

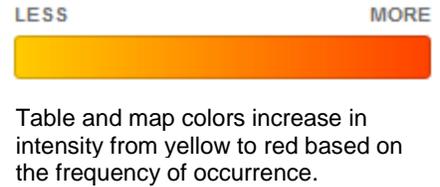
July 2014 Public Communications Summary

8/20/14

The following is a summary of feedback received by Puget Sound Energy (PSE) between July 1 and July 31, 2014 regarding the Energize Eastside project. During this period the project received 78 communications from the public. The communications were submitted via the project email address, the project voicemail, the project website, or at community meetings. Communications address a range of topics and often discuss more than one topic and/or segment; therefore, many communications are categorized and discussed under multiple topics.

Feedback Frequency by Topic

The following table indicates the frequency with which various topics were discussed (total) and where a specific segment(s) was mentioned when discussing this topic*.

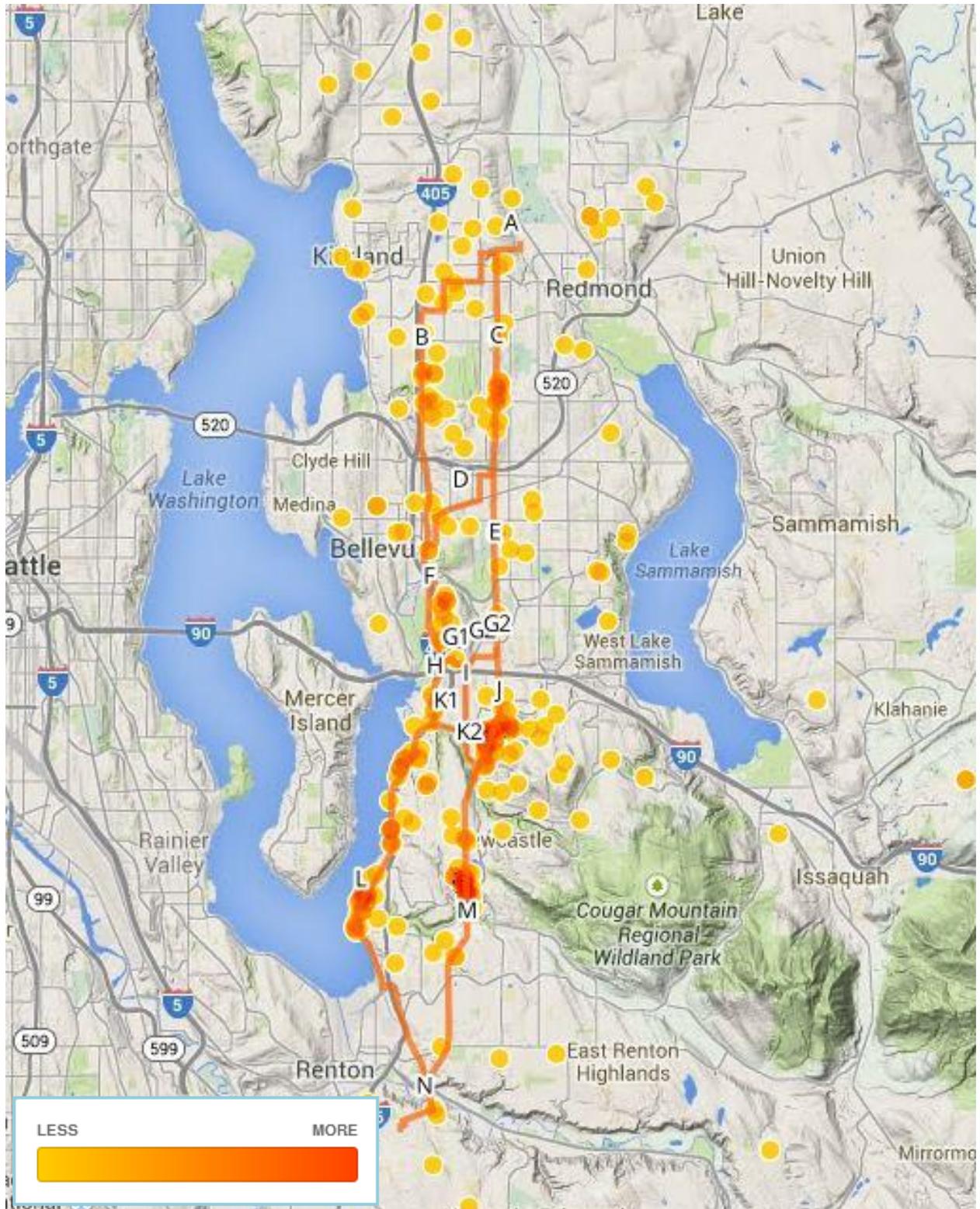


Topic	Total	A	B	C	D	E	F	G1	G2	H	I	J	K1	K2	L	M	N
Total by segment	78										1	4		1	1	1	
Project need	17											3					
Underground	13														1	1	
Cost	11																
Design structure type/appearance	10											3					
Route segments	10										1	4		1	1		
Visual	10										1	1		1	1	1	
Alternative technology	5															1	
Community character	5										1	4		1			
Real estate	5															1	
Environmental	4																
Property values	4														1	1	
EMF	3																
Design structure location	2																
Health	2															1	
Vegetation	2																
Permitting	1																

*Please note communications often reference more than one topic and/or segment. As a result, totaling columns or rows will produce results that exceed the total number of communications received.

Feedback Frequency by Address

The following map indicates the frequency of communications based on the addresses of individuals and organizations providing communications during this period.



Summary of Most Frequent Topics

Below is a summary of the topics (in order from most to least common) with key examples provided of the comments or questions received and a response from PSE. Communication excerpts are verbatim (including typographical errors) and reflect feedback from individuals who have contacted PSE about the Energize Eastside project. Please note that many communications received are statements and not questions. PSE makes every effort to respond to questions individually and has included general responses below by topic; general statements of fact or opinion do not typically receive detailed responses.

Multiple communication topics may be referenced in communications. Where appropriate, those topics have been combined in the summaries below.

The inclusion of the excerpts is to maintain a record of the information and feedback received by PSE and is not a reflection of PSE's concurrence or disagreement with any statements in whole or in part. The communication summary reflects PSE's public outreach process to assist the Community Advisory Group in gathering feedback that will be used to inform a recommendation about route selection.

Project need

Questions and comments have been submitted regarding whether the project is needed, whether it will serve the local area, and how the need will be met.

Excerpts:

