Energize Eastside

Community Advisory Group Meeting #3

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PSE PUGET SOUND ENERGY

Presentation overview

- Project overview and schedule
- Community outreach update
- Key questions and responses

Energize Eastside overview

- Growth is straining our region's existing transmission system
- Conservation alone is not enough
- We need to act now
- We are working with the community to identify solutions

Energize Eastside will build new electric transmission infrastructure to ensure dependable power

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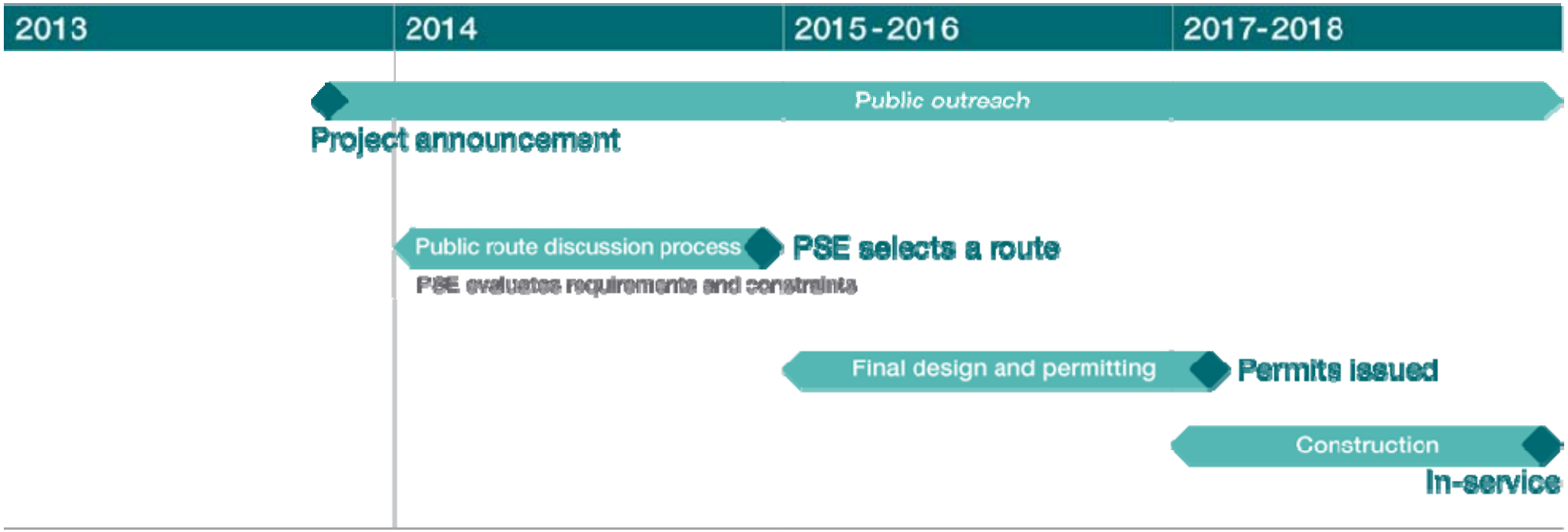
Project schedule



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Public outreach process

Since project launch in December 2013:

