

PSE Activity Advisory Committee FAQs

May 10, 2024

Q: WHAT IS TREE WIRE?

A: 'Tree Wire Project' is replacement of existing wire for an upgraded Southwire product 'tree wire' that is a sturdier, better-insulated wire and said to fare well in storms, resist tree falls, and reduce the need for frequent or severe trimming of trees and vegetation. Southwire says it "minimizes the amount of space and hardware required for line installation". [Southwire Tree Wire Info](#)

EFFECT OF PSE UPGRADES ON Vashon-Maury

Q: *What's this PSE Activity Committee all about? I heard many people are happy about the idea of getting better electricity reliability.*

A: The PSE Activity Advisory Committee was initiated as a response to Puget Sound Energy (PSE) upgrading activities on island, impacting street frontage trees and vegetation that provide a buffer between private property and our roads. As part of the Committee's activities, it has been confirmed that every pole on island is currently subject to 2007 'clear zone' regulations administered by King County (KC) Roads, requiring infrastructure to be moved 10ft back from the 'fog line' (edge of the road). In general, this moves infrastructure off the public Right of Way (ROW) and onto private property and PSE's easement acquisition program has ensued, with utility easements involving rights to clear all trees and vegetation. This program has clear implications for street frontages, vegetation and property rights for the whole island.

Q: *How many easements are PSE looking for?*

A: On PSE's System Project Vashon VAS-12, 37 parcels have poles on their side of the street. PSE is seeking easements over 68% of them - or 25 parcels according to statements made at the eminent domain public meeting of May 6, 2024 that was advertised in the back of the April Beachcomber.

KC Roads has said, as part of the 2019 Franchise agreement between KC and PSE, PSE must provide a plan to move every pole back to the 10ft off the roadway standard. This means every road on Vashon-Maury with a power pole will be potentially affected by PSE's Easement Acquisition program.

Q: *I heard that some people don't want to sign property rights over to PSE and that PSE can take their land rights. Is that true?*

A: Yes. Eminent Domain proceedings have been begun against landowners connected to PSE's System Project Vashon VAS-12. PSE's Seyfarth lawyers wrote in March 2024 to Vashon-Maury landowners who had not signed easements over to the company that "... considering the project timeline, PSE will soon have no choice other than to proceed with an eminent domain action to obtain the necessary rights over your property"

Q: *How many streets will be affected by the upgrades?*

A: Every street is affected. As our understanding of this issue has evolved, we have learned that the issue is not limited to simply upgrading a single street's infrastructure. We are now aware, through recent correspondence with King County (KC) Roads Communications Manager Broch Bender, that KC and PSE have an agreement affecting every pole on the Island: "According to our .. franchise agreement .. PSE must submit a plan to bring ALL .. non-compliant poles into compliance."

Q: How is PSE choosing to comply with KC Roads requirements to move every pole back 10ft from the edge of the road, and often onto private property?

A: KC Roads has told us that it is PSE's business decision as to which of three choices KC Roads sees as available: undergrounding the power lines, acquire easements or seek a variance. Only PSE can ask for the variance, as they are the permit holders with KC. KC Roads has said it is 'unlikely they will grant a variance to PSE'. We are attempting to explore community-led options for variances.

Q: What about street curbs for traffic safety? I've seen plenty of poles very close to the 'fog line' in streets with curbs.

A: Yes. Installing curbs by the poles is a likely less expensive possible interim measure to get traffic safety standards met for KC without moving poles. No movement of poles means we could avoid impacts on street frontages, property rights and significant stresses on our community. The City of Sedro Wooley tells us poles can be 2' from the face of curbs.

Q: But what options are there? And how can our island get there?

A: Our PSE Liaison to Vashon-Maury, Karen Brubeck, has had previous experiences in negotiations with Bainbridge Island regarding PSE infrastructure, where 58% of lines were undergrounded. We are looking forward to exploring undergrounding options that were implemented on BI for our Island. Undergrounding may meet all requirements for our Island: protection of street frontage trees /vegetation, protect property rights, traffic safety, eliminate wildfire risk, earthquake preparedness. KC Roads has confirmed infrastructure can stay on the ROW (Right of way) if it is undergrounded.

