March 2014 Public Communications Summary

5/28/14

The following is a summary of feedback received between March 1 and March 31, 2014. During this period the Energize Eastside project received 158 communications from the public. The communications were submitted via the project email address, 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*. Less than half (63) of the 158 communications received during this period mentioned specific segments.

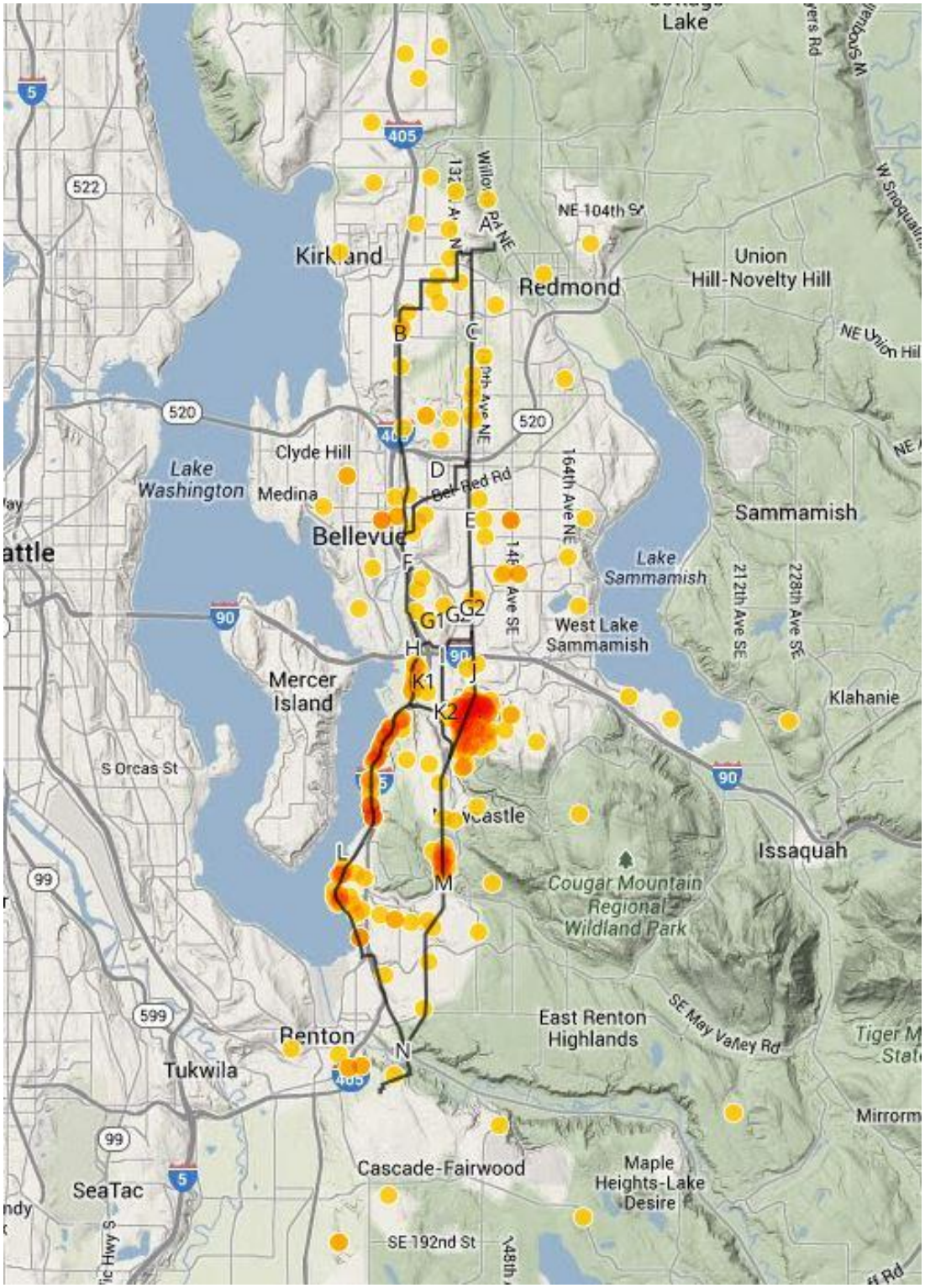
Table and map colors increase in intensity from yellow to red based on the frequency of occurrence.

