

## Central Sub-Area Committee Meeting Summary

---

5/28/14

### Central Sub-Area Committee Meeting

Wednesday, May 14, 2014

6:30-9 p.m.

Hilton Bellevue, 300 112th Ave. SE, Bellevue

### Central Sub-Area Committee members in attendance

- Andy Swayne, Puget Sound Energy
- Barbara Sauerbrey, Woodridge Community Association
- Dan Renn, Wilburton Community Association (alternate for Robert Shay)
- Floyd Rogers, Mountains to Sound Greenway
- Jeff Dubois, Greenwich Crest Neighborhood
- Lindy Bruce, Sunset Community Association
- Paul Lwali, Coal Creek Family YMCA
- Steve O'Donnell, Somerset Community Association
- Astrid Zuppinger, Norwood Village Neighborhood

### Members absent

- Jack McLeod, Bellevue School District
- Debra Grant, Hopelink
- David Hoffman, Master Builders Association of King and Snohomish Counties

### Other attendees

- Leann Kostek, Puget Sound Energy, Senior Project Manager
- Keri Pravitz, Puget Sound Energy, Community Projects Manager
- Suzette Gradilla, Puget Sound Energy
- Lowell Rogers, POWER Engineers
- Drew Thatcher, independent health physicist
- Penny Mabie, EnviroIssues, Facilitator
- Dana Olson, EnviroIssues, Public Involvement
- Darcy Edmunds, EnviroIssues, Notetaker

### Meeting Purpose and Overview

The Central Sub-Area Committee Meeting for the Puget Sound Energy (PSE) Energize Eastside project convened in Bellevue on May 14, 2014. The meeting included:

- Project overview
- Key questions and PSE responses
- Clarifying questions from the Sub-Area Committee
- Review of workshops #1 and #2
- Committee discussion on the outcomes of the Sub-Area workshops

Intended outcomes of the South Sub-Area Committee Meeting were to:

- Develop input on evaluation factors
- Determine key points for the committee to send to the advisory group for consideration
- Identify key questions for the advisory group to further explore

## Meeting Summary

### Welcome, introductions and safety moment

Facilitator Penny Mabie welcomed the group and thanked them for coming. Penny started the meeting with a safety moment, reminding people to watch out for bikers during bike to work month and led the group in a round of introductions. After presenting an overview of the meeting agenda, Penny reminded attendees that the purpose of the meeting was to provide time for the Central Sub-Area Committee to meet and deliberate as a body, and therefore did not include time for public comment or questions and answers.

Penny introduced the committee members to the materials in their binders, including summaries from Central Sub-Area Workshops #1 and #2, a summary of the online Sub-Area Committee survey results, the data requests from Workshop #1, the response to data requests and data provided at Workshop #2, and the scoring results from Workshop #2. She informed them that their binders contained a flash drive, with electronic copies of all the materials in the binders, as well as the visual simulations from Workshop #2. Penny also discussed the outcomes to achieve at the meeting.

### Presentation

Senior Project Manager Leann Kostek started the presentation with a brief project overview. She next summarized attendance at Central Sub-Area Workshops #1 and #2, stating that there were 137 and 101 attendees respectively. Leann then presented to the committee six key questions Puget Sound Energy has been hearing from the community and shared PSE's responses to those questions.

1. **Alternatives selection process**— How did PSE arrive at the potential route segments that have been presented for consideration?

**Response:** Leann briefly explained the six-step process through which the route segments were identified:

- 1) PSE's planners and engineers generated a list of all solutions that could solve the need for growing electrical demand and increased reliability on the Eastside, which solutions included conservation, local electricity generation, and new infrastructure.
- 2) PSE evaluated those solutions to see which would provide enough electricity to meet the Eastside's needs. A combination of conservation with local generation and conservation with infrastructure were identified as possible solutions.
- 3) Then, PSE and third-party experts studied those solutions and found that the best way to ensure the area's electric transmission system will reliably meet growing demand is by bringing new higher capacity electric transmission lines and a new transformer to the Eastside. Local generation was ruled out at this point.

