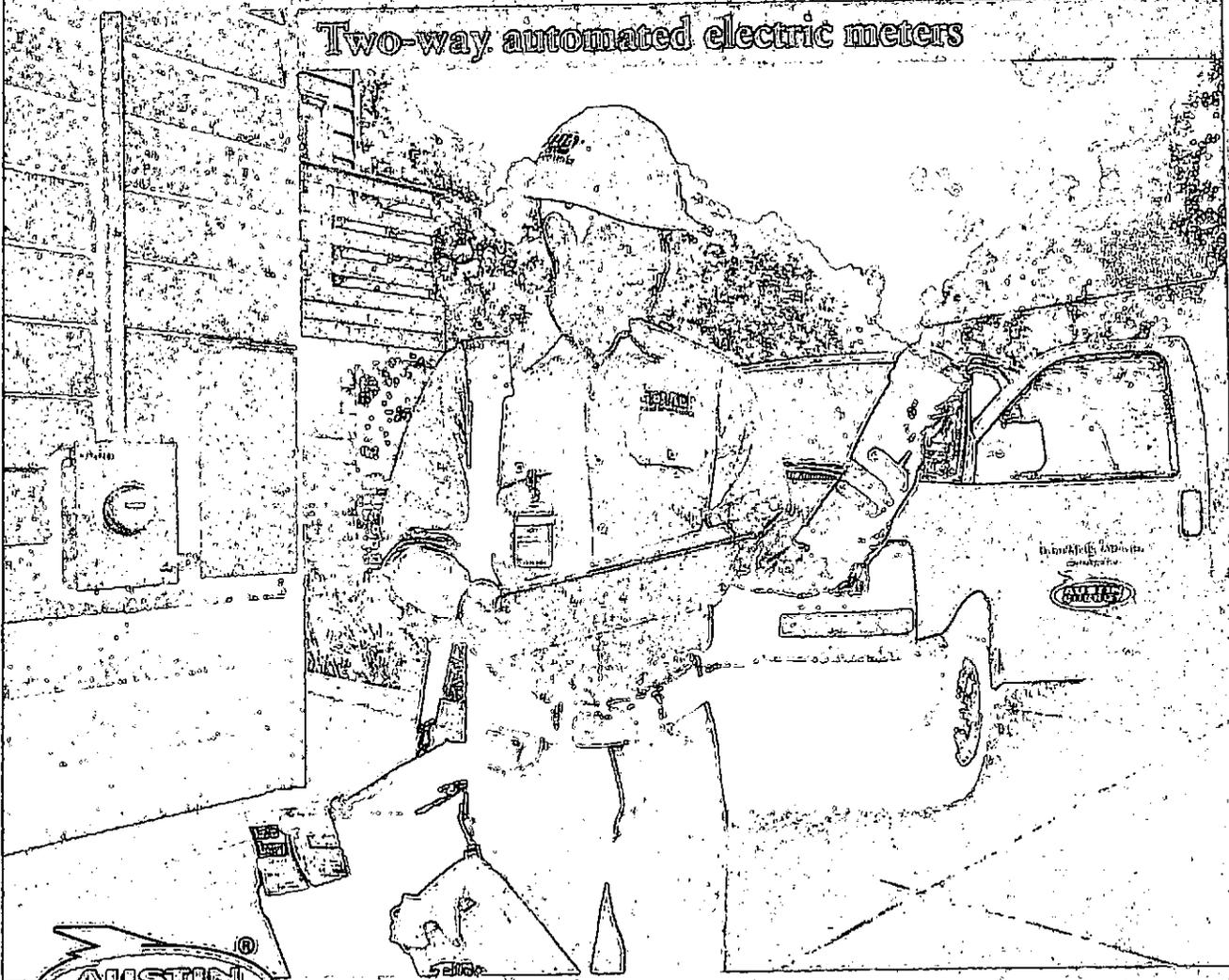


Late Backup

Coming soon TO YOUR NEIGHBORHOOD

Two-way automated electric meters



What difference will it make at your house?

1A

FACTS ABOUT Austin's AMI System

ADVANCED METERING

Infrastructure (AMI)

The technology used in Austin's AMI project is relatively new, even though forms of remote meter reading have been around for many years. Plans for citywide installation of the new metering system started in September of 2007, as one of the first major deployments of its type in the country. The City of Colorado Springs is installing the same equipment as Austin. Other cities in Texas are planning to install AMI systems as well.



