

Oct. 17, 2019 Community Meeting Summary

11/12/2019

Overview

On Thursday, Oct. 17, 2019, Puget Sound Energy (PSE) hosted a community meeting on Bainbridge Island to present information about PSE's history on the island, plans to improve electric reliability, and opportunities for the public to be involved. Each topic presented included time for attendees to ask questions. The meeting was held in the Commons at Bainbridge High School from 6:30 to 8:30 p.m. Approximately 80 people attended this meeting.

Meeting summary

The meeting's neutral, third-party facilitator, Susan Hayman, welcomed attendees, provided an overview of the meeting's agenda and introduced PSE's key speakers:

- Andy Wappler, PSE Vice President for Customer Operations & Communications
- Jens Nedrud, PSE Manager of System Planning

Presentation Topic 1 – PSE on Bainbridge Island

Andy Wappler kicked off the [meeting presentation](#), sharing information about PSE's recent actions to reduce our carbon footprint, how PSE worked with state legislature to craft clean electricity legislation, and noting PSE's recent actions and future plans to address the island's electric needs. Jens Nedrud then shared key findings of the recently completed Bainbridge Island Electric System Needs Assessment. Susan Hayman then returned to the floor to begin taking questions for the meeting's first round of Q&A.

Note: The following are paraphrased participant questions (Q) and PSE responses (A) captured during the community meeting. Questions raised in one round and deferred to another round are captured in the round where PSE responded. For specific details on Bainbridge Island system needs and solutions, please reference the reports available online at psebainbridge.participate.online.

Q&A Round 1

Q: In 2014 there were a lot of distribution outages on the Winslow substation. What were those outages caused by?

A: The number one cause of distribution power outages on Bainbridge Island is trees. PSE has spent almost \$30 million on system improvements over the last 10 years, including tree wire or distribution undergrounding projects to reduce tree-caused outages. [To learn more, visit pse.com/bainbridge and click on Current Distribution Projects].

Q: How much electricity does an electric car require to charge, and how does that compare to the power required to heat a water heater tank?

A: It depends on the size of the electric car's charger; a typical one is about 50 amps, which is similar to a water heater's power needs.

Q: Have the savings from energy efficiency efforts helped to mitigate the increasing power needs from population growth?

A: There have been improvements to energy efficiency. But the system still experiences problems during winter peaks – specifically, mornings – when everyone is using power at the same time.

Q: Does PSE have easements on the Winslow Tap line?

A: PSE has easements on the Winslow Tap line [in other words, PSE doesn't own the property, but has rights to operate and maintain infrastructure on the property].

Q: Whose responsibility is it to keep utility corridors clear of overgrowth and trees?

A: It's PSE's; the trimming cycle is approximately every 3 to 5 years, depending on the location. [Transmission lines are trimmed every three years, while neighborhood distribution lines are trimmed every four years.]

Q: What is the current capacity of the electric system on Bainbridge Island? To accommodate ferry electrification and growth on the island — what is the magnitude of increase of power needed?

A: The [distribution] system capacity is around 80 megawatts (MW). PSE expects a [capacity] need a 20% or 16 MW increase over the next 10 years.

Q: If a company says they want to build a plant on Bainbridge Island that will require 1,000 MW – who pays for construction to accommodate that need?

A: PSE is obligated to provide power to any customer requesting it. The cost of system improvements is spread across PSE's 1.1 million customers. PSE pays for capital improvements up front and the Washington Utilities and Transportation Commission (UTC) determines the degree of cost recovery of those improvements through PSE rates.

Q: When will PSE's electricity be free or nearly free of greenhouse gas emissions?

A: The target is to be 80% carbon neutral by 2030 and 100% by 2045.

Q: The Winslow Substation services 4,000 customers; how many are on the Murden Cove and Port Madison substations?

A: The Winslow substation provides power to roughly 4,000 customers. And generally, Murden Cove provides power to 3,700 customers and Port Madison services roughly 4,000. Note that, in this case, a customer refers to a meter, so one "customer" could be several people within a household. [Current customer counts can be found in the Need and Solution Reports.]