- 4) Next, PSE reviewed three general routing possibilities: Seattle City Light's existing corridor, PSE's existing corridor and new right-of-way were all considered. Of these three possibilities, the Seattle City Light was not available for PSE's use. PSE's existing corridor and a new right-of-way were both deemed feasible options.
- 5) From that point, PSE's engineers and third-party routing experts used an analysis tool called the Linear Routing Tool (LRT) to determine potential routes. The LRT processed more than 50 layers of GIS data for opportunities and constraints, different criteria were weighted, and routes were scored. After generating hundreds of possible routes, the LRT identified the best possible route options, which included two general north/south route paths with multiple crossover points – one along PSE's existing corridor and one along a combination of roadway and rail corridor.
- 6) The two remaining route paths were broken into 16 constructible route segments that could be configured in a number of ways. PSE brought the potential route segments to the public to ask what they recommend. PSE does not have a preferred route in mind.

2. **Undergrounding**— Why doesn't PSE underground the Energize Eastside project?

**Response:** Leann explained that PSE has proposed overhead transmission for the Energize Eastside project due to significant cost differences between constructing underground and overhead transmission lines. Underground construction is estimated to cost \$20-28 million per mile compared to \$3-4 million per mile overhead. Leann pointed to PSE's regulating tariff with the Washington Utilities and Transportation Commission (UTC) that stipulates that the requesting entity pay the cost difference between underground and overhead, because the aesthetic benefit does not benefit all rate payers.

Leann also discussed how the 60/40 jurisdictional tariff works with undergrounding distribution lines; if a city requests it, PSE pays 60% of the cost difference between overhead and underground. If your neighborhood wants the new transmission lines installed underground, PSE is happy to come out and walk through the neighborhood and discuss options. The next step for communities requesting underground lines is to commission an engineering study to determine if undergrounding is possible in the community. The study is expected to cost a few hundred thousand dollars. About 50 percent of PSE's distribution system is currently underground, but PSE has no underground 230 kV transmission lines. Leann then explained the difference between transmission and distribution lines. Distribution lines carry lower voltage electricity between substations and homes and businesses. Transmission lines carry higher voltage power between substations and serve as the backbone for delivering electricity to large areas.

3. **Seattle City Light (SCL)**— Why doesn't PSE build along the SCL corridor?

**Response:** Leann explained that PSE has reached out to SCL several times, and the two companies met most recently on April 25, 2014. SCL has said they need their corridor to meet its future needs on the Eastside and it is not available for PSE's use.

4. **Olympic Pipeline**— Is it safe to build the 230 kV line along the Olympic Pipeline in the existing corridor?

**Response:** Leann shared examples of PSE transmission lines paralleling Olympic and other gas pipelines in other utility corridors. PSE knows how to install transmission poles along a gas pipeline, as PSE itself is an owner and operator of natural gas lines. Leann noted that PSE has safely installed transmission poles along gas pipelines before for other projects, and 5-6 years ago safely replaced 300 poles right next to the pipeline on the existing Eastside alignment.

5. **Property values**— Will PSE take into account impacts to property values?

**Response:** Leann explained that PSE will not use property values as a criterion for making route decisions on this project. She explained that whether a home is a \$1 million dollar home or a \$300,000 home, everyone loves their homes, no matter how much it is worth. For that reason, it is not equitable to use property value as criteria.

6. **Electromagnetic fields (EMF)**— Will this project produce harmful levels of EMF?

**Response:** PSE knows that some Eastside residents have concerns about electromagnetic fields, or EMF. Over the past 45 years, there have been many scientific studies conducted to determine if EMF from transmission lines have any effect on human health. To date, this large body of research does not show that exposure causes adverse health effects.

### Clarifying questions

Leann asked for clarifying questions from the Central Sub-Area Committee members regarding the key questions and responses. They had the following comments and questions, which Leann answered (Q: question, A: answer; C: comment).

