

Electrical Quarterly Load Update

October 5, 2020



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Why we are here today

- Updated load forecast
- Overview of active projects of note
- Wenatchee foothills residential development planning
- Overview of substation prioritization and planning
- Substations: community outreach strategy update



- No action requested today



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10-Year Load Forecast Change

(Net of Energy Conservation Plans)

Date of Forecast	Base Case	High Case	Low Case
Mar 2020	26 aMW 1.1 %	130 aMW 4.6 %	-1 aMW - 0 %
June 2020	26 aMW 1.1 %	130 aMW 4.6 %	-1 aMW - 0 %
Sept 2020 Annual Growth Rate	26 aMW * 1.1 %	130 aMW 4.6 %	-1 aMW - 0 %

Current
Forecast



* Note:

No forecasted changes since March 2020

Base case assumes average economic development.

Diamond Foundry load of 17 aMW (base) with 19MW peak, is a significant factor in current load forecast

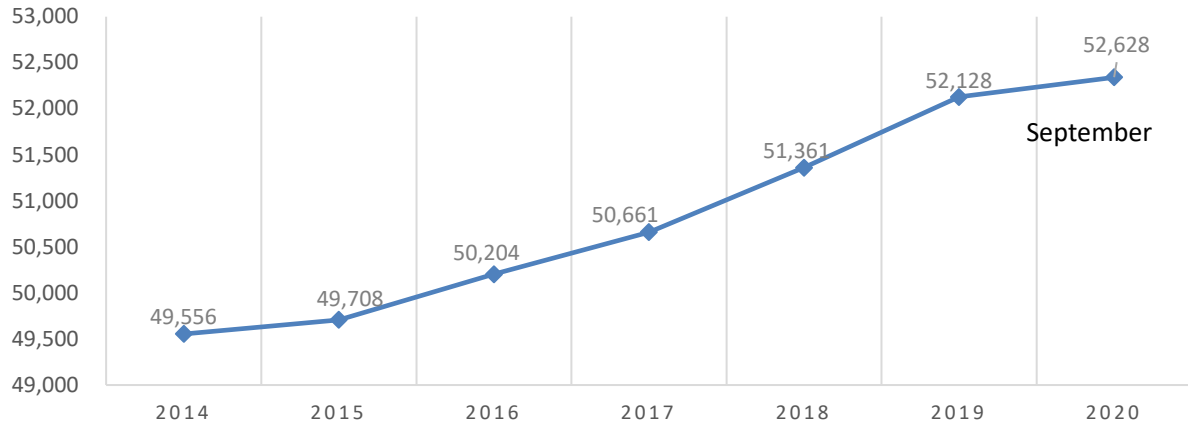


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Utility Services Meter Counts By System

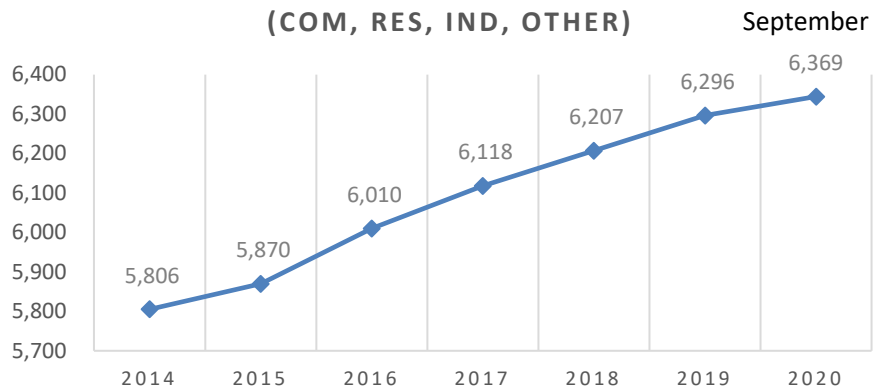
ELECTRIC SYSTEM
(COM, RES, IND, OTHER)



