



energize**EASTSIDE**

construction overview

August 2017

Through the Energize Eastside project, Puget Sound Energy (PSE) will build a new substation, upgrade existing transmission lines from Redmond to Renton, and continue aggressive conservation efforts to keep Eastside lights on and foster economic development for years to come. We expect to begin building the Energize Eastside project after the environmental review and permitting processes are complete, currently planned for early 2018.

Construction activities for transmission lines typically include:

- Pre-construction surveying
- Site preparation and access
- Construction of the new poles and removal of old poles
- Stringing the conductors (wires)
- Demobilization, clean-up and restoration

Working with property owners

We will work with property owners to minimize impacts during construction as much as practicable. In September 2016, we began meeting with property owners along the existing transmission line corridor to gather property-specific information to refine project design. We gathered feedback about pole locations and how we could potentially access those locations during construction.

Pre-construction surveying

PSE began collecting field information in early 2015 to inform the current environmental review process, as well as project design and future permit applications. The fieldwork conducted included a variety of surveys completed by PSE crews and industry experts investigating on-the-ground characteristics of a particular location. In 2017, PSE and its contractors are conducting additional fieldwork surveys.

Identifying access and pole locations

Crews routinely access the corridor today for inspections, maintenance and other needs. Where possible, construction crews will generally use the same access paths used today. In some situations, crews may need to establish new access

points. If any new access is necessary, PSE will meet directly with affected property owners to discuss changes.

We won't know the exact pole locations until the permitting process is complete and we begin construction, but the new poles will typically be in the same or similar locations as existing poles.

PSE considers a variety of factors when siting poles, including:

- **Safety and technical considerations**, including electrical clearances, varying terrain, structural loading, and code requirements
- **Critical areas**, like wetlands or streams
- **Other utility uses in the corridor**
- **Property owner considerations**

Site preparation

Prior to construction, crews will stake the right of way and critical areas, construct access routes to the pole sites, and trim or clear vegetation on the right of way. Vegetation within a utility corridor must be compatible with federal requirements to ensure safe, reliable power.



Where necessary, crews will construct temporary access routes to pole sites.

Construction

Construction will entail installation of new, longer-lasting equipment and fewer poles. The hole for each pole will be excavated using a vactor truck or an augur. Once the hole is excavated, a crane will be used to set the pole in place. Depending on the topography and location, other methods may be required to set the pole.

Typically, each new pole will be installed directly into the ground or placed on a drilled pier concrete foundation. This will be determined by the structural loading, soil strength, and accessibility of each pole site. Installing drilled pier foundations will involve placing a reinforced-steel cage into the excavated hole and covering the cage with concrete. The concrete will cure for 28 days before the pole is ready to be installed. During construction of the new poles, the existing poles will remain in place.



Installing new lines

"Stringing" is the term used for installing new wires along a transmission line. For Energize Eastside, we will transfer the existing wires to the new poles and use them to pull the new wires into place.

When installing the new wire, specialized vehicles are used to tension the wire. Pulling and tensioning sites may be needed every couple of miles along the corridor during construction, and will typically be located in the existing corridor. Once the new lines are set, the existing wooden poles will be removed.

Demobilization, clean-up and restoration

Once construction is complete in an area, crews will remove equipment and materials from the construction sites and

staging areas and begin restoring and replanting the corridor as agreed to with the property owner or per permit conditions.

PSE will work to restore property affected by construction to its previous or an improved state, as practical. When restoration is not possible, PSE will work with property owners to determine other options.

Timeline

During construction, work on individual properties will take place in phases. The construction team may visit a property for up to a few days at a time over several weeks or months before construction is complete.

Our plan is to begin construction in early 2018. As we know more about construction details, we will keep property owners informed of the schedule and activities, including details related to closing roads, driveways, or access points.

Construction and safety

PSE approaches every project with the same priority: the safety of our customers, the communities we work in, and our fellow co-workers.

The backbone of our transmission system on the Eastside shares a utility corridor with Olympic Pipe Line Company's (Olympic) underground petroleum pipelines, which are known as Olympic pipeline. It's been this way for decades, and co-locating utilities is encouraged by many Eastside jurisdictions. Our engineers are rigorously analyzing the design for Energize Eastside for the safe construction and operation of the line within the shared corridor.

When construction is in the vicinity of Olympic pipeline, our crews will work closely with Olympic to ensure safe construction practices. We coordinate closely with Olympic now and will continue to keep each other informed of activity within the corridor during and after construction.

Learn more about Energize Eastside and pipeline safety at energizeeastside.com/safety.

Thank you for your interest in Energize Eastside.

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