

March 7, 2022

To: Alison Lackey, Administrative Law Judge  
Public Utility Commission of Oregon

From: Jaki Ferchland  
Manager, Revenue Requirement

Portland General Electric Company  
UE 394  
PGE Response to OPUC Bench Request 004  
Dated February 22, 2022

**Request:**

List (a) dollars budgeted on vegetation management in each of the last three years (2019-2021) and (b) actual dollars spent on vegetation management in each of the last three years (2019-2021). Please include a high-level explanation of any variances.

**Response:**

Bench Request Attachment 004-A provides the requested information, which shows three categories of budget and spend:

- Green table (columns A-D) shows Vegetation Management costs, excluding AWRR budget and spend.
- Yellow table (columns F-I) shows Advanced Wildfire Risk Reduction (AWRR) budget and spend.
- Orange table (columns L-N) shows Wildfire Mitigation budget and spend.

The tables show the following information for 2019-2021 by year:

- “Budget” shows the amount approved by PGE’s Board of Directors in late October or early November of the previous year.
- “Actual Spend” shows the amount spent in the year.
- “Variance” shows the difference between spend and budget.

Across the company, budget forecasts are updated monthly and the officers adjust spending based on PGE priorities. Vegetation management, AWRR and wildfire mitigation have increased in priority and importance, as shown in the increased spending and variances since 2019.

For vegetation management (excluding AWRR), the primary drivers of the variances are increased costs for: 1) inspections and corrections to vegetation pursuant to Facility Inspections and Treatment to the National Electric Safety Code (FITNES); 2) tree trimming across the region, prioritized to meet compliance, reliability, and safety concerns; and 3) increased labor costs due, in part, to limited availability of local crews resulting in increased costs from using outsourced crews.

For AWRR, the primary driver for the variances has been increased importance, prioritization, and funding to mitigate the risk of wildfires. As AWRR developed in 2019 and formalized in 2020, funding for these efforts was identified and approved by the officers during monthly review of all corporate forecast and actual spending. PGE has prioritized investment in reducing the risk of wildfires, including increased vegetation management in high risk fire zones (HRFZ). The number and size of HRFZs has also increased over the last couple of years as risk reduction practices have evolved. Said differently, the increase in budget, updated forecast, and spending in AWRR over this period reflects the growing importance and prioritization within PGE, development of this rapidly evolving program, and an increase in the number and size of HRFZs.

Bench Request Attachment 004-A

<b>Vegetation Management <i>excludes</i> AWRR (\$ millions)</b>			
	Budget	Actual Spend	Variance
2019	23.5	25.9	2.4
2020	24.8	24.2	-0.6
2021	29.2	31.4	2.2

<b>AWI</b>	
	Budget
2019	0.0
2020	0.0
2021	1.5

**Notes:**

Includes only operations and maintenance (O&M) expense directly charged to the above-

No capital costs are included.

No costs associated with the emergency wildfire deferral are included.

"Budget" is approved by the Board of Directors in late October or early November of the

RR (\$ millions)	
Actual Spend	Variance
2.4	2.4
1.9	1.9
4.8	3.3

Wildfire Mitigation (\$ millions)			
	Budget	Actual Spend	Variance
2019	0.6	0.2	-0.4
2020	0.6	1.9	1.3
2021	2.0	3.4	1.4

listed accounts.

: previous year.

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To: Alison Lackey, Administrative Law Judge  
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From: Jaki Ferchland  
Manager, Revenue Requirement

Portland General Electric Company  
UE 394  
PGE Response to OPUC Bench Request 005  
Dated February 22, 2022

**Request:**

List (a) dollars budgeted on wildfire mitigation in each of the last three years (2019-2021) and (b) actual dollars spent on wildfire mitigation in each of the last three years (2019-2021). Please include a high-level explanation of any variances.

**Response:**

Bench Request Attachment 004-A provides the requested information. Bench Request No. 004 provides an explanation of the attachment.

Across the company, budget forecasts are updated monthly and the officers adjust spending based on PGE priorities. Vegetation management, Advanced Wildfire Risk Reduction (AWRR) and wildfire mitigation have increased in priority and importance, as shown in the increased spending and variances since 2019.

