

## Summary of Call with Duquesne Light

January 4, 2023

6-7pm EST

Duquesne Light Representatives:

- *Paul Svoboda*, External and Governmental Affairs
- *Wesley Terek*, Senior Manager, System Planning Group

City Council Representation

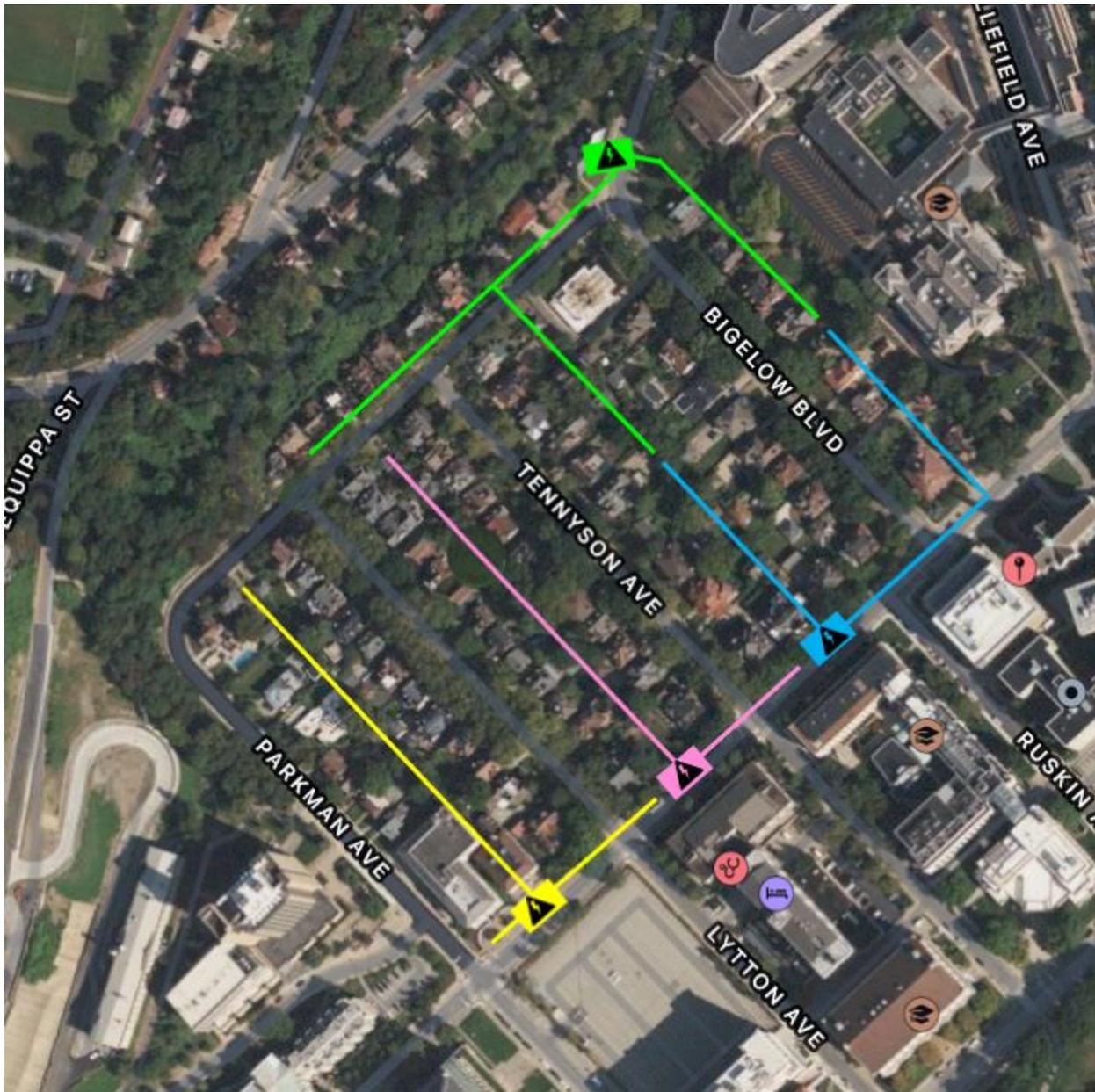
- *Erika Strassburger*, District 8 Councilperson
- *DaVonn Brown*, Staff

### Overview of Presentation by Wesley Terek

#### Investigation into the problem

- Starting in June 2022, DLC initiated their investigation into the problem in response to customer complaints of low power.
- DLC monitored the voltage over a two-month period, focusing initially on the distribution system running between Lytton and Tennyson.
- Preliminary report indicated that cables and transformers serving this area were overloaded.
- At the end of the monitoring period, upgrades were recommended.
- In August 2022, the issue was escalated to the system planning group – this is the group that plans major infrastructure projects.
- At that time, a broader investigation was initiated where voltage was monitored for all residences in the community. This was accomplished using smart meter data during a roughly 1 year period from Summer of 2021 – August of 2022.
- The results of that investigation revealed that there is excess load/demand on the electrical networks serving the neighborhood.
- The Schenley Farms infrastructure is over 75 years old and was not designed to handle the power demands of modern life.
- Bottom line: High load + older network = undervoltage.
- Problem will only get worse without significant upgrades to the network.