- *If the need is more power, how does having more transmission lines and a new substation solve that? Don't we need a new or larger power plant? Where does the additional power come from?*
- *Would be interested to hear exactly how much of this power is for the Redmond-Bellevue-Renton area, and how much is for sending on to the wider area?*
- *Where can I find an explanation of all assumptions that went into your estimates for when East side's growth will exceed required capacity of existing lines?*
- *I question the need for PSE's proposed solution to meet the energy needs of the Eastside.*
- *The project is a valuable form of insurance and I support paying more now to assist in the survival of tomorrow's seniors.*

Puget Sound Energy Response:

Much has changed on the Eastside in the last 20 years. Not only have communities grown and prospered, but the way we use electricity has changed—consumers plug in more devices and build bigger homes. Demand for electricity has grown dramatically, and it's time for PSE's infrastructure to catch up.

Economic development, job growth and associated population growth on the Eastside depend on a robust electrical transmission system. Eastside population has grown by eight¹ times since 1960, and recent growth trends are expected to continue—in fact, the Puget Sound Regional Council recently

¹ Source: Puget Sound Regional Council 2013 Land Use Baseline: Maintenance Release 1 (MR1) Update
pse.com/energizeeastside

predicted that the Eastside population will grow by more than a third between 2010 and 2040, with population in the Bellevue central business district growing by more than 280 percent by 2040².

At the same time, this economic rejuvenation is straining our region's existing electric system. Growth studies project that demand for reliable power will exceed capacity as early as 2017. PSE has essentially outgrown the electric system that serves its communities. Without substantial electric infrastructure upgrades, tens of thousands of residents and businesses will be at risk of more frequent and longer outages.

The Energize Eastside project is driven by Eastside's growing customer base, and is needed to ensure reliable power for PSE's customers on the Eastside specifically. PSE does not have transmission lines that interconnect to Canada. PSE's transmission lines run from Thurston County to Whatcom County, and are part of the integrated western electrical grid, similar to PSE's neighboring utilities such as Seattle City Light and the regional utility Bonneville Power Administration.

Adding a transmission line to the system always changes regional power flows – in this case, providing an ancillary regional reliability benefit. Between 92 and 97 percent of the power flows on the Energize Eastside line will deliver electricity to local Eastside customers. Power flow studies show that the power used for regional purposes on the Energize Eastside project is 3 to 8 percent. This is the natural consequence of connecting a transmission line into an interconnected system.

If power is sold or another utility requests to use PSE lines, 100 percent of the revenue PSE receives is credited back to PSE's customers in the form of a rate reduction. Because PSE customers paid for the infrastructure, the thought is those customers should receive the monetary benefit of any power transactions that bring in money to the utility.

