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From Aug. 27 through Sept. 17, 2014, Puget Sound Energy hosted an online open house and feedback survey for the Energize Eastside project. **This is an archived version of the online open house content.**

Through this archive, you can access all materials that were available at in-person open houses on Sept. 10 and 11, 2014. These materials are also available on the Open House #2 [meeting materials](#) page. The survey closed on Sept. 17, so it is no longer accessible on this site.

PSE is committed to working with the community to better understand the issues to consider as PSE selects the route that will meet the needs of its customers, the local community and PSE.

For additional materials and information, please visit the Energize Eastside project website at pse.com/energizeeastside.

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Overview

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The Energize Eastside project will build approximately 18 miles of higher capacity 230 kV transmission lines and a new electric substation to serve homes and businesses on the Eastside. This effort will upgrade our existing transmission system and provide more dependable power for all Eastside communities for many years to come.

Route identification is underway, and construction will begin in 2017.

Check out the links below for more information:

- [Opportunities for public involvement](#)
- [What is the challenge?](#)
- [Sample 230 kV poles and wire configurations](#)

Additional materials:

- [Quick facts](#)
- [Fact sheet](#)
- [FAQs](#)

What is Energize Eastside?



Schedule



Energize Eastside project video



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Need

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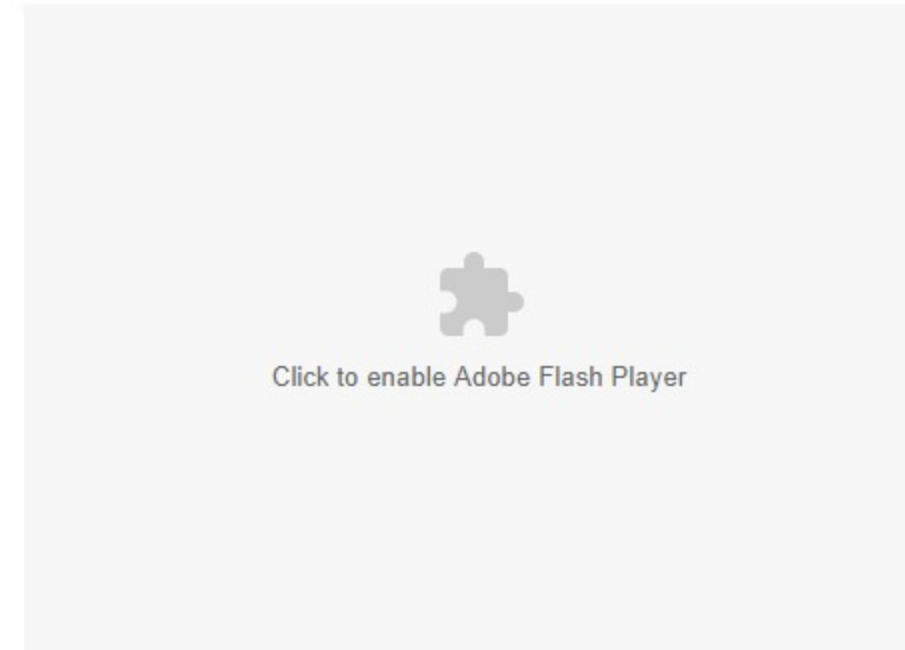
Growth is straining our region's existing transmission system

Growth studies project that demand for reliable power will exceed capacity as early as 2017.

This doesn't mean the lights will go out, but without substantial electrical infrastructure upgrades and aggressive conservation efforts, the Eastside's power system will lose redundancy, increasing the possibility of outages for as many as 60,000 customers.

Check out the links below for more information:

- [About Eastside Need](#)
- [Map of the Eastside's electric demand](#)
- [About Eastside growth](#)
- [How power gets to you](#)



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Key questions

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Below are some common questions we have heard from the community. For answers to other frequently asked questions, visit pse.com/energizeeastside.

How is PSE “right-sizing” the project?

The Energize Eastside project is designed to meet the Eastside’s growing need by using the right infrastructure at the right scale.

The project will:





- Upgrade the line to the next incremental step in voltage, from 115 kV to 230 kV
- Increase the conductor from 1.063 inches to 1.545 inches - the size that best meets the capacity needs to serve our Eastside area customers into the future
- Build a new substation to increase the number of 230 kV transformers serving the Eastside area from four to five



The combination of a new substation and new transmission lines will provide enough capacity to meet the Eastside's need for years to come.




What we're hearing

How is PSE “right-sizing” the project?

The Energize Eastside project is designed to meet the Eastside's growing need by using the right infrastructure at the right scale.