Q: In your study, did PSE account for factors like climate change and population growth?

A: PSE's forecasts use population growth projections from the Puget Sound Regional Council (PSRC). I'm not sure how much climate change factored into this forecast.

Q: In addition to the studies you've done, have you looked at the economic impact on Winslow businesses and people who work at home?

A: When assessing system reliability, PSE accounts for average outages per customer. The UTC helps PSE set targets for customer reliability. These standards help determine what outages cost customers.

Q: It sounds like we are paying the same rates as other customers but have worse reliability — are we subsidizing other customers' better service?

A: This is a challenging community in which to build infrastructure and trim trees. If you want reliability, it's important to hear your voice in this conversation. The "no" voice is often very loud while the "yes" voice can be very quiet. We need to hear that "yes" voice. These outages can be devastating. Customers lose food that goes bad when the freezer has no power, lose work time when working remotely, businesses experience loss. We need help from the community to do this to improve reliability.

Q: I still lose power a lot even though I'm near the Port Madison substation. Will these projects have a benefit for those of us on the north end of the Island?

A: These projects will benefit everyone on the Island. There are some issues with the distribution lines near Port Madison, and PSE absolutely must address that. PSE is actively identifying specific neighborhood circuits that need improvement.

Presentation Topic 2 - PSE's plan to improve reliability

Jens provided an overview of PSE's grid modernization approach and how his team considered traditional wires and non-wires alternatives in PSE's Bainbridge Island Electric System Solutions Report. Jens described the components of the proposed solution and the expected schedule for each project. He also highlighted opportunities and challenges of undergrounding transmission lines before Susan opened the meeting back up for Q&A.

Q&A Round 2

Q: How could producing renewables on the island contribute to solving the problem? Would they produce enough to cover peak loads?

A: Renewables are great; the challenge is dealing with morning winter peaks when it's still dark. Solar panels aren't helpful at that time and there are currently no renewables that can fill that gap. PSE has looked at other options like biodigesters but they're not powerful enough yet. PSE is looking to batteries to help fill that gap [for the capacity needs].

Q: Can you combine the renewables with the battery?

A: The batteries we're talking about are smaller; they only last for a few hours. Even if you add renewables, it doesn't solve the island's capacity problem.

Q: I heard nothing about plans for undergrounding lower voltage neighborhood distribution lines. Does PSE have plans to do this? We still have too many neighborhood outages caused by trees and other issues.

A: There are several projects across the island to install tree wire and underground distribution lines—that work is ongoing. PSE has completed \$30 million in infrastructure investments on Bainbridge Island over the last 10 years and has plans to continually upgrade the system.

Q: Can we expect to see something that communicates distribution improvements?

A: Yes — check out the map at the PSE Bainbridge project website (pse.com/bainbridge), updated with upcoming and recently-completed projects.

Q: The main concern seems to be reliability and outages. I'm disappointed that PSE's two projects to address those problems [the Winslow Tap rebuild and new transmission line loop] are coming later in the schedule while capacity-related projects like the battery are coming sooner. Why aren't you prioritizing these "reliability" projects and working to minimize tree damage?

A: PSE will get those lines built. It's a challenging conversation with the community and that conversation, as well as permitting, will take some time. PSE will build this line as soon as possible. To mitigate damage from trees, PSE is looking at where it makes sense to underground distribution lines and install tree wire. This work is ongoing, which is why it doesn't show up as a major component of this new set of projects.

Q: So, you are starting the process now, but it will take time?

A: Yes, exactly. And PSE is conservative with its projected timelines.

Q: It's very distressing to see these completion dates so far out. Is there any way that customers in the south end can be prioritized for crews restoring power during outages?

A: Bainbridge Island is the first place that crews go in a major outage. You may not see them because they may be working in a cross-country corridor. PSE will continue to restore power starting with transmission outages and working down the line from there, because that's the fastest way to restore power to the most customers.

