

Buckley substation FAQs

Project need

Why do we need the Buckley substation project?

PSE needs to invest in new infrastructure to meet the increased need of the rapidly growing region. Since 2009, PSE has been working on a large system upgrade initiative which will convert the electric system from the Krain Corner substation north of Enumclaw, to the Electron Heights substation near Orting-Kapowsin from 55 kilovolts (kV) to 115 kV.

The new Buckley substation will ensure continued, reliable electric service for nearly 5,000 customers in the greater Buckley area. It will operate at our system standard 115kV voltage and enable future operational and maintenance flexibility for our crews.

What is the scope of the Buckley substation project?

PSE plans to build a new electric substation on 112th Street East and remove the existing downtown-area substation on North 3rd Street.

As part of the new substation (see map next page), two segments of new 115kV transmission line will be constructed along 112th Street East to connect the new substation to the existing transmission system. Additionally, two new segments of underground distribution line will be constructed to connect the substation to the existing distribution system (see map below).



How does the Buckley substation project fit into the broader reliability improvements in the greater Enumclaw area?

PSE is upgrading several existing substations and adding several new spans of transmission lines serving Enumclaw and Buckley (see map). The new Buckley substation is one project included in this regional conversion initiative.

The existing regional system operates at a voltage of 55 kilovolts (kV), a voltage that's becoming obsolete in PSE's electric system, making it challenging to replace aging equipment and limiting operational flexibility. By rebuilding and increasing the voltage of the system to 115kV – PSE's standard transmission voltage – we can ensure continued operational flexibility and improve reliability for more than 11,000 customers in the area.

For more information on PSE's planned electrical upgrades, please visit the Electron Heights to Enumclaw electric reliability improvement webpage: www.pse.com/pages/pse-projects/electron-heights-enumclaw-transmission-line-and-substation-upgrades.

What would happen if the Buckley substation project is not built?

If the new substation is not built, we will continue to rely on aging and antiquated infrastructure that is experiencing capacity constraints and nearing the end of its useful life – increasing the risk of equipment failure and customer power outages over time.

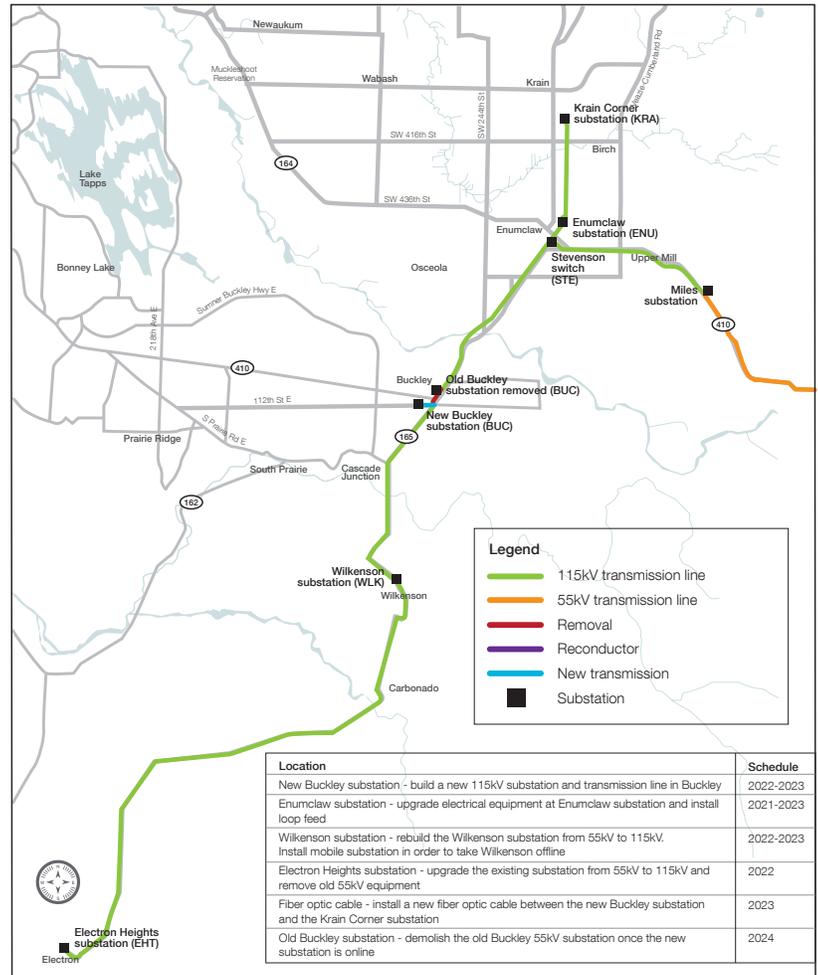
PSE's mandate is to provide reliable power to our customers. We are building this new substation and transmission line to address future reliability problems, and as part of a plan to address the area's growing energy needs to ensure we can continue to provide our customers with reliable power for years to come.