Topic	Total	A	B	C	D	E	F	G1	G2	H	I	J	K1	K2	L	M	N
Total by segment	**158**	1	9	4		4	2		1	11	21	34	5	19	21	16	
Visuals	43		2			1				5	10	22	3	9	12	5	
Underground	35									2	9	17	4	9	7	3	
Property values	24		2				1			2	6	13	2	6	4	2	
Cost	22		1			1				2	2	4	1	2	7	4	
Safety	22			1		2				2	5	10	3	5	4	6	
Community character	19		2							3	5	10	2	4	3	1	
Electromagnetic fields	19		1							4	5	5	2	4	5	4	
Environmental	10														9	2	
Health	10									2	2	3	2	2	2	3	
Construction	9		2	1		1	1				1	1		1		4	
Design structure type/appearance	7		1								2	3	1	2		1	
Alternative technology	7														2		
Schools	7		2	1						1	4	4	1	4	2	1	
Recreation	6								1	1	1	1		1	4	2	
Geology/soils/steep slopes	6									2	1				2	2	
Real Estate	5			1		1					1	3		1	1	3	
Permitting	5											2			4	1	
Vegetation	5		3	1											1	2	
Noise	5		1			1									1		
Project need	3														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 concentration 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 of the comments or questions received and a response from PSE. The communication excerpts are verbatim (including typographical errors) and reflect input 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 input 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 input that will be used to inform recommendation(s) about route selection.

Visuals and Recreation

Concerns have been raised about the potential for impacts to public and private property and the surrounding landscape.

Excerpts:

- *When you review the CC&R's for Somerset you realize how much material is devoted to view enhancement including limiting tree height to 20 feet. The proposed power pole installation for routes I, J or K2 will adversely affect those views and essentially decrease the value of the properties.*
- *The area along Lake Washington Boulevard North, starting at Gene Coulon Park and extending northward through Ripley Lane N. is one of the very few remaining public-access view corridors of Lake Washington. This rare and precious view corridor is enjoyed by many area residents and visitors as they drive, walk, bike, jog and otherwise travel through the area. Views are subject to pollution, and the addition of tall towers with high voltage lines through this viewscape cannot be viewed as anything but visual pollution. The Renton SMP specifically addresses the protection of views.*
- *Route "L" runs through two of Renton's most treasured parks: Gene Coulon Beach and Kennydale Beach. These parks are heavily utilized during the spring, summer and fall months. There is no interpretation under which the addition of tall towers and high voltage power lines can be considered an enhancement. It can only be viewed as a degradation of two tremendous public assets.*
- *The main reason we moved to the Somerset neighborhood was because of the views. During our initial search for a home in Somerset we looked at a few homes that had the existing power lines running through the property and/or blocking the otherwise unobstructed view. We didn't select those homes in large part due to the power lines.*
- *I am concerned that the proposed routes do not seem to fairly take into consideration Washington State SEPA Project Review Form Guidance Document page 13 Scenic view: "Views valued by travelers and/or area residents should be considered in the design and review of the project to garner public acceptance" -- should have been considered prior to proposing segments J and L.*

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 are currently being developed as a part of our ongoing public outreach process. As these simulations are complete, they are being shared publicly by being posted on our project website.

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 we can, we 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.

Underground

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

Excerpts:

- *I don't even like the burying of these lines but as the only alternative that will protect all our neighborhoods from potential health and safety threats, visual impacts, and loss of property value.*
- *Undergrounding should be done with costs paid by entire eastside region as they will be benefiting from the new capacity. If done in this manner the cost becomes very minimal as a monthly add on to everyone's power bill. Just the people who have it next to them should not have to pay.*
- *A related question is if under-grounding is decided upon, is route "M" or "L" a better route? I understand that under-grounding is only an option for relatively flat surfaces.*
- *From our perspective, and from the perspective of the City of Bellevue Comprehensive Plan, the only reasonable prospect for your proposed transmission lines is to underground them, or run them underwater.*
- *I urge you to bury these lines, away from residential areas, rather than subject us all to having to look at them for the next however-many years. Please. Don't commence this project until you have adequate funding to bury the lines in a nonresidential area.*

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 our customers. Unless a community or local jurisdiction requests the lines be put underground and are willing to pay the cost difference, regulations require PSE to construct overhead transmission lines. These regulations are founded in fundamental public policy, which hinges on fairness and reasonableness for all customers, regardless of income.

