

## Information provided to the VMCC

Below is a compilation of information PSE has provided the VMCC regarding PSE's activities on Vashon-Maury Island as of July 12, 2024. Responses are organized chronologically.

### Questions from VMCC Board President, response dated Feb. 15, 2024

Is PSE moving onto private property with easements primarily because King County now charges a fee to utilities for the use of its rights of way?

No. County road standards (ex: section 5.10 of the 2016 Road Design and Construction Standards) dictate the distance PSE facilities must be from the road. The County's franchise fee applies to PSE's use of the right-of-way throughout the entire county and is an amount determined through the franchise agreement. You can imagine all of the utilities that exist in the right-of-way through the County – poles, vaults, underground utilities like gas mains, etc. PSE needs easements from private landowners only when we are unable to put our utilities in the ROW. It costs us additional money (paid to the private landowners) to get those easements, plus a lot of extra time, so we try to keep all of our facilities in the ROW. All of our work on Vashon Island currently is to reduce the number and duration of power outages that Vashon Island customers experience.

We ask private property owners for easements if we are unable to place our facilities in the ROW. Examples of this are when a city or county expand an intersection, which might push our facilities out of the ROW to make room for a wider intersection. Or, as is the case here, where our infrastructure is so old that since the time that we installed it decades ago, the county or city has implemented a restriction on how close poles can be to the road for the safety of vehicles. This is called the "clear zone." It is established in each county or city by code and depends upon the shape and location of the roads. It is a safety requirement.

PSE is regulated by the Washington Utilities and Transportation Commission (the WUTC). There are also federal and state laws, county and city codes, and many, many rules that govern where and how we can install our facilities, including the amount of space we need around the facilities.

Is PSE moving power lines onto any private property on Vashon, through the easements?

Some of the poles in some of the projects must be moved further from the paved road because they cannot be in the ROW due to the clear zone—meaning the County has determined that it is unsafe at a specific location for the pole to remain where it currently is, so we have to move it somewhere else. Each private easement is unique to the situation. Sometimes we must install a pole on private property. Sometimes just the wires cross over private property between the poles. And sometimes neither the poles nor the wires are located on private property but we still require an easement because the wires will cross private property when they sway in the wind (called "blowout").

As mentioned above, PSE is highly regulated. The amount of space that we need around our poles and wires is part of these regulations, as well as best practices.

Does PSE obtain easements on private property for power lines next to roads in other counties besides King County?

Yes. PSE has easements on properties in every jurisdiction where it operates and all jurisdictions have clear zone requirements that often necessitate moving poles and wires onto private property. Any time we cross private property or place facilities on private property, whether underground, at the surface, or overhead, we need the right to do that from the landowner. This applies to every wire that hangs over every property and every gas line going to every house. Sometimes we need easements just to install the facilities that provide service to an individual property. Sometimes we need easements to place something that serves the neighborhood or even greater area. Again, all of our projects on Vashon Island are occurring to increase reliability of power on the island.

#### [PSE email to VMCC President, response dated April 1, 2024](#)

In this correspondence PSE seeks to make clear how it can best support the VMCC's PSE Advisory Committee's work.

Hi Diane:

**[Note: I do not have the email addresses for the VMCC Board, so would appreciate if you can share this email with the full Board as I think it will be useful to set expectations.]**

Thank you for your responsiveness and the back and forth communications about the Vashon Maury Community Council (VMCC). It is helpful to be able to understand the processes and procedures of the VMCC and VMCC committees.

Given the work of the PSE Advisory Committee, I also think it is useful to set some general expectations. As you know, PSE operates within a highly regulated framework governed by the Washington Utilities and Transportation Commission, federal and state laws, county and city codes, and numerous other regulations. These laws and regulations, including our tariffs, dictate the placement and installation of our infrastructure and mandate that PSE provide energy that is clean, safe, reliable, affordable and equitable.

We will continue to offer to help in whatever way we can to ensure the advisory committee's efforts are directed efficiently by responding to questions or providing information. Because we recognize all the time and effort that goes into a committee, we want to set expectations that we have limited flexibility because we are so highly regulated. To respect the time of the committee, the VMCC and the community, we encourage the advisory committee to avoid extensive discussions on matters that fall within PSE's legal obligations.