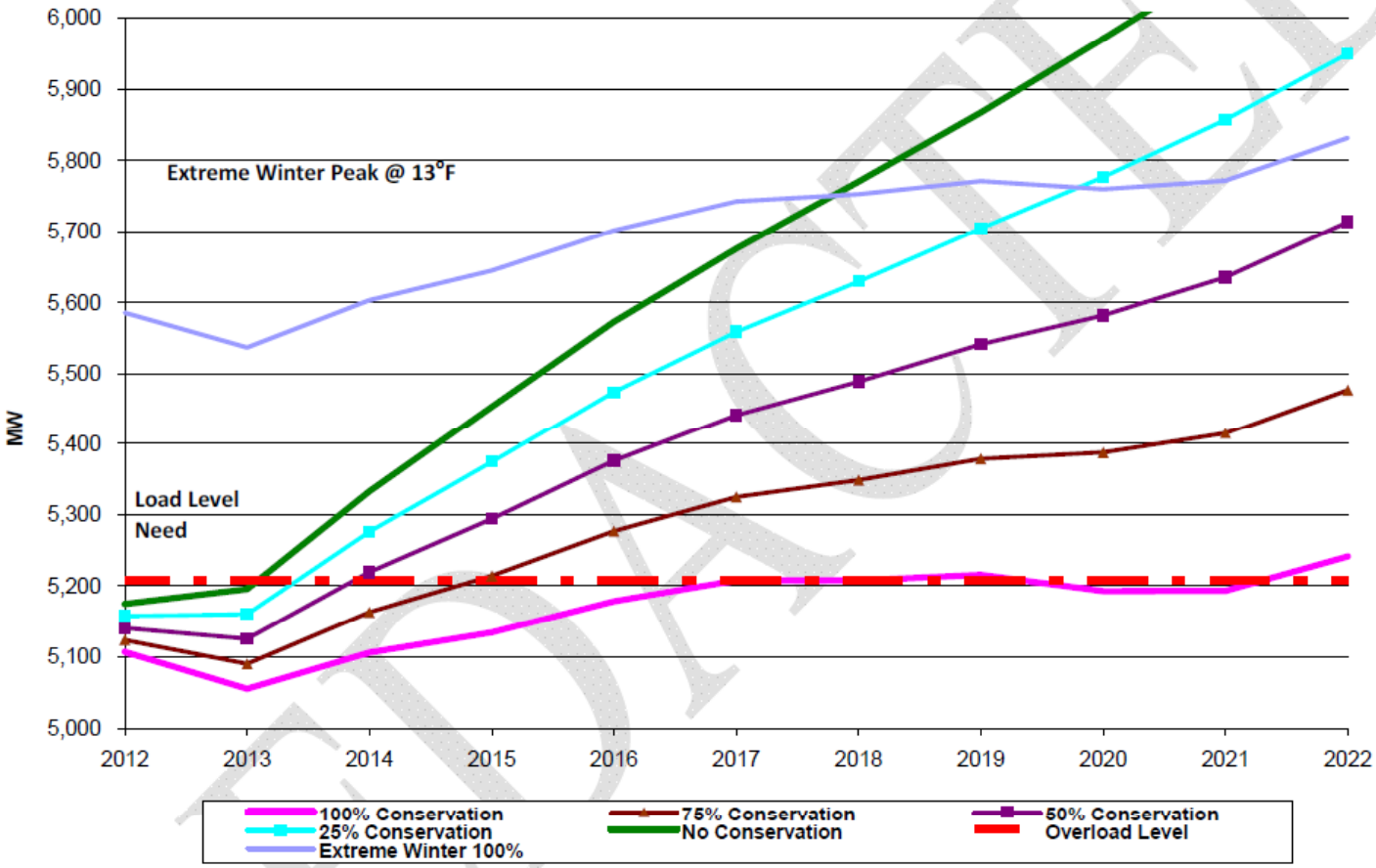
- **179 meetings** with various stakeholders, ranging from one-on-one meetings to large public events
- Collecting, analyzing, and responding to more than **950 communications** from the public
- **2 Community Advisory Group** and **9 Sub-Area meetings** to gather specific community feedback
- **2 open house community meetings** to introduce the project. **1 Q&A session.**

Key questions and responses

- Local need for electricity
- Alternative solutions
- Undergrounding and submerging
- Seattle City Light corridor
- Olympic Pipeline
- Property values
- Electromagnetic fields (EMF)

