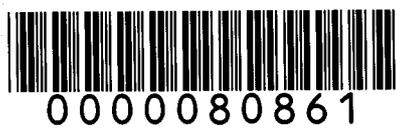




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March 6, 2008

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DOCKET CONTROL
Arizona Corporation Commission
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Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

MAR 6 2008

DOCKETED BY 

RE: Compliance Filings as Required by Decision No. 68112
Docket Nos. E-01345A-03-0775 and E-01345A-04-0657

Dear Sir or Madam,

Pursuant to Paragraph 32(e) of the Proposed Settlement Agreement attached to Decision No. 68112, Arizona Public Service is submitting the March 2008 AMI Plan Biannual ACC Report.

If you have any questions on the enclosed information, please call David Rumolo at 602-250-3933.

Sincerely,

Barbara Klemstine

BK/jjb

Attachment

CC: Brian Bozzo
Barbara Keene

Arizona Public Service

AMI Plan Biannual ACC Report

March 2008

Introduction

Decision No. 68112 (Proposed Settlement Agreement, paragraph 32(e)) requires Arizona Public Service (APS) to provide the Commission with biannual reports through 2011 related to the status of APS' remote meter reading implementation. This report provides a description of the meter reading technology being installed, APS' plan for implementation, the number and type of customers involved in the program, and the costs and operational efficiencies associated with implementation. This is the fifth biannual filing addressing the status of the Advanced Metering Infrastructure (AMI) Plan and the progress since September 2007.

Overview

Since the last biannual report, APS has moved forward with its remote metering project. The number of customers with smart meters has increased and APS has continued to install additional AMI meters in areas outside of metro Phoenix. AMI meters are now installed in twenty-two different cities and towns within the APS service territory including Yuma, Prescott Valley, and Flagstaff. APS is continuing to review other AMI vendor products to identify the optimal solutions for the wide range of geography within the APS service territory. APS has selected a vendor for the Meter Data Management System (MDMS) and is working on an installation plan. The MDMS will provide the foundation to support multiple AMI solutions as well as a single integration point for all of the APS backend systems. Features offered by an MDMS include revenue protection analysis, distribution asset optimization, forecasting tools, and a portal on aps.com for customers to view their detailed energy consumption information. This would enable customers to make more informed choices regarding the way they use and manage their electricity.

Project Status

APS has installed approximately 40,000 additional AMI meters since the last filing of this report in September 2007. The installation of PowerOneData (P1D) AMI meters has continued at a steady pace of approximately 7,000 meters per month. Phase two of the interfaces between the P1D system and APS' Customer Information System (CIS) was installed on schedule in December, 2007. This update focused on enhancing current features and adding a "soft" shut off process that further reduces APS' need to send employees to the field to work orders.

P1D has delivered a network meter (form factor 12S) and two three phase meters (form factors 9S and 16S). The APS meter shop completed testing of these meters and is currently awaiting ANSI testing certification prior to installing them in the field.

In September, 2007 APS successfully completed a remote firmware upgrade in more than 50,000 installed AMI meters. The next firmware upgrade is currently being tested and is scheduled to rollout to over one hundred thousand meters prior to summer. The ability to remotely upgrade firmware in the meter is one of the critical requirements of any AMI system.

In the last six months APS has begun utilizing AMI meters to resolve meter reading access issues as part of the Access Improvement Plan (AIP) approved by the Commission in May, 2007. To date, more than four hundred meter reading access issues have been resolved using AMI.

Deployment Plan

The total number of AMI meters installed in the APS service territory has grown to over 110,000. The deployment has focused primarily on high density residential areas. This focus has provided significant value in reduction of field trips. During the last six months, the AMI system has remotely processed over 38,000 service orders without a field visit.

Introducing the installation of AMI meters to address meter reading access issues has reduced the hub to client ratio to approximately 38:1. This means that for each installed hub meter, there are approximately 38 client meters installed throughout the entire AMI meter population. The majority of multi-unit residential housing complexes now have AMI meters installed and in the next few months the deployment will start shifting to single family detached homes. This will reduce the number of meters that can be installed each day. To compensate for the reduction in the density of meters at each meter location and maintain a steady installation rate, APS is increasing the size of the AMI installation team.