I also want to reiterate our commitment to reducing wildfire risk by prioritizing reliability programs on the island, such as the covered overhead power lines projects. These “tree wire” projects strengthen PSE’s infrastructure in higher wildfire risk areas, and decrease the number of tree-related incidents that could result in a fire.

To help further establish expectations regarding PSE’s involvement with both the VMCC and advisory committee during the course of the committee’s work we wanted to raise the following:

1. PSE recognizes that the VMCC and its PSE Advisory Committee are community-driven. To that end, PSE staff will not attend the PSE Advisory Committee meetings. However, I do appreciate continuing to be on the distribution list for the advisory committee to be able to follow the process.
2. In my role as Community Affairs Manager, I will continue to call in to VMCC meetings when a relevant item is on the agenda.
3. We understand the PSE Advisory Committee may still be in the process of gathering information and identifying resources as part of its work. However, we kindly request clarification on whether the advisory committee intends to solicit information from PSE. We want to ensure that if needed, the committee and by extension, the VMCC and wider community receives accurate information in a timely manner regarding these complex topics. Please direct any requests for information or questions to me, and I will collaborate with PSE teams to provide comprehensive responses.
4. We kindly ask Ms. Jenny Bell to clearly specify the capacity in which she is contacting PSE. A recent communication from Ms. Bell lacked this distinction, causing ambiguity for us. This will aid all parties involved in distinguishing the responsibilities of the advisory committee from individual property matters as well help PSE identify staff members to assist with her requests. Going forward, we recommend the following points of contact:
  - For inquiries to PSE from the Vashon Maury Community Council or the PSE Advisory Committee, please email [Karen.brubeck@pse.com](mailto:Karen.brubeck@pse.com).
  - For queries or discussions concerning the easement requested for the 115th Ave. Tree Wire project properties, please contact Michelle Koch ([michelle.koch@pse.com](mailto:michelle.koch@pse.com)) in our real estate team.

As always, feel free to reach out if you have questions.

Have a great week,

Karen Brubeck

### Questions from VMCC PSE Advisory Committee Chair, response dated May 3, 2024

There are multiple PSE projects currently underway on Vashon Island. Did PSE complete any program-wide evaluations, environmental impact studies, or SEPA evaluations, to better understand the environmental and social impacts of the projects? If so, please forward to us those evaluations and studies.

PSE undertakes a wide range of projects on Vashon Island as part of its standard operation and maintenance of the electric system. Each of these projects are functionally independent and PSE ensures that all projects are compliant with county, state, and federal requirements and regulations, including SEPA.

PSE has a strong commitment to environmental stewardship and makes a deliberate effort to reduce environmental impacts to the extent possible. Some PSE infrastructure projects may result in regulated environmental impacts. In those cases, a SEPA threshold determination process is conducted by the permitting authority. However, the majority of PSE electrical distribution projects are categorically exempt from SEPA threshold determination and Environmental Impact Statement (EIS) requirements under numerous exemptions listed in the Washington Administrative Code and King County Code.

The PSE project VAS-22\_23 Tree Wire and Feeder Tie near Tramp Harbor (under county permit applications GRDE24-0004 and SHOR24-0013) is subject to a SEPA threshold determination conducted by King County, but the remainder of PSE's current Vashon projects are not undergoing SEPA review.

SEPA reviews and associated permits are public record.

At least one islander has reported seeing a PSE arborist referring to a log or inventory of the trees slated for removal on Vashon Island as a result of these PSE projects. Please provide us with that log or inventory.

It's our company policy not to disclose information regarding private properties to third parties.

Multiple islanders who received PSE easement requests have reported that, after initially being told by PSE that multiple of their trees were slated for removal per the proposed easement contract, they were *then* told by PSE (or an arborist on PSE's behalf) that "alternate design options" were available that would involve none of their trees being removed. Is PSE willing to offer similar "alternate design options" as a matter of first resort for all affected property owners on Vashon Island, in order to minimize or eliminate the necessity of removing trees?

PSE understands the Vashon community values trees and vegetation and the desire is to minimize environmental impacts. PSE shares these values and works to balance our obligation to provide safe, reliable power with preserving Vashon Island's natural beauty. When we need to manage vegetation during system maintenance and improvements, it is our goal to remove as few trees as possible while still ensuring the safe and reliable operation of the electric system.

