

# PUD moving forward with site selection process for new substation

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The fourth community meeting was held last week in Leavenworth on the Chelan County PUD proposal to build a new substation in the Leavenworth area. The PUD had a large community meeting last December.

Then, a focus group was created, including people with a wide range of interests.

"We worked them to create site selection criteria, so we had all the criteria that was both important to the PUD from a systems standpoint and also things important to the community, like aesthetics and neighborhood value," said Teka Sellers, PUD customer relations administrator. "We found about 16 general areas we thought were good to start looking at. We took those 16 areas and started putting them through the site selection criteria so that each one had a ranking. We came up with a top three."

The top three includes one site at the west end of town and two sites on the east end of town, near the location of the current PUD transformer, behind the fire station. Within those areas, Sellers said they have started contacting property owners to see if they are interested in selling their property.

At the community meeting last week, Sellers said it was just general information.

"We didn't have a lot of details on what a substation would look like in each one of those areas because we haven't moved from general areas to looking at sites," Sellers said. "That is our next step, to transition from areas to sites and then go back to the community with a little bit more details. Our goal is to identify one site where we have a property owner willing to sell. One site within those three areas."

Then, a consultant would do a more detailed cost analysis. Engineers would take a look at transmission lines into and out of the substation.

The community group considered a wide range of issues related to the property for a site. Sellers said mainly people do not want to look at it.

"One thing we dealing with in Leavenworth, which is a little unique, the transmission lines run on the east end of town, then up the Chumstick. The way a substation works is you have to get transmission into the substation. If we put a substation on the west end of town, we have to get transmission from the existing transmission line to that substation," Sellers said.

Some people had concerns about building additional transmission lines, she said.

"There are some trade offs. There are some great pros to having a substation on the other end of town. It provides distribution redundancy. But the trade off is you have to build transmission down that way," Sellers said. "We have some ideas on how we could do that, but those details will definitely come into the conversation once we get some sites selected."

One idea to bring the transmission lines across town is to use the existing distribution lines, which run down the alley, behind the hotels, parallel to U.S. Highway 2. Transmission lines could be built on top of that.

Sellers said you would not need a new corridor because the PUD would just be stacking on top of the distribution lines.

"We're not talking about the gigantic transmission lines that you see out in the field, like the Waterville Plateau. Not those big, metal structures. We're talking a wooden structure with three arms," she said.

While locating the substation at the west end of town would provide redundancy for the system, Sellers said it is by no means the preferred site. This particular area came with a high rating, because it is out of sight.

What is driving this process is need for additional transformers in Leavenworth. There are two transformers in Leavenworth, with a fairly big footprint. The latest was built in the early '80s.

"They are nearing capacity. We know there is a growth and development on the rise in the Leavenworth area. We are trying to plan the utility infrastructure to support that growth and development," Seller said.

The hope is, by the end of the year, to have a decision on a site. The PUD would use 2017 and 2018 for planning, permitting and engineering. Construction would take place in 2019 or 2020, and would be energized by 2020.

Those are the high level, anticipated timeline goals, she said.

"It takes about 12-18 months to order the transformer because they have to make it. So that is about a year to year-and-a-half. It takes about six months to construct the substation. We also have to construct the distribution that comes out of the substation. So there is a lot to it," Sellers said. "It is about a year or two of planning and permitting that goes with it. When we are planning these substations, we used a 3-to-5 year planning cycle."

If a substation is getting to a certain percentage on it's capacity level, it triggers something to PUD engineers. Because of this, the PUD is planning new substations in Leavenworth and Chelan.

Certainly, substation technology has changed since the Leavenworth station was built. It is not as noisy.

"From what I understand, the technology gets better every year to make them quieter. There is a national standard we have to comply with in regards to the noise. We try to come below that as best we can," she said.

The new substations are a little sleeker, she said. The newest substation in Wenatchee, energized in 2013, is a good example of a newer substation. Sellers is pointing people to their Okanogan substation, for those interested in seeing what a newer substation looks like.

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