

Meeting Summary

Advisory Group Meeting #3a

November 3, 2011 • 5:30 p.m. to 8:00 p.m.

Baymont Inn and Suites, Kirkland, WA

Organization	Representative (s) in Attendance
Aerojet	Dirk Lakin
City of Kirkland, Parks and Community Services	Linda Murphy
City of Kirkland, Public Works	Rob Jammerman
City of Redmond, Planning	Eric McConaghy
City of Redmond, Parks	Jean Rice
Evergreen Hospital	Lavon Weighall
Greater Redmond Chamber of Commerce	Danielle Lynch
Juanita Neighborhoods	Mary Pong Dunphy
Lake Washington School District	Forrest Miller
North Rose Hill Neighborhood	Don Schmitz
Proctor International, Inc.	Fred Proctor
Puget Sound Energy	Andy Swayne
Sustainable Redmond	Kathe Low (alternate for Cindy Jayne)
Willows Rose Hill Neighborhood	Tom Matthews
Willows Rose Hill/Grass Lawn Neighborhood	Jill Krusinski

Other Attendees:

- Barry Lombard, Puget Sound Energy, Project Manager
- Lindsey Walimaki, Puget Sound Energy, Corporate Communications
- Gretchen Aliabadi, Puget Sound Energy, Corporate Communications
- Jim Swan, Puget Sound Energy, Senior Real Estate Representative
- Carol Jaeger, Puget Sound Energy, Transmission Planning
- LaWana Quayle, Puget Sound Energy, Transmission Engineering
- Kerry Kriner, Puget Sound Energy, Municipal Land Planner
- Elaine Babby, Puget Sound Energy, Senior Land Planner
- Lyn Keenan, GeoEngineers
- Joanne Markert, GeoEngineers
- Penny Mabie, EnviroIssues, EnviroIssues, Facilitator
- Rochelle Stowe, EnviroIssues, EnviroIssues, Notetaker
- Diann Strom, EnviroIssues

Meeting Purpose and Overview

The third stakeholder advisory group (SAG) meeting for the Puget Sound Energy (PSE) Sammamish-Juanita 115 kilovolt (kV) Transmission Line Project was convened in Kirkland, Washington on Nov. 3, 2011. The meeting included a SAG round robin about constituent feedback and bus tour observation and presentations on information requested at the second SAG meeting. The bulk of the meeting included review and discussion of weighting and criteria for the project routing model (GeoRoute model), and live runs with the model to develop conceptual route options. The meeting concluded with next steps for the SAG regarding meetings.

Meeting Summary

Welcome, Introductions, Agenda and Safety Moment

Penny Mabie welcomed everyone, led a round of introductions, introduced new members since last meeting, and reviewed the agenda. Penny emphasized the importance of being participatory throughout the course of the meeting.

Barry Lombard, PSE Project Manager, introduced himself and explained his role at PSE. Barry gave the safety moment noting that black ice is the most dangerous weather condition for driving and causes many accidents, so he advised that everyone note where black ice forms on their normal commutes and drive safely.

October 17 Meeting Requests

Penny asked each SAG member if they had spoken with their constituents about the project, and asked what they have heard since the last meeting, and if there were any new questions or observations. She also asked SAG members to give feedback on the bus tour.

Constituent feedback

Members of the advisory group noted that constituents:

- Were not concerned about routing, and interested in having more reliable power (engineers).
- Asked questions about wildlife corridors.
- Were confused and/or concerned by “viewshed/view corridor.”
- Were interested in the potential for mapping policy issues.
- Would like to be informed, but will not be concerned until routes are chosen.
- Are aware of the project, especially through neighborhood email communication.
- Interested in neighborhood impacts, and use of current transmission lines (e.g. southern half of Northeast Rose Hill neighborhood).
- Are hopeful that new lines will be built in existing corridors so that maintenance response can be rapid and use existing roads.
- Are hopeful that existing lines can and/or will be modified.

Bus tour

Members of the advisory group commented that the bus tour was:

- Impressive, especially when looking at how PSE has planned ahead for substations, including using screens (vegetation or built) to hide facilities.
- Informative and educational about the different options for electrical equipment and lines.
- Enlightening, especially in seeing how many lines travel west of Sammamish Substation; they seemed “jammed full.”

Review September 29 and October 17 Meeting Notes

Penny asked the SAG about the content and level of detail in the past meeting notes from Sept. 29 and Oct. 17. The group approved a final version of the Sept. 29 notes from the first meeting and will provide comments on the Oct. 17 meeting summary by Nov. 14.