Q: We have an emergency operations network in our neighborhood that communicates with emergency operations center in Bellevue using amateur radios (HAM) in case of a disaster. Will the HAM radios still work with transmission lines nearby? The frequency is 2 meter band. How does EMF affect that?

A: For a HAM radio there is potential interference if the operator is very close to the line, but it would only be a little background noise. It won't be a perfectly clean line, you could have some interference, but it'll never affect local emergency operations. For the newer transmission lines to be installed in a few years, the things that will affect a HAM radio, such as the corona, will be demonstrably less because of newer design. It shouldn't be an issue for the HAM radio. The corona causes the electrical noise you sometimes hear from the lines if you're near a 230 kV line. With new designs, the corona is extremely minimized.

Q: How far does the corona extend - 200 feet?

A: I haven't been next to a brand new line, but I'm aware with the older lines what kind of interference that a HAM operator can experience. 200 feet would be a good estimate. There may be some interference but it won't affect emergency operations. The only issue with transmission lines is how quiet you want your HAM lines to be.

Q: Even though the literature is available on EMF, are there still concerns about what the implications are to have higher-voltage?

A: Generally speaking, when you go from 115 kV to 230 kV you double the electric field. If you use the same current, you'll actually reduce the EMF by half. Simply doubling the voltage of the lines will drop the EMF in half. Also, to increase the voltage, the poles have to be raised higher, which additionally reduces the EMF because it dissipates across distance. You can also reduce EMF by using a double-circuit line with three 230 kV lines next to each other, change the order from A-B-C to C-B-A, which is called reverse phasing. Doubling the voltage combined with reverse phasing will reduce EMF down to 15 percent of what it was initially. At some point, power use is going to increase and the EMF levels will go back up and eventually surpass what it was with the 115 kV line, but initially it will be lower.

Q: Do you have any studies on EMF and health where they have looked at residents within different distances from 230 kV lines over 20 years?

A: Yes, what you described is a perspective study, where researchers start from day one and look out over 20 years; these types of studies are very expensive. Generally they do a retrospective study, which is the same set up, but the researchers look at patterns such as who moved in and for how long, to control for different variables. There are many well-done studies that show no health effect at all. In February, I saw a Danish study—it was a very large, thorough study that showed no health effect at all.

Q: Do they have 115 kV, 230 kV, and 500 kV lines with bands of groups around the lines?

A: The Draper study of 2005 in the United Kingdom did exactly what you just described. When talking about epidemiology, a risk factor of 1 is no different than background; less than 1 is an uncertainty. Draper came up with a relative risk of 1.7, but even in the summary they concluded that it quickly goes to background beyond about 200 feet away from the line. So, yes, they found an effect when they compared background to background. Kroll followed up that study in 2010 and reanalyzed the results with better data. Additionally in other studies they have researched the effect of EMF on animals. Animals are great surrogates for science for anything that causes cancer. Those studies are overwhelmingly negative for adverse health impacts. The WHO made a definitive statement that there are no health effects from EMF levels lower than a few hundred milliGauss.

Q: When undergrounding first became an issue, Andy Wappler of PSE said the added cost was \$18 to \$21 million. It seems that has risen since then to \$20 to \$28 million. Why is there a discrepancy?

A: For that presentation, we were still waiting for our updated report.

Q: Is that that figure accurate for 2014 or 2018?

A: It was calculated in 2014 dollars.

Q: So that means it will be more than that a few years from now?

A: Yes.

Q: In the Bellevue Comprehensive Plan, utility lines will be encouraged and possibly forced to underground when applicable. Have PSE and local jurisdictions discussed comprehensive plans and the need to resolve those requirements?

A: I'm not familiar with the comprehensive plans; a lot of new plans require distribution lines to be underground. When a city asks us to underground distribution lines and there is an overhead solution, the tariff requires the local jurisdiction to pay 40 percent of the cost.

