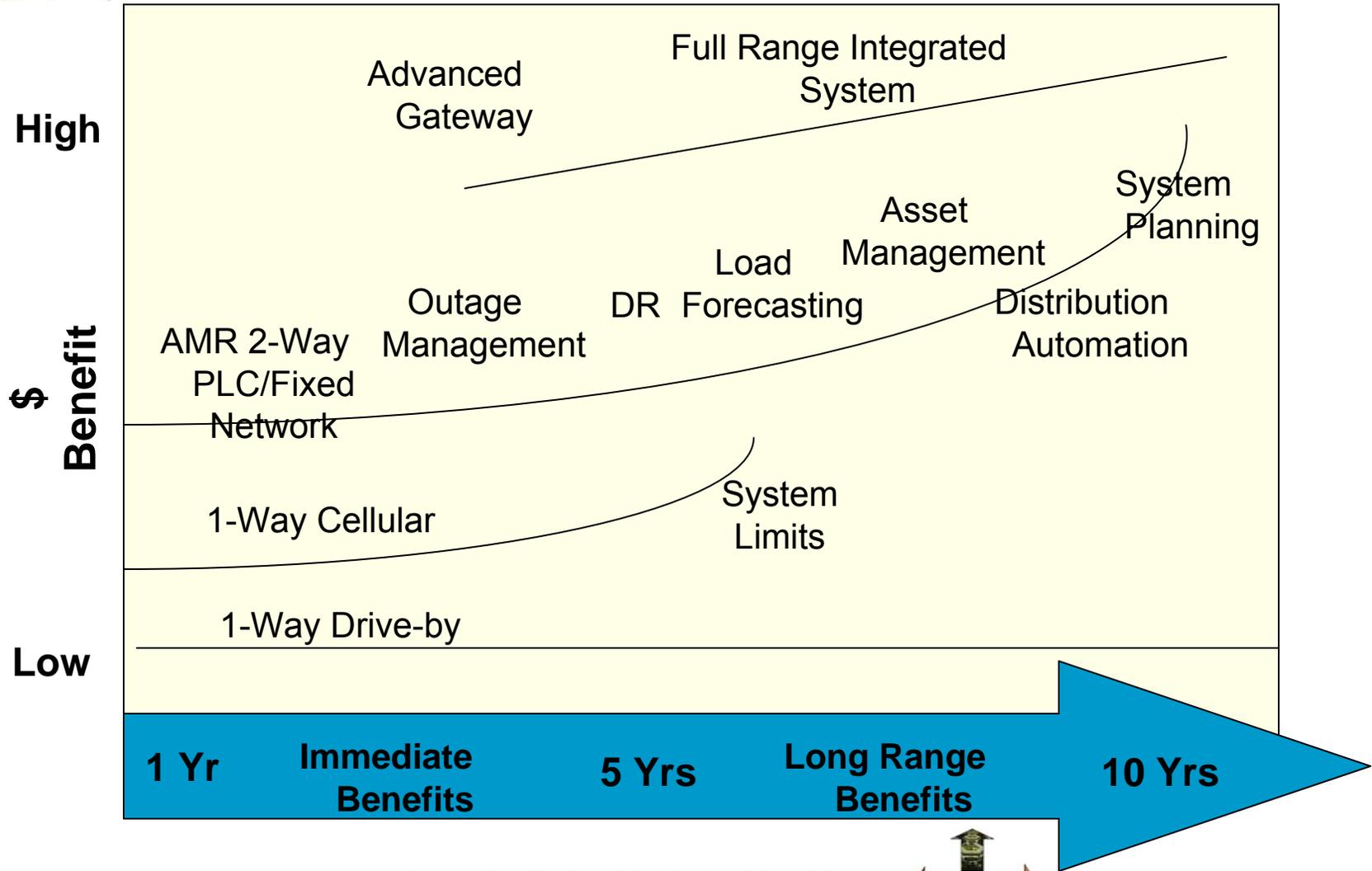
Advanced AMI Benefits

Advanced Benefits of Cellnet 's Fixed Networks

Operational Improvements	Supply-Side Savings	New Revenue Opportunities	Customer Service Improvements
<ul style="list-style-type: none">• Outage Management Capabilities• Theft Detection• Decreased cost of tenant turnover and off-cycle reads• Bill reconciliation (in deregulated market)• Trouble call reduction• Distribution Automation Functionality• SCADA Application<ul style="list-style-type: none">• Water• Gas• Electric• Capacitor Controls• Control Automated Switches• Advance Power Quality monitoring	<ul style="list-style-type: none">• Load balancing and forecasting• Distribution / Transmission Planning• Asset management and utilization• Transformer Load Management• Demand-Response programs• Spinning Reserves• Load control solutions	<ul style="list-style-type: none">• Notification / monitoring services• Power outage / water and gas leakage• Threshold alerts• Online customer profiles• Consolidated Billing• In-Home Displays	<ul style="list-style-type: none">• Billing dispute resolution• Increased number of pricing plans (rate options)• Billing cycle flexibility• Physical Remote connect / disconnect• In-Home Displays• Smart Thermostats• Pre-Payment (payment options)