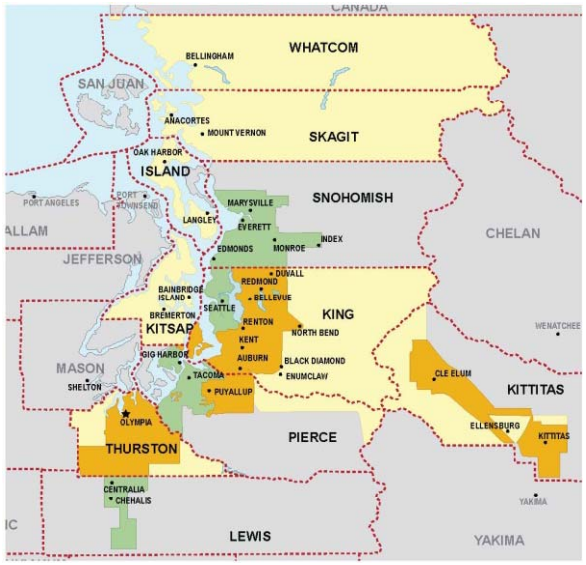
Local need for electricity

PSE Area Winter Peak Load Forecast 2012-2022



Source: Eastside Needs Assessment Report

PSE's service territory



Combined electric and natural gas service
Electric service
Natural gas service

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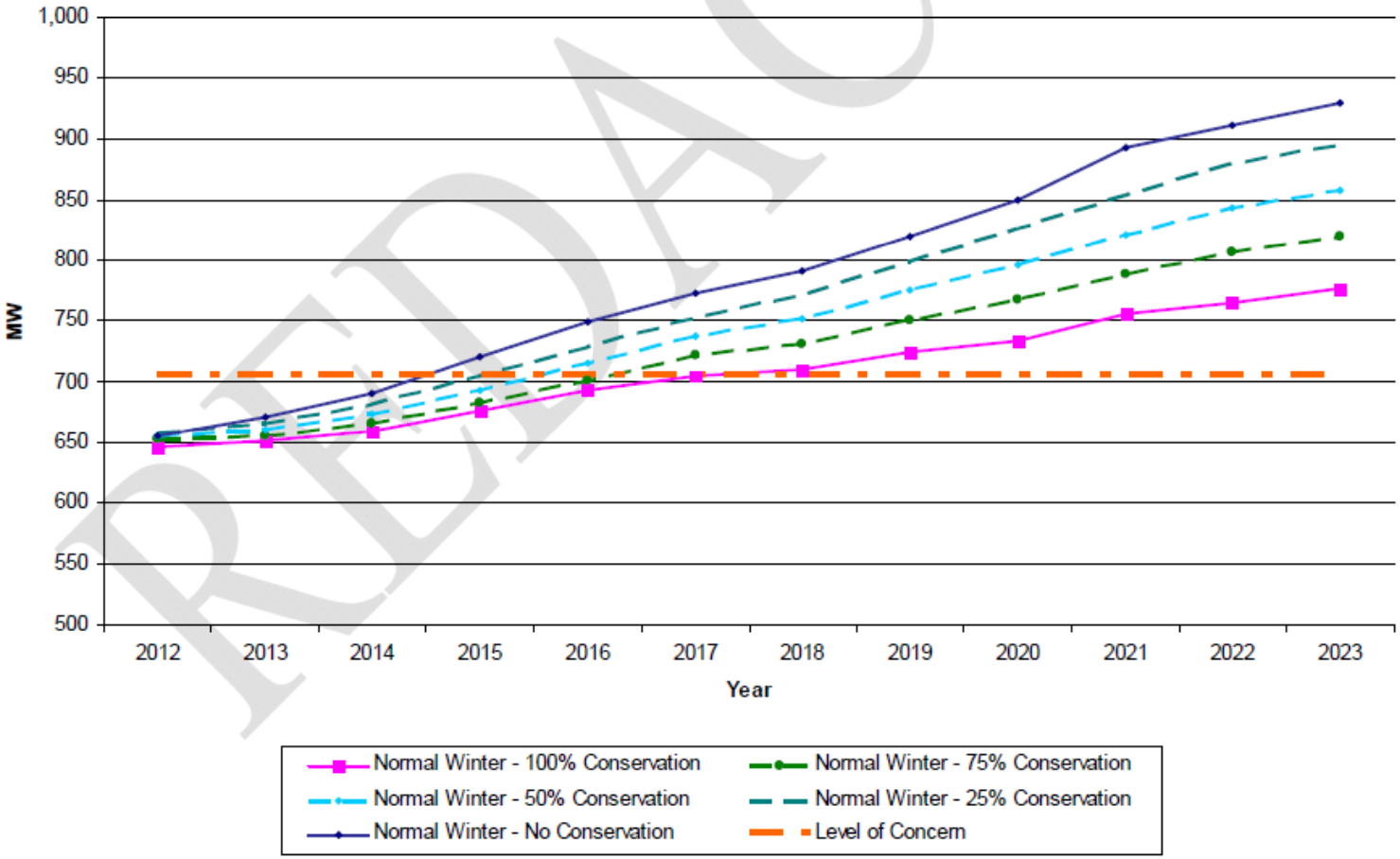
Local need for electricity