PSE's studies show that at the current rate of projected demand growth, the Eastside customer demand will exceed the Eastside's electric transmission system capacity in winter 2017-2018. The company plans to have portions of Energize Eastside in service in 2017, with the project fully operational by 2018. Increased operating procedures are being put into place to deal with unusual conditions in order to mitigate much of the increased risk for 2017 until construction is complete. However, this method of operations is not sustainable past 2017 and won't work as the Eastside demand continues to grow. If the project is delayed, then PSE would have to implement corrective action plans to meet demand on a more frequent basis; however, these actions mean up to 60,000 customers are at an increased risk of power outages. The number of customers at risk of a significant outage will only increase as demand grows.

Some have asked how the addition of a new transmission line and a new substation would solve the Eastside's energy needs; others have suggested that building a small power plant on the Eastside could solve the problem. However, the problem is not that we don't have enough energy to power Eastside communities. Instead, the problem we need to solve is transporting the energy we have to the fastest-growing places and the people who need it. The new substation will provide additional capacity to ensure the local electric system can accommodate our customers' growing energy usage, while the transmission lines will ensure we can deliver that additional capacity to the Eastside communities that need it the most. Additionally, even if a new power plant was a viable solution, we would still need to build the new transmission lines to connect the power plant to the rest of the system.

² In April 2014, the Puget Sound Regional Council updated their growth forecasts from 275 percent to 280 percent by 2040.

For more information, please see the [Eastside Need](#) page of the Energize Eastside project website as well as the [Needs Assessment Report](#).

Underground

Suggestions have been made that PSE construct the new line underground, along with questions about undergrounding costs and feasibility.

Excerpts:

- *Again and again the construction costs of underground vs. overhead transmission are shown to be much higher for the former. This represents only part of the life-cycle costs. How do these compare?*
- *My family and I believe new transmission lines should be overhead, not underground, due to the enormous cost differential of installation, and large costs and time of digging to repair underground lines.*
- *Use the underground approach in the most critical areas and the rest above.*
- *I think it is utterly ridiculous to put them above ground, no other city does this that I have lived in.*
- *Yes, underground installation is much more costly but I would gladly be assessed an amount for that than have the value of my property destroyed.*

Puget Sound Energy Response:

Overhead transmission lines are PSE's first option for standard service due to their reliability and affordability, both of which are important to PSE's customers.

The biggest challenge to underground transmission lines is cost. The construction costs for an overhead transmission line will be about \$3 million to \$4 million per mile, versus \$20 million to \$28 million per mile to construct the line underground. These figures only take engineering and construction costs into consideration, and do not include additional costs such as land acquisition, traffic control, relocation of existing underground facilities that may conflict with an underground transmission line, future increased operation and maintenance costs, or taxes and overheads. These additional costs can be very significant – sometimes two to three times the construction costs.

When a transmission line is constructed overhead, project costs are distributed evenly between PSE's 1.1 million customers. If a transmission line were to be constructed underground, PSE can't justify asking customers across its entire service territory to pay the significant cost increases for a local aesthetic benefit. That's why, per state-approved tariff rules, the local jurisdiction or customer group requesting underground transmission lines must pay the difference between overhead and underground costs.

The tariff is in place to protect all of PSE's customers from substantial bill increases that would result from frequent requests to underground or relocate transmission lines (view the full tariff: [Schedule 80, Section 34](#)). PSE recognizes some of its customers are in the financial position to pay the substantial increase in rates to underground this project and others, but there are also many low- and fixed-income customers who depend on affordable rates. It is PSE's responsibility to balance the needs of all customers and provide service that is both reliable and affordable. These regulations are founded in fundamental public policy, which hinges on fairness and reasonableness for all customers, regardless of income. Having the local community pay to underground power lines for the aesthetic benefit is not new – it is the same concept our communities follow today when a new development undergrounds the lower voltage distribution power lines.

In addition to cost, there are other factors to consider. For example:

- Putting power lines underground can have bigger environmental and neighborhood impacts. Undergrounding transmission lines requires extensive vegetation removal, trenching and installation of large (20 feet x 30 feet) access vaults every quarter mile and can be very disruptive to neighborhoods and the environment.
- Because they need additional cooling and insulation, underground transmission lines are typically installed in concrete duct banks, which can extend 5 or more feet below the surface. These require an easement 30 feet to 50 feet wide, which, unlike with overhead lines, must be completely free of trees.
- Underground lines typically take longer to repair, and repairs are more difficult. When an overhead line fails, crews can often repair it within hours. Repair of underground transmission lines can take days and even weeks, depending on the repairs that need to be made.

