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May 1, 2020

Via Electronic Filing

Public Utility Commission of Oregon
Attention: Filing Center
P.O. Box 1088
Salem, OR 97308-1088

Re: **Commission Order No. 17-511 Compliance Report for PGE's Low Clearance Correction Program**

Pursuant to Commission Order No. 17-511, following Docket No. UE 319, Portland General Electric Company (PGE) hereby submits its 2019 annual report for the Low Clearance Correction Program.

The Low Clearance Correction Program focuses on correcting noncompliant service connections discovered over a ten-year inspection cycle for service connections with points of attachment (POA) and/or weatherheads below eight feet, and between eight feet and ten feet. Once a service line or facility has been identified as needing a clearance correction, PGE determines whether the issue can be mitigated without action by the customer, or if additional non-utility work on the customer's side of the service is needed. While the program operates on a two-year correction cycle (i.e., low clearance conditions will be corrected within two years following discovery), the intent is to implement the correction within the year it is discovered.

Vertical clearance is the measurement from pedestrian surfaces (e.g., walkways, driveways, porches) to the point of a customer's service attachment, where PGE service would attach to the customer's residence. Circumstances leading to low service conditions may include: non-compliant customer-owned facilities such as a low weatherhead (a weatherproof electric service drop entry point where overhead wires enter a customer's building); inadequate height of a suitable attachment point on the structure; or, customer structure alterations or additions such as new/raised decks and patios, staircases, carports, outbuildings, etc., that result in reduced clearance from a pedestrian surface. These issues were discussed during PGE's UE 319 general rate case and resulted in a stipulation that was adopted by the Commission in Order 17-511.

Low service conditions are identified via PGE's annual Facility Inspection and Treatment to the National Electrical Safety Code (NESC) Program (i.e., FITNES Program). PGE inspects based on

the most current edition of the NESC adopted by the Commission.[1] Every year, PGE inspects approximately 28,000 PGE poles and related overhead facilities as part of the FITNES Program. During this inspection, PGE records NESC violations including service clearance conditions. Dedicated two-man repair crews are dispatched typically within six to nine months after condition discovery to correct as many conditions as possible. These two-man repair crews are typically able to correct many of the conditions on this first pass. Conditions that cannot be corrected by the two-man crews are returned to the PGE FITNES group and follow-up work orders are initiated to address the conditions that require alternative crew configurations and/or different materials and equipment. Certain work that cannot be completed by the FITNES Program is covered by the Low Clearance Correction Program.

Implemented in 2018, PGE's Low Clearance Correction Program operates under the following guidelines:

1. If the service line/equipment was installed prior to 1977[2] and the POA (e.g., existing bracket, house knob) can be raised to ten feet (through the installation of a new POA) then this work is generally addressed as part of PGE's annual FITNES Program.

2. If the service line/equipment is between eight feet and ten feet and was installed prior to 1977 and the POA cannot be raised to ten feet because the building's construction will not accommodate raising it to ten feet, then guarding material (an insulating tape that consists of a dielectric, synthetic, silicone material) is applied to the service conductor at the service point to correct the low clearance condition.

3. If the customer-owned weatherhead on a building that was constructed prior to 1977 is between eight feet and ten feet and the POA is at ten feet or can be raised to ten feet, then guarding material may be installed to correct the low clearance condition.

4. If the POA and/or the customer-owned weatherhead on a building that was constructed prior to 1977 has less than eight feet vertical clearance and raising the POA cannot be addressed by modifications to PGE-owned equipment alone (as described above), then PGE's Low Clearance Correction Program will work with the customer and a licensed electrical contractor to make the repair. This may include replacing the customer-owned weatherhead, modifying the building's envelope to extend the weatherhead, replacing the meter base, replacing the service entrance conductors, or replacing or relocating the breaker panel.

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[1] *See* OAR 860-024-0010.
[2] The 1977 edition of the NESC included several code changes.