Q: Can we do anything right now? I want more reliable electricity, and I also want my property rights and street frontages left intact. I can't imagine this is easy for people affected by these easements. It would be great if there was another way.

A: We understand there may be interim solutions required in the more immediate future for improving electricity reliability, which could potentially be accomplished without moving poles, through discussion and negotiation with KC Roads. Curbs, variances and designations for the Island are some methods by which poles could be brought into compliance without moving them, and they are worth discussing. These options could solve the immediate property rights issues impacting our Island now because easement acquisition would no longer be necessary.

UNDERGROUNDING of POWER LINES

Q: Is undergrounding financially viable? I heard it was too expensive

A: After financially devastating wildfires, Pacific Gas & Electric (PG&E)* put out a Fact Sheet: that undergrounding lines has one of the lowest long-term costs to customers.

"99% reduction in ignition risk at locations with lines undergrounded. This makes it one of the most effective ways to reduce wildfire risk at the lowest long-term cost to customers." [PGE UG FactSheet](#)

Q: *What's the actual cost to switch from overhead to underground?*

A: Distribution lines such as those planned to be replaced by PSE with upgraded 'tree wire', are said to be 2-10 times the cost to install overhead and new underground may be cheaper than overhead in special conditions and costs vary greatly from utility to utility and place to place [Source UG costs](#)

Q: *What about Climate Change? How can we increase safety and be prepared?*

A: PG&E recognized that "underground overhead lines make the grid safer and more resilient to climate change and mitigates the threat of equipment-caused wildfires. As crews put more and more lines underground, the growing scale and efficiency is reducing the cost per mile.

Plus, undergrounding lines means less needed tree work and maintenance of overhead lines, which means it's more affordable in the long run." [PGE UG Climate change less tree work](#)

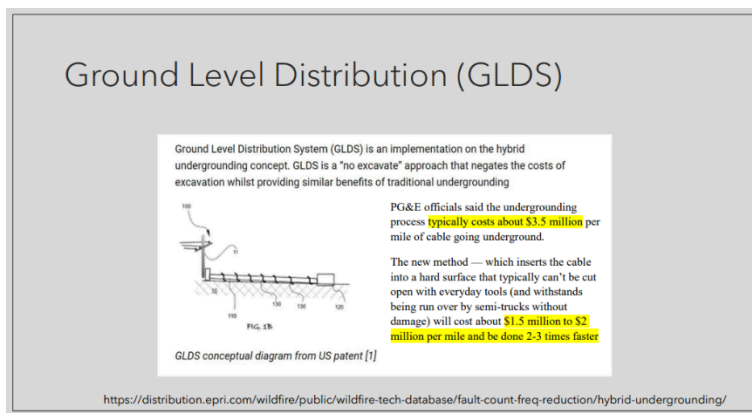
On our Island with our significant forests – that's great news.

Q: *Has technology improved with undergrounding?*

A: Yes. Hybrid Undergrounding has been developed and has many advantages. "GLDS or **Ground-level distribution systems (GLDS)** are one way PG&E is exploring moving overhead powerlines to ground level to reduce ignition risk and enhance grid resilience. PG&E said this approach could provide comparable risk reduction to undergrounding.

"But don't think the lines are exposed. In fact, it's the opposite as GLDS packages electric cable in conduit in a specially molded tray, tied in with a basalt rebar, then sealed with a special geopolymer cement, placed at ground level and capped in thermoplastic. It sounds complicated, so think of it as a reinforced box-like package that wraps the electric wire in materials to ensure safe operation and is secured to the ground to prevent movement.

Before now, the only options were overhead, or dig down three feet." [Hybrid UG GLDS](#)



GLDS can also transition to what is known as Minimum Cable Cover (MCC), which involves only trenching down 6-10 inches, not the three feet needed with traditional undergrounding.

PG&E officials said the undergrounding process typically costs about \$3.5 million per mile of cable going underground.

The new method — which inserts the cable into a hard surface that typically can't be cut open with everyday tools (and withstands being run over by semi-trucks without damage) will cost about \$1.5 million to \$2 million per mile and be done 2-3 times faster

“..the time is quickly approaching when utility customers and government officials will demand an answer that provides a more in-depth, independent look at how much more expensive underground power delivery is compared with overhead power delivery. Changes will be precipitated by power outages associated with natural disasters, citizens who don't want their homes devalued by nearby overhead lines, and competitive economic forces that drive utilities to consider placing power lines underground.” [Changing times, natural disasters](#)

Q: Has anyone else done large scale undergrounding?