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, we can't justify asking customers across PSE's entire service territory to pay the significant cost increases for a local aesthetic benefit. That's why, when an overhead line is a viable option like in the case of the Energize Eastside project, our tariff regulated by the Washington Utilities and Transportation Commission requires the local jurisdiction or customer group requesting that the transmission line go underground to pay the difference between the overhead and underground costs.

The tariff is in place to protect all of our 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). We recognize some of our customers are in the financial position to pay the substantial increase in rates to underground this project and others, but we have 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.

- Underground lines typically take longer to repair, and repairs are more difficult. When an overhead line fails, our 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 our undergrounding fact sheet.

Property values

Concerns have been raised about the potential for significant impacts to private property values and whether those impacts would be compensated for.

Excerpts:

- *If you put 100 ft plus high power lines in front of my view, are you going to compensate me for the loss of view and lost property values??*

- *Most residents of Somerset are here for the view, and we paid top-dollar to get it. Please don't ruin our view and decrease our property value with those tall electric towers and high-tension lines through our neighborhood.*
- *Are you going to be including the change in assessed value for homes near the proposed routes in your calculation of the cost of each route? Homeowners near Lake Washington that currently have no powerline near their home will see a significant decrease in their property value if a power line runs by their house and this decrease in value must be added to the cost of the project so that we can see the true project cost.*
- *As a senior citizen, my greatest worth is my home. Devaluation of my home at this time in my life would be devastating.*
- *The proposed new power line will affect the quality of life and property values of a large number of homes in Olympus and the impact will be tremendous. We are talking about millions of dollars in total.*

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 our facilities on private property, PSE will compensate the affected property owners based on fair market value.

Cost

Feedback varies from suggestions to build the lowest cost alternative to ideas about improving real estate values.

Excerpts:

- *How much is this is going to cost? And also, who is going to pay for it?*
- *What will the impact be for our utility rates? How much will the increase be?*
- *Pay whatever it takes to do it right - for the next 75 years.*
- *When will PSE learn that the overhead wires are not only ugly and decrease value but they are expensive. I am tired of power outages due to fallen/damaged wires. The cost to repair and replace them over a period of time eliminates them from being "less expensive" than burying them.*
- *Much of the potential route "B" is cleared and would be much cheaper, easier and faster to build, especially since I'll be the one helping pay for this monster.*

Puget Sound Energy Response:
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). Impacts to individual residential power bills will be small. We don't yet know the total cost of the project, but estimates range from $150 million to $300 million. While there are many factors that go into determining the individual customers' monthly bill increase, we roughly estimate that it will range from $1 to $2 per month for typical residential customers. Once we select the route and determine the final design and alignment, we will have a better idea of the total cost.

Safety

Safety concerns related to the Olympic Pipeline and its proximity to the proposed transmission line have been raised.

Excerpts:

- *Route M - how can you even think about putting high voltage structures over Olympic Pipe Lines' two almost sixty-year-old gas lines? Like my neighbors in Olympus I am so scared and don't want to die or have my home destroyed in an explosion.*
- *There is no certainty. Such a huge structure will be safe for us, it's neighbors, in such a narrow right of way. When is the next earthquake due?*
- *I am highly opposed to have high powered powerline running through highly densely populated area (marker J), in the neighborhood where high wind and rain are common. This could be very dangerous to the neighborhood with wires breaking and such. I believe that J line poses higher risk than return.*
- *I am VERY concerned about the digging required for larger power poles and how that affects the stability of the Olympic pipeline that runs thru the power-line right of way.*
- *I'm not sure you guy's have driven down Ripley lane but there is barely enough room for 1 car to go down our lane at a time. How do you expect us to get down our lane with power poles on the street? I don't believe the fire chief of Renton will sign off on this as it would be a death trap if they cannot get fire trucks down the lane.*

Puget Sound Energy Response:
Safety is always our top priority at PSE. Across North America, significant high-voltage electric transmission lines (even at voltages much higher than 230 kV) exist parallel and adjacent to petroleum product pipelines like the Olympic Pipeline and have been operated safely in close proximity for many decades.