Line voltage			
Existing	Proposed	Not Proposed	
 115 kV	 230 kV	 345 kV	 500 kV

Conductor size	
 Existing 115 kV conductor size: 1.063 inches.	 New 230 kV conductor size: 1.545 inches.

Substation size		
The Eastside system currently has four 230 kV transformers at two substations. 	Energize Eastside will build one substation with a new 230 kV transformer. 	The combination of a new substation and new transmission lines will provide enough capacity to meet the Eastside's need for years to come. 

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PUGET SOUND ENERGY

Has PSE considered alternative solutions?

PSE studied a variety of alternatives such as reducing demand through continued conservation, increasing the capacity of PSE's existing electric transmission lines, generating energy locally, and building new infrastructure.

Other alternatives considered:

Using batteries instead of building transmission lines and a substation

- Technology has not been used for the type and scale of problem facing the Eastside
- Would still require new transmission lines
- Would require up to 300 shipping-container sized batteries located on the Eastside just to meet initial demand
- PSE is pursuing a pilot battery project at a much smaller scale

Conservation only: “demand response” and other incentive programs

- Encourage higher-energy use during off-peak hours (i.e., running washing machine late at night instead of during the day)
- Time-of-use rates have been tested by PSE on the Eastside, but were very unpopular
- Does not conserve enough energy to meet project need



Solar power and other generation efforts

- Solar panels don’t generate electricity during peak hours of electricity use (winter mornings and evenings) and can be expensive
- Some homes cannot support the weight of solar panels or do not have the correct orientation
- Other generation efforts would require building a 300 MW power plant and new transmission lines on the Eastside

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OTHER ALTERNATIVES CONSIDERED		
Using batteries instead of building transmission lines and a substation <ul style="list-style-type: none">• Technology has not been used for the type and scale of problem facing the Eastside• Would still require new transmission lines• Would require up to 300 shipping-container sized batteries located on the Eastside just to meet initial demand• PSE is pursuing a pilot battery project at a much smaller scale 	Conservation only: “demand response” and other incentive programs <ul style="list-style-type: none">• Encourage higher-energy use during off-peak hours (i.e., running washing machine late at night instead of during the day)• Time-of-use rates have been tested by PSE on the Eastside, but were very unpopular• Does not conserve enough energy to meet project need 	Solar power and other generation efforts <ul style="list-style-type: none">• Solar panels don't generate electricity during peak hours of electricity use (winter mornings and evenings) and can be expensive• Some homes cannot support the weight of solar panels or do not have the correct orientation• Other generation efforts would require building a 300 MW power plant and new transmission lines on the Eastside

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Can PSE put the lines in the Seattle City Light transmission line corridor?

- We’ve looked into using the Seattle City Light corridor. If it were rebuilt, the corridor could work to meet the Eastside’s energy needs.
- However, Seattle City Light has told PSE that their corridor is a key component of Seattle City Light’s transmission system and not available for PSE’s use.
- PSE prefers to route new transmission lines along existing corridors whenever possible. About 70 percent of the route options we’re considering have existing lower voltage transmission lines along them.

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PUGET SOUND ENERGY

Can you safely put transmission lines near the Olympic Pipeline?

- Safety is always the top priority at PSE.
- Across North America, high voltage electric transmission lines safely coexist with petroleum product pipelines like the Olympic Pipeline.
- PSE has a long history of working closely with Olympic. PSE has shared this corridor with Olympic Pipeline for decades and the two companies have a shared interest in the protection and safe operation of the facilities in the corridor.
- In addition to being your electric provider, PSE is also a natural gas pipeline operator. PSE and its contractors are very familiar with pipeline safety concerns and employ safe construction practices when performing work in the vicinity of pipelines.

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PUGET SOUND ENERGY

Are property values a factor when evaluating route options?

- Property values are comprised of many factors, including economic outlook and location, as well as proximity to jobs, schools, transportation, parks and other amenities.
- PSE does not use property values as a factor when selecting routes out of fairness to and in consideration for customers of all income levels. It is socially inequitable to site infrastructure based on income-related considerations.
- A project's potential effects on surrounding property values are excluded from consideration of impacts to the environment under Washington's State Environmental Policy Act.

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PUGET SOUND ENERGY

Can PSE put the lines underground?

- PSE can build underground transmission lines.
- Overhead transmission lines are PSE's first option for their combination of reliability and affordability – both of which are important to our customers.
- Per state-approved tariff rules, the additional cost to underground a proposed line must be paid for by the group requesting the undergrounding.
 - Construction cost comparison
 - Overhead: \$3 million to \$4 million per mile
 - Underground: \$20 million to \$28 million per mile
 - Repairs comparison
 - Overhead: Typically hours to days
 - Underground: Typically days to weeks
- PSE would provide technical support if a community decides to invest in underground lines.