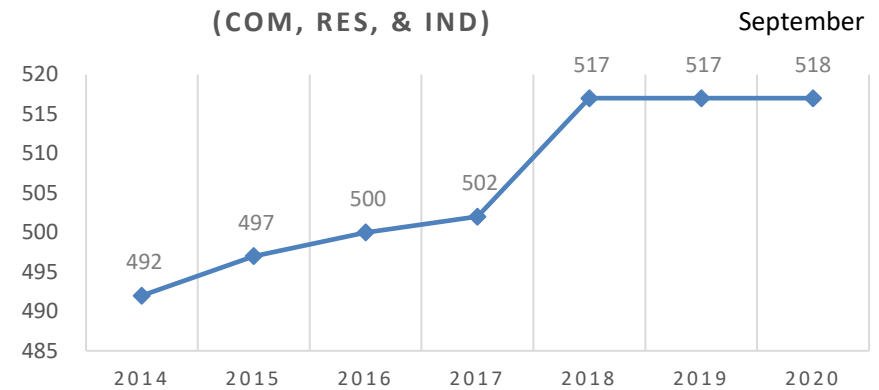
From Jan 2020 to date:

- 500 new electric meters
- 73 new water meters
- 1 new wastewater meters

WATER SYSTEM
(COM, RES, IND, OTHER)



WASTEWATER SYSTEM
(COM, RES, & IND)



Active projects in planning:

All energy is shown in estimated
(Peak) Megawatts

NEW LARGE PROJECTS RECEIVED SINCE JUNE, 2020 :

Up to 700 lot residential North Shore – Chelan	7.0 MW
500 lot Phillippi residential development, Wenatchee	5.0 MW
140 lot residential development – Peshastin	1.4 MW
Industrial load Winton Mill Coles Corner	0.7 MW
386 lot residential development Springwater St., Wenatchee	3.0 MW
39 lot residential development – Navarre Coulee, Chelan	0.4 MW
60 unit residential apartment complex – Maple St., Wenatchee	0.4 MW
35 lot residential development Lookout area, Chelan	0.4 MW
<u>17 lot residential cottages, Lookout area Chelan</u>	<u>0.3 MW</u>

Peak Demand ~ 18.6 MW

Projects out of planning and under construction:

All energy is shown in estimated
(Peak) Megawatts

Church near Kimber Rd., Cashmere	0.16 MW
89 room hotel Penny Rd. Olds Station, Wenatchee	0.75 MW
95 room hotel N. Wenatchee Ave., (re-build)	0.50 MW
64 room hotel 9 th St., Wenatchee	0.50 MW
Beta hatch industrial, Cashmere	1.20 MW
Commercial space, Peshastin Mill Rd.	1.00 MW

Peak Demand ~ 4.11 MW



Status of Substations

Substation	Stage	Next stage
Wenatchee Sub Exp.	Site plan/General arrangement	Complete
Chelan Gorge Sub	Transmission line, route design, Permit	Complete
North Shore Sub	ECI Consultant - Site plan/arrangement	Complete
Leavenworth Sub	ECI Consultant - Site plan/arrangement	Complete
Mobile Sub Units	Delivery of two units	Complete
Ohme Substation	Sub grade work	Q4 – 2020
Hawley Substation	Energize	Year End
Wenatchee foothills	Property Evaluation & location planning	Q2 – 2021