PSE is also a natural gas company. PSE and its contractors are very familiar with concerns regarding pipeline safety and employ safe construction practices when performing work in the vicinity of pipelines. Our experiences and those of other utilities and pipeline companies have demonstrated that power lines can and do safely occupy the same corridor as pipelines.

PSE has a long history of working closely with Olympic. We've shared this corridor with Olympic Pipeline for decades and have a shared interest in the protection and safe operation of the facilities in the corridor, As an example, PSE and Olympic wrapped up a project in 2010 that's similar to Energize Eastside. We replaced existing H-frame poles with new poles and 230 kV lines in an existing easement shared with the pipeline. The Energize Eastside project manager, Leann Kostek, safely managed construction of the Sedro Woolley-Horse Ranch 230 kV project that ran from Skagit County to Snohomish County.

PSE also has a history of moving pipelines when required and understands the construction and safety issues facing such moves. For example, PSE is moving its natural gas pipeline for the Alaskan Way Viaduct construction. Additionally, PSE and Olympic are working with Sound Transit to move poles and the pipeline for the East Link project.

Regarding earthquakes, we take geologic conditions, including potential for earthquakes, into the design of electric transmission lines. When designing any transmission structure, engineers consider a wide range of loading scenarios (e.g. load cases) that the structure may experience over its service life. While engineers consider these load cases, we are concerned with identifying and applying the most stringent load cases, or combinations thereof, that govern the strength requirements of the structure to withstand these loads. In the experience of transmission engineers, high wind events, wind combined with ice, or extreme ice loads govern the design of structures. It is standard utilities practice to design transmission structures to withstand wind/ice combination loads which are considered more stringent than the loads induced due to ground motion.

Community character

Concerns have been presented about impacts to unique community characteristics, primarily focused on the Somerset community.

Excerpts:

- *I think residential density and character should be considered in siting and in the design of the monopoles and corridor landscaping.*
- *The views from Somerset in South Bellevue are some of the best in the United States. Featuring a stunning medley of Seattle/Bellevue cityscapes, Olympic Mountains, Lake Washington and Puget Sound, this view has enhanced the lives of many Somerset residents for over 50 years. Unfortunately, Route Segment J would severely degrade this view for hundreds of homeowners.*
- *As a South Rose Hill neighbor since 2007, I think building new transmission lines along route B would significantly impact the character and aesthetics of this neighborhood.*
- *We would like Somerset to continue to be known as the neighborhood on the hill with great views and not the neighborhood with the big power lines cutting through it. We think such a visibly prominent feature would negatively impact the desirability (and value) of the entire neighborhood.*
- *The proposed transmission poles are described as 90'-125' tall! These mammoth industrial installations are completely out of character to our central business districts and neighborhoods, though each of the proposed routes would adversely impact every business and residence along the route.*

Puget Sound Energy Response:

We know that we'll be bringing changes to any of the neighborhoods where we install lines. We're actively engaging the public to discuss routing, impacts and potential design considerations to reduce these impacts while we move forward with this project, which is vital to maintaining reliable power for all of the customers in the area.

We encourage all potentially impacted community members to participate in ongoing community events to provide feedback on the various route segment options. In March and April, PSE hosted a series of Sub-Area workshops for neighborhoods to provide input on the proposed transmission line segments and to discuss the evaluation factors most important to their communities. In an urban area like the Eastside, there are unfortunately no corridors running north/south that completely avoid effects to residential neighborhoods. We know there is no easy way to get from Segment A to Segment N; there are

challenges with each option and that is why we are first learning what is important to our customers and the communities we may be affecting before selecting a route.

Health, Electromagnetic fields, and Schools

Concerns have been presented about the potential for negative health and safety affects caused by high voltage transmission lines, especially near schools. While these are generally separate categories, communications typically relate these topics very closely.