All of these factors are why PSE is proposing to construct the Energize Eastside project overhead.

Read more in PSE's [undergrounding](#) fact sheet.

Cost

Feedback varies from questions about who should bear the cost of the project to suggestions to select specific route segments that are believed to cost less to build.

Excerpts:

- *Am I going to have to pay for the growth in the system to provide for "growing needs", when I don't have any growing needs myself? If "yes", please explain the logic in this, rather than having those who benefit from the growth (new businesses, new residences, etc.) pay for all the growth in the system?*
- *That route [referring to the eastern route M-J-E-C] also appears to be more direct, so one would guess that means less total construction cost, which should also be an important consideration.*
- *I haven't heard of how much new development has or will be paid for the new energy cost. What are the impact fees for new development? If none, why?*

Puget Sound Energy Response:

The total cost of the project is not yet known, but estimates range from \$150 million to \$300 million. Once a route is selected and the final design and alignment are determined, PSE will have a better idea of the total cost. In the meantime, PSE has put together data tables containing [cost estimates for various route options](#) under consideration by the Community Advisory Group to assist in their deliberation on what route or routes to recommend.

Upgrades or additions to the electric infrastructure are shared by all of PSE's 1.1 million electric customers and paid for over time (unless a more expensive upgrade or addition is made to benefit only a certain area or community, such as undergrounding a line for the purpose of preserving aesthetics). While there are many factors that go into determining the individual customers' monthly bill increase, rough estimates are that it will range from \$1 to \$2 per month for typical residential customers.

Design structure type/appearance

Concerns have been raised about the appearance and technical details of structures.

Excerpts:

- *What are the specific requirements dictating such tall pole heights?*
- *Can 230kv be run on a shorter pole in a horizontal configuration rather than a vertical orientation?*
- *Placing the 125' tall steel poles plus vertically oriented power lines along the J route would overburden the easement and be completely out of scale with all existing structures and vegetation along that route.*

Puget Sound Energy Response:

While PSE does not have the preferred route or final design yet, the use of steel monopoles made of galvanized or weathering steel is anticipated. The exact measurements of poles and foundations will not be known until after a final route is selected and detailed design has been completed. The poles are generally estimated to be between 85 feet and 130 feet, with diameters between 3 feet and 7 feet, but they could be taller or shorter depending on specific circumstances. Note that the pole diameter estimate refers to the diameter of the pole itself; if poles require a foundation, the overall footprint of the pole would increase. PSE will be asking for community feedback on these options. Pole height will depend on several factors such as topography and obstacles, wire tension, whether a pole is located in a straight line or at a corner, and the distance between poles, which could range from 200 feet to 1,000 feet. In general, the taller the poles, the longer the distance between them can be made.

How deep the pole is installed underground is also dependent upon the foundation. The two main factors to consider when determining the size and type of foundation system to be used is the amount of loading that the foundation will need to hold up and the strength of the surrounding soil. As mentioned above, both of these factors will be determined during the detailed design phase of the project. As such, PSE does not currently have the design and survey information needed to determine how deep the foundations will go, but concrete foundations generally range from 20 feet to 50 feet, depending on the specific conditions. Depending on subsurface conditions and line design, foundations may not be needed in some areas. If that is the case, the hole would typically be 12 feet to 18 feet deep, depending on the specific conditions.

PSE will not build lattice towers for this project. To view sample pole images and photo simulations from each Sub-Area, visit the [photo simulations](#) page on the Energize Eastside website.

Route segments/options

Feedback has been received regarding which specific segments should be chosen for the new transmission lines.

Excerpts:

- *The new need for increased electrical service is not in the areas under consideration for easement/lines but in downtown Bellevue and near developments south of Bellevue!*
- *I must express my strong opposition to running 230 kV lines through the J segment.*
- *I think you should go with the route that best fits the projected energy delivery requirements.*
- *I strongly oppose I, J, and K2 segments running above ground through our densely populated residential neighborhood.*
- *I think in this day and age if you and Seattle Light are not able to cooperate [to share the utility corridor] there is something gravely wrong with our way of working together.*

Puget Sound Energy Response:

PSE believes it is important to complete a thorough analysis of all feasible route options in the project area so when the time comes to select a preferred route, the company is confident that the route is the

best option for both the community and PSE. To simply build in the existing corridor without looking at other options, PSE felt, would be shortsighted.