Substation planning Wenatchee foothills

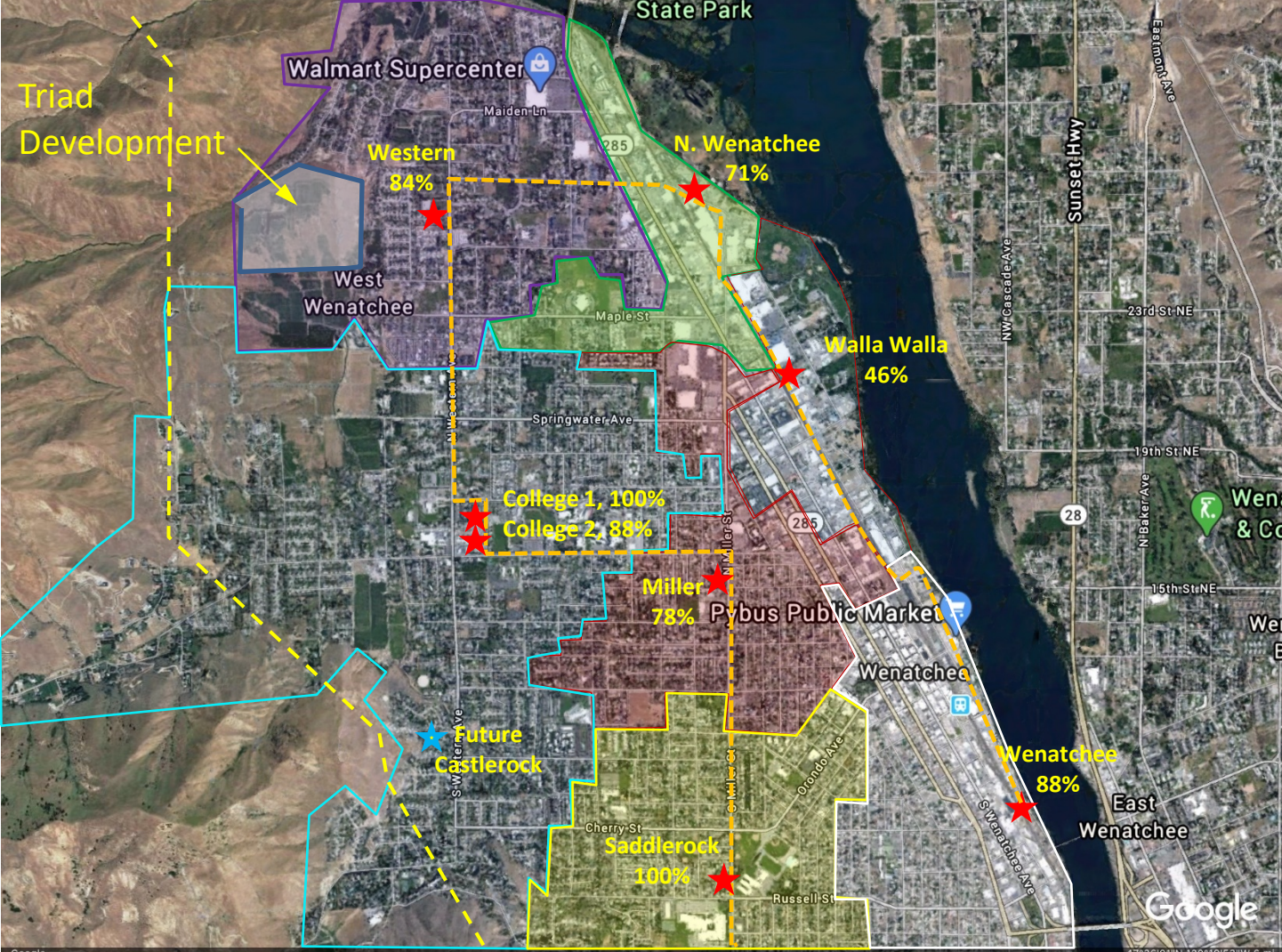
Existing Substation & Feeder Distribution Wenatchee Vicinity Sept. 2020 (exact boundaries may vary)

Notes:

1,500 to 2,000 premises in the Wenatchee foothills planned over next 10 years

Infill within city limits continues

Higher density lots approved



Substation Design Outreach Approach

- Outreach efforts in 2015-2017 led us to purchase properties and site transmission route
- Teka leading effort on Bavarian – Jenna on North Shore
- Each project has a similar outreach approach, but details vary
- This outreach approach is new and upholds commitments to the public
- Collaborate with local architect to provide creative design alternatives: *“aesthetic canvas”*
 - Iterative and collaborative process to include review of renderings by stakeholders and PUD staff
 - Stakeholders evaluate the design alternatives, and their feedback will influence the development of a preferred alternative
- Transition to socially distanced outreach tools, such as:
 - Regular email and website updates on design status
 - Online open houses and collecting feedback via online surveys
 - Online stakeholder meetings on platforms like Zoom
 - Small onsite meetings or tours as needed
- Continue to keep SMT and commissioners updated throughout the process
- City councils and Chelan County are considered stakeholders for both projects

Bavarian Substation Outreach Plan Details

- **Background:**

- Two new transmission lines needed to create “loop”
- Substation property visible from major roads and vacant property
- Construction and energization are scheduled for 2022

- **Stakeholder groups:**

- Substation Design – *adjacent property owners, MEND, City of Leavenworth, Chelan County*
- Transmission Line Route – *residents who collaborated on line route alternatives in 2017*
- T Line Property Owners – *property owners adjacent to or in-line with new transmission routes*