Read more about undergrounding [here](#).

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PUGET SOUND ENERGY

What about electric and magnetic fields? Are those a health concern?

- PSE has looked to the experts for guidance on electric and magnetic fields, or EMF.
- There is a 45-year body of research that does not show that exposure to EMF from transmission lines causes adverse health effects.
- The World Health Organization recently concluded that current evidence does not confirm the existence of any health consequences from exposure to low level EMF.

Read more about EMF [here](#).

What we're hearing

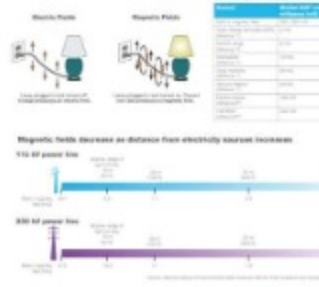
What about electric and magnetic fields (EMF)?

Are there health concerns with EMF?

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Community Advisory Group

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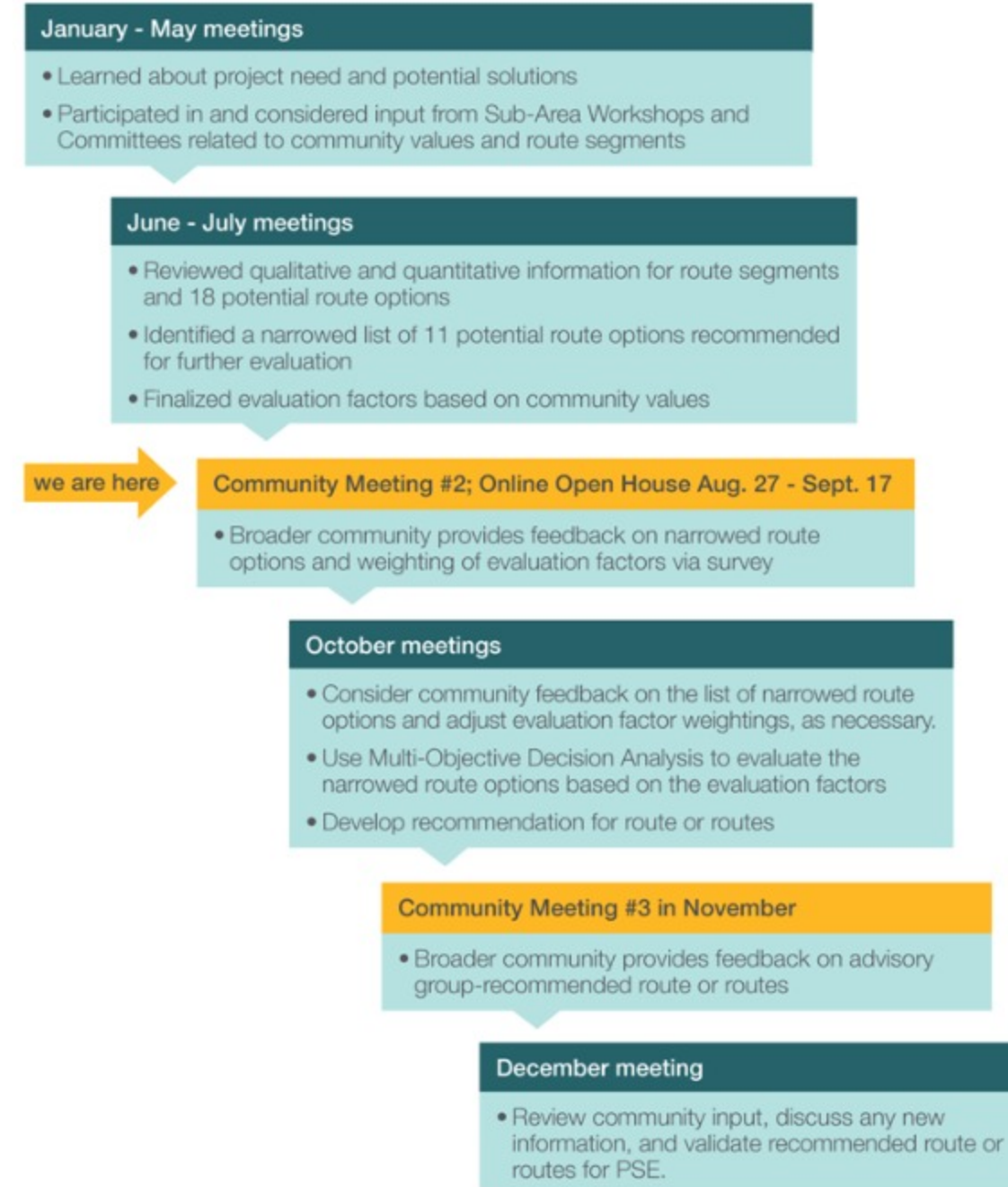
Progress to date and next steps

PSE is working with a **Community Advisory Group** to consider community values when evaluating route options.