Q: As an estimate, using \$28 million for underground and \$4 million for overhead, the Somerset neighborhood route is about one mile. If you spread \$28 million over 40 years and approximately 1500 or 1600 homes, that would be \$25 to \$30 a month per resident. Is that how it would work?

A: No. The routes we selected were for overhead routes, we would have to go back and do a study at the community's expense to look at feasibility of where underground lines could go.

Q: So if Segment J is selected and we say we want it underground, the difference would be \$24 million and we would owe that money spread out?

A: No, under the current tariff the money must be paid up front. The money is paid before construction.

Q: So it would be about \$5,000 to \$10,000 per home, up front?

A: Yes, but the route might not be a mile; we would have to figure out what the right route would be before providing cost estimates.

## **Review Workshops #1 and #2**

Penny led the Central Sub-Area Committee through a review of the activities and results from the Central Sub-Area Workshops.

**Workshop #1** - Penny described Workshop #1 as a listening workshop: attendees identified priority issues and considerations for the sub-area, identified community values, and compiled a list of data requests to use to score the potential route segments. In addition to the workshop, there was also an online survey that asked some of the same questions related to issues and segment-specific concerns.

**Results:** The top issues identified by workshop participants and survey respondents for the Central Sub-Area were property values, visual impacts, residential impacts, EMF, aesthetics, and community character. Other issues mentioned included design features, proximity to schools, construction, cost, environmental impacts, encroachments, and impacts to trees and vegetation.

The key themes from the workshop and survey input were turned into evaluation factors for the Central Sub-Area. The evaluation factors were:

- Least proximity to residential areas
- Most protective of health and safety
- Least proximity to sensitive community land use areas
- Least proximity to sensitive environmental issues
- Maximizes opportunity areas
- Least effect on aesthetics.

**Workshop # 2** – Penny led the group through the activities and results of the second workshop, which focused on scoring the route segments. At the workshop, PSE presented data that had been requested at Workshop #1 and also shared representative visualizations. Using the data, participants were asked to individually score each segment using the evaluation factors. The scoring exercise was also repeated at the tables as a group.

**Results:** Penny presented the results of the averages of the individual and group scores. She explained that darker colors in the chart signified higher average score, and that a score of 1 meant a segment least meets the evaluation factor while a score of 5 meant a segment most meets the evaluation factor. She explained that no weighting was introduced, and just the raw scores were averaged.

## **Discussion of evaluation factors and workshop #2 scoring**

Penny invited the committee members to share their thoughts about the evaluation factors. She asked if they found the evaluation factors a valid representation of the values in the central part of the project area. Penny also facilitated the committee in a round robin to gather their feedback about the scoring results from workshop #2. Committee members had the following comments and questions, which Penny answered.

Q: Are these factors ranked?

A: No, they are not ranked.

Q: In the first workshop, weren't they ranked?

A: No, we looked at what issues we heard the most frequently and those were included.

C: Your goal is desirable, to put numbers to knowledge. But when you go to Segment D, you see factor one of eight is least proximity to residential. 20 people scored it a one, 19 scored it a five, which is almost the same number of people giving very opposite scores. What that shows to me is that you can't put numbers to these gut feel, reactionary responses to factors. It says the numbers are almost meaningless. I'm sorry but 19 and 21 people scoring oppositely, it means nothing at all.

A: I agree, and what that says to me is that we were trying really hard to design this to take an objective look using these factors and look at a segment on its own instead of comparing it to another segment. I think a lot of people compared segments against other segments rather than looking at them individually.

C: So it was subjective and the numbers have no value.

A: That's why we showed you the base data, so you could draw your own conclusions.

C: Looking at the group data from Workshop #1 it is very obvious there were many groups that commented only on Segments J and H; there were six or seven groups for those segments but there was only one small group for most of the other segments so the data is extremely skewed. If you go back to the issues checklist results summary from Workshop #1, you can see there were many, many more comments on J and H. There is no way these summaries are normalized by groups or number of people that commented, so essentially these numbers are worthless. At least twice as many people commented on these segments as commented on north segments. Without normalized summaries these numbers are value-less. There is one more subtle point that relates to northern data. Notice aesthetics—there were a lot more comments in the Central Sub-Area on visual issues. We can't compare the North and Central lines straight across at all.