To help us with this goal, our engineers first develop a comprehensive project design, and in consultation with our arborists, determine whether any tree removals are necessary to meet system clearance requirements. Thereafter, property owners have an opportunity to meet with PSE representatives to discuss issues related to the project and proposed tree removals. Depending on the details of a particular project, we may be able to make minor adjustments to the design that would allow us to reduce the number of trees slated for removal. These adjustments are not “alternate design options”; they are adaptations developed in response to specific challenges. Because site visits are often necessary for this process, we encourage property owners to meet in person with PSE representatives to discuss their concerns.

[What effect, if any, does updating PSE infrastructure and/or cutting or removing trees have on mitigating wildfire risk?](#)

PSE takes a holistic approach to updating and improving our infrastructure to create a grid that's reliable, resilient, and above all, safe. To reduce wildfire risk, we invest in projects that increase the resilience of our infrastructure. These projects, called grid hardening, also increase reliability.

One way that we increase resilience and reliability is to decrease the number of faults on the system. Faults occur when something interrupts the flow of electricity, such as a tree limb hitting a power line. Faults like these can result in sparks. By hardening our grid, we help prevent service disruptions while also reducing the risk of wildfire.

Other wildfire risk reduction work can include pre-wildfire season inspections and enhanced vegetation management in wildfire prone areas, installing covered overhead power lines (called tree wire), adding automated devices to prevent a power line from automatically reenergizing when there is a problem with the line that could cause a spark, upgrading equipment, and in some cases, relocating power lines underground (known as strategic undergrounding).

PSE has invested nearly \$50 million in grid hardening projects for wildfire mitigation since 2021 and we have an additional \$75 million in planned work through 2025. To learn more about our wildfire work specifically on Vashon Island, attend PSE's wildfire open house on Tuesday, May 14, from 4:30 p.m. to 6:30 p.m. at Vashon Center for the Arts, 19600 Vashon Hwy SW.

### [Email from VMCC PSE Advisory Committee, response dated May 16, 2024](#)

VMCC requested more information about PSE's work on Bainbridge Island

[Puget Sound Energy's electric reliability project development process](#)

1. As previously noted, PSE operates within a highly regulated framework governed by the Washington Utilities and Transportation Commission, federal and state laws, county and city codes, and numerous other regulations. These laws and regulations require that we provide reliable service--this is not an option for PSE, it's a mandatory obligation.

2. Given these requirements, we monitor the reliability of our electric system on a daily basis and develop projects to improve electric service reliability for our customers. It's important to note, our solutions to improve the reliability and resiliency of our network are not one-size-fits-all, but vary depending on the specific circumstances.
3. PSE has a variety of projects to enhance reliability, including but not limited to:
  - a. Trimming and removing trees that could come in contact with the distribution line.
  - b. Replacing aging poles, wires and equipment.
  - c. Installing tree wire in areas that see many tree-related power outages. (Tree wire is a type of specially-coated power line that's designed to prevent electric shorts from fallen tree limbs. This added protection can significantly reduce the frequency of branch-related outages and reduces risks of wildfire.)
  - d. Installing electrical switches and other equipment that provide for greater operational flexibility in the event of an outage.
  - e. Converting existing overhead lines underground to avoid tree-related power outages or hazards in higher wildfire risk areas.
4. When developing projects, PSE looks at a variety of criteria (e.g., the area's specific outage history and causes, the configuration of the existing electric system, local geography and terrain, historical weather patterns, wildfire risk, cost, etc.) and then compares the costs and benefits of various solutions to come up with the best, most prudent solution. We then review the project alongside many other potential electric and natural gas infrastructure projects across our service area to construct a portfolio of capital projects that provides the maximum value to our customers.