For wildfire management, the primary drivers of the variances have been the costs to establish the wildfire mitigation department and the costs associated with the creation, implementation, and management of PGE's wildfire mitigation plans. PGE formally created the Wildfire Mitigation and Resiliency (WM&R) department in November 2020, which means that much of the work on wildfire mitigation prior to that time was performed by employees deployed from elsewhere in PGE, the costs of which were already funded through those other departments and are not included in Attachment 004-A. The budget and costs for wildfire mitigation continue to increase and evolve as legislation is passed (e.g., Senate Bill 762) and PGE continues to mature its wildfire mitigation planning and execution in compliance with state regulations and evolving best practices.

For an explanation of the variance in AWRR costs, please see PGE's response to Bench Request No. 004.

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From: Jaki Ferchland  
Manager, Revenue Requirement

Portland General Electric Company  
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PGE Response to OPUC Bench Request 006  
Dated February 22, 2022

**Request:**

Does PGE have any metrics in place to measure the effectiveness over time of vegetation management, including both the traditional program and the proposed Enhanced Vegetation Management and Advanced Wildfire Risk Reduction programs, and wildfire mitigation programs unrelated to vegetation management? If so, describe those metrics and the company's resulting conclusions. If not, what metrics would most accurately demonstrate the effectiveness of the company's programs?

**Response:**

Given that the term “effectiveness” has not been defined in the context of wildfire mitigation or vegetation management, PGE would clarify that we engage in the following steps to ensure we are investing prudently.

*a. “Traditional” Vegetation Management Program*

One of the primary programs in PGE’s Vegetation Management program is called the Area Trim program, which performs routine, methodical vegetation management across the entire system. PGE’s system is surveyed and vegetation is trimmed on a cyclical basis. Typically, urban areas are managed on a two-year cycle and rural areas are on a three-year cycle. Given increased vegetation growth in some areas, we also have a mid-cycle trim program, which allows us to continuously improve safety and reliability by managing vegetation that grows faster than our routine two- or three-year trim cycle.

PGE’s Vegetation Management department is data driven. Data are collected from various departments across PGE to inform and modify our trim cycles. Such data include System Average Interruption Frequency Index (SAIFI), System Average Interruption Duration Index (SAIDI), Customer Average Interruption Duration Index (CAIDI), and Customer Minutes of Interruption (CMI).

PGE has enhanced its field and Light Detection and Ranging (LiDAR) surveys to identify and prioritize areas of highest focus. LiDAR surveys are compared to previous data to calculate

vegetation distance from line, quantity of vegetation and approximate number of trees for the most accurate measure of current state vegetation across PGE's system.

In addition, when an outage occurs, PGE investigates the cause(s) of failure and allocate resources to address the issue(s) immediately following the incident and/or by prescribing additional resources during the next Area Trim cycle. This is particularly useful for outages that occur from off Right of Way (ROW) vegetation and outages that occur outside of normal vegetation line clearance requirements.

We also build and maintain relationships with government agencies, municipalities, and customers to provide system awareness and ensure a consistent standard of work across our system.

*b. Enhanced Vegetation Management (EVM)*

The EVM program will use data to identify areas of the system where enhanced vegetation management should be deployed to improve system outages, which will be measured by improved SAIFI, SAIDI, CAIDI, and CMI numbers. The EVM analysis will use information: 1) from outages that were caused by vegetation; 2) LiDAR imaging; and 3) results from survey work to identify areas that would benefit from reduced vegetation conflicts. We believe this will result in fewer outages, improved SAIFI, SAIDI, CAIDI, and CMI numbers for our customers, and decreased restoration costs and risk of damage. These efforts will be paired with additional automation and facility upgrades to enhance PGE's safety and reliability.