To implement the program in 2018, PGE hired two incremental staff (a project manager and field inspector) to ensure strong linkage between FITNES and the Low Clearance Correction Program. The project manager is responsible for supporting the program and coordinating with contractors, PGE personnel, and external stakeholders to ensure program costs, scope, quality and timelines are managed effectively. The field inspector oversees the day-to-day inspection and correction work related to the low services.

In 2019, PGE inspected 18,340 overhead service connections for POA and/or customer weatherhead height. These inspections identified 1,465 low clearance conditions for service connections between eight feet and ten feet and 85 low clearance conditions (i.e., approximately 6% of all low clearance conditions) for service connections that were below eight feet. In UE 319, PGE forecasted that approximately 3,000 low service conditions could be identified, on average, during each year of the program's ten-year inspection cycle. This estimate was based on a snapshot of historical FITNES Program data, where over 3,000 low service conditions were documented during a single year of inspections. Additionally, a pilot study was conducted to estimate work on customer-owned equipment and found that approximately 17% of low service conditions could require corrections on the customer-side. This analysis informed the basis for the annual cost that PGE expected to incur for the Low Clearance Correction Program.[3]

Furthermore, PGE found that most low services in the area where inspections occurred could be corrected via installation of guarding material, which is significantly less expensive compared to corrections on customer-side equipment. This reduced amount of customer-side work, combined with the fewer than expected low clearance conditions identified, resulted in a lower annual program cost in 2019.

PGE completed corrections using guarding material for 549 connections between eight feet and ten feet and the total cost for those corrections was approximately $185,000. Corrections were completed for 264 service connections below eight feet and the total cost for those corrections was $546,697.

Corrections in 2020 are ongoing with emphasis on the correction of low services conditions discovered by the FITNES Program in years 2019 and 2020. PGE is also accelerating the Low Clearance Correction Program by including FITNES Program discoveries from inspections conducted in prior years.

Given the availability of guarding to fix many low clearance services and the geographic area of our service territory where inspections occurred in 2019, the program cost and number of needed low clearance corrections has been lower to date than PGE estimated in the UE 319 general rate

[3] The resulting settlement in UE 319 that was adopted by the Commission in its order provided $1,583,742/year plus the loaded labor expenses associated with the two staff for the Low Clearance Correction Program.

case. Looking forward, PGE expects the number of low clearances needing correction that we find in the next several years to be higher based on estimates from field inspections that informed the rate case testimony and settlement discussions. The vintages of homes with overhead versus underground services vary greatly by area and truly determine the number of services needing upgrades. In addition, we plan to accelerate this correction program to complete it in less than ten years.

Finally, PGE notes that the technical criteria that governs the Low Clearance Correction Program is narrow and applies to limited instances involving NESC clearance deficiencies over pedestrian surfaces. PGE would welcome a discussion with OPUC Safety Staff regarding broadening the technical criteria as instances exist when the FITNES Program is unable to correct low services conditions because they do not fit within the program criteria. Examples include certain low service conditions over driveways and roads, where the only available correction involves replacing the customer-side equipment.

A summary for the 2019 program year is provided below:

2019 annual program cost[4]	$732,207
Amount of costs capitalized	$185,510
Number of connections inspected for POA height	18,340 connections
Number of connections found to have POA/weatherhead below eight feet	85 connections
Number of connections found to have POA between eight and ten feet	1,465 connections
Number of sub-eight-foot connections corrected and the cost of correction	264 corrected; $546,697
Number of eight to ten-foot connections corrected using guarding material and the cost of correction	549 corrected; $185,510

Please direct all formal correspondence and requests regarding this filing to the following email address: pge.opuc.filings@pgn.com.

Sincerely,

/s/ *Jaki Ferchland*
Jaki Ferchland
Manager, Revenue Requirement

cc: OPUC Safety Manager, Lori Koho

[4] Annual total does not include the costs of the two incremental staff.