During the solution identification process, PSE's engineers and third-party experts looked for the best solutions to deliver electricity to the Eastside. Solutions included conservation, local electricity generation and new infrastructure. The analysis determined that the best solution to ensure the area's electric transmission system will reliably meet growing demand is a combination of continued, aggressive conservation efforts and building new infrastructure—specifically, higher capacity transmission lines and a new substation.

Next, engineers used the computer-based modeling tool, called the Linear Routing Tool (LRT), to analyze, weight and score key criteria such as geographic barriers, land uses and impacts to the environment. Based on this analysis, the LRT generated hundreds of possible routes before identifying the best possible route options, including two general north/south route paths—one along PSE's existing corridor and one along a combination of roadway and rail corridor—with multiple crossover points. These two route paths were broken into 16 constructible route segments that could be configured in a number of ways. PSE is now gathering public feedback on the potential route options.

PSE generally prefers to site projects along public rights of way or existing utility corridors wherever possible. This was reflected in the route selection process, as existing corridors were deemed "opportunity areas" and weighted more highly in the LRT. About 70 percent of the route options we're considering have existing lower voltage transmission lines along them.

Additionally, we have approached Seattle City Light requesting to share its existing utility corridor for the Energize Eastside project. If rebuilt, this corridor could work to meet the Eastside's energy needs. However, Seattle City Light has been clear with PSE that the corridor is a key component of its own transmission system that is necessary to meet current and future operating Seattle City Light needs, and is not available for PSE. While PSE has eminent domain authority from the state, it does not extend to condemning property from a public agency that serves a public use.

Upgrading an existing transmission system in a dense urban and suburban area poses unique challenges, and there is no route option that completely avoids community impacts. As a result, PSE is committed to engaging the community to better understand and address those challenges.

PSE is currently in the middle of a year-long public outreach and route selection process, which includes working with a Community Advisory Group to consider community values when evaluating route options. PSE anticipates selecting a preferred route by the end of 2014 or early 2015 that balances the needs of customers, the local community and PSE. To explore the routes currently recommended by the Community Advisory Group for further evaluation, please visit the [online interactive project map](#).

As it is still in the Community Advisory Group's route evaluation process, PSE doesn't yet have a preferred route or detailed design. Since PSE has not yet determined the selected route, where poles will be placed, or what exact pole structures will be used, it is too early at this point to know about impacts and mitigation. However, once a preferred route has been selected, PSE will notify property owners, residents and businesses along the route about the project's next steps. PSE's Energize Eastside team is committed to working with property owners, businesses and residents on pole locations and design, access and other issues, and to provide mitigation when appropriate and/or necessary.

Visual

Concerns have been raised about the potential for visual impacts to public and private property and the surrounding landscape. This topic is often closely related to property values and undergrounding

Excerpts:

- *I think that anything that will undermine the beauty of Bellevue and have these monster poles is just a bad idea...We moved here because of the views.*
- *The poles and cables are ugly and a blight on the views.*
- *I support your efforts to upgrade the system even if there are some negative effects, primarily aesthetics. My residence looks West towards [Street] in [City], [Neighborhood], and I see the high voltage lines. I have no problem upgrading the system for the good of all people, even beyond the Eastside.*
- *New high voltage power line poles would be 50-100% taller and would block mountain views detracting from the beauty we all hold dear.*
- *It would be a huge eyesore and would totally disrupt the beautiful view.*

Puget Sound Energy Response:

Delivering a project like Energize Eastside in a dense urban and suburban area is challenging, but PSE is committed to working with the communities involved to minimize impacts to the maximum extent practicable.

Aesthetics and views could not be included in the initial route screening effort because there is no publically available data for these factors. However, visual impacts will be considered during the environmental review process that will be conducted to comply with the State Environmental Policy Act (SEPA). Additionally, photo simulations have been developed as a part of the ongoing public outreach process. To view the photo simulations, please visit the [Energize Eastside Photo Simulations web page](#).

The placement or “spotting” of pole structures will be dependent upon factors such as available right of way width, location of access routes, and obstacle avoidance. PSE typically has some flexibility when it comes to where poles are placed on a property. Whenever possible, PSE will work with property owners to identify the least impactful option for pole placement. In some cases, strategic planting of vegetation, such as trees with larger spreading crowns, can be used to diffuse and mitigate view impacts. In turn, the height, loading and overall size of each structure will be greatly affected by location. Additionally, recognized areas of environmental significance will be identified and avoided where practicable.

Alternative technology

Questions and suggestions have been posed regarding ways to address the project need without building a transmission line.

