

Queen Anne Community Meeting Outage Information October 13, 2009

On Tuesday, October 13, 2009, Seattle City Light Superintendent Jorge Carrasco met with members of the Queen Anne community to talk about the series of five outages that occurred on Queen Anne during the month of September. The audience included residential and business customers who were impacted by the outages.

The purpose of the meeting was to let customers know **WHY** the outages occurred; **WHAT** caused them; and **HOW** City Light plans to improve power reliability for Queen Anne residents.

Why Five Outages?

- September 10 (Thursday) City Light scheduled a **planned outage** in the vicinity of 8th Avenue West and West McGraw. Planned outages are done so that crews can make necessary repairs or up-grades on de-energized power lines. In this case, customers were notified of the planned outage that would take about three hours in order to replace some old poles and transformers. The work was one on the overhead electrical distribution system. Unfortunately 47 of the 145 customers affected never received a notice of the outage. A combination of incomplete customer data and human error caused the missed notification. The work was completed.
- September 16 (Wednesday) an **unplanned outage** occurred on an underground cable in an area from W. Barrett on the north to W. Harrison on the South; and 2nd Avenue North on the east and 11th Avenue W. on the west. This unscheduled outage affected 6,566 customers and lasted one hour and fifteen minutes. It was caused by an old cable splice that failed. Crews were not able to make the necessary repairs, because the vault that needed to be entered for the repair had other, energized power lines running through it. Power was re-routed to restore customers and it was decided that a planned outage would need to be scheduled in order to make the necessary repairs inside the vault.
- September 26 (Saturday) a **planned outage** was scheduled in order to make the necessary repairs inside the vault. The outage would impact primarily the Seattle Center, 70 businesses adjacent to the Center, and three apartment complexes near the Center. The outage was scheduled for 12:30 a.m. in order to have the least impact on customers. Repairs were made and power was restored at 7:00 a.m. However, the repairs that were made were not “proof tested” – that is, tested to ensure that they were adequate. The test was to take place on Monday, Sept. 28th. Customers continued to receive power that had been re-routed.
- September 26 (Saturday) an **unplanned outage** occurred in the underground system in basically the same area as the outage on September 16th with the addition of customers in a broader area of lower Queen Anne. In all, 11,975 customers were without power for three hours and thirty-three minutes. Power was able to be restored by again re-routing power from other power lines to pick up this load. Repairs were not able to be made for the same reason as before – the need to get into a vault that had energized lines.

- September 27 (Sunday) an **unplanned outage** occurred on the underground system involving approximately the same customers from September 16 and September 26. Not all of those customers were affected, but some additional customers were included, particularly in the area around Lower Queen Anne in the vicinity of Elliott Avenue. In all, 10,003 customers were without power. We were able to bring customers back into service in stages, with the all power restored by 4:45 a.m. (some customers were out of power for as long as 7 ½ hours). Necessary repairs were not completed, again because of the need to get into the energized vault.

The temporary switching of power has been successful.

What caused the outages?

The three unplanned outages are all related to (basically) the same cause – old, deteriorated underground equipment. The underground cables are more than 30 years old. In the mid-1970s, City Light used the technology available at the time to install its underground system. This included directly burying cables into the ground. That means there was no protective conduit encasing the cables. Over time, the cables have deteriorated. Heat, water and age have caused the cables to crack and ultimately fail. We are seeing the results of this deterioration now. Because budgets for maintenance have been delayed or deferred, needed repairs and/or replacement haven't occurred. Nearly 40% of the 2500 miles of underground cable in City Light's system is in this condition.

How will City Light fix the problem?

- A planned outage is tentatively scheduled for October 26. It will be similar to the planned outage of September 26 – affecting only the immediate customers in and adjacent to the Seattle Center. City Light is doing preliminary testing to ensure that we can isolate the problem and fix it during the scheduled planned outage.
- Seattle City Light will be replacing approximately four – six blocks of underground cable in the area of 8th Avenue West and West Galer. The cable is in need of attention. This work will take approximately four – six weeks and is scheduled to be completed by the end of 2009. Customers near this area may experience one or two planned outages as a result of the work. However, customers will be notified.

These system improvements should resolve the issues that caused the series of unplanned outages on Queen Anne in September.

Questions From Customers

1. Is the splice that is done on a cable temporary?

No, that is a utility standard – much the same as in your home when wires are brought together, for instance, at your junction box.

2. What will it take to make the improvements that are needed for Queen Anne’s part of the power grid?

We are planning to make approximately \$2.6 million worth of investments to the system between now and 2011.

3. How is the power situation done along Elliott?

City Light actually has quite a bit of new infrastructure in that area due to all of the construction that has taken place. There is one remaining “hole” where there are a couple of new high rises being constructed. City Light is waiting for the developer to finish their electrical work, and it will complete this circuitry.

4. Does re-routing power complicate the problem?

Yes, it can. You are putting additional load on a feeder (a major distribution line). Any time you increase load, de-energize, or re-energize a power line you are creating some kind of stress. It can result in other complications “farther down/up the line” that may cause an unanticipated outage.

5. How were customers communicated with about the outages?

City Light’s standard protocol is to identify how many customers are affected. Depending on the size of the outage (generally, more than 2500 customers) we will:

- Up-date our media hotline
- Activate our “Power Out” information on our home page (www.seattle.gov/light)
- Put something on our blog (Power Lines <http://powerlines.seattle.gov>)
- Post a media release to our Web as well as distribute to the media
- Put something on Twitter (SEACityLight)
- Depending on the time of day, during business hours Monday – Friday, the Call Center (206-684-3000) will answer customer inquiries about outages; after hours and on weekends, customers can call (206) 684-7400 to receive up-dated information about outages and/or report an outage.
- Notify community blogs of the situation

We used this same method to notify customers about the Community Meeting. We also included information that went to all Queen Anne community-based organizations (e.g. Chamber of Commerce, Community Council, District Council, etc.) as well as placing an ad in the Queen Anne News.