



City of Arts & Innovation

City Council Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL DATE: JUNE 20, 2023
FROM: PUBLIC UTILITIES DEPARTMENT WARDS: ALL
SUBJECT: PUBLIC UTILITIES OUTAGE COMMUNICATION

ISSUE:

Receive and file an update and status of the Public Utilities outage communication process.

RECOMMENDATION:

That the City Council receive and file an update on the status of the Public Utilities outage communication process.

BACKGROUND:

Utility staff has been asked to share details of a power outage that occurred on March 10, 2023, and how the utility communicates to the public in the event of an outage.

DISCUSSION:

RPU has just over 110,000 metered electric customers serving a population more than 320,000, encompassing over 82 square miles. Operating and maintaining 99.2 miles of transmission lines, 1,351 miles of distribution lines, and 15 substations takes highly skilled and talented employees. Our grid is monitored by our electric system operators 24 hours a day, 7 days a week. When outages occur, these operators are the first to react. In 2022, there were 265 sustained outages with an average of 315 customers impacted and an average duration of 2 hours and 34 minutes.

Power outages often occur unexpectedly. During an outage, the Public Utilities Department's top priority is the safety of the public and utility crew members working to restore power.

The Public Utilities Department (RPU) prides itself on providing the highest quality and reliable electric services and has some of the best reliability when compared to other utilities within the state. However, outages do occur, and communication is a key element in the City's response in these situations.

Power Outage on March 10, 2023

The power outage was caused by a broken guy wire¹ that came in contact with the overhead conductors. Within 10 minutes, staff was dispatched and in route to investigate. Staff removed the broken guy wire and power was restored within 1 hour and 5 minutes.

Communication to Customers

Communication to customers during a power outage occurs through multiple channels. The first channel is through the City's website. On both the City and Public Utilities homepages is a link to a real time outage map. The outage map is updated by the grid control operators during an outage. The outage map contains the general location of the outage, the known number of customers affected and the standard estimate of time to restore power. Much of this initial information is based on estimates since the exact cause, location, and number of customers impacted is not known. The second channel is customers contacting our call center or 311 call center during business hours or the utilities' automated phone answering system if outside of normal business hours. After hours emergency calls are automatically routed directly to the Grid Operations Center.

Future Communication to Customers

RPU plans to install in the future an outage management system (OMS). An OMS system will provide direct communication with the customers, allow for automated texts, email, or automated calling to customers experiencing an outage. The system will provide customers with timely and accurate estimates on restoration times. OMS will provide the grid control operators with real time grid information for accurately evaluating how an outage impacts customers, how to prioritize responses, and effectively assign crews. The OMS system will track historical statistics and reliability indices for engineering staff to analyze trends and determine proper solutions to reduce future outages. Other systems monitor and control the electric grid and must first be upgraded before full functionality of an OMS can be realized.

Internal Communication

There is an internal communication system, called Everbridge, that sends notifications via text messages to City Staff. These notifications are sent for outages that are uncommon. The thresholds for these notifications that trigger notify City Staff include:

1. Customers impacted \geq 200 Customers and \geq than a 4-hour duration;
2. Any number of Customers out for more than 4 hours; or
3. Any outage impacted \geq 2,500 Customers

STRATEGIC PLAN ALIGNMENT:

This item contributes to **Strategic Priority 2 – Community Well-Being**, **Strategic Priority 5 – High Performing Government**, and **Strategic Priority – 6 Infrastructure, Mobility and Connectivity**, and the following goals:

Goal 2.6 – Strengthen community preparedness for emergencies and disruptive events to ensure effective response and recovery.

1. A "guy wire" is a tensioned cable designed to add stability to a free-standing structure.

Goal 5.2 – Utilize technology, data, and process improvement strategies to increase efficiencies, guide decisions making, and improve access to and delivery of financially sustainable city services.

Goal 6.2 – Maintain, protect, and improve City assets and infrastructure to ensure reliability, enhance sustainability, and facilitate connectivity.

Goal 6.5 – Incorporate smart city strategies into the planning and development of local infrastructure projects.

This item aligns with each of the five Cross-Cutting Threads as follows:

1. **Community Trust** – Replacement of aging technology that will ensure reliability of the City’s electric system and result in greater public good.
2. **Equity** – RPU endeavors to provide safe and reliable electric service to all its customers. Installing an outage management system provides an equitable benefit to all customers.
3. **Fiscal Responsibility** – The outage management system will be cost-effective and maximizes the use of existing components and only replaces obsolete equipment.
4. **Innovation** – The outage management system has added new technologies that provide data that wasn’t previously available. The new data offers many opportunities to improve operations, customer experience, and reliability.
5. **Sustainability & Resiliency** – The data available from the outage management system will provide information that can assist in asset management and daily operational decisions that improve reliability and support increased opportunity for RPU to implement rates and other supporting programs to better integrate electric vehicle charging, solar and other self-generation programs, and customer demand response programs that will support the transition to carbon neutrality.

FISCAL IMPACT:

There is no fiscal impact report associated with this report.

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