#### *PSE's electric system projects on Bainbridge Island*

1. Bainbridge Island is a part of our service territory that experiences more power outages and for longer durations than PSE customers in some other areas. To improve electric reliability on the island, PSE has completed and is actively working on a number of projects. You can view our current project list here: [Current projects - PSE on Bainbridge Island \(psebainbridge.com\)](http://psebainbridge.com)
2. We currently have distribution system projects that are replacing electric wire with tree wire, undergrounding overhead lines, installing switches and other equipment for operational flexibility, and replacing aging infrastructure to improve reliability.
3. We currently have two tree wire projects, [Old Mill Rd NE](#) and [NE High School Rd](#), and four combination tree wire/undergrounding projects, [NE Winther Rd/Kallgren Rd NE](#), [Pleasant Beach Dr NE/Bluff Ln NE](#), [Crystal Spring Dr NE/Point White Dr NE](#), and [N Madison Ave/NE Day Rd/NE Valley Rd](#).
4. We also have our "hybrid solution" projects (More information available here: [Increasing electric reliability and capacity on Bainbridge Island - PSE on Bainbridge Island \(psebainbridge.com\)](http://psebainbridge.com)).
  - a. These are transmission system projects to help improve reliability and capacity on Bainbridge Island.

- b. To determine the hybrid solution projects, PSE assessed Bainbridge Island's electric system needs and worked with third-party experts to analyze the cost/benefits of a variety of potential solutions to come up with the transmission projects that provide the maximum value to our customers. These are the projects included in the hybrid solution.
  - c. For one of the projects in the hybrid solution, the new Murden Cove – Winslow 115 kV transmission line, PSE conducted a route siting process and worked with the Bainbridge community to understand their values. The community's values along with technical criteria helped inform the route selected for the new transmission line.
  - d. As part of the route siting process for the new transmission line, PSE hosted a community-wide information session to share information about undergrounding transmission lines. PSE does not typically conduct a public route siting process for distribution system level projects.
5. In addition to these projects, PSE performs routine [tree trimming and removal](#) to prevent trees coming into contact with our distribution and transmission lines.

#### *Strategic undergrounding*

1. PSE approaches undergrounding the same way across our service territory. The four different circumstances that result in distribution lines being installed underground are below; more detail about the cost sharing is in the fact sheets (see link below)
  - a. **Customer plat and master planned development construction (rate schedule 85):** When it is PSE's standard to install new distribution lines underground during construction of residential and commercial plats and master planned developments.
  - b. **Government-entity request (rate schedule 74):** When Jurisdictions may request certain existing overhead electric distribution lines to be relocated underground, typically in relation to a city public improvement project.
  - c. **Non-government entity request (rate schedule 73).** When developers or groups of customers may request certain existing overhead electric distribution lines to be relocated underground (e.g. a group of neighbors wants to underground existing overhead distribution lines in their neighborhood).
  - d. **PSE-driven reliability project.** See points 2 – 4 above.
2. It's important to note there are some challenges with undergrounding power lines:
  - a. **Environmental and neighborhood impacts:** Putting power lines underground can have significant environmental and neighborhood impacts. Undergrounding requires extensive vegetation removal, trenching and installation of large access vaults every quarter to half mile, which can be very disruptive to neighborhoods and the environment. While some vegetation can remain under or beside an overhead line, vegetation must be removed along an underground power line route to ensure trees' root systems do not grow into the line.

- b. **Length of time for outage restoration:** Underground lines typically take longer to repair, and repairs are more difficult. When an overhead line fails, our crews can often repair it within hours. Repair of underground power lines can take days and even weeks, depending on the repairs that need to be made.
- c. **Maintenance challenges:** Overhead power line maintenance typically includes visual inspections, pole treatment and vegetation management. Underground power lines are more difficult to maintain due to their unique design and operating conditions. Underground cables are sensitive to changes in soil cover and aboveground changes, and patrolling is necessary to assess changes in soil depth, cover type, vegetation changes, or other issues that could impact the ability of the line to dissipate heat effectively.
- d. **Aesthetics:** While the majority of an underground power line is not visible above ground, vaults are typically installed every quarter to half mile and above-ground steel termination structures are installed at the end of the underground cable route.
- e. **Easements.** PSE must acquire easements whenever underground placement of power lines is not possible in the right-of-way. PSE also often requires easements for placement of the vaults and transformers due to clearance standards and the size of the vaults. Vegetation must be cleared from around the vaults.

For more information about the circumstances in which PSE undergrounds power lines, you can check out the factsheets linked below.