Excerpts:

- *I want to know about "smart" grids as relates to roof top solar panels? eg. Why not solar on every roof in the county?*
- *Why has the CAG been limiting in it's scope and not open to looking at other options?*
- *In the flyer sent to residences, there is a reference to an analysis of the non-wire options and for a local generation facility on the east side. How do I get copies of those reports?*
- *Get off this solar nonsense and renewable which will never meet our needs.*
- *Pursue options other than installing high voltage lines through the Olympus neighborhood.*

Puget Sound Energy Response:

Before launching this project, PSE studied several different solutions in addition to building the new overhead transmission lines. Those alternatives included reducing demand through conservation, increasing the capacity of PSE's existing electric transmission lines, generating energy locally, and building new infrastructure. However, these other solutions are not enough to solve the problem of transporting the energy we have to the fastest-growing places and the people who need it.

PSE reviewed both the planned conservation as well as additional potential demand reduction to meet the growing need. This included programs such as gas conversions and increased incentives for insulation and efficiency improvements in existing residences and businesses. In addition, solar panels and other types of local renewable generation were considered. All of these potential measures combined were unable to meet the need for the projected growth in the Eastside region. After a detailed analysis and weighing the relative tradeoffs, PSE determined that a combination of continued conservation and infrastructure upgrades—a new substation and higher capacity transmission lines—is the best way to reliably meet the Eastside's growing energy needs.

Many have asked PSE if building the 230 kV transmission line can be avoided by upgrading the existing 115 kV transmission line. PSE has already made upgrades to its existing infrastructure to postpone the need for the new 230 kV line as much as possible. By increasing the voltage from 115 kV to 230 kV, the wires must be placed on new poles due to different clearance requirements and the fact that the new wires are heavier and therefore require sturdier poles to support them.

Additionally, through upgraded lighting, appliances and equipment, increased weatherization, and energy-efficient building technologies, PSE customers helped us save enough electricity to power 30,000 homes in 2012. Despite these aggressive conservation initiatives by PSE and its customers over the past few decades, studies show demand is dramatically outpacing supply.

Conservation alone won't create the capacity to keep up with our region's growth. The Eastside economy and population are growing far faster than our conservation efforts can keep up with. Without substantial electric infrastructure upgrades, tens of thousands of residents and businesses will be at risk of more frequent and longer outages. PSE's problem is not a lack of energy to power Eastside communities. Instead, the problem PSE needs to solve is transporting the energy it has to the homes and businesses that need it. The Eastside is growing faster than any other region in Washington, which is straining our region's electric system. Growth studies project that demand for reliable power will exceed capacity as early as 2017, increasing the possibility of outages for as many as 60,000 customers in the Eastside.

PSE is actively monitoring emerging technology, and in some cases, is deploying pilot projects to test those new technologies. However, emerging technology is not advanced or developed to the level that provides enough capacity to efficiently and practically solve the energy problems that exist now and are expected in the near future on the Eastside. As a regulated utility, PSE cannot wait to address reasonably anticipated reliability needs until emerging technologies mature into viable options. PSE is hopeful that innovative and promising new technologies do become available in the future, but PSE has a legal duty to address its issues today.

You can read more about the alternatives studied in PSE's [needs assessment report](#), [solutions report](#), [non-wires solution analysis](#), and much more on the [Energize Eastside project website](#).

Community character

Concerns have been presented about impacts to unique community characteristics, especially in residential neighborhoods.

Excerpts:

- *This segment [referring to Segment J] is entirely residential, including both multi-family and single-family housing, a school an outdoor recreation center and a city park.*
- *What will be the impact of the new transmission lines through a neighborhood?*
- *I remain completely puzzled how PSE can seriously consider the highly unusual practice of constructing these huge high voltage transmission towers through such densely populated residential areas.*

Puget Sound Energy Response:

PSE knows that it will be bringing changes to any of the neighborhoods where lines are installed. For that reason, PSE and the Energize Eastside team are actively engaging the public to discuss routing, impacts, and potential design considerations to reduce these impacts while the company moves forward with this project, that is vital to maintaining reliable power for all of the customers in the area.

PSE actively encourages all potentially affected community members to participate in ongoing community events and provide feedback on the various route options. In March and April, PSE hosted a series of Sub-Area Workshops for neighborhoods to provide feedback on the proposed transmission line segments and to discuss the evaluation factors most important to their communities. In addition, the community has had the opportunity to share their questions and comments and Question and Answer Sessions and Community Meetings.