A: Yes. Our neighbors, Bainbridge Island (BI) undergrounded 58% of their lines in just a few years after their community voiced a strong desire for it. [This link](#) to a summary of articles from BI local newspaper shows the path and timing of their journey to ‘mostly undergrounded’.

Q: But who initiates it? And who pays for it? It sounds like a big deal.

A: [psebainbridge.com](#) describes the pathway to undergrounding and says “it is up to the community to decide whether to invest in it.” We know that the Bainbridge Community itself was instrumental in the lead up in creating Island-specific solutions with PSE. (see attached newspaper articles). As one of our Advisory Committee members noted: the sooner we begin the discussions with PSE the better, so that their investment and orientation is in alignment with our unique Island needs. We very much want the conversations to begin with our administrators and representatives, and are looking forward to working with us hand in hand. We need to gather information to bring to the V-MCC board and the community to make an informed decision on this important issue.

Q: I'd love to avoid the blackouts being talked about this season for fire safety. And what about the people with medical equipment who need electricity? And our water supply is often powered by pumps because we are mostly on wells. I don't want our power turned off.

A: Underground cables not only protect against blackouts during peak load hours and severe weather events, but also from an environmental point of view provide massive electrification, which is our best way to decarbonize our energy system. [Decarbonize, no blackouts with peak load hours](#)

Q: Is there any government funding for undergrounding?

A: We believe there will be many options available to help fund undergrounding on our island, should the community want to go with this option. In January, 2024, Department of Energy recognized the value of undergrounding with the announcement of programs to assist implementation. [DOE Grid strengthening](#)

“The U.S. Department of Energy (DOE) today announced \$34 million for 12 projects across 11 states to strengthen and modernize America’s aging power grid through the development of cost-effective, high-speed, and safe undergrounding technologies. Through the Grid Overhaul with Proactive, High-speed Undergrounding for Reliability, Resilience, and Security ([GOPHURRS](#)) program, the selected projects will advance innovative solutions to help upgrade and expand the nation’s grid infrastructure—lowering costs, reducing inefficiencies, mitigating disruptions from extreme weather events, and accelerating the adoption of renewable clean energy resources.”

Q: I heard that underground lines are too expensive to repair with outages because you have to dig them up to find the problem.

A: One private 'Electrical Field and Power Engineering Consultant Group' found that there are up to 10x less outages with underground. They also found that the lines take up to 10x longer to repair. They believe the positive impact could cancel out the negative potential. Other design options such as change from radial to looped dramatically reduces outages again. [NEI UG info](#)

Climate change strategies

"Unless utilities become more resilient to extreme weather events, they put themselves at unnecessary risk, in both physical and financial terms. Repairing storm damage and upgrading infrastructure after the fact is expensive and traumatic. Hurricane Katrina in 2005 forced Entergy New Orleans into Chapter 11 bankruptcy reorganization. There are, of course, compelling environmental and social reasons to invest in mitigation efforts sooner rather than later. We believe there are also economic ones. Power utilities need to invest on the basis that the present is already riskier than what was planned and the future will be more volatile. There is evidence that climate change adaptation can also be cost-effective." [Source](#)

"How strategic undergrounding of powerlines can make the grid more resilient by minimizing damages from hazards and threats such as extreme weather events and wildfires. Undergrounding powerlines is, not only aesthetically pleasing, but has the added benefit of mitigating societal and economic disruptions caused by electricity outages". Contact: stewart.cedres@hq.doe.gov [Source](#)

*PG&E Background: Pacific Gas & Electric (PG&E) is the Californian electricity supply company which "filed for bankruptcy protection in 2019 after its aging equipment was blamed for a series of fires". [Bankruptcy PG&E](#). PG&E faced [increased regulatory pressure](#) after its equipment was found responsible for a series of wildfires in Northern California, including the 2020 fire which [resulted in the deaths of four people and destroyed hundreds of houses](#). California's Public Utilities Commission found that PG&E was neglectful in its maintenance of the grid.