AMI Opportunity Curve



POSITIVE ENERGY DIRECTIONS

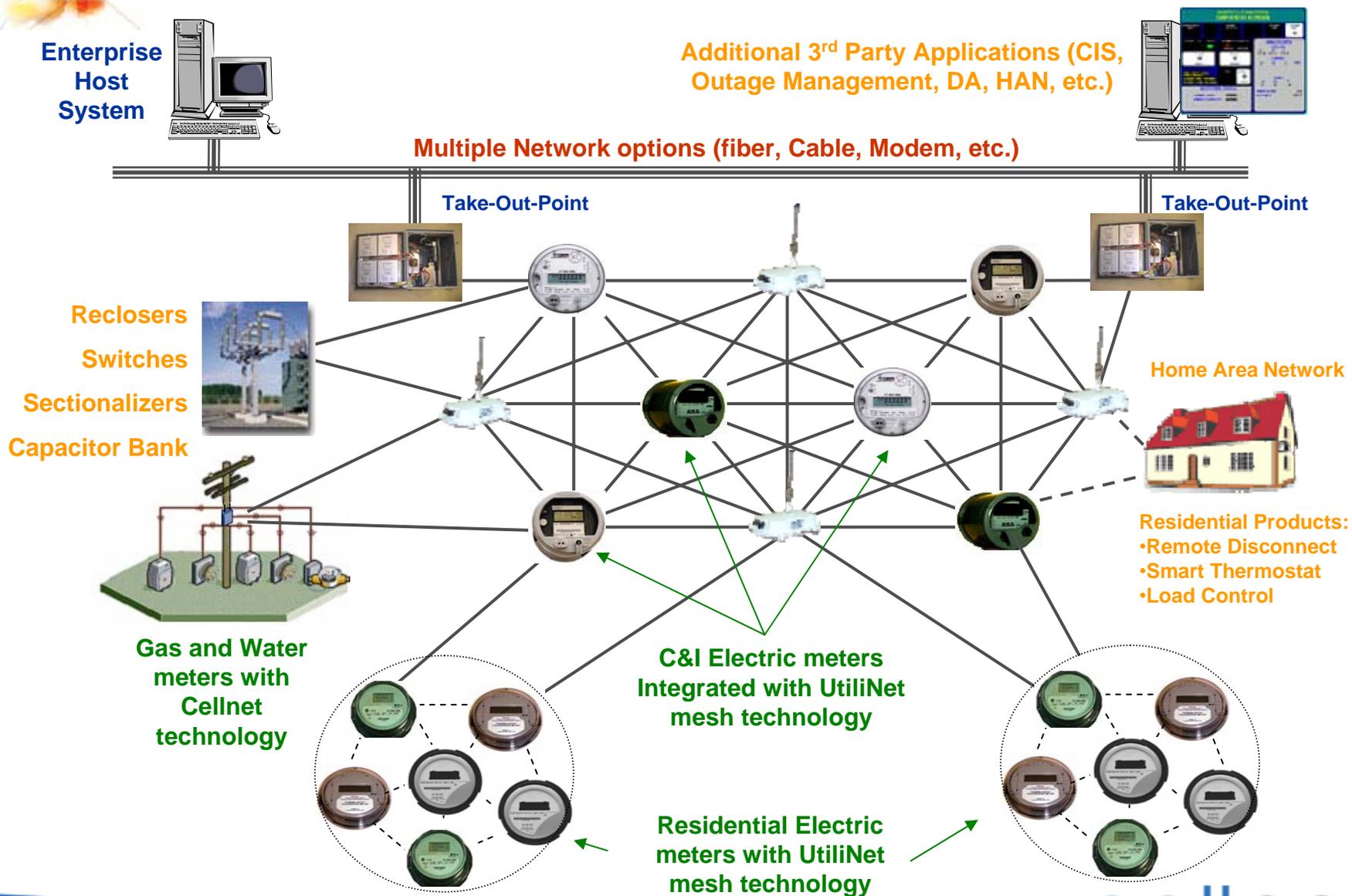
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What are the components of AMI?

The Cellnet Network





Is AMI Infrastructure Investment? Is AMI the Right Investment?

AMI is THE enabler for the future

- The components of AMI are infrastructure
- AMI deployments should not be ‘traded off’ against ‘wires and pipes’ investments
- Short-term costs lead to long-term validation of infrastructure investment decisions that lead to more intelligent and effective deployment of capital
- The ‘intelligent grid’ is not intelligent without AMI
- Customers are not empowered without AMI
- The grid cannot be ‘optimized’ without AMI



Conclusion

Once AMI data is widely available, we will see a significant number of new applications/programs that can make use of this data to enable grid efficiencies that haven't even been considered yet.

AMI isn't just about saving money to read meters. It is THE enabling technology for the intelligent grid of the future and the empowerment of customers and utilities to optimize grid efficiencies at unprecedented levels.