Excerpts:

- *I am deeply concerned about the proposed high voltage power line project mainly because of the health risks it may impose. There are published studies suggesting that electromagnetic field (such as that related to overhead power lines) is associated with various health problems, childhood leukemia, brain tumors, etc.*
- *We live under the current transmission lines. We worry about inductive current and the affect on our health. Just because there have not been health issues demonstrated in the past, does not mean issues will not arise in the future.*
- *I believe that Puget Power should provide EMF figures for current towers at nearby residences and estimate EMF with the new towers at range of height and number of poles.*
- *With a lot of people having medical device implants, I am concerned that the 230,000 volts are unsafe for pacemakers and brainstem [function]. Medtronic, for example, recommends to stay below 6000 volts for pacemakers and defibrillators to avoid malfunctions.*
- *Route B through Bridle Trails and South Rose Hill in Kirkland is not a good idea. There are many homes and schools in the area, as well as many trees along 116th Ave that would have to be cut down. Choose the route further east.*

Puget Sound Energy Response:

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.

At PSE, safety is always our top priority. Many customers have questions about EMF and our 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 our customers.

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, we would be happy to connect you with him for more information.

Also, in the next few months we 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 our project website.

Regarding schools, the locations of schools were one of many factors considered when developing potential route segments. It is not uncommon for power lines to be sited near schools, or for schools to be built near power lines. However, PSE heard that this is a community concern as part of the Sub-Area outreach process and this feedback will be shared with the Community Advisory Group for further consideration during the route selection process.

Environmental, Permitting and Vegetation

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

Excerpts:

- *Runoff into Lake Washington is a very significant issue - how can this be managed?*
- *This shoreline is of tremendous value to our community and the general eastside. It is clearly a highly sensitive area, protected under the current Shoreline Master Program (SMP). It seems generally illogical to bring incremental visual and other environmental pollution into a highly sensitive and protected area when other viable alternate routes exist in areas not covered by the SMP. In addition to the environmentally sensitive lakeshore, route "L" travels through many other environmentally sensitive areas of standing water, open drainages and wetlands - all tributary to the lake. It also travels through areas of steep slopes and wildlife habitat. The sensitivity of these areas is much greater than their equivalents more distant from the shoreline.*
- *You would need to cut a large swath of trees out of Bridal Trails State Park to get the transmission lines in. I object to removing that many trees for this purpose.*
- *Societal values and sound environmental practices also do not support the practice of destroying hundreds of large trees, starting at Coulon Park and extending northward along Lake Washington Blvd. N, Ripley Lane N., and the Lake Lanes community in SW Bellevue. PSE's rules for clearing vegetation adjacent to high voltage transmission lines could necessitate such clear-cutting.*
- *Here are some of my concern's, the first is our national bird, the Bald Eagle. If you put power lines along Ripley Lane that will affect these birds who are on trees fishing right above my house. There is no way to put these lines that close to water and not expect them to hit these power lines and die. There are 1 to 3 eagles on a tree next to my house every morning. Secondly, what about all the eagles that live in nests by New Castle park? From what I've seen there are more than 10 eagle nests there also. This would be catastrophic to their habitat.*

Puget Sound Energy Response:

As with all of our projects, PSE is committed to minimizing, where practicable, environmental impacts that can result from our 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. Additionally, runoff from PSE's infrastructure facilities will comply with the appropriate storm water manuals.

As we continue design 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 conducting an environmental review as part of 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. Potential effects on wildlife such as bald eagles would be identified during that process, along with appropriate restoration or mitigation. 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 our Protecting Birds web page.

Please visit our Environmental Review web page for more details.

Construction

Questions and suggestions have been submitted regarding ways to avoid and/or address construction impacts.

Excerpts:

- *PSE needs to take note of their published guiding principle…restore property impacted by construction.*
- *I would like to see PSE pay for inspections of all homes immediately adjacent to the corridor (foundations and walls) before and after construction; and pay for any construction-caused damage.*
- *If it were possible to change out the existing structures to the new poles proposed and keep them on the same corridor they are on now that would be the best solution…it would make the existing lines look better and keeping the same corridor would eliminating a lot of work and need to cut back existing green spaces and need to disrupt traffic in the construction.*

Puget Sound Energy Response:

Construction of the project is a few years out – anticipated to start in 2017, once we receive the necessary project permits. At this time we are working on selecting a route, so it is too early for us to know the exact construction schedule or potential impacts. As we know more about construction details, we will notify and keep affected businesses and property owners informed of the schedule and activities.

