



SCPPA AMI ACTIVITIES

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MAY 2008



Anaheim Public Utilities

- Initiating AMI residential deployments in June with approximately 220 meters
- Plan is to install 3,000 to 5,000 meters per year for the next two years
- Will evaluate the benefits being achieved and determine whether or not to accelerate deployment
- System is a two-way hybrid RF (radio frequency) mesh system from Tantalus Systems

Burbank Water & Power

- Committed to Smart Grid using Wi-Fi technology
- Developing technology with SmartSynch and Tropos Networks
- Technology choices driven by customer information and power supply needs rather than meter reading alone
- Objective is to facilitate capability to reduce system peak on peak days, coordinate demand control operations across commercial customer base, improve system efficiency, and identify best candidates for conservation improvements
- Initial citywide Wi-Fi build-out done by Q1/2009



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- Plan is to have Smart Grid by 2012
- See AMI for Time-of-Use for 250kW and larger customers as the first step in process
- Installing AMI 250kW meters for (on) all customers (250kW)
 - These customers represent 50% of BWP sales
 - Completion set for 2009
- Concurrent with AMI Smart Grid elements are other Smart Grid capabilities
 - Meter Data Management System Installation 2008-2009
 - Cyber Security Operational and Design Standards established February 2009 (Burns and McDonnell)



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- Outage Management System linked with meters, CIS/BS, GIS for improved customer service in 2009
- Smart Grid-capable Interactive Voice Response System in service Q3/09
- Demand control coordination engineering - FY 2008-2009
- Install thermal storage HVAC systems for targeted customers for performance testing and integration into Smart Grid by Q3/2009
- Ability to deliver promised Demand Response and Load Management program benefits

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- Electric Department has been installing AMR meters at selective locations since 2002
 - 6,400 AMR meters installed
- Water Department needs to replace all meters due to age
 - Installed 160 AMR meters
 - Switching to AMI replacements this year
 - Investigating AMI possibilities

Glendale Water & Power

- GWP sees the Smart Grid as a way of the future for utilities, with AMI as the first step in the process
- Contracted with KEMA in February to support AMI plan development
- Working on Technology Plan and Business Case
- Process is going very well
- Scheduled for July completion
- Assuming a positive Business Case
 - Issue RFP and select AMI system and vendor by October 2008
 - Begin installing AMI system by early 2009



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- Concerns moving forward:
 - Standard communication protocols to allow for interchangeable meters and more variety in technologies available to support in-home energy saving and demand response programs
 - Need to find a single system that supports AMI for electric and water
 - Lack of quality AMI meters/other inventory to meet demand as IOUs move to full scale implementation

Imperial Irrigation District

- IID sees AMI as an integral component of its Customer Relationship Management Initiative
- Goal is to improve operational efficiencies and customer service through technological improvements and increased customer rate choices
- Evaluating a variety of AMI solutions before moving to full scale implementation
- Installed 334 IP interval meters at commercial and industrial customer sites

Imperial Irrigation District

- Installed an enterprise-wide radio frequency (RF) solution over existing 800 MHz data network for five commercial and industrial customers
- Installed over 12,000 neighborhood-wide radio frequency (ERT®) meters as an ongoing process for new residential construction
- Installed power line carrier (DCSI/TWACS®) pilot for approximately 750 meters out of one distribution substation circuit

Pasadena Water & Power

- In final stages of AMR implementation
 - Will be complete in 2-3 years
 - 70% complete for residential customers
 - 100% of commercial accounts have electronically read meters
 - All new commercial accounts go on AMR
- Large, recent investment in AMR makes switch to AMI challenging
 - AMR investment not recovered
 - Available AMI not compatible with current AMR
 - Exploring/researching AMR retrofit to AMI

Pasadena Water & Power

- Eventual Smart Grid potential is “promising”
 - Fiber ring in place with good node access
 - Relatively small geographic service area
- Preliminary AMI options study underway
- Forming a program team to develop a business case
- Seeking consultant to assess infrastructure
- Signed on with EPRI to participate in their "Intelligrid" and "Advanced Distribution Automation" programs

Pasadena Water & Power

- **Protocols:** State should adopt standard protocols for AMI functionality but allow utility discretion as to how/which/when to implement
- **Business Case:** Utilities should be encouraged to do AMI business case studies
- **AMI Implementation:** Utilities should not be required to implement AMI without due consideration for utility-specific cost effectiveness, feasibility and other circumstances (e.g., AMR deployment status)



Thank you for the opportunity to participate

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