In an urban area like the Eastside, there are unfortunately no corridors running north/south that completely avoid effects to residential neighborhoods. There is no easy way to connect the substations in Redmond and Renton; there are challenges with each option and that is why PSE is first learning what is important to its customers and the communities that may be affected before selecting a route.

Real estate and Design structure location

Additional concerns have been raised about a range of related subtopics, including easements and where the poles will be located.

Excerpts:

- *If my neighborhood is selected, will homes be bought under imminent domain? Or will the lines just go over our houses? Or maybe down a main street right-of-way?*
- *Nowhere are the basic location options mentioned but obviously locations will require approvals from cities involved...PSE should be able to make its decisions and get on with the work, subject to obtaining ROWs [rights of way], especially with the need being 'urgent'.*
- *The existing easement along the Olympic pipeline is only 100 feet wide. The new 230Kv power lines require a larger easement potentially infringing on homeowner's property.*
- *The PSE data measures distance from the proposed corridors to the property edges but does not consider distance to homes (the actual home structure)...for many homes [along Segment B], the poles would be less than 30 feet from the front door (less than 10 feet for a few homes).*

Puget Sound Energy Response:

At this time, we're in the early stages of the public route discussion, so we don't have the route configuration identified yet. Nonetheless, when selecting a route for a new power line, PSE considers it an opportunity to locate the line where other lines already exist whenever practical. That said, existing right of way is just one of many factors we look into when siting new power lines. In a dense urban area like the Eastside, there is no easy solution to selecting a route. For that reason, we felt an obligation to identify all reasonable route options within the project study area. This was done by using a computer-based modeling tool to analyze key criteria like geographic barriers, land uses and impacts to the environment. Based on this analysis, route segments were identified that included an existing corridor and road rights of way.

The placement or "spotting" of pole structures will be dependent upon factors such as available right of way width, location of access routes and obstacle avoidance. In turn, the height, loading and overall size of each structure will be greatly affected by location. In addition, recognized areas of environmental significance will be identified and avoided where possible.

If the use of private property is required, PSE will negotiate fair market value purchase of easements with the affected property owners. Our preference is to arrive at mutually acceptable terms outside of court rather than using condemnation and we will work cooperatively with property owners to that end. If a legal path towards resolution is necessary we will treat all landowners fairly, with dignity and respect and we will continue to negotiate in good faith throughout the process.

At this time it is too early to say whether we'll need additional easements. Existing easements that PSE purchased in the past do not require additional compensation.

Like any developer, PSE must comply with local zoning codes and development standards and obtain all necessary permits for the project. We are seeking feedback from the communities and our customers throughout the siting process to consider designs which could minimize impacts. In general, PSE prefers to site projects along public rights of way or existing utility corridors wherever possible.

Environmental, Permitting and Vegetation

Questions and concerns about the environmental review process and impacts to wildlife and vegetation have been presented.

Excerpts:

- *Please don't ruin Lake Wash BLVD by clear cutting miles of lovely trees on the crown jewel of Renton & King County*
- *I saw no mention of the number of trees that would be cut down...All this information is vital!!!*
- *I am looking for information on PSE's process and contacts relating to the environmental impact on new power transmission lines through endangered species habitat. Specifically, I would like to know the agencies/groups that get involved in the analysis. I want this information so that I can contact them about the number of Bald Eagles that are living in the area(s) of your proposed routes for this project, and to understand what they do to make sure they are not disturbed outside of what is allowed.*
- *I have property with designated wetlands. This project could not possibly comply with those laws so close to the water...Why don't I see references to Environmental Impact Study in the literatures?*

Puget Sound Energy Response:

As with all of PSE's projects, PSE is committed to minimizing, where practicable, environmental impacts that can result from construction, operation and maintenance of electric transmission lines. When impacts cannot be avoided, PSE provides appropriate restoration or mitigation. For illustration, regardless of the route selected, federal, state, and local regulations do not allow construction stormwater that exceeds specific water quality parameters to run off into waters of the State. Erosion Control Planning will be incorporated into the project design. This is standard practice, as all large scale projects are required to assess potential drainage impacts. Once the route is selected, a detailed engineering analysis will be performed to address possible stormwater issues. Transmission lines typically have a small impervious footprint and therefore are not a major contributor to stormwater runoff. Runoff from PSE's infrastructure facilities will also comply with the appropriate stormwater regulations.

Throughout the design and construction of the Energize Eastside project, PSE will collaborate with local, state and federal agencies to ensure compliance with all applicable regulations. This includes meeting all local permit requirements and undergoing environmental review pursuant to the State Environmental Policy Act (SEPA). The SEPA process is used to help decision-makers understand a project's potential to cause impacts to the natural and built environments. For example, potential effects on wildlife such as bald eagles would be identified during that process, along with the appropriate restoration or mitigation actions. Additionally, PSE has an extensive avian protection program and often includes protective measures to power line design. More information on this program can be found on PSE's [Protecting Birds web page](#).