Construction activities typically include field surveys, working with property owners on pole locations, trimming and removing vegetation to ensure safe operation of the line, installing new transmission poles, stringing the transmission line wires, and cleaning up, restoring and re-planting vegetation. At every step along the way we will work to keep the community informed of the project's progress.

For any segment identified as part of the preferred route, we will deal with traffic during construction by working with the local jurisdiction to balance our construction needs with minimizing traffic impacts. For example, some options we've used in the past to minimize traffic impacts in urban areas include condensed work hours, night work (consistent with noise regulations), and using additional crews to expedite construction. We also use signs and flaggers to direct traffic during construction.

During the construction of any infrastructure project, PSE's principles are to:

- Keep the safety of the public and our employees as our top priority during the construction of our projects
- Work with the community to develop a constructible project design
- Follow strict safety and environmental procedures and guidelines
- Ensure design and construction work is conducted in accordance with all applicable federal, state and local codes and regulatory requirements, including construction noise and work windows
- Strive to limit the impact on landowners, the community and the environment during construction

- Notify and keep impacted businesses and property owners informed of specific construction activities and the schedule of work
- Aim to complete construction with as little disruption as possible by using best construction practices, as well as by designing the project in a manner that minimizes impacts while utilizing existing easements for construction access
- To the best extent practicable, restore property impacted by construction to its previous state. When restoration is not possible, PSE will offer in-kind mitigation.

Design structure type/appearance

Concerns have been raised about the appearance of structures.

Excerpts:

- *Where is the example of other shoreline power poles?*
- *All the poles exhibited are ugly & don't mingle well; trees & our nice blue sky!*
- *We're concerned the taller size will make the power lines a much more prominent feature of one of Bellevue's most visible neighborhoods.*
- *These power poles/lines are to be up to 125-feet tall and will be a visual blight on our neighborhood, as well as inconsistent with our City of Bellevue Comprehensive Plan value that utility structures be "aesthetically compatible with surrounding land uses."*

Puget Sound Energy Response:

While we do not have the preferred route or final design yet, we anticipate using steel monopoles made of galvanized or weathering steel. We estimate the poles will generally be between 90-125 feet, but they could be taller or shorter depending on specific circumstances. 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 we can make the distance between them.

We will not build lattice towers for this project. To view sample pole images and photo simulations from each Sub-Area, visit the Design and Meeting Materials page on our website.

Alternative technology

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

Excerpts:

- *Energize Eastside MUST seek alternatives to ruining the local environments of the public they supposedly serve.*
- *What alternatives/new technology options might be available to strengthen the grid?*
- *I would like to get more information on alternatives studied. I think my neighbors would also be interested.*
- *Promote conservation programs so less energy is consumed and there is a need for less transmission lines.*

Puget Sound Energy Response:

PSE has taken significant steps to get the maximum benefits out of its electric system. In fact, 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.

However, 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. The problem we face 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 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.

You can read more about the alternatives studied in our needs assessment report, solutions report, non-wires solution analysis, and much more on the Energize Eastside project website.

Geology/soils/steep slopes

Questions regarding geology and groundwater effects/conditions have been presented.

Excerpts:

- *I am a very concerned resident of Olympus and the proposed PSE energize the eastside project along route M. Safety issues: siting of poles next to pipe-line in earthquakes, wind vibrations and noise.*
- *Geological Impact - Segment L*
    - *-Liquid faction*
    - *-Landslide ancert (Renton - Mercer Island)*
    - *-World wide water level incrasing*
- *I have three major concerns about Route H:*
    - *1. The impact on my view and the subsequent property value loss.*
    - *2. The impact and possible de-stabilization of the hillsdie that runs the entire length of Route H, along BNSF railway.*
    - *3. The effect of high power transmission lines and the protected health risks.*
- *I don't understand why local geology isn't being considered as a feasibility issue. Seems like PSE should know something about the geology of its own corridor. I'm not suggesting Line M isn't feasible from this standpoint -- I just want to know what construction methods would be needed.*
- *In addition to the environmentally sensitive lakeshore, route "L" travels through many other environmentally sensitive areas of standing water, open drainages and wetlands - all tributary to the lake. It also travels through areas of steep slopes and wildlife habitat.*