Q: Do you have a plan for obtaining easements for that missing link?

A: It will take time; PSE will need to identify the route first. It's going to be a challenge.

Q: Bainbridge Island has one source of power at Agate Pass; what happens when that source of power is taken out (e.g., during a natural disaster)? Wouldn't it be prudent to add another source of power using submarine cables to the island?

A: PSE looked at submarine cables in the solutions analysis. There are actually two transmission lines on separate poles crossing Agate Pass, which were replaced just a few years ago. On the other side of the pass, the two transmission lines go in different directions. Poles are flexible and designed for earthquakes, and generally one of the last structures to be affected. Submarine cables would be very expensive and would not provide much additional benefit in reliability compared to other solutions analyzed.

Q: I've lived on the north end of the Island for the last 20 years. I've heard a lot about the future but very little about the present. If we're currently paying for service and not receiving comparable service, what do we need to do to get more crews on the island for faster restoration during outages?

A: Stay engaged and be heard. Let others know that reliability is important. PSE has made many improvements and posted these on the map on the project website — check it out and see if improvements have been/are being made nearby. Continue to advocate. Reliability on the Island is always going to be a challenge because of the wind and trees, but it is a focus for PSE. Talk to your neighbors and councilmembers to share that this [reliability] is a priority.

Q: Why isn't PSE looking at fuel cells as part of the solution?

A: PSE conducted a pilot that looked at fuel cells. They are not as reliable as batteries for the price of the technology.

Presentation Topic 3 - Partnering with the community

The third agenda item centered on PSE's work to involve the community in the planned projects. Andy presented, noting that PSE launched the project package at this meeting and will continue to engage the community moving forward; first, at a series of project-related information sessions and then in a public routing process for the proposed transmission line loop, as well as continuing to keep the community informed about other project components.

Q&A Round 3

Q: Is there anything we as citizens can do to expedite the future permit process?

A: The City Council wants to hear from the community and know what you think. Let them know that this [reliability] is important to you.

Q: Is PSE engaged with regional technology/software experts (e.g., Amazon, Microsoft)? This seems like a resource PSE could tap into for information-sharing on cutting edge opportunities.

A: Having reliable infrastructure is critical. This is not a technology/software problem--this is an infrastructure problem. Once that infrastructure is in place, other technology and software options can be activated to support the electric system.

Q: I have heard from my neighbors over and over that they want to know how PSE will communicate these opportunities to be involved and how specifically we can help get these solutions in place. What are obstacles you face that you need to overcome? You've asked for these upgrades for years now.

A: Check out the project website and sign up for email updates. PSE will need to obtain permits from the city and easements from property owners, both of which can take some time.

Q: Will the batteries on the new electrified ferries strain the system?

A: PSE wants to make sure infrastructure upgrades are in place in advance of ferry electrification so that charging the ferry batteries doesn't strain the system. [For details about the ferry and the capacity solution, refer to the Solutions study.]

Q: I think we need to replace that substation built in 1960.

A: The substation was first built in the 1960s, but it has been modernized over the years. The problem isn't the substations; it's the connections between the substations — the transmission lines.

Q: Do you have a formal action plan where we, the community, can partner with PSE to set goals and work together?

A: That's a very good idea, and PSE currently doesn't have that in place. The goal tonight was to reach people and share information—to build awareness within the community. Advocacy from members of the community will be essential to completing these projects.

Closing comments

Before adjourning the meeting, attendees were encouraged to take the following actions:

- Share input into upcoming information sessions by writing down a brief question or subject of interest on a post-it note and posting it on the wall. PSE will use this input to understand community members' project-related questions and interests and help frame the discussion at future PSE information sessions.
- Stay involved with the project and attend future community meetings. To stay informed of community engagement opportunities, sign-up for PSE's e-newsletter at pse.com/bainbridge and like the "PSEonBainbridgelsland" account on Facebook.