Eastside Load Forecast for Normal Winter Load Forecast 2012-2023



Source: Eastside Needs Assessment Report

Eastside area map

REDACTED

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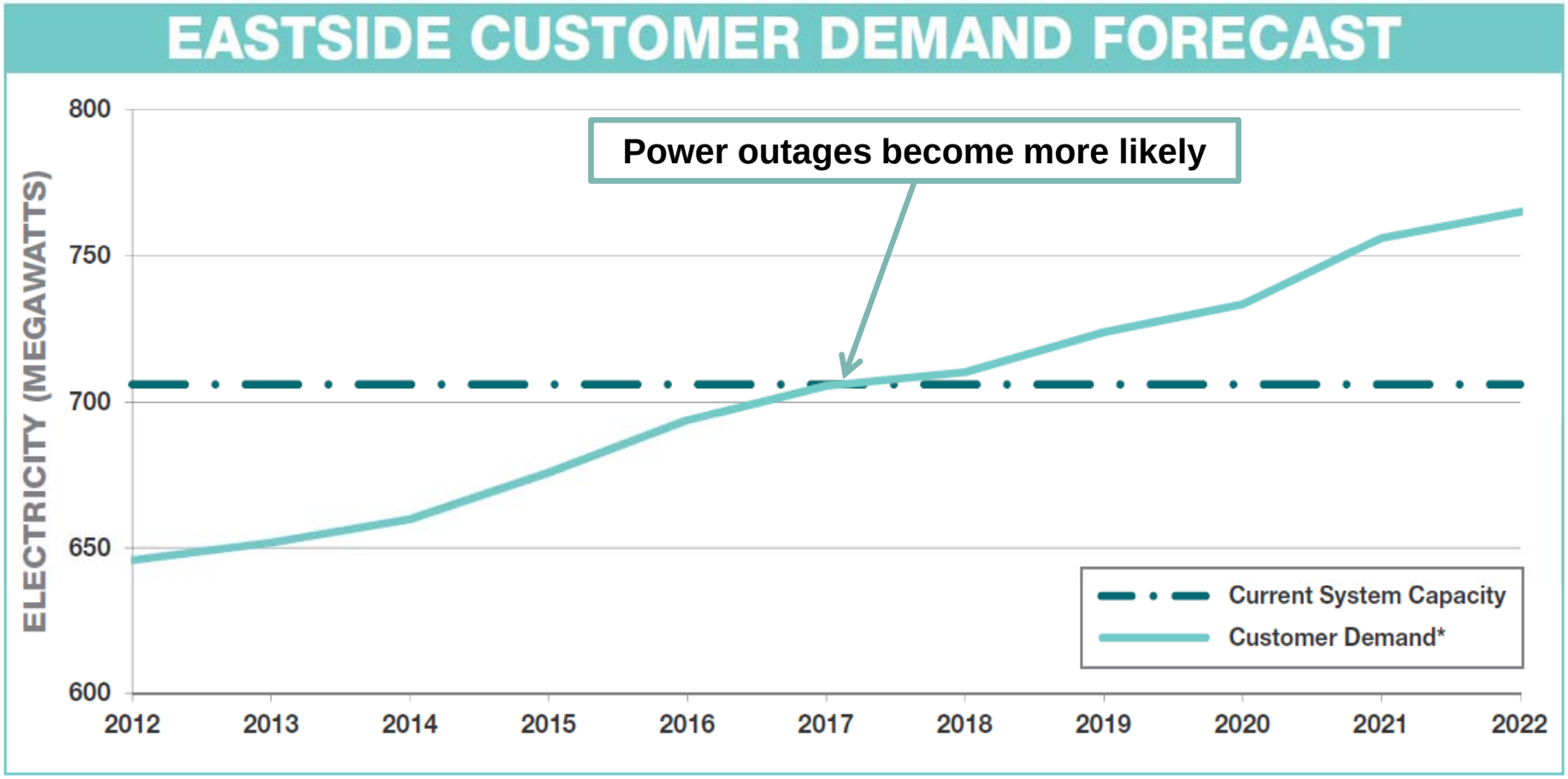
Customer demand



*Customer Demand assumes 100% of conservation goals are met.