Response to Information Requests

Existing PSE and Seattle City Light (SCL) transmission corridor information

Jim Swan, PSE Senior Real Estate, presented information about the existing PSE and Seattle City Light transmission corridors. The Seattle City Light corridor was acquired in the 1930s and has a double-circuit 230 kV line within the western portion of their easement. The corridor running through Redmond and Kirkland is 150 feet wide, and towers are approximately 120 feet in height, though some may range up to 150 feet. Some of the easements allow up to four towers for electrical transmission line purposes; however, some are limited only to aerial trespass. PSE would have to work with Seattle City Light to determine if PSE’s design is compatible with Seattle’s future use and negotiate to utilize their corridor.

PSE’s existing corridor was acquired in 1929 to bring power to the Eastside communities. The corridor is currently occupied by a 115 kV line and a 230 kV line with poles ranging in height from 60-70 feet tall. The corridor running through Redmond and Kirkland is 100 feet wide. Easement agreements limit PSE to two electrical transmission systems.

The PSE easement is currently at capacity and only allows for two lines. In order for this new project to go into PSE’s corridor, PSE would have to re-negotiate to allow for another system or acquire additional rights of way. The width of the additional right of way is dependent upon the design requirements and electrical safety codes.

Landslide activity along the Sammamish – Beverly corridor

Carol Jaeger, PSE Transmission Planner, presented about landslide activity along the Sammamish-Beverly corridor. There are two transmission lines in the Sammamish-Beverly corridor, and there is no record of outages of these lines due to slides or erosion since 1997. Carol spoke with line supervisors who have worked with PSE for 40 years, and they could not recall any outages related to erosion. During a reconductoring project in 2005 on a 230 kV line and in a fiber optic cable installation project in 2008, a potential erosion area was identified. PSE established preventative erosion control measures for construction. PSE installed a permanent drain pipe, used track vehicles for off-road work, spread straw

in sensitive areas, and raked and seeded by hand. PSE Vegetation Management teams inspect the corridor yearly and report any sign of erosion.

Fred Proctor noted that he has a piece of property on the west end of 124th Street, and he witnessed a significant amount of erosion in 1979 through 1984. The erosion traveled down the hill, carrying water and debris. Physio-Control built berms to keep the debris away from their property. Carol thanked him for this information and said she could not confirm landslide activity prior to the late 1990s.

GeoRoute model inquiries: grid size, past uses, and use of EMF as a criterion

Joanne Markert, GeoEngineers, provided information about the GeoRoute model. The GeoRoute model has a grid size of 10 feet.

Joanne explained that similar GIS-based models have been used for finding different pieces of property, and mapping linear corridors for transmission and transportation projects. There was a similar model and siting process of siting transmission lines used in Georgia.

The GeoRoute model for PSE uses information based on many past PSE projects with GeoEngineers. The main difference of this model from past PSE models is that opportunities are included, instead of only avoidance areas.

Electromagnetic fields will not be a siting criterion since there are no federal or state regulatory limits and any limit PSE selected would be arbitrary.

Questions: Existing PSE and SCL corridors

Would Seattle City Light allow PSE to use their corridor?

If PSE submitted a design proposal, Seattle City Light would need to review the new transmission line's compatibility with their long range plan. They would also need to give the rights to PSE, and PSE would have to ask property owners for additional rights.

What would the spacing between Seattle City Light and the new PSE 115 kV poles look like?

The span lengths would have to be constructed in a manner that doesn't create a conflict with anything close to it.

If the corridor was useful, and Seattle City Light agreed to turn over their rights to PSE, would PSE still need to negotiate with the individual property owners?

Correct. PSE did not originally acquire the rights, therefore, we would have to negotiate for them; Seattle City Light would not have to negotiate their rights. If PSE wanted to utilize a portion of the Seattle City Light easement, we would have to submit a plan to Seattle City Light for their approval. If approved, then Seattle City Light would have to assign or apportion some of its easement rights to PSE. Then PSE would have to engage the affected owners to acquire our specific easement rights.

Does PSE have experience in obtaining rights from Seattle City Light or other power companies?

Yes. However, power companies can be very protective of corridors. Jim gave an example where PSE attempted to share a Bonneville Power Association (BPA) corridor and BPA refused to do so based on their future plans for the corridor.

Has there been an instance where Seattle City Light has owned a portion of a corridor and PSE has taken another portion?

No. However, PSE has had a long term lease of an electrical system with BPA, where BPA operated the system for PSE.

Can you clarify the PSE right of way along 136th Street?

The public road is entirely separate from the right of way.