- Distribution lines: [4153\\_109\\_ElectricPowerLines\\_0424\\_final.pdf \(psebainbridge.com\)](#)
- Transmission lines: [4153\\_109\\_UndergroundTransmissionLinesLines\\_1220\\_vF.pdf \(psebainbridge.com\)](#)

**Please note: both factsheets can be found on pages xx.**

- 3. Currently, 44% of Vashon’s distribution system is undergrounded.

### Question from VMCC Board President, response dated June 28, 2024

What’s the process for PSE to look at on-grounding or undergrounding for Vashon as a whole?

#### *Strategic undergrounding*

There is not a process for PSE to consider undergrounding all of Vashon Island. Undergrounding is driven by considerations of reliability and safety, and taking a blanket approach across the whole island would ignore PSE’s system planning and prioritization. Presently, PSE maintains approximately 140 miles of overhead distribution line on the island and the cost to underground these lines would amount to hundreds of millions of dollars.

For PSE reliability projects, we look at various criteria to determine the solution which does include costs. PSE is a regulated utility, which means there are a set of rules we have to work under in the interest of fairness for all of our customers. One of those rules is included in our Electric Tariff G



Schedule 80. Schedule 80 says if a party requesting or requiring that PSE build a project differently than proposed by PSE for whatever reason, then any extra project cost driven by the request/requirement must be borne by the requesting party.

We wish to reiterate that in the interest of fairness for all of our customers, PSE approaches undergrounding the same way across our service territory. If individuals would like to underground sections of the island via a project under Schedule 73 (which is at the individuals' cost), it would be better to have the Vashon community identify priority areas rather than take an island-wide approach. (How community members identify such priority areas would be up to those members, and would not alter or impact PSE's overall approach to undergrounding in any way). Similarly, if Vashon would like to work with King County to support capital project funding for a project under Schedule 74 (which includes costs to the County), having identified those community priority areas could make more sense.

PSE is already undergrounding on Vashon via a process that regularly reviews reliability and safety data to target locations where undergrounding provides the most benefit. If the VMCC would like to pursue undergrounding for reasons outside of PSE's existing process, the state has provided Schedule 73/74 to allow that. We are including an information sheet that explains the different circumstances for installing distribution lines underground, including the aforementioned scenarios.

#### *Ground-Level Distribution System*

The Ground-Level Distribution System (GLDS) method of installing power lines is a new and unproven technology currently being tested by Pacific Gas & Electric Company (PG&E) in California. Unlike current methods, which involve digging three feet deep to bury power lines, this experimental pilot project places power lines at or near ground level. PSE tracks emerging industry technologies and will incorporate tools as they become viable options within our regulatory environment. GLDS is not yet at that point.

### **Letter from VMCC President, response dated July 12, 2024**

Dear Ms. Emerson, Vashon Maury Community Council and PSE Activity Advisory Committee

Thank you for your letter dated June 8, 2024. We appreciate your patience as we prepared our response. The subjects of your inquiry are highly complex and we want to ensure that we provide accurate information that helps inform the Vashon-Maury Community Council's (V-MCC) work.

In our response below Puget Sound Energy (PSE) replies to the recently-passed motions concerning PSE activity on Vashon-Maury Island as well as your questions relating to the franchise agreement entered into between King County and PSE. We're also including our response to the request for PSE to join the August 15 public community council meeting as well as a record of the information provided to date by PSE to the V-MCC.

#### **1. PSE response to recently-passed V-MCC motions**

**Motion 1:** *"The Vashon-Maury Community Council (V-MCC) calls upon PSE to restore property rights enshrined in statute into new easement agreements entered into with Islanders, including updating the language of PSE's Standard Overhead Easement Clause #4 to mirror the language of RCW 64.12.035(1)(c). In cases involving potential threats to PSE's systems by vegetation, RCW 64.12.035(1)(c) requires that PSE "attempts written notice by mail... indicating the intent to act or remove vegetation and secures agreement from the affected property owner of record for the cutting, removing, and disposition of the vegetation." Right now, PSE's Standard Overhead Easement Clause #4 eliminates the requirement that PSE obtain, or even attempt to obtain, a property owner's agreement. Out of respect for Islanders' property rights, that should change."*

**PSE response:** RCW 64.12.035 is not a right to cut trees; it is a defense to a trespass action. In order to operate and maintain its facilities, PSE needs an affirmative right to remove vegetation that presents a hazard to its facilities, which is set forth in sections 3 and 4 of its easement. In recent years, PSE has modified its standard easement form, including incorporating the definitions used in the danger tree statute, to limit its ability to remove trees outside the easement area. Because PSE is often removing trees that present an imminent danger to its facilities, it may not have time to negotiate with a property owner regarding the tree removal. The easement does require PSE to make a reasonable effort to provide notice that it will be removing trees that could damage PSE's facilities and/or trees that present a hazard to the general public health, safety, or welfare.