A: The intent was not to compare them by region.

Q: What is the difference between visual impacts and aesthetics?

A: Visual impact is what you see looking out; aesthetics is what somebody else sees looking at the landscape. [Penny noted she did not have a clear answer at her fingertips.]

C: At our table we felt there were a lot of overlapping categories. You might check off five of those, and they could have gotten subsumed into another focus.

A: What would you change? If you had it to do over again, as the Community Advisory Group moves forward, what is your advice to them on using the evaluation factors?

Q: I would add other alternative solutions -submarine and underground. Were they considered if they were written into the form?

A: No.

Q: That information should have been included in this summary because that's what people wanted to talk about. Why would that important data not be included?

- A: Do you mean, regardless of whether it was on the table as an option right now, it should have been evaluated?
- C: It should have been noted, publicly, that this was an overwhelming concern and evaluation factor.
- A: I think evaluation factor is a little different; I think what you're saying is it should be a value. I don't know how to frame this as a value. Are you saying an evaluation factor should be "is this a viable solution?" If so, how would you apply it? It's like criteria: what criteria would you use to evaluate any option?
- C: I agree with you that it may not fit, however, I know if one of the questions had been "do you think this project is necessary or has value", the answer would have been no. I agree it's not a key evaluation factor for what is being put before us.

Penny continued presenting feedback from Workshop #2. Key themes from worksheet comments included preference for longer poles, shorter poles, underground, submarine, and partnership with SCL on I-405. These were frequently written on the evaluation forms. Additionally we saw comments such as 'partner with BPA in the Sammamish plateau', 'consider alternatives such as conservation, distributed generation, co-generation', and people also wanted to see the data on how PSE projected the growth. We didn't ignore the input; we just didn't include it on the scoring sheet summary.

- C: If the scoring had the category for submerging the line, then you would have seen people scoring factors for visual and aesthetics and those would have gotten the highest scores. To underline the earlier comment that all the numbers are statistically invalid, at least you would have had an additional set of invalid and worthless data. It would have addressed what neighbors in hundreds of neighborhoods from Redmond to Renton have stated their preferences would be.
- Q: I would add another criterion for the effectiveness of this new system, and how efficient will it be over time. I think a lot of people would like to know, is this something we will be doing again in 10 years or something we don't have to worry about for another 50 years?
- A: The point of evaluation factors is that they're discriminators for whatever it is you're evaluating, which in this case are different route segments. Do you think those factors of effectiveness and efficiency would differ from route to route?
- C: Maybe they could because there is a level of immediacy we are talking about and what is really creating that immediacy? Look at effectiveness and efficiency; we are getting more residents, we need to know the additional factor of how effective it will be over time?

### **Key themes and messages to the Sub-Area Committee**

In addition to assigning numbered scores, several individuals and groups wrote comments on the scoring worksheets from workshop #2. Penny summarized the key themes from these comments:

- Preference for longer poles
- Preference for shorter poles
- Preference for undergrounding or submerging the transmission line
- Partner with Seattle City Light in the right-of-way on I-405
- Partner with BPA in Sammamish Plateau
- Consider the alternatives of conservation, distributed generation, and co-generation



- Request to see data on how PSE projected growth

### **Discussion of key points for the Community Advisory Group**

After a short break, Penny introduced the key messages to the committee members, noticing the themes were consistent. Penny then directed the Sub-Area Committee to review the messages groups wrote to them, and asked the Sub-Area Committee members to share their key points on what they wanted the Community Advisory Group to consider. Penny answered questions as they arose.