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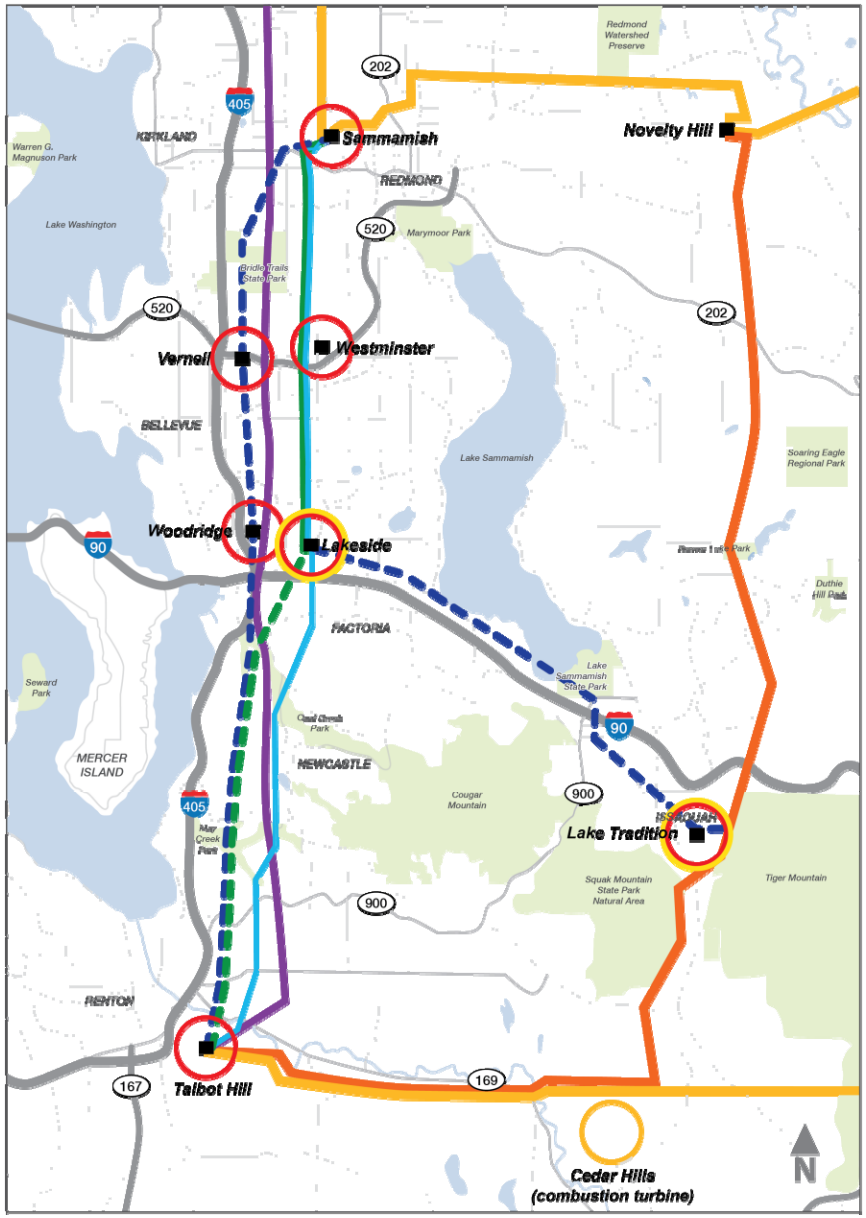
Solutions reviewed



Source: Eastside Transmission Solutions Report

Legend

- Existing bulk power lines (230 kV)

230 kV corridors considered

- BPA corridor
- PSE corridor
- SCL corridor
- New corridor
- Existing/New corridor
- 230-115 kV transformation sites considered
- Generation sites considered

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Local vs. regional benefit

Local need

- The driver for the project
- **Problem**: Transformers serving the Eastside area are overloaded
- **Solution**: A new transformer and transmission line

Regional benefit

- Adding a transmission line to the system always changes regional power flows – in this case, an ancillary regional reliability benefit
  - 3-8% of the power flowing through the line will be used regionally

Alternative solutions

- **Request:** Halt the Community Advisory Group process to revisit the need and alternative solutions
- We thoroughly reviewed many potential solutions:
  - Seattle City Light corridor
  - Conservation only
  - Batteries/Non-wires
  - Transformer-only options/other locations
  - Underground and submarine
- What is still on the table?
  - Overhead
  - Underground/submarine

Undergrounding as an option

- Decision to underground is the local community's
- Requesting community pays difference
- Money paid up front for both engineering and construction

Seattle City Light corridor

- PSE has reached out to Seattle City Light (SCL)
- SCL uses their 230 kV transmission lines to meet current and future operating needs

Legend

- Existing bulk transmission lines (230 kV)
- Existing transmission lines (115 kV)
- Seattle City Light bulk transmission lines (230 kV)

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Olympic Pipeline

Demonstrated success with power lines and pipelines

- Replaced 300 poles in the existing corridor
- In Snohomish County, PSE installed 8.5 miles of 230 kV transmission line along Olympic Pipeline
- In Skagit County, Sedro-Woolley to Horse Ranch project crossed Northwest Pipeline

230 kV transmission line in Everett, WA

Property values

Using property values to site electric infrastructure

- We do not use property values to site infrastructure because of inequity issues.