**Motion 2:** *"The V-MCC requests that King County pause the requirement that PSE "bring all non-compliant old poles into compliance" with the King County 'clear zone' program (which PSE is pursuing through easement acquisition) until V-MCC, King County, and PSE have resolved PSE activity issues with the Vashon community with the creation of a comprehensive plan regarding traffic safety and upgrades in the electrical system, allowing Vashon-Maury islanders the opportunity to express their preferred options to address Vashon's just and unique needs as an island."*

**PSE response:** PSE will defer to King County regarding a response to this motion. We have a contract obligation, via the franchise, to continue working on our Roadside Management Program (RMP) to bring all electric facilities into compliance with King County road standards, including clear zone. PSE cannot agree to a pause without the approval of King County. For the purposes of this motion, PSE does not have any work on Vashon within the scope for our 2024 RMP projects.

As a matter of clarification, PSE would also like to distinguish between the required RMP work to address all non-compliant poles versus regular, day-to-day electric system work. Any time PSE substantially changes existing facilities, those facilities are required to meet road standards. Motion 2 requests a pause on the "'clear zone' program", but there has not yet been any RMP driven work on Vashon yet. The work on Vashon has seen regular, day-to-day PSE projects that, because they are being modified, must now be in compliance with current road safety standards.

## **2. PSE response to VMCC questions**

### **VariANCES**

**Q: Has PSE sought variances on Vashon Island, to allow its distribution poles to remain in place? If not, why?**

We found no records of PSE having applied for a variance to clear zone road standards in King County. There are several reasons for this. First and foremost, the clear zone is a safety standard and PSE prioritizes safety and seeks to fully comply with all safety standards in our work. Second, variances from road standards are granted provided that granting the variance will produce a compensating or comparable result which is in the public interest and meet the objectives of the standard based upon sound engineering judgment. There are few viable options to meet the safety goals of the clear zone standard with a pole still within the clear zone. Third, PSE is currently prioritizing higher speed roads in our effort to bring all non-compliant poles into compliance with current standards. This means that Vashon poles, which are located on low speed roads, are being brought into compliance with current road standards while PSE is doing other work that involves the poles, such as reliability work, maintenance, or customer-driven projects.

**Undergrounding**

**Q: Has PSE considered undergrounding (or on-grounding) of distribution lines on Vashon Island as an alternative to installation of new overhead lines? If not, why not?**

Yes, PSE reviews each distribution project to make sure it is providing reliable and safe electric service at an appropriate cost. Of the 257 miles of electric lines PSE currently operates and maintains on Vashon Island, 113 miles of underground cable, or 44% of facilities on the island, have already been placed underground. It is worth reiterating some of the challenges with undergrounding power lines:

- a. **Environmental and neighborhood impacts:** Putting power lines underground can have significant environmental and neighborhood impacts. Undergrounding requires extensive vegetation removal, trenching and installation of large access vaults every quarter to half mile, which can be very disruptive to neighborhoods and the environment. While some vegetation can remain under or beside an overhead line, vegetation must be removed along an underground power line route to ensure trees' root systems do not grow into the line.
- b. **Length of time for outage restoration:** Underground lines typically take longer to repair, and repairs are more difficult. When an overhead line fails, our crews can often repair it within hours. Repair of underground power lines can take days and even weeks, depending on the repairs that need to be made.
- c. **Maintenance challenges:** Overhead power line maintenance typically includes visual inspections, pole treatment and vegetation management. Underground power lines are more difficult to maintain due to their unique design and operating conditions. Underground cables are sensitive to changes in soil cover and aboveground changes, and patrolling is necessary to assess changes in soil depth, cover type, vegetation changes, or other issues that could impact the ability of the line to dissipate heat effectively.
- d. **Aesthetics:** While the majority of an underground power line is not visible above ground, vaults are typically installed every quarter to half mile, and above-ground steel termination structures are installed at the end of the underground cable route – see images below.