- C: I completely agree with the messages from groups 2, 3, 8, 9, 11, 12 and 13. I agree with others, too, but those I listed are the ones I took quite seriously. A central crystallized approach was the message from group 11, which was that we want to see alternatives to PSE's proposals on conservation, SCL partnership, a partnership with BPA, underground lines, submarine lines, co-generation, and battery farms considered. There was an independent electrical reliability study by the City of Bellevue which noted they would like to see a reliability advocate within the city. It seems to me if negotiations have broken down between SCL and PSE it might be this person who could have an influence with the Utilities and Transportation Commission or get involved with SCL if that route has the least impact, costs the least, and as I understand it, would produce more electricity by about 50%. There seem to be so many reasons to go with the SCL corridor. Perhaps it's the piñata that we can't quite hit, I don't know but it seems like such a perfect solution to all the problems and obstacles that the neighborhoods see, and frankly PSE has to see it the same way.
- A: Leann responded that PSE cannot just simply connect to the SCL lines. We would need to totally rebuild the SCL lines because the current capacity cannot take the load of a new transformer. It would need to be totally rebuilt up through Sammamish and reconducted up to the Sno-King substation which is well into Snohomish County. It's not a cheaper option and it would still be invasive to neighbors.
- Q: Do you have a cost estimate of rebuilding the SCL line? Do you have a figure per mile?
- A: I believe we do, but I don't have it with me.
- C: I believe that rather than SCL saying PSE can't use its line, PSE simply doesn't want to reconductor all the way to Sno-King and rebuild the line. PSE must have another agenda going on – SCL can't need the additional line because the boundaries of the City of Seattle have not changed and will not change. I think there needs to be more discussion with SCL.
- Q: I think a lot of good points have been made. I got something out of every group and a lot of the key points centered on what alternatives are being considered. Look at incentivizing conservation and property values; use objective criteria. Have we really exhausted all other alternatives or are we focusing on solutions one and two only?
- Q: I think the photo simulations need to be more realistic. There's nothing on Segment D or Segment F. More studies are needed on everything. And maybe use different type of studies. What we are seeing from the workshops are not providing the information, the statisticians were right on. Another thing is the cost— take the cheaper route, the one with the straight line, there's no extra digging, and the lines already exist, leading to less cost. I think a route using Segments N, M, J, E, and C, are the straightest line. How much power will be used between Redmond and Renton?

Are we supporting commercial or residential interests? How much power will be sold to other areas? I echo what some of the others have said.

- C: Group 10 said that aesthetics is a subjective criteria; I think the key thing I'm seeing here is that the committee is going to have to guess on making a decision. We are never going to have enough information to make the best reasoned choice.
- C: There are three things that are important for the CAG to consider, not prioritized in any order. One is visual impacts and aesthetics. The second is health and safety. The third is impacts to residential neighborhoods—stay away from them as much as possible. Other themes are property values, that PSE will not consider this when making a decision. I think the CAG needs to be clearly aware of the desire for an underground option and consider it in some form of what would make the best route choices.
- C: My message to the CAG is “good luck” because the data just isn’t there and their mission is to come up with a preferred route—there is not a preferred route and there never will be. Especially with the data that doesn’t lead them down that road. After talking to the neighborhoods that I've been in contact with, along Segments J, L, and H specifically, the primary factors for them are visual impacts, environmental impacts, and health and safety. However, it would be foolish for the CAG to even consider providing PSE with a preferred route because it doesn't exist.
- C: I had a lot of questions about the photo simulations. I don't think they were representative of most homes that would be affected. I have a question on the proprietary tool using the 50 GIS layers. One of the things that occurred on one of the layers is called a lock-out area where there might be a building or something that would cause that particular segment to not be able to have a line. I would like to know where those lock-out areas are.
- C: I think the most important thing to do at this point is find out how much these various routes would cost. It is incumbent on the committee members to be responsible representatives of consumers who use PSE. I agree the straightest route would be most economical. No one involved in this committee can make a responsible recommendation without knowing the comparative costs. I hope you do all realize SCL has their major line right over the crest of Woodridge, and we would be adamant if you make it worse for us. Thank you Leann, what you say is true.
- C: I'm concerned the whole BNSF right of way (ROW) is intended for a future trail system which many in the county have but Bellevue doesn't. I hope the CAG thinks seriously about trying to preserve the BNSF ROW as a trail system and that using it as a power line corridor doesn't preclude use as a trail. The second point is about the SCL lines going through Wilburton and Woodridge; why is it better to put the line on the SCL line instead of the existing PSE ROW? I understand the PSE corridor goes through the middle of Somerset and that's a political problem but the recommended route I would suggest is A, C, E, G2, I, K2, M, N. That uses most of the PSE ROW and still avoids Somerset by going through Factoria, which is already a commercial center.