Property value compensation

- PSE does not compensate nearby property owners for perceived loss of property value due to the installation of energy infrastructure. In this respect, PSE is no different than any other public or private developer.

Electromagnetic fields (EMF)

- 45 years of research on EMF
- About 2,900 studies conducted to date related to cancer
- World Health Organization in 2012 concluded that:
  - "The current evidence does not confirm the existence of any health consequences from exposure to low level electromagnetic fields"
- The international public exposure limits:
  - 2,000 mG - International Commission on Non-Ionizing Radiation Protection
  - 9,040 mG - Institute of Electrical and Electronic Engineers
  - 18.82 mG – Average 230 kV transmission line exposure when standing 50 feet away from centerline

http://www.who.int/peh-emf/about/WhatisEMF/en/index.html

Questions

Do you have clarifying questions about the information presented?

Sub-Area Workshops

Workshop #1

- Key Issues
- Values
- Data requests

Workshop #2

- Data
- Visualizations
- Segment scoring
- Messages to the Sub-Area Committees

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Sub-Area Committee Meetings

- Observations from committee participants
- Key points
- Topics for further exploration

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Evaluation factors

Evaluation factor	Factors used during Sub-Area Meetings			Sub-Area Committee member suggestions
	North	Central	South	
Least proximity to sensitive community land uses	✓	✓	✓	N/A
Least proximity to sensitive environmental areas	✓	✓	✓	• Consider that individual environmental factors, such as wildlife, wetlands and stream crossings may have different priority levels for different communities • Include impacts during construction
Least proximity to residential areas	✓	✓	✓	N/A
Most protective of health and safety	✓	✓	✓	• Consider as the top factor
Least effect on aesthetics	✓	✓	✓	• Consider undergrounding and submerging
Least impact to mature vegetation	✓		✓	• Include vegetation restoration plans
Maximizes opportunity areas	✓	✓		• While this factor was not originally identified as a top evaluation factor in the South, during the South Sub-Area Committee Meeting there was a request for this factor to be used

Additional evaluation factors	***Factors suggested during Sub-Area Meetings (but not used)***			***Sub-Area Committee member suggestions***
	North	***Central***	***South***	
Least impact from construction	✓		✓	• *Include relative impacts between segments and construction time*
Least effect on property values		✓	✓	• *Consider property rights, inverse condemnation and easements*

Blind evaluation of route options

- Evaluation of all 18 route options
- Purpose of blind evaluation
- Access evaluation online
- Data table
  - Evaluation factors
  - Measurable data
  - Exclusions
- Scoring
- Timeline: **Please complete by June 16**

Blind evaluation of route options

Factors from sub-area work	Factors for blind evaluation
Least impact to residential areas	Avoids residential areas
Least impact to community sensitive land uses	Avoids community sensitive land uses
Least proximity to sensitive environmental areas	Avoids sensitive environmental areas
Least proximity to mature vegetation	Protects mature vegetation
Maximizes opportunity areas	Utilizes opportunity areas

Blind evaluation of route options

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Blind evaluation preview

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Community Advisory Group Blind Evaluation of Full Route Options

Evaluation factor one - Avoids residential areas

50%

Use the evaluation factor "Avoids residential areas" to score all 18 routes

Scoring system

Best meets the factor = 5 ★★★★★

Meets the factor = 4 ★★★★

Somewhat meets the factor = 3 ★★★

Mostly does not meet the factor = 2 ★★

Least meets the factor = 1 ★

Routes Maple through Sycamore

	Maple	Cherry	Redwood	Fir	Cedar	Ash	Pine	Oak	Sycamore
Avoids residential areas	▾	▾	▾	▾	▾	▾	▾	▾	▾

Routes Willow through Magnolia

	Willow	Poplar	Elm	Aspen	Cottonwood	Laurel	Dogwood	Spruce	Magnolia
Avoids residential areas	▾	▾	▾	▾	▾	▾	▾	▾	▾

5
4
3
2
1

Previous Next

Public comment

Upcoming meetings

- **Community Advisory Group Meeting #4a**

  June 25 from 5:30 to 8:30 p.m. at the Bellevue Hilton Hotel

- **Q&A Session**

  July 7, time and location to be determined

- **Community Advisory Group Meeting #4b**

  July 9 from 5:30 to 8:30 p.m. at Renton Technical College

Thank you!