

# **MEETING NOTES**

## **Meeting No. 2 – September 6, 2017**

### **Bavarian (Leavenworth) Transmission line route stakeholder group**

---

#### **1. Meeting Summary:**

- Shaun Seaman opened the meeting at 6:30 pm. Introductions of PUD staff and stakeholders.
- 18 property owners and residents from the Fox Road and North Road areas interested in the transmission line routing discussion attended. About five of those in attendance did not attend the first meeting in August. Cascade School District was represented. Mayor Cheri Farivar attended.
- Shaun reviewed the agenda and meeting purpose – to present details and renderings on transmission line route alternatives and gather input from stakeholders.
- Gary Rice reviewed why the new transmission lines are needed – both Transmission line 1 (Chumstick Hwy.) and Transmission line 2 (Fox Rd./North Rd.). Two transmission lines feeding into the new substation will create a redundant feed and increase reliability for the Leavenworth area.
- Gary explained that although we would share the estimated cost of each alternative at the meeting, that was not the main focus. The PUD is looking for input on what route is best for the neighborhood and the community.
- The cost differential between each of the three routes is \$250K.
  - Alt. 1 = \$1.63M
  - Alt. 2 = \$1.92M
  - Alt. 3 = \$1.41M
- The number of easements from private property owners will also be factored into the feasibility of each route.
- A distribution corridor exists for Alt. 1. Gary explained that even though we have easements for a distribution route, that doesn't mean we have easements for transmission, we would still need to acquire those. Also, if distribution were buried in that alternative, we would need additional easements to put the equipment underground.
- Gary reminded the group that Alt. 3 is mostly on PUD and Chelan County property. Few, if any, private property easements would be needed for this alternative, depending on the final design.
- The final design is not complete for any of the alternatives. The routes could change slightly based on neighborhood input, easement considerations and property owner considerations.
- The feasibility analysis recommends Alt. 3 based on easements and cost estimates.
- Gary and Shaun reviewed each of the renderings with the group and answered questions throughout.
- Reiterated the difference between distribution and transmission.
- Reminded the group that if Alt. 1 or Alt. 2 were used, some of the existing transmission line traveling north to south on the map would be removed because it would no longer be needed to complete the loop. If Alt. 3 is chosen, that line needs to remain and may need to be rebuilt as part of this project.
- If Alt. 3 were chosen, three transmission wires would come off the existing transmission line running east to west. That second set of three wires would no longer be needed. We would build a new transmission line a certain distance away from the existing line to increase reliability and decrease risk from natural disaster such as fire.

#### **2. Q&A:**

**Q:** What easements do you need for each of the alternatives?

**A:** Alt. 3 would either need an easement from Chelan County or possibly an easement from one private property owner, depending on the final design. Alt. 1 would require approx. 4 private property easements. Alt. 2 would require more than 10 private property easements.

**Q:** Would distribution need to be placed under the transmission on all three routes?

**A:** No, only on Alt. 1 because that is an existing distribution corridor. If that route were chosen, the existing distribution poles would be removed, taller transmission poles would replace them and distribution wires would either be hung under the transmission wires on the new transmission poles or the distribution wires would be placed underground. The new transmission poles will be taller than the existing distribution poles and the new transmission wire is a bit more visible than the existing distribution and transmission wire in the area.

**Q:** Can transmission lines be put underground?

**A:** At this time, it is the decision of Chelan County PUD not to place transmission lines underground for various reasons. There is more information available about this topic on our website. Underground transmission is not a scope of this project but can be talked about separately if desired by the community or individual stakeholders.

**Q:** For Alt. 1, would the transmission poles be placed in the same location as the existing distribution poles?

**A:** Possibly, but it would depend on the final design. Transmission pole placement is a balancing act. Longer spans require taller poles.

**Q:** Can people hear the transmission lines?

**A:** Typically, people cannot hear a 115Kv transmission line, which is what is in the Fox Road/North Road areas. Most people can hear higher voltage lines such as 350 or 500Kv, the large steel structures you see in more rural areas. One neighbor who lives near the junction of the two existing 115 Kv transmission lines said she can hear them sometimes.

**Q:** Was the cost to rebuild the existing transmission line (if Alt. 3 were chosen) included in the cost estimates?

**A:** No. We don't know for certain whether or not that line would need to be rebuilt. Depending on the maintenance schedule and condition of the line, the PUD could take advantage of rebuilding the line as part of this project if needed.

**Q:** Would three transmission wires needed to be added to existing transmission line if Alt. 3 were chosen?

**A:** No

**Q:** Where would transmission line 1 cross the Chumstick Hwy.?

**A:** It would come out to the Chumstick Hwy. just north of the high school, travel up the Chumstick and then cross to the new substation approximately at the City's pump station.

**Q:** How will the final decision be made?

**A:** Staff will make a recommendation to PUD Commissioners based on the feasibility analysis (easements and cost) and public input. Ultimately the Commissioners have the authority to make the final decision.

**Q:** Were any other route options looked at?

**A:** No, however if stakeholders have any ideas, they are encouraged to bring them forward to PUD staff.

**Q:** How tall do the transmission poles need to be and how high above the ground is the wire?

**A:** The height of the pole depends on a number of factors. Transmission engineers look at 18 different considerations when designing a transmission line route including sag, weather, etc. There is a minimum height the wire needs to be above the ground to meet national safety codes, the PUD adds a bit more. They use the worst conditions to test the height of the wire. For example, what weather condition would cause the most sag? The absolute minimum clearance of the lowest transmission wire is 22.5 feet.

**Q:** If Alt. 3 is chosen, is it possible to put the line down in the gully?

**A:** No. If you put the poles down in the gully it brings the wire down farther to the ground. You would then need to use taller poles, which defeats the purpose.

**Q:** What are the risk factors or major downfalls with Alt. 3?

**A:** All three routes meet PUD system requirements, at this time, prior to more engineering study. Any risk factors with Alt. 3 would still make it feasible. There would be separation between the two lines so that eliminates some risk. We have not yet reached the point of designing the route or pole locations.

**Q:** How much separation would there be in the lines with Alt. 2?

**A:** The separation would follow what is currently between the two existing lines in that area.

**Q:** Would these same routes have been used with any of the possible substation sites?

**A:** Yes. The three substation sites that were under consideration are all in the same general area and would all require the same transmission.

### **3. Stakeholder Input and General Issues:**

- The PUD is seeking input and feedback on the transmission line routes from property owners and residents in the area. Input will also be shared with PUD Commissioners and senior management.
- PUD staff will use input and the feasibility study results to make a recommendation to PUD Commissioners who will ultimately make the decision on a route.
- As with the Aug. 2 meeting, the majority of stakeholders in attendance were in favor of Alt. 3.
- Two stakeholders were in favor of Alt. 1.
- One stakeholder was in favor of Alt. 2
- One stakeholder is concerned that Alt. 1 goes in front of his house.
- One stakeholder said that she preferred Alt. 3 because it has the least number of people moving around underneath it and she has concerns about the safety of living under or near a transmission line.

### **4. Next Steps & Timeline:**

- Sept. 30 – asking for stakeholder input by the end of the month
- Oct. – present recommendation to PUD Commissioners and choose a route
- Aug.-Oct. - PUD staff initiating permit-level design and Conditional Use Permitting process
- Q3-Q4 2018 – Procure equipment
- 2018 - Substation and transmission line route design
- 2019-2020 – Substation and transmission line construction
- The current substation is running at 90% capacity. There is an urgency to construct the new substation and related transmission in a timely manner, but the PUD will continue to engage the stakeholders.