Committee dialogue:

- C: I think it is critical we not work against each other because Wilburton and Woodridge are affected greatly by proposals to use the SCL line. We need to pressure our municipalities to steer this in the right direction. I addressed Bellevue City Council on Monday night and I said the citizenry isn't

interested in a battle with PSE because it's a losing battle. We are interested in a solution for everyone. We want to preserve views and property values, the feeling of our own neighborhoods that would be stripped by this power line going by our homes and schools. I have had questions about this process of reaching out to the community. I like to think it is in good faith. It is incumbent on us to ask our city leaders to make this happen the way we want to see it happen. There are a lot of players with deep pockets and we have the smallest ones.

- C: I heard that the Bellevue City Council stepped back from this on purpose and maybe we see why, they didn't want to be in the middle of this fight but I think it is essential for them to be involved. It is their job to protect their citizens. We formed CENSE, [www.cense.org](http://www.cense.org) to bring groups together. It is not a Not In My Backyard (NIMBY) argument; rather, we don't want the line in anybody's backyard. We are attempting to bring all the neighborhoods together. We do need our municipal jurisdictions to be our advocates. We don't believe PSE is the company it used to be. This whole thing appears to be built on the cheap and I don't think we will tolerate that. I think our municipal leaders will step up to the plate and be our advocates. We are not against growth, we know the region is growing, we know we need reliable power. But we need real information on what those growth needs are. I believe there are more solutions available. I agree with others who say it is impossible for them to come up with a route recommendation. I would like to see the load factors from each substation. I would like to see those lockout areas that wiped out most of the route segments from the TetraTech work. I believe manual adjusting was done to the model to produce the route segments currently on the map.
- C: We say we need power lines; we can all look for some impossible solution. If we keep doing that we will be ignored. If we try to pick the least bad of the bad solutions, we can have an impact. I think we need to avoid stressing the impossible solutions.
- C: I don't want to pick the least bad solution.
- C: I've been an engineer all my life, that's how you design things. My area is building up quickly, and we do want power for those people.
- C: Those businesses have power; show us the power need forecasts.
- C: Look at the plans at Bellevue City Hall, the plans they have for developing this region. They're building it all up, the need is there, and growth is going to happen. I'd like to stop it, but the City Council is doing everything they can to increase density. If that is the direction it's going, it's not just PSE's profit; it is power to my house and your house and the people who are moving in. We have to work with the possible and if we keep working for the impossible we won't get anywhere.
- C: I do want to say thank you to PSE for allowing me to be here. And I wanted to say we should bring in the municipalities and ask them to support us. It can be done. The municipalities have supported me in the past in issues with the state before.
- C: There is one issue that is the responsibility of the committee. I spoke to a gentleman this evening, and this is the first meeting he has been to. It is incumbent on the committee to give PSE feedback, but also to inform your community. If you have not called them out, if you are not explaining the data in your packet to those in your neighborhood who could be impacted, you are not doing your job. This is why we have to go over this information over and over and over again at every meeting.

## Discussion of recommendations to the Community Advisory Group for further consideration

Penny asked the committee members if they had any specific recommendations for the Community Advisory Group to explore further, focusing on the data and results of the workshop series.