Schenley Farms Power Grid—2023



Transformers converting 4kV line (not shown) to power distributed to our homes (240/120 V)



Colored lines are the location of subterranean service lines from the transformer to our individual homes. Currently running between Parkman/Lytton and along Bigelow (yellow), between Lytton/Tennyson and along Bigelow (pink), between Tennyson/Bigelow and along Bigelow (blue), and along Parkman and south between Tennyson/Bigelow and south behind Bigelow homes (green). The further away the home is from the transformer feed, the more likely folks are/will experience low power.

## Proposed Solutions

- In October 2022, DLC Distribution Engineering Design group was consulted to scope permanent solutions.
- Recommended solutions: (1) Add additional transformers; and (2) Reconfigure the lines connecting the transformers to the residences in order to reduce the number of customers being served by each transformer (i.e., to better balance the loading). Both need to happen to solve the problem. Location of additional transformers TBD.
- A number of factors limit DLC's design options: (1) subterranean nature of the distribution lines; (2) most of the distribution lines connect at the back of the house; (3) conduit carrying these lines is full and cannot be expanded; and (4) the "vaults" housing the existing transformers cannot be refitted for larger or additional transformers.
- Existing distribution lines could be replaced in their current locations, but this would involve significant excavation. DLC would like to minimize disruptions on our properties.
- Low-impact options are being considered. For example, "horizontal boring" without the need for major excavation.
- Finding the best solution will involve working directly with the neighborhood.

## Solution Implementation: What to Expect.

- Once a workable solution is in place, DLC will be in communication with residents concerning access and timelines.
- Upgrades will be installed as quickly as possible.
- Constraints that may impact timelines: (1) permitting and access agreements; (2) supply chain issues.

## **Q & A Summary (curated)**

*Q: Can volage be reliably monitored at an outlet?*

A: DLC commented that there are many things that can affect voltage inside homes. They could not provide a comment without evaluating the situation inside the home.

*Q: What should our voltage levels ideally be?*

A: DLC should deliver between 114-126v at the meter.

*Q: When can expect to see a DLC presence in neighborhood?*

A: The first feet on the ground will be 811 doing utility marking. Best estimate is in the next few months.

*Q: Is there anything we can do to help mitigate the problem in the interim?*

A: Peak usage is between 3pm and 8pm. To the extent possible, try to plan activities with high electricity consumption outside of the window (e.g., set dishwasher with 4-hour delay to run in middle of the night).

*Q: Could the low voltage be due to changes or activities taking place at Pitt?*

A: There is no data available to suggest this.

*Q: Is this possibly a supply issue?*

A: This is highly unlikely because some neighboring buildings share the same primary 4 kilovolt line as Schenley Farms and they have not seen any problems. The problem seems to stem from our neighborhood's 120/240v secondary local distribution system. Pitt/UPMC does have their own sub-stations and a new residential sub-station was placed in "the Hollow".

*Q: Will the work be extended to include Schenley Farms properties on center avenue?*

A: DLC indicated that they will now start looking at including these properties as well in their plans.

*Q: Is the low-voltage dangerous?*

A: It is not possible to comment on the specific conditions inside a customer's home. DLC's responsibility is to bring power to the meter. As far as the portion they control, DLC does not consider the situation dangerous at this time. NOTE: it was made clear later in the call that the low voltage may cause appliances and electronic devices to not work properly leading to failures.

*Q: If hardscape excavations are required, is DLC committed to replacement that matches the original design and aesthetic (exposed aggregate sidewalks for example)?*

A: Yes. DLC typically does like-for-like replacement.

*Q: Do you recommend homeowners invest in voltage stabilizers?*

A: DLC recommends that interested homeowner's consult with a qualified electrician for in-home solutions.

*Q: Could we use this opportunity to consider up-grading the neighborhood street lights to conform with those in other areas of the Oakland Historic District?*

A: The City owns the streetlights. Currently, there is no funding source to support such an upgrade. DLC does have a subsidiary that could service an upgrade, but this would need to go through City channels. Councilperson Strassburger made note of this request and agreed to look into this possibility.