What is a substation?

Substations are critical links in the electric distribution system, containing utility circuit protection, voltage regulation, and equipment that steps down higher voltage to lower voltage. Before reaching homes and businesses, power is routed through our transmission system to a substation where it is changed to a lower voltage that can be utilized and delivered to customers.

What is a transmission line?

Transmission lines are high-voltage lines that carry electricity from generation plants to substations or from substation to substation.



Project siting and permitting

Did PSE consider any other solutions besides building a substation? If so, why was a substation your preferred solution?

When a substation has reached the end of its useful life, alternative solutions are limited. Substations provide vital energy systems functions such as transformation, switching and power quality services that cannot be achieved by alternative means. Without a new substation, the Buckley electric system would have no functional method to obtain electricity from the transmission system. The substation serves to step down the voltage to feed the local distribution system.

Were other substation sites considered for this project? If so, why was the 112th Street East site selected for the new substation?

PSE initially considered multiple site options for the new Buckley substation and conducted an alternatives analysis as required by the Washington Utilities and Transportation Commission.

The project site was selected using criteria intended to minimize impacts to the community and consider common public concerns regarding vegetation, visual, residential, and commercial impacts. Some of the site considerations we reviewed during our analysis included:

- **Proximity to existing transmission lines**
- **Avoid residential zones where possible**
- **Avoid sensitive habitat and other critical areas when able**
- **Fewer visual impacts, like loss of vegetation and overall aesthetics**
- **Fewer infrastructure impacts**

The new substation site along 112th Street was selected because it had fewer impacts to residents and businesses when compared to the other site options. Additionally, the site is near existing transmission lines and substations, minimizing the length of new power lines we need to build to connect the new substation to the existing electric system.

Will there be opportunities for public involvement?

There will be opportunities for the public to provide comments during the permitting process. Property owners in proximity to the project will be notified by both the City of Buckley and PSE of opportunities to comment. Outside of the permitting process, comments and concerns may be directed to the Major Projects mailbox:

Major Projects

888.404.8773

major.projects@pse.com

Community compatibility

How does PSE approach tree trimming and removal around electric infrastructure?

To ensure safe, reliable power for our customers, local, regional, and state laws require PSE to trim or remove trees that present a risk to the operation and maintenance of our power lines, substations and associated electrical equipment. Trees are one of the top causes of power outages in the northwest – trees or limbs can fall into our power lines or grow into the lines. Not only are these service interruptions inconvenient for customers, they can also cause public safety issues. Our goal is to ensure the safety of the communities we serve and minimize tree-related power outages.

For more information on PSE's vegetation management approach, click [here](#) to see our tree trimming page.

How will trees be affected by this project?

Certain trees along the project route will need to be trimmed or removed in order to meet PSE vegetation standards for the new transmission line. The bulk of the tree removal required for the project will occur along the south side of 112th Street East for the new transmission line connection. Several trees will also be removed for the creation of wetlands adjacent to the Foothills Trail to fulfill the project's mitigation requirements. Additional smaller areas of tree removal will be required adjacent to new poles or other facilities. Tree trimming will be performed around new facilities to ensure vegetation is not encroaching or posing a danger to equipment.

What will the new landscaping look like along 112th Street?

We commissioned a landscape architecture firm to create visual simulations that depict a future view of the corridor after five years of growth, compared to current conditions. These renderings are available here on the Buckley substation webpage: pse.com/buckleysubstation.

How will PSE minimize construction impacts to the surrounding community?

The City of Buckley sets permit conditions that are intended to minimize construction impacts for neighbors. PSE will develop our construction plan based on these conditions and is also committed to keeping the surrounding neighborhood informed of construction schedule, scope, and neighborhood impacts.

We are also coordinating with the city to ensure this project will not conflict with a future public improvement project in the new substation area.

How will PSE mitigate for this project?

To compensate for wetland impacts on the substation parcel, new wetlands will be created along the Foothills Trail that will provide improved habitat, extensive native plantings and wildlife viewing opportunities.

Any impacts to the Foothills Trail will be mitigated by minimizing disruption to users and restoration of any impacts caused to the trail. More information about the mitigation for this project will be available in the future.

Will PSE have to acquire new easements for the project?

Yes, PSE will need to acquire easements from property owners along the project route. An easement is a right to use land owned by someone else for a limited purpose. When PSE requires easement rights from property owners to construct, operate and maintain its facilities, PSE compensates property owners for the fair market value of the necessary easements, as required by law.

Project status

PSE submitted project permit applications to the City of Buckley in February 2021. We will continue to provide project updates on the project webpage and keep the community informed of project milestones. Construction is anticipated to begin in mid-2022.

Contact us

Who can I contact with questions about the project?

Major Projects

888.404.8773

major.projects@pse.com