- C: Somebody asked about cost differences along the line, segment by segment. What would it cost if all customers shared the cost of undergrounding? Not a detailed million dollar study, just a back pocket estimate. How much would it cost if it was the neighborhood paying vs. the region paying? It's going to affect our power bill, it comes out of the pocket of everyone who buys power, and so what are the cost figures?
- C: This cannot be a zero sum game. This has to be a win-win-win for everyone.
- C: Has there been an environmental impact study other than just how many trees will be cut down above 15' and greater than 4" around, by segment? And does that play a role especially in a city like Bellevue whose fabric is to protect the beauty and park-like nature of our city? Has PSE studied each segment and the true environmental impact? The environmental impact statement wouldn't be done until the preferred route was selected, to me that is backwards but that is a question I would ask CAG to explore.
- C: I think there are some members of the community and in the advisory group that don't understand the need. We haven't shown this line is necessary. Until we show that, I think advisory group members will have a difficult time trying to make a recommendation on what a best solution might be. We need, to the extent we can, to ensure that all members believe there is a need and understand that need so they can move on to how to best meet the need.
- C: I think we need a population intensity graph along all those line segments so we understand the impact on per person, per mile, per 100', per lot. If we are going to trade off who gets impacted, we need to know that. People have asked before about the population projections. I think we need to see the Puget Sound Regional Council (PSRC) data, hopefully in a graph form.
- C: I'd like to know more from Drew Thatcher about how he doesn't know how new 230 kV lines will impact population and the environment. He's not sure how far the radiation extends.
- A: Drew noted the discussion was about HAM radio noise, and not knowing what the decibel level would be from new 230 kV lines. As far as science and health effects, there is a handout from the World Health Organization, which has found there is no causal relationship between EMF and adverse health effects. The evidence is as strong as it gets. That there is no chance EMF can directly cause cancer. Part of the research in the last 10-15 years has been on indirect cause. We have every minute of every day, single strand breaks in our body from indirect effects that our body is constantly repairing. It happens in a microsecond. To have effects and energies, you would have to have exposure millions of times higher than what we are talking about. There are no adverse biological effects.
- C: How much power will be sold to the other areas—California, the East Coast. That was proposed, why are there no options for the segments leveraging the existing right-of-way like Vernell and

Westminster? I know we are not using SCL, but no one said anything about why we can't double down on the current PSE lines.

C: That is an option; that's N, M, J, E, and C.

C: How much do impact fees go into this issue? How much more of an impact fee should commercial people and developers pay to help offset this cost?

C: If you can't get everybody to recognize and accept the need, we aren't going to get anywhere. I do feel to some extent not enough thinking has gone outside the box to feel we have approached or considered creative solutions and even established the depth of need. If we look at the cost factor then we might as well not really consider other issues such as those we've been talking about like critical slope, residential impacts, evaluations based on layered maps. They become somewhat moot at that point if we look at cost factors of overhead lines.

C: I did not propose looking at cost as the only factor.

Q: If we look at cost factors at all, they become the only factor. How do we measure how important it is? I don't know how we would approach it. What are the mitigating factors that PSE is talking about for the various routes that we are considering? It has been indicated that you work with property owners to mitigate construction. What are these mitigating elements that you would be considering?

C: I think we need some information on why WSDOT is not allowing power lines along I-405 and SR-520.

### **Wrap up and next steps**

In closing, Penny reminded the Central Sub-Area Committee that they as a body were never tasked with coming to a decision between routes, as it is too complicated for their one meeting together. She observed that one take away from the workshop scoring process could be that there are no easy answers.

Penny reminded the group that the South Sub-Area Committee would convene on May 15. Summaries of all three Sub-Area Committee meetings will be provided to the Community Advisory Group at its next meeting on June 4, at the Old Redmond School House. She thanked the Sub-Area Committee and members of the public for attending and for their time and energy spent devoted to their involvement in the process. Penny additionally reminded the Sub-Area Committee that the meeting summary would be posted to the project website when completed.