The automated meters set on top of the remote, difficult to visit Neuman Peak have also continued to successfully provide reads during the last six months. APS has begun to install AMI meters on additional mountain tops within our service territory.

Costs

This project consists of four main cost components; meters, monthly cellular communications, meter installation and administration, and building the interface with the current APS applications.

Meters:

APS has purchased a total of 129,182 AMI meters at an average cost of \$93.68 per meter through February 2008.

Communications:

APS has a contract with KORE Wireless to provide cellular service that allows the meters to communicate with APS through the Cingular cellular network. The client to hub ratio has reduced to approximately 38:1 based on the installing AMI meters for the Access Improvement Project. The effect of reducing the client to hub ratio will eventually increase the communications cost per meter. Through February the monthly per meter communication cost was approximately \$0.16. This compares with the current monthly cost per meter read of approximately \$0.95 using the meter reading workforce. The cost to manually read a meter has increased slightly based on the fact that AMI meters have been installed predominately in high density areas which are the least expensive meters to read manually. While APS has reduced the cost to read meters it has also increased the value of the meter reads. Instead of receiving a single read per month from each meter, the AMI meters provide hourly reads. This interval data can provide a number of benefits for both APS and its customers once the MDMS is installed.

Meter Installation / Administration:

The AMI field operations team has installed approximately 40,000 meters in the last six months at an average cost per installed meter of approximately \$9.75. Once deployment progresses from high density multi-unit complexes to single family homes the cost per installation will increase based on the lower density of meters as well as meter access issues.

Integration:

APS spent approximately \$500,000 in the last six months on AMI related initiatives. Phase two of the PID interfaces to the APS CIS were installed in December, 2007. The main focus of this install was to reduce manual work. This is accomplished with the implementation of a work management system to handle AMI exception processing as well as a process to perform "soft" shut off orders. A "soft" shut off is performed in lieu of dispatching an employee to the field to physically disconnect a meter. When a "soft" shut off is performed the system automatically receives the final meter read from the AMI system and flags the meter as being shut off. The AMI system then monitors for energy consumption and notifies CIS in the event that consumption exceeds a predetermined threshold. If this occurs, a field order will be produced to perform a physical disconnect of the meter. This process allows APS to further reduce the number of field trips needed to manage customer orders. APS is also moving forward with the implementation of the new MDMS.

Operational Efficiencies

The ability to read and program meters remotely provides immediate operational savings as well as offering the potential to significantly reduce the cost of implementing future rate structures. The table below shows the number of field visits eliminated during the last six months for customers with AMI meters. This includes trips for transfer of service, meter exchanges for rate changes, and read verifies.

YYYY/MM	Transfer of Service	Rate Change & Verify	Total
2007/09	4,635	318	4,953
2007/10	6,810	403	7,213
2007/11	5,819	332	6,151
2007/12	5,724	304	6,028
2008/01	6,218	377	6,595
2008/02	6,823	497	7,320
Total	36,029	2,231	38,260

Since the inception of the AMI project, APS has completed more than 76,000 orders remotely, reducing trips to the field. Fewer trips result in reduced fuel consumption, fewer emissions and possibly a reduction in vehicular accidents.

On May 21, 2007, the Commission approved Decision No. 69570 related to the AIP. One of the approved solutions to resolve meter reading access issues is to provide customers with an AMI meter that will be read remotely. In implementing this plan, APS has addressed customer access concerns, reduced estimated billing, and reduced potential safety issues by eliminating the need for meter readers to physically visit difficult to access locations.

Summary

In conclusion, APS is continuing its AMI project. Deployment will move into single family detached home areas after multi-family residential complexes are saturated. APS will implement a MDMS to manage meter data from the current APS meter reading systems and provide an interface platform for any future AMI system. APS also continues to actively monitor the AMI market for advances in technology.

The next report will be submitted in September, 2008.