Do the easement rights belong to individual homes or homeowners associations?

It could be both, and depends on where the lot lines are located.

How easy is it to negotiate for additional right of way? And has PSE negotiated rights before?

It is doable, especially when PSE has an existing system. Yes, PSE has negotiated additional rights before. The landowner would need to agree to changes to the existing easement.

LaWana Quayle, PSE Transmission Engineer, noted that in the existing corridor running through Rose Hill, there are safety codes, construction limitations, and ultimately not enough space to have three lines in a row. PSE has looked at this option before in addition to adding adjacent property. PSE also looked at a double circuit (6 wire system); however, it might decrease reliability and goes beyond PSE's easement restrictions of allowing only two electrical systems.

There is a 115 kV line and 230 kV line in the northeast Rose Hill Corridor, and the easement only allows two lines. Why can't there be two 115 kV lines built into one 230 kV line?

The corridor runs north to south, and at some point PSE will upgrade the existing 115 kV line to a 230 kV line, which means there is no space for the additional 115 kV line.

Questions: SAG coordination with the public

I received a letter from a member of the public regarding the project. How should the SAG handle letters and communications such as this one?

Penny noted the letter was also addressed to PSE, and they will provide a response. She recommended advisory group members share these communications with PSE, and that PSE could provide a communications report outlining public comments and any PSE response. PSE noted that they will further discuss how to coordinate with the SAG regarding sharing communication reports.

Action item: PSE will determine how to share communications and responses with the SAG.

GeoRoute Selection Model

Joanne Markert introduced herself, her role, and her experience with PSE and GeoEngineers. Joanne briefly reviewed the criteria and weighting options for avoidance and opportunity areas for the GeoRoute Model.

Barry informed the group about a future Washington State Department of Transportation (WSDOT) construction project on Interstate 405 (I-405), which includes transportation and stormwater system improvements for the Totem Lake area. He provided a map showing the proposed projects. He noted that Angela Wingate, PSE Municipal Liaison Manager, has been working with WSDOT to learn more about their plans for the Totem Lake area. Barry noted that this addition would be particularly important if the route ran along Totem Lake Boulevard, in which case there would be corridor encroachment. This new data will be added to the model for the Nov. 17 meeting.

Review and discuss criteria

Joanne described the new criteria that were added to the GeoRoute model, and asked the SAG if they recommended any weighting or criteria changes to the built, natural or engineering avoidance layers in the model.

Jean Rice, City of Redmond, noted that the railroad corridor on Willows Road should not be categorized as an opportunity area. The City is planning to develop the railroad corridor and is in the 30 percent design phase. There will eventually be a linear trail park (at least towards the city limits). Future negotiations with Sound Transit may bring light rail to the area. If the transmission line easement were allowed, then the City worries they would be restricted on building amenities such as parks, art installations and plazas. Kirkland City Council is also considering the purchase of the rail corridor (curved portion to the north), which is currently owned by the Port of Seattle (Port).

Carol noted that PSE is one of many parties that purchased the rail corridor. The Port is the main owner, and PSE has rights to develop in the corridor. She said this should be an opportunity area except for the spur that is located in Redmond. Barry noted that the transmission lines may be compatible with the light rail and trail designs. The group concluded that the rail road corridor to the east needs more research to determine if it is an opportunity. The western rail corridor will be removed as an opportunity, and will be labeled as avoidance in the model. For the purposes of the of the evening's discussion, the entire rail corridor was removed as an opportunity area.

Action item: GeoEngineers will update the model to split the rail corridor in Redmond into avoidance and opportunity areas.

The SAG made the following changes to the model criteria before the live run:

- Increased the weighting of PSE ownership of right of ways.
- Increased the weighting of within commercial/industrial zoning district.
- Increased the weighting of overhead distribution.

Live Model Runs

Scenario 1.

Built	50%
Natural	30%
Engineering	20%
Avoidance/Opportunity	50% / 50%

Comments:

- It is great to see the route, but it is not to scale. Joanne noted that the model maps a 100 foot swath for the route, and therefore, does not choose which side of the street is most appropriate.
- Avoidance/opportunity (50/50) should be balanced differently.
- Do not give more weight to the opportunity area on the next model runs.

Scenario 2.

Built	50%
Natural	30%
Engineering	20%
Avoidance/Opportunity	60% / 40%

Comments:

- By changing the avoidance and opportunity weightings, the model moved the route out of the residential area and around Evergreen hospital.
- Don Schmitz noted that a playground was considered a permanent structure instead of an open area; that's why it looks like the route had to be moved.
- Evergreen Hospital has a view easement and may have height restrictions.
- Evergreen Hospital could expand further west, and may affect the route (given the road will be closed for expansions).