Puget Sound Energy Response:

Each segment option will undergo detailed siting of structures to avoid or minimize impacts to the extent practicable. PSE will perform a variety of engineering analyses and studies when designing the transmission lines in order to understand the environment where the structures will be located. For the segments that are selected, PSE will perform comprehensive geotechnical evaluations of each corridor, and the design of the new transmission lines will take into account various factors such as soil type and strength, groundwater, and other factors.

The project will undergo environmental review as part of the State Environmental Policy Act (SEPA) no matter what route is selected. Additionally, because we are still working on identifying the route, we have not made application for construction permits.

Real estate

Additional concerns have been raised about a range of related subtopics, with a number of them focused on the existing rail corridor.

Excerpts:

- *Why, when PSE already has a right of way, (route M) are the lines not just run down that right of way? Why purchase additional easements unless PSE wants the opportunity to one day use both?*
- *The legitimacy of the PSE-claimed easement along the former BNSF RR right-of-way is very much in question. While this will be a matter of separate discussion and potential litigation, the point still remains - the easement legitimacy is suspect and will be vigorously challenged, pehaps by several distinct parties.*
- *Couple of additional questions*
    - *1. who is vested on title for the land in segment J?*
    - *2. Is segment J zoning and land use approved for the proposed expansion?*
    - *3. what are the air rights of segment J?*
    - *5. what is the current city of Bellevue zoning restrictions for residential power lines?*

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, the 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.

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 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 input 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.

Noise

Concerns have been expressed about noise generated from power lines, particularly in damp conditions.

Excerpts:

- *Safety, Aesthetics, noise (ionization, etc), visibility are of concern to me.*
- *Help our County become healthy & fit not sick with noisy buzz of power lines.*
- *I am now faced with the possibility that every time I walk West or North from my house I will get to enjoy the look of and sound of crackling new transmission lines.*

Puget Sound Energy Response:

In general, 230 kV transmission lines do not produce noise like that of higher voltages. This is because over the years, transmission line design improvements have contributed to minimizing audible noise levels. At voltages of 230 kV and below, the 'corona effect'[1] – and any resulting noise – should be negligible. Generally, these impacts only occur at voltages higher than 230 kV (typically 345 kV and above). In the rare instance where noise can be heard from a 230 kV line, a simple adjustment to a piece of equipment on the line can usually solve the problem. An evaluation of audible noise will be conducted as a part of the overall design of the transmission line.

Project need

Questions about how growth was predicted were posed, as well as requests to document the need.

Excerpts:

- *I am not convinced that the project, as designed by PSE, is necessary. NEED FOR PROJECT (as designed) not adequately addresses.*
- *Come up with a more creative solution - Ask people to use less - take care of the planet not Bellevue growth.*
- *Other alternatives exist – and not fully explored – may have less impact at comparable cost.*

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—we plug in more devices and build bigger homes. Demand for electricity has grown dramatically, and it's time for our infrastructure to catch up.

Economic development, job growth and associated population growth on the Eastside depend on a robust electrical transmission system. The Bellevue-Redmond area has become a major regional economic and employment center with 140,000 jobs and 143 corporate headquarters, for which many people have moved to the surrounding area. Eastside population has grown by seven times since 1960, and recent growth trends are expected to continue – in fact, the Puget Sound Regional Council recently predicted that population will grow by more than a third between 2012 and 2040, with population in the Bellevue central business district growing by more than 275 percent by 2040[2].

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. We have essentially outgrown the electric system that serves our communities. Without substantial electric infrastructure

[1] The Corona effect is the breakdown of air surrounding an energized conductor which sometimes causes popping sounds.

[2] In April 2014, the Puget Sound Regional Council updated their growth forecasts to 280 percent by 2040, but at the time these responses were given, PSE provided the figures noted.

upgrades, tens of thousands of residents and businesses will be at risk of more frequent and longer outages.

Additional information is available on the Eastside Need page of our project website.