The advisory group has been meeting since January and will make a recommendation to PSE by December 2014.

Community Advisory Group

Progress to date and next steps



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Route options

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Route options are composed of different route segment combinations and will connect substations in Redmond, Bellevue and Renton.

Over the last few months, the Community Advisory Group reviewed all 18 potential route options. To **narrow the route options**, the advisory group examined a variety of qualitative and quantitative information.

Through **discussion at advisory group meetings**, the Community Advisory Group **recommended 11 routes for further evaluation**. Check out the **interactive map** for a more detailed look at the route options.

 [narrowed Route Options](#)[Next page](#)

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Evaluation factors

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The Community Advisory Group identified the following nine community values-based evaluation factors to use in the **Multi-Objective Decision Analysis (MODA)** process they will use to further analyze the route options to help them make their recommendation to PSE.

-  Avoids impacts to aesthetics
-  Avoids residential areas
-  Avoids sensitive community land uses
-  Avoids sensitive environmental areas
-  Least cost to the ratepayer
-  Maximizes longevity
-  Maximizes opportunity areas
-  Protects health and safety
-  Protects mature vegetation

Definitions and data for each of the factors can be found at the [next station](#).

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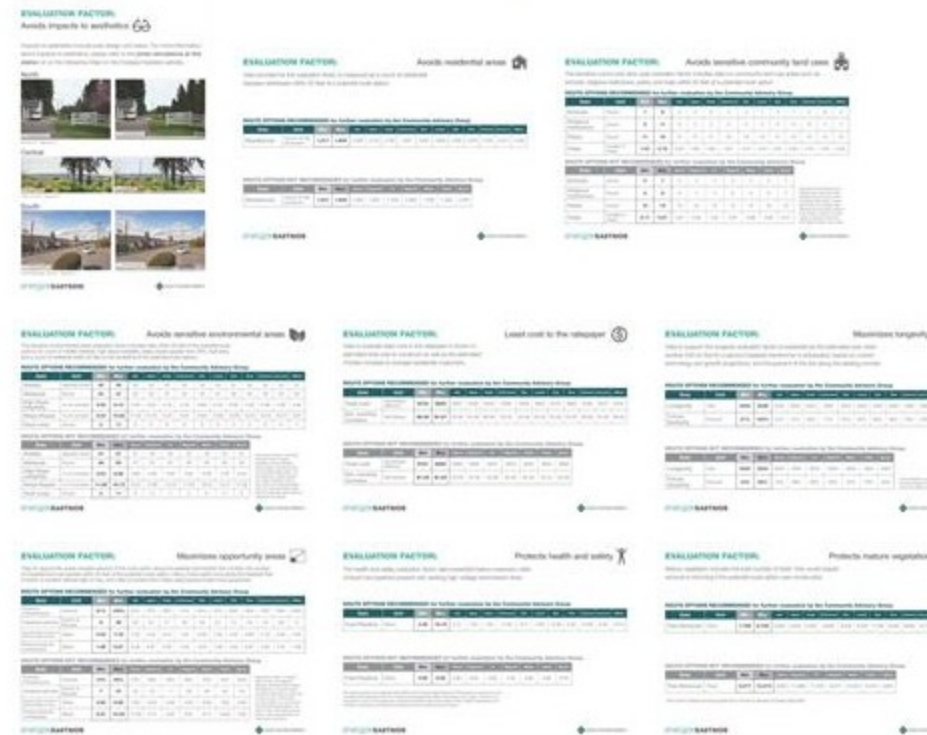
Data

Next

PSE has provided objective data on each of the 18 route options. Click on the images to the right to view data on the route options, organized by the nine evaluation factors, or view a [pdf](#) of the data.

View [photo simulations](#) of what the new transmission lines might look like or peruse the route options [data table](#) for more information.

Route option data sorted by evaluation factor



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Thank you

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Thank you for visiting the Energize Eastside online open house!

Did the Community Advisory Group select the right routes for further evaluation? How important are the evaluation factors the advisory group will use to evaluate the route options? Tell us what you think by taking our survey.

If you have additional **comments or questions** for the project team, please visit the Energize Eastside project website at pse.com/energizeeastside.

We want to hear from you!



Click Next to take the survey

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Survey

This survey was available from Aug. 27 to Sept. 17, 2014 and is now closed.
Please visit pse.com/energizeeastside for more information about the Energize Eastside project.

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