*c. Advanced Wildfire Risk Reduction (AWRR)*

PGE's AWRR program is housed within the Vegetation Management department and focuses on advanced vegetation management within the high-risk wildfire zones (HRFZ) that are identified in PGE's Wildfire Mitigation Plan. The AWRR program conducts annual surveys of all of the primary lines within the HRFZ and trims vegetation to maintain clearances. An additional focus of the AWRR program is identifying hazard trees, with a heightened focus on off-ROW trees. Due to recent wildfire threats and other changes, PGE has observed increasing tree mortality in forested lands which requires increased efforts to mitigate such hazards. The AWRR program identifies hazard trees (i.e., those with the potential to impact facilities), and manages the removal of such trees. Over time, we will be able to compare LiDAR tracking and satellite imagery to see changes in tree health and the number of removed hazard trees.

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PGE Response to OPUC Bench Request 007  
Dated February 22, 2022

**Request:**

Describe any issues PGE has had in obtaining skilled vegetation management labor or specialized equipment. Has PGE been forced to curtail or to run behind projected pace on any vegetation management spending due to an inability to hire skilled labor and equipment on the company's preferred schedule? Please also detail any plans the company has developed to ensure that the company will be able to obtain a sufficient labor force to carry out its plans for vegetation management including climbable trees and wildfire mitigation.

**Response:**

*a. Wildfire Mitigation*

PGE is committed to addressing the unprecedented and evolving risks of wildfire driven by rapid climate change. Executing on our Wildfire Mitigation Plan is a cross-company initiative, where nearly all departments in the Company will support wildfire mitigation efforts. This is truly an “One PGE” initiative.

Within our Wildfire Mitigation and Resiliency (WM&R) department, there are three key groups. First, there is the Wildfire Mitigation (WM) group which is focused on mitigating wildfire risk and coordinating efforts across the company. PGE continues to evolve the structure of the team as we learn from other utilities about the level of effort to mitigate wildfire risks. The WM team is comprised of a director at the WM&R level, managers of three departments, one portfolio manager, four program managers, one meteorologist, one compliance analyst, one asset management analyst, and one engineer. All of these positions are currently filled, with the exception of one department manager and one engineer which should be filled shortly. Since filing its initial testimony in this case, PGE has also added and filled a new position of an ignition cause and origin investigator. The WM team is supported by the following contract support: one outreach and engagement project manager, one process project manager, one Community Resource Centers (CRC) project manager, one project controls specialist, four change managers, and one consulting team for tabletop exercises. This mix of permanent and contract staffing is intentional to provide maximum flexibility and manage costs as we rapidly



ramp up our wildfire mitigation efforts. For example, once we have stabilized execution under our Wildfire Mitigation Plan, we may not need four change managers going forward.

Second, there is the resiliency group which is in charge of business continuity, emergency management, and incident command response. This group already existed in PGE, and is responsible for preparing for, mitigating, and responding to significant emergency incidents, such as to earthquake preparedness, cybersecurity, and now wildfire-related issues, such as developing procedures for communicating with County Emergency Managers and implementing reverse 911 notifications during a Public Safety Power Shutoff (PSPS) events.

Third, there is the recently created team within the WM&R department called Wildfire Capital Delivery (WCD) which is responsible for ensuring timely execution on capital projects related to wildfire risk reduction. The focus of the WCD division is to ensure delivery of the wildfire capital projects designed to both address the current conditions contributing to increased wildfire risk and to mitigate future risks.

#### *b. Vegetation Management*

As shown in PGE's response to OPUC Bench Request No. 4, issued February 22, 2022, in 2019-2021, the Vegetation Management department fully spent its budget, plus additional funds allocated during operational budget forecasts in order to execute work initiatives.

That being said, yes, PGE has had difficulty in the last couple of years in finding local skilled and qualified vegetation management labor to perform maintenance and wildfire work throughout its service territory. However, PGE has not been forced to curtail spending due to labor shortage because we have supplemented with additional workforce from across the country at a premium rate. This does have budget implications as an outsource crew costs almost twice as much as a crew out of the local IBEW #125. There are not enough Journeymen or Apprentices locally to meet our need, meaning we have had to supplement with outsource crews. This allows us to meet operational targets, but at a cost premium. In addition, we experienced a large increase in workload the past two years due to wildfire and severe storm activity (e.g., the 2020 Labor Day Wildfire and the 2021 February Ice Storm) which has required adaptive approaches to address vegetation needs.