For trees directly under the transmission lines, PSE's transmission vegetation management program generally requires the removal of trees with a mature height of more than 15 feet. For those bordering the wires, trees will be trimmed or removed to maintain a clearance of 20 feet from the nearest line. In specific cases where terrain conditions allow 20 feet of clearance between the line and the mature height of the tree, species that mature at a height of more than 15 feet may be allowed. More information is available in PSE's tree trimming and maintenance information center.

Please visit the Energize Eastside [Environmental Review](#) web page for more details.

Property values

Concerns have been raised about the potential for significant impacts to private property values and suggestions have been submitted that the transmission lines should be located in areas where property values are lower.

Excerpts:

- *If Lake Washington Blvd is the selected route, the value of my property will drop dramatically... damaging the view with another set of unsightly power poles and power lines will severely affect the value of our property.*
- *Any route through a neighborhood will be both destructive to the neighborhood, and negatively impact property values. Assuming ~200 houses affected per mile (that's one house every 50 feet, 2 deep on each side of the lines) * 18 miles * (20% value decrease per house = \$100,000) = \$360 million loss of property value.*
- *The most reasonable location is to run the lines along the freeway, where any existing house values are already negatively affected by the noise and sight impact of the road.*
- *In the few areas where such lines have been imposed before, housing values and property tax revenues have dropped significantly.*
- *Why can't this route go through lesser impact areas and lesser home values?*

Puget Sound Energy Response:

When evaluating possible locations to site utility infrastructure, property values of the adjacent community are not taken into consideration because it is socially inequitable to make infrastructure siting decisions based on income-related considerations such as high-end, moderate or low-value housing. Similarly, 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 (SEPA), [Ch. 43.21C RCW](#). Property values are comprised of many factors, including economic outlook and location, as well as proximity to jobs, schools, transportation, parks and other amenities. Out of fairness to and in consideration for customers of all income levels, PSE does not use property values as a factor when selecting routes.

Attempting to determine the impact of a transmission line on property values outside of the context of a purchase and sale transaction requires a certain degree of speculation. Due to the unique qualities of each property, there's no "one size fits all" formula. 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. This approach is consistent with Washington law.

If new easements are required to site PSE's facilities on private property, PSE will compensate the affected property owners based on fair market value.

Health and Electric and magnetic fields

Concerns have been presented about the potential for negative health effects caused by the presence of high voltage transmission lines.

Excerpts:

- *Are you aware of any human health studies on CORONA (not EMF) from transmission lines? CORONA - ionized particles that float in the wind coming off these transmission lines.*
- *I have a question about the safety of the electromagnetic field emissions. I have an ICD implant and was wondering if it is safe for individuals who have these devices? Do you have current information documenting the safety of these emissions?*
- *I also believe that your information about the health benefits are simply skewed in your favor. I know that there are legitimate reports out that have indicated that Electromagnetic Frequencies interfere with human beings.*
- *High voltage power lines raise significant health concerns, especially in children, related to the long term impact of living next to electro-magnetic fields which are created by high voltage lines.*

Puget Sound Energy Response:

At PSE, safety is always the top priority. Many customers have questions about electric and magnetic fields (EMF) and the team works to provide access to information on EMF in a few different ways.

Specifically, we:

- Follow all applicable federal, state, county and city rules, regulations and standards when constructing power facilities for the safe and reliable delivery of electric service;
- Remain informed about important developments in EMF research from reputable, international and national scientific and public health organizations and agencies that have reviewed the research on EMF; and
- Share accurate and objective information about EMF with PSE's customers.

Over the past 45 years, there have been many scientific studies conducted to determine if EMF from transmission lines (called “power frequency EMF”) has any effect on human health. To date, this large body of research does not show that exposure to power frequency EMF causes adverse health effects.

Additionally, PSE understands that you, and other local residents, may have more questions about electromagnetic fields. PSE has hired Drew Thatcher – an independent, board-certified health physicist – to address more specific EMF questions. If you or your neighbors would like to ask questions of Drew, the Energize Eastside team would be happy to connect you with him for more information.

Also, in the next few months the company will have information on EMF measurements in the existing utility corridors (what magnetic field measurements exists today) and modeling numbers with the new transmission line. Once the EMF modeling study is complete, it will be posted on the Energize Eastside project website.