

MEMORANDUM

TO: UTILITIES ADVISORY COMMISSION

FROM: UTILITIES DEPARTMENT

DATE: August 7, 2019

SUBJECT: Conclusion of the CustomerConnect Pilot Program and Residential Time-of-Use Rate

Request

This is an informational report, no action is needed.

Background

In December 2012, City Council approved the CustomerConnect pilot program to evaluate the application of advanced metering infrastructure (AMI) in Palo Alto ([Staff Report 3330](#)). At a cost of \$450,000 over 5-years, the pilot provided advanced electricity, natural gas and water meters for single family residential customers to monitor their hourly utility consumption to use utility services more efficiently.

With the initial participation of 300 customers in CustomerConnect program, including a subset of 117 customers using residential time-of-use (TOU) rate adjustment in conjunction with their residential E-1 rate, the program achieved its objectives. Program highlights include City staff gaining experience in the following areas:

1. Installation and maintenance of advanced meters and communication networks;
2. Implementation of residential TOU electricity retail rates;
3. Assessing the potential to conserve energy by maintaining electric system voltage at the lower end of the acceptable voltage range, a practice known as conservation voltage reduction;
4. Evaluation of ways to lower the system integration cost for a full-scale AMI implementation;
5. Evaluation of ways to integrate AMI into the distribution outage management system (OMS);
6. Evaluation of ways to optimally integrate flexible customer technology like batteries and electric vehicles.

Staff presented a report summarizing the lessons learned and findings from the pilot to the UAC in 2017 ([UAC Report, 09/06/2017](#)).

Discussion

The pilot phase of the CustomerConnect pilot program ended in December 2017, and staff continues to maintain and operate the pilot program systems (advanced meters, mesh network for meter communication, utility network portals, and customer usage online portal) for the 96 customers still enrolled. The mesh network, which is critical for meter communication as well as application of the TOU rates, was built on a 3G wireless platform, which will become obsolete by the end of 2019. Continuing to use it will require a \$40,000 to \$80,000 upgrade to transition to the 4G wireless platform.

Given the additional costs of upgrading to a new wireless platform and the staffing resources needed to maintain the pilot program's systems, staff recommends concluding the CustomerConnect pilot program by the end of 2019 and reallocating resources for the implementation of the full-scale AMI system in the next 3 to 5 years. As a result, TOU rates will be discontinued, along with the online portal displaying participants' interval utility usage.¹ CPAU's residential customer E-1 rate schedule will continue to apply to all of the customers who participated in the CustomerConnect program, but the TOU rates adjustment will no longer be applied in conjunction with the E-1 rate.²

A recommendation to conclude the CustomerConnect pilot program and TOU rate schedule is scheduled for Council consideration on August 19, 2019. With Council approval, Staff will notify all currently enrolled pilot program participants in early October and provide information about the change. Both the CustomerConnect pilot program and TOU rate schedule are planned to be concluded as of December 31, 2019.

Resource Impact

Existing staff will undertake the tasks required to conclude the CustomerConnect program and inform customers with TOU rates that their residential E1-rate schedules will continue to apply, absent the TOU rate adjustment.

Policy Implications

Concluding the CustomerConnect pilot program and focusing resources towards full scale deployment of the AMI system is in line with the Utilities Strategic Plan to *deploy AMI to increase reliability, customer service and improve response time* (Priority#3, Strategy#2).

Attachments


None

¹ Of the 300 customers who originally signed up and recruited for the pilot, 24, or 8%, have logged and viewed their consumption patterns in the month of May 2019.

² TOU customers with electric vehicles on average have generally seen a \$2-3/month reduction on their bills due to their participation in the CustomerConnect program. Council originally approved the TOU rates in 2012 and extended them indefinitely in 2018 ([Resolution 9737, 02/05/2018](#)).

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