PGE's Vegetation Management department regularly updates spend in comparison with yearly forecasting to ensure budget and spend align closely throughout the year's budget. PGE continuously reviews resources and vegetation conditions to address both cyclic needs and current conditions. Long term strategy for ongoing stable funding will help grow a local labor force, resulting in increased efficiencies for customers. This is a multi-year process and not something scalable in one to two years due to the extremely limited workforce, apprentice training, and work hour requirements involved with the Northwest Line Joint Apprenticeship and Training Committee program.

Equipment procurement at times has been delayed but has been manageable for production and has not significantly impacted spend or production. As PGE continues to incrementally increase vegetation budget and work with vendors and the local IBEW #125, it will continue to promote

additional opportunity for increased local resources. In response to Climbable tree concerns, the small percentage of trees identified by PGE vegetation management staff or OPUC Staff are a top priority and completed as such.

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Dated February 22, 2022

**Request:**

Please address whether the parties considered a reporting and/or deferral with a balancing account-based mechanism to ensure funds annually budgeted for wildfire mitigation and vegetation management are dedicated to those purposes and effectively spent. Identify any concerns with this approach.

**Response:**

Parties have not discussed the alternative of using a deferral with a balancing account-based mechanism. PGE would be open to this concept with modifications to ensure that the mechanism complies with the requirements of SB 762, as addressed in briefings. Section 3(8) of SB 762 requires the Commission to establish an automatic adjustment clause or another method to allow timely recovery. An automatic adjustment clause, “provides for rate increases or decreases or both, without prior hearing...and that is subject to review by the commission at least once every two years.”<sup>1</sup>

First, such a mechanism would entail a deferral subject to an automatic adjustment clause. A baseline amount within current rates would need to be identified and clear to all parties to appropriately determine the amounts that are incremental or decremental.

Additionally, the mechanism should only apply to wildfire mitigation activities. As PGE has repeatedly contended throughout this rate case, while there is some overlap, wildfire mitigation activities and vegetation management activities are separate activities with separate budgets, departments, and personnel. It is unclear to PGE why any mechanism would be needed for vegetation management only activities as there has been no explanation, evidence, or support provided by any party in this proceeding as to why one would be needed for PGE.

Finally, PGE is now required to draft and file wildfire mitigation plans and budgets each year to meet the goals set by SB 762. As outlined in OAR 860-300-0002,<sup>2</sup> these plans will be reviewed and “approved” or “approved with conditions” by the Commission each year. Given that

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<sup>1</sup> ORS 757.210(1)(b)

<sup>2</sup> Renumbered to OAR 860-300-0020 as of February 24, 2022

“approval” will mean that the Commission finds that the plan is based on “reasonable and *prudent* practices” [emphasis added] PGE would assert that dollars spent and deferred under the above referenced mechanism are reviewed for *prudence* as there is no reference to a standard of “effectively spent” in the rules guiding the creation, approval, and implementation of wildfire mitigation plans.

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PGE Response to OPUC Bench Request 009  
Dated February 22, 2022

**Request:**

Refer to PGE/2900, Tooman-Ferchland/27. Please provide a breakdown of the wildfire deferral costs incurred in CY 2020, separately identifying the costs deemed prudent or reasonable and subject to amortization by the parties, and the total remaining disputed costs.

**Response:**

Attachment 009-A provides the requested detail as follows:

- The “Total” tab provides the breakdown of the wildfire deferral costs for calendar years 2020 and 2021, and January 2022, including totals to exclude the following items that PGE has removed or are still disputed.
- The blue-highlighted row 19 lists the \$269 of miscellaneous office supplies that Parties may still dispute as discussed in PGE Exhibit 2900, page 27, lines 10-14. See also the “Disputed Misc Cost” tab for additional details on these costs.
- The yellow-highlighted rows 49-69 list the \$907,239 of labor loadings and allocations that were applied in 2020 but which PGE removed from the deferral in 2021 and 2022 in accordance with PGE Exhibit 2900, page 27, lines 5-8.

In summary, for CY2020, PGE incurred \$14,316,881 of costs that are non-disputed by parties.

Attachment 009-A is protected information and subject to Protective Order 21-206.