

## PA PUC Docket No. C-2023-3041648

### John Shaw v. PECO Energy Company

#### Complainant Reply to PECO Answer dated July 28, 2023

PECO apparently plans to convert its whole electrical distribution system to a voltage of 7,200 volts, regardless of local conditions that call for certain areas to be left at 4,000 volts. (This can easily be done by using step-down transformers on poles.) In this case, I am asking for a local exception to save a great many tall heritage trees that establish the fundamental character of my neighborhood. I hope the PUC will rule in my favor, in line with its mission to Protect the Public Interest.

PECO has written, "The trees at issue in the Complainant's area that need to be removed are located too close to the new electric equipment, which will pose a safety and reliability issue for customers and crews." As noted in my complaint, there is only one reason why the trees to be removed are located too close to the new electric equipment: that equipment will be operated at a higher voltage (7,200 vs 4,000 volts). The higher voltage requires the vegetation clearance to be greatly increased (from 6 to 12 feet), requiring the removal of many trees. If the new electric equipment were operated at the current voltage, 4,000 volts, a voltage which is still commonly used, the trees would be saved.

PECO has also written, "PECO Energy investigated with its vegetation and engineering department whether keeping the trees slated to be removed was feasible. Due to engineering barriers, it is not feasible." "Engineering barriers" is a nonspecific term that should be explained. It is likely that these "barriers" are simply that PECO has planned to increase the voltage everywhere, which, as I have said, is not reasonable in this neighborhood. PECO evidently does not wish to consider exceptions, even for good reason, and is refusing to consider this one.

PECO has ignored a statement in my complaint about reliability: "PECO may imply that the [increased voltage] would increase reliability, but the fact is that utilities are well aware that increasing primary voltage decreases reliability." This is because higher primary voltage enables the use of longer circuits, whose greater length exposes each circuit to more potential damage from storms, accidents, etc. This is explained on the Electrical Engineering Portal website at [Primary Distribution Voltage Levels \(electrical-engineering-portal.com\)](https://www.electrical-engineering-portal.com/primary-distribution-voltage-levels) Since PECO states that this is a reliability project, it is curious that the unnecessary voltage increase actually decreases reliability. PECO has written, in an unsent letter appended to PECO's Answer to Formal Complaint, that "This work will help to improve reliability – reducing the frequency of outages and minimizing the duration of outages that do occur." This is by no means clear in view of the voltage increase.

The Air Media 012 project is part of a system-wide Reliability and Resilience program. It has a number of elements, all but one of which will increase reliability: tree-resistant wires, new cross-connections between existing circuits to increase redundancy, and other "innovative equipment" (unspecified in the PECO Answer). The other element of Air Media 012, increasing the voltage, will decrease reliability, in addition to requiring the removal of trees. The goal of the project, increased reliability, will actually be harmed by the voltage increase.

The Air Media 012 Reliability and Resilience project could easily be done without increasing the voltage in this neighborhood. This neighborhood could be kept at 4,000 volts to save the trees, while adjoining areas could be increased to 7,200 volts if PECO wishes to do so. (Different voltages can be used in the same circuit, in sections linked by transformers, a common practice.)

A final word about trees: trees make this neighborhood beautiful, but they are in the news, increasingly valued for two other properties as global warming is starting to be felt. First, trees absorb carbon dioxide, the dominant greenhouse gas. Second, they keep neighborhoods appreciably cooler during severe hot spells. These properties will become even more valuable as time goes on. PECO would do well to recognize the increasing value of trees.