*Typical Underground Distribution Feeder Cable Pull Vault*



*Typical 3-phase distribution underground termination (cables rising up to connect to overhead lines)*

- e. **Easements.** PSE must acquire easements whenever underground placement of power lines is not possible in the right-of-way. PSE also often requires easements for placement of the vaults and transformers due to clearance standards and the size of the vaults. Vegetation must be cleared from around the vaults.

PSE will continue to evaluate all of its options, including undergrounding, for future projects on the island to make sure that it continues to provide the safe, reliable, and affordable service.

On-grounding is an experimental pilot project that PG&E is evaluating within the context of extreme wildfire risk in California. PSE tracks emerging industry technologies and will incorporate tools as they become viable options within our regulatory environment. On-grounding is not yet at that point.

For further information provided to the V-MCC on undergrounding and the on-grounding pilot see pages 5-8 on the attached *Information shared with V-MCC* document.

## Easements

### **Q: Is PSE willing to modify its standard easement contract terms on Vashon Island, to hew more closely to statute?**

Please see our response to Motion 1.

#### **3. August 15, 2024 VMCC meeting**

PSE understands that at the August 15 VMCC public council meeting Tricia Davis from King County Roads will present and take questions on King County's "Clear Zone" Standards.

As previously noted, PSE operates within a highly regulated framework governed by the Washington Utilities and Transportation Commission, federal and state laws, county and city codes, and numerous other regulations. One of the things we need to abide by is King County "Clear Zone" Standards. Therefore, PSE will defer to King County to present and respond to questions at the meeting.

Karen Brubeck plans to call into the August 15 meeting and will share information back internally but will not take questions. We understand that related topics such as tree wire, easements, and undergrounding may arise from the Clear Zone discussion. Due to the highly complex nature of these topics, it is not feasible for PSE to provide brief responses without adequate context and education for islanders. Therefore, we have attached all the responses we have provided to the VMCC and PSE Advisory Committee to date. We request that these responses be shared with the VMCC membership and posted on the website for all Vashon Island residents to access.

We are grateful for your recognition that PSE has been responsive to the work of the V-MCC and advisory committee as we want to ensure the V-MCC and larger Vashon community have accurate information about PSE's work on the island. However we do want to continue to emphasize that we have limited flexibility on these issues since we are so highly regulated.

Thank you,

PSE Vashon Team

#### **Related responses:**

PSE also responded in writing to a number of community questions received during the May 8, 2024 Final Action meeting for the 115<sup>th</sup>/119<sup>th</sup> Ave SW electric reliability improvement project.

# PSE's electric power system

## Underground distribution lines

Puget Sound Energy has more than 23,000 miles of electric distribution lines throughout our 6,000 square mile service area. A distribution line is a medium-voltage (12.5 kilovolt) line that carries power from a substation to a local neighborhood. From there, the distribution voltage steps down further to serve individual homes and businesses. Nearly 60 percent — approximately 14,000 miles — of PSE's distribution lines are installed underground.

### When is a line undergrounded and who covers the cost?

We would install distribution lines underground under four different circumstances including:



Underground distribution cable in a trench in Fairwood, WA

- Customer plat and master planned development construction (rate schedule 85).** PSE installs new distribution lines underground during construction of residential and commercial plats and master planned developments. It's easier and more cost-effective to construct lines underground as part of building a larger project. The developer generally would pay 100 percent of the cost to underground lines.

Party responsible for work	Construction scope	Cost sharing
Developer	Trench excavation, backfill and restoration	100% developer
PSE	Installation of duct, vaults, cables, electrical equipment, energization and customer service connections	100% developer

- Government-entity request (rate schedule 74).** Jurisdictions may request existing overhead electric distribution lines of 15,000 volts or less to be relocated underground, typically in relation to a city public improvement project (e.g., a city project to widen a road). In this case, PSE's tariff requires cost sharing between PSE and the jurisdiction as follows. Additionally, PSE customers must pay to convert their service line<sup>1</sup> from overhead to underground.<sup>2</sup>

Party responsible for work	Construction scope	Cost sharing
Jurisdiction	Trench excavation, backfill and restoration	100% jurisdiction
PSE	Installation of cables, electrical equipment, energization, transfer of customer service connections and removal of old overhead poles and wires	60% PSE, 40% jurisdiction
PSE customer	Undergrounding the service line to their home or business, including trench excavation, backfill and restoration for the service installation	100% customer

- Non-government entity request (rate schedule 73).** Occasionally, developers or groups of customers may request existing overhead electric distribution lines of 15,000 volts or less to be relocated underground. In this case, per PSE's tariff, the requesting party must pay for 100 percent of the project costs as detailed below. Additionally, PSE customers must pay to convert their service line<sup>1</sup> from overhead to underground.