Bill Romaine, of Laidlaw & Co., leads up the installation of Austin's 2-way network. It will be Laidlaw & Co.'s largest installation in America.

AUSTIN'S AMI SOPHISTICATION

Austin's AMI is a wireless radio transmission system that uses radio frequency (RF) local mesh collectors (routers) to transmit information to and from smart meters to 18 central towers. Information is converted from TCP/IP format, which allows for faster communications with a larger bandwidth, and then it is transmitted over telephone lines to a data collection center. Because the collection system is wireless and has local collection points, it is extremely flexible.

AMI requires smart meters to communicate with local collectors or routers that gather readings within a six-block radius. The meters send out readings at frequent intervals, track energy usage and identify power quality problems. They send out a signal when they are without power and indicate when power is restored.

Long Range Plans

The RF (radio frequency) mesh network will connect information from the smart meters and a distribution automation system. Together with the outage analysis system and in conjunction with a distribution management system, they will provide the ability to identify, predict and, in some cases, prevent outages and power disturbances before they occur. The combined systems of a mesh network, smart meters, distribution automation and distribution management system will allow the ability to identify the location of a power failure, provide for more rapid restoration efforts and, in some cases, provide the ability to automatically restore and reroute electricity from unaffected areas to affected areas.

How Much Will It Cost?

The total cost for 290,000 smart meters and installation is \$12 million.

Will Those Costs be Passed on to Customers?

No, they will be paid out of Austin Energy's operating budget. The new system is expected to allow Austin Energy to work more efficiently and cost effectively in the future.

Where Will We Save?

Meter reading costs: Current costs for electric meter readers can be reduced considerably with automated reads.

Reread costs: Savings can be realized from reduced labor, gas, vehicles, maintenance and insurance for Austin Energy employees driving out to reread a meter, as well as saving customer service time on a second call back.

Estimated read costs: Inaccessible meters increase reread costs and customer service time, and acquire additional time for billing adjustments.

Frequent service costs: Hundreds of starts and stops of electric service each day currently require one site visit for the stop of service and another for the start of service. Many of these site visits will not be necessary with remote turn on and turn off.

Power theft costs: Enhanced detection will make it more difficult to tamper with meters.

Increased system efficiency: Better information about the location and sources of power outages and meter tampering, better demand response and better demand forecasting will also result in savings.

Long range savings have also been found in similar AMI systems when: 1) time-of-use pricing and 2) an interactive Web site are in use. Both of these features help keep electric demand down when prices for power are highest.

What Will Happen to the Meter Readers?

Austin Energy's 63 contracted meter readers are also employed by Austin's water utility - so they will still have a job. Eventually, the adoption of new automated technology nationwide will require a workforce shift, as fewer meter readers will be needed in the field, but more employees will be needed in other areas.

Frequently Asked Questions

Photography by Patrick Wan


For more information call 972-7450 or visit


INSIDE LINE

For more information on the topics, please call Inside Line at 416-5700 or 800-862-8784 and enter a four digit code below:
 3019 Your Electric Meter Exchange

TB

SOAH Docket No. 473-13-0935
PUC Docket No. 40627
City of Austin's Response to OPC's 5th RFI

OPC 5-4 Please provide working papers, financial analysis, supporting documents, and other evidence related to the reduction of employee-related and other costs due to the implementation of the new advanced meters. In addition to costs, please provide an FTE analysis supporting the employee-related cost changes showing both reductions in and reassignments of FTEs.

RESPONSE:

Two third-party contractors perform all automatic and manual meter reads for Austin Energy and Austin Water. Therefore, there has been no reduction in FTEs as a result of the implementation of automated meters. Austin Energy has outsourced meter reading services for approximately 15 years.

The current outsourcing contracts were established in 2007 with two vendors, one in support of AMR meter reading and one in support of manual meter reading. The AMR meters are read multiple times per day and AE receives daily and monthly reports from the vendor that are input into the billing system. Additionally, the vendor provides a radio backbone infrastructure in which the data is gathered. The vendor also provides data backup services. The manual meter reading contract includes meter reading services and Soft Services. Soft Services are related to AMR missed reads and a 24 hour notice service. Notices are hand delivered to customers prior to service disconnections. The total cost of these soft service are estimated to be \$678,000 per year of which \$623,000 are related to 24 hour notices. The attached exhibit shows the average monthly per customer costs of meter reads including Soft Services.