Questions:

If the route traveled "through" Totem Lake Mall on 120th Avenue, then could the route be negotiated with PSE to move behind the mall?

Joanne noted that this is a great example of how PSE can work with the community at the next level in the siting process, and encouraged the group to see what other routes the model can produce.

If the railroad is in the avoidance category, will that impact the suggested model output (Scenario 2)?

No, the line travels east of the railroad.

Scenario 3.

Built	50%
Natural	30%
Engineering	20%
Avoidance/Opportunity	70% / 30%

Comments:

- The northern half of the route was shown in the earlier scenarios, yet the southern half is much different, which is surprising because PSE has not considered this alignment in the past.
- The southern portion of the route cuts through Rose Hill Neighborhood. There would be three transmission lines through that area – two under easements and one on the road.
- It would be interesting to see the geographic detail underneath the routes.
- It is important to note that in the Willows corridor, the City of Redmond has required commercial developers to bury utilities.

Scenario 4.

Built	50%
Natural	30%
Engineering	20%
Avoidance/Opportunity	30 % / 70%

Comments:

- The route looks the same as Scenario 1.
- The balance point for avoidance/opportunity weighting is likely somewhere around 50/50. This route is the most opportunistic, so in essence, the 50 percent opportunity is about as high as the model can reach.

Action Item: PSE will provide SAG with separate aerial maps of each example route.

Questions: GeoRoute selection model

How is Washington State Department of Transportation (WSDOT) involved in this public involvement process?

WSDOT was invited to participate in the SAG, yet could not attend. They are staying informed and are very aware of the project. Angela Wingate, Puget Sound Energy, Municipal Liaison Manager, is coordinating PSE’s communication with WSDOT.

There are avoidance and opportunity areas divided in different categories. Does it make a difference in output if one category has 3 criteria while another has 10, and all are totaled to 100 percent?

Yes. A single criterion in a category with fewer total criteria would end up getting more weight, therefore, Penny explained, to balance out the category, give the “bucket” less weight, which is a way to compensate. It was noted that “ten percent” in one group may not mean “ten percent” in another.

Can a layer be deleted?

If a layer is deleted, then the weighting must be distributed among the other layers.

Can a layer be broken up?

Yes, there is flexibility. For example, the railroad right of way east of Willows Road should be in the avoidance category, not opportunity.

Does the SAG have a stake in what criteria is included?

Yes, and criteria review was homework for last week (from Meeting #2). Advisory group members were encouraged to provide feedback on the weightings and criteria.

Does the model capture curves or turns in the engineering category?

Yes. Curves and turns are captured under street turns in the engineering category in avoidance.

Is there any way for the model to develop a route to cross I-405 outside of street crossings? It looks like there isn't a way to avoid it.

The model can have non-street crossings; however, we don't want to cross the highway more than once. The map shows that spaces in between roadway crossings are avoidance areas.

Why is the steep slopes layer incorporated in both the natural environment and engineering considerations categories?

They have a slightly different purpose, but use the same data. In the natural environment category, steep slopes are identified due to the possibility of erosion, and are typically mapped by cities and states. In the engineering category, the steep slopes apply to constructability and access issues.

What kinds of poles can be constructed along the rail corridor? Are H-frames an option?

Carol noted that a single pole with off-set insulators would likely be compatible, especially if there was a trail in the corridor. PSE does not envision using H-frames, which are better for cross country routes over long distances. Single poles are more fitting for this area.

Public Comment

Tim McGruder, Willows Rose Hill Neighborhood, asked if the green spaces outside of the study area were included in the modeling and if the group would have to resolve that potential view issue in the future. He noted that the aesthetic quality might be affected by transmission lines along Willows Road. Joanne noted that only areas within the project boundary would be taken into consideration in the GeoRoute model.

Wrap-Up and Next Steps

Penny reviewed the next steps, which include the SAG developing and discussing possible alternatives, and narrowing three alternatives for public review, in which she encouraged SAG members to work with their respective communities. She emphasized to the group that the route "swaths" are not to scale and

encouraged the group think generally about the areas. Penny informed the group the next meeting will be on Nov. 17 from 5:30 p.m. to 8:00 p.m. at the same location.

The meeting adjourned at 7:50 p.m.

Summary of Action Items:

PSE will provide SAG with separate aerial maps of each route.

PSE will determine how to share communication and responses with the SAG.

GeoEngineers will update the model to split the rail corridor in Redmond into avoidance and opportunity areas.