Party responsible for work	Construction scope	Cost sharing
Requesting party	Trench excavation, backfill and restoration	100% requesting party
PSE	Installation of duct, vaults, cables, electrical equipment, energization, transfer of customer service connections and removal of old overhead poles and wires	100% requesting party
PSE customer	Undergrounding the service line to their home or business, including trench excavation, backfill and restoration for the service installation	100% customer

- **PSE-driven reliability project.** PSE monitors the reliability of our electric system on a daily basis and develops projects to improve electric service reliability for our customers. There are many different types of reliability projects, including but not limited to:
  - Trimming and removing trees that could come in contact with the distribution line.
  - Replacing aging poles, wires and equipment.
  - Installing tree wire in areas that see many tree-related power outages. (Tree wire is a type of specially-coated power line that’s designed to prevent electric shorts from fallen tree limbs. This added protection can significantly reduce the frequency of branch-related outages.)
  - Installing electrical switches and other equipment that provide for greater operational flexibility in the event of an outage.
  - Converting existing overhead lines underground to avoid tree-related power outages or hazards in higher wildfire risk areas.

The solution to a reliability problem is not one-size-fits-all. Rather, it varies and depends on each situation. PSE looks at criteria such as the area’s specific outage history and causes, the configuration of the existing electric system, local geography and terrain, historical weather patterns, wildfire risk, environmental impacts of underground solutions, costs, etc. PSE uses proprietary software that compares the costs and benefits of various solutions. If, after careful analysis, we determine that undergrounding an existing distribution line is the best and most prudent solution, we then review the project alongside many other potential electric and natural gas infrastructure projects across our service area. The goal of this project review is to select and construct a portfolio of capital projects that provides the maximum value to our customers. If the underground project is included in the portfolio, PSE constructs the underground project. Its costs are covered in the rates of all 1.2 million electric customers, just like any PSE capital infrastructure project.

Party responsible for work	Construction scope	Cost sharing
PSE	Full construction scope	100% PSE

## Cost of underground

Generally, the cost to install underground distribution lines is two to three times more than the cost to install overhead distribution lines. Below is an estimated cost difference between an overhead and underground construction project, as well as some other considerations.

	Overhead	Underground
Cost to install new distribution lines <sup>3</sup>	\$500,000 to \$1.8 million per mile	\$900,000 to \$3.2 million per mile
Other considerations	<ul style="list-style-type: none"> <li>• Initial costs for tree trimming during installation, as well as ongoing vegetation management costs</li> <li>• Minimal cost and environmental impact related to low disturbance of native soil material during construction (pole installation)</li> <li>• Costs less to maintain, repair, upgrade and relocate</li> <li>• Damages from car-pole accidents, trees and equipment failure occur more frequently</li> </ul>	<ul style="list-style-type: none"> <li>• Initial costs for tree removal during installation, as well as nominal ongoing vegetation management costs</li> <li>• High cost and potential for adverse environmental impact related to the disturbance of native soil material during construction (trench, haul out, backfill and restoration)</li> <li>• Costs more to maintain, repair, upgrade or relocate</li> <li>• Damages from third party dig-ups, tree roots, and equipment failure occur less frequently</li> </ul>

1. A service line is the line bringing power to an individual home or business.
2. The cost sharing in schedule 74 does not apply if the existing overhead distribution line is on PSE easement or fee property. In that instance, the local requesting jurisdiction would pay 100% of the cost to underground the line.
3. There are many factors that affect the costs of both underground and overhead projects, such as the size of wire (feeder, 3-phase, small wire, or single phase), jurisdictional permit requirements, the number of trees affected, paving, geography, wetlands, etc.