Since the implementation of AMR, AE has historical information pertaining to the cost of meter reading as shown in the attached exhibit. The average monthly per customer cost of reading AMR meters is higher when compared to the average monthly per cost of manual meter reads. The cost differential is related to the services provided as described above. Also, it is important to note that AE experienced a significant increase in the unit cost associated with manual reads in 2009 from the third-party vendor as the number of manual reads was reduced significantly compared to 2007.

Since 2007, AE has not conducted a comprehensive cost-benefit analysis associated with the AMR program although AE recognizes other important benefits such as the ability to implement commercial TOU rate structures and measure commercial loads on an interval basis, provide customers daily consumption information, improved accuracy in billing (less estimated bills) and better data and timely information and knowledge of system outages thereby improving system outage management. These benefits contribute to the overall value of the program.

In 2009, 28% of the manual meters reading costs were allocated to water; in 2012, 78% of the manual meters reading cost were allocated to water.

Attachment 1 - Meter Reading Analysis, 1 page.

Prepared by: Jawana Gutierrez
Sponsored by: Jawana Gutierrez

Meter Reading Contract Cost Analysis

Fiscal Year	Automated Reads			Manual Reads				
	Reads (Monthly Average)	Reads Total Budget Dollars (Per eCOMBS)	Average Monthly Unit Cost (\$/Customer)	Electric	Water	Subtotal	Manual Reads Total Budget Dollars (Per eCOMBS)	Average Monthly Unit Cost (\$/Customer)
2007	126,370	\$1,728,900	\$1.140	245,699	193,513	439,212	\$4,054,067	\$0.769
2008	126,254	\$2,736,710	\$1.806	255,314	197,878	453,192	\$4,067,284	\$0.748
2009	211,139	\$5,526,668	\$2.181	197,262	205,234	402,496	\$4,392,425	\$0.909
2010	380,990	\$5,506,943	\$1.205	34,690	208,743	243,433	\$3,030,576	\$1.037
2011	407,194	\$6,990,661	\$1.431	4,796	215,772	220,568	\$2,992,425	\$1.131

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Public Policy Questions to be asked on the AMS contract

Statement of case:

AE is essentially amending its contract with LANDIS+GYR ("LANDIS") which provides AMS services, include supporting customer services such as billing and to perform meter reading functions as well as data collection services. The amended contract would extend our commitment to LANDIS service an additional six years and requires LANDIS to provide additional services. There was some discussion at the EUC by AE that similar type of services were being performed by LANDIS with the Colorado Springs public utility and the Jacksonville public utilities; however, the LANDIS contract with Jacksonville is supposedly different because it also incorporates advanced meter reading for Jacksonville's water utility as well.

Public Policy Questions

What is missing from the information provided the Electric Utility Commission is any type of cost benefit analysis showing it is cheaper for AE to continue to use contractors to perform meter reading services than to do these services in-house. AE did not provide any information about what Texas utilities are doing—especially those utilities who have had a form of AMS for many years. While it is true, AE has four more years to go on its current LANDIS contract, that four years would provide AE enough start up time to do this service in-house. This does not mean that AE would have to "re-invent" the infrastructure investments. Those investments could be leased, if concern about rapid technology changes, or purchased from LANDIS or some other provider. Another missing piece of information is, with any new contracting, the concept of economies of scope. Do the proposed contractual extensions address the possibility of the W/WW utility deciding to use smart meters to record ratepayer water usage during any of the next ten years covered in the service contract. In other word how does the contract extension address the possible integration of water smart meters into the more automated customer services? If so, would different infrastructure investment be needed that would allow the integration of water smart meters into the "smart grid".

Another missing piece of information is consideration of options other than continuing with LANDIS. What are product and/or service substitutes for LANDIS that could be contracted for at the conclusion of the current LANDIS contract term? Are there minority or women owned firms that could provide this service and, if so, were they considered? What are the plans of AE to change out current residential smart meters with smart meters with more capabilities such as remote disconnect and re-connect? How, if at all, will relying upon LANDIS for meter services limit AE's choice of smart meter purchases over the course of the ten year contract and past the ten year term contract?

In addition, another missing piece of information is how the current or the future contract meter reading services with LANDIS interact with our billing system? Have any of the billing problems been a result of the inability of the LANDIS provided data to be inputted into AE's new billing system? Is relying upon an independent contractor the most efficient way to incorporate meter reading data into our billing system now or after the conclusion of the current contract with LANDIS?

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