AGENDA REPORT

City of Santa Clara, California

Santa Clara

All-America City

2001

Date: April 3, 2013

To: City Manager for Council Information

From: John C. Roukema, Director of Electric Utility

Subject: SVP MeterConnect Wi-Fi System Update

Free outdoor Wi-Fi access is one of the first of many benefits expected from Silicon Valley Power's advanced metering program called SVP MeterConnect. The new SVP MeterConnect^{SM} outdoor Wi-Fi system installed throughout Santa Clara was opened to the public on March 21, 2012. A new website at www.santaclarafreewifi.com was also launched to support this program. The SVPMeterConnect Wi-Fi system replaces the existing Metro_WiFi system, installed in 2004 by a private company and purchased by SVP in 2008 for testing its use for utility data communications.

Unlike the old Metro_WiFi system, which was designed only for public Wi-Fi use, the SVPMeterConnect Wi-Fi system is a multi-use network. Primarily planned for secure City utility communications, the new system provides public access Wi-Fi and will be available for other City purposes. The system covers most outdoor areas in Santa Clara and uses state-of-the-art equipment to provide better receptivity and speed. As features are added, the technology is expected help to locate power outages more quickly and allow customers monitor their own electricity usage.

Most reports on the new system so far are positive and speak to the increased performance when compared to the existing system. In its first week of operation, over 3,000 unique users per day were connecting to the SVPMeterConnect Wi-Fi system. We expect this level of use to increase and pass the peak usage of the old system within a couple of weeks. Since radios could not be installed in the same location as the old system radios, SVP expects a few users of the old system may have a lower level of service. These issues will diminish as the system is tuned and improved over time. Obstructions such as trees and buildings, or the use of low-power devices such as smart phones and tablets, also limit Wi-Fi range and receptivity.

SVP MeterConnect wireless equipment is capable of handling multiple separate channels of data traffic. A dedicated, but unencrypted, channel is used for the public WI-FI service. Users should be cautious while on any unencrypted Wi-Fi network. Utility communications use separate, encrypted data channels. When advanced meters are installed at businesses and residences starting later this year, electricity and water usage information will be highly encrypted before being sent via wireless network. Security levels for this information are similar to those used by banking and national defense institutions.

APPROVED:

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Documents related to this report: None