- **Engagement levels:**

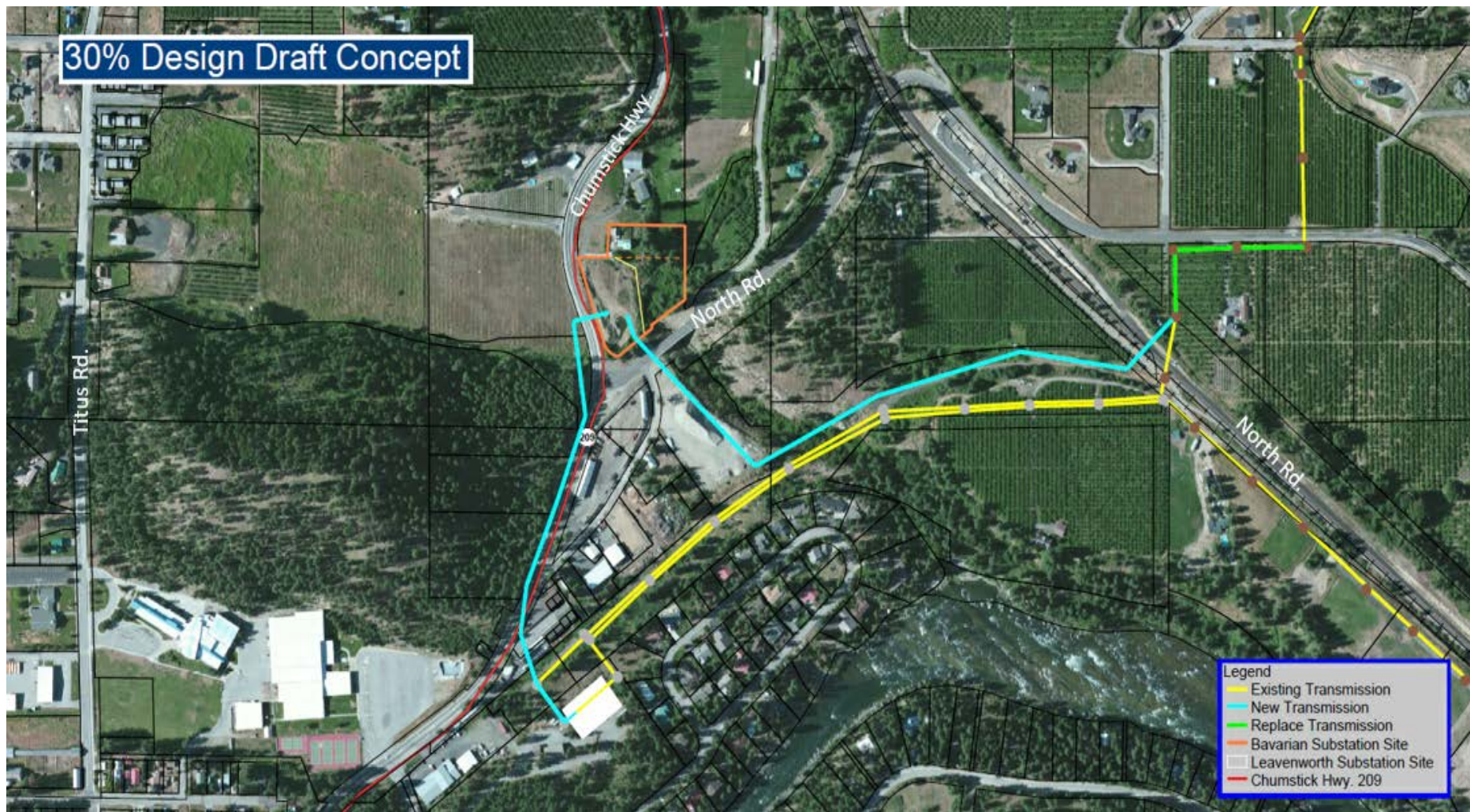
- Substation Design – *PUD will involve stakeholders in design elements of the substation including fencing, walls, landscaping and lighting through an iterative process*
- Transmission Line Route – *PUD will inform stakeholders of project status throughout*
- T Line Property Owners – *PUD will work with stakeholders on route details*

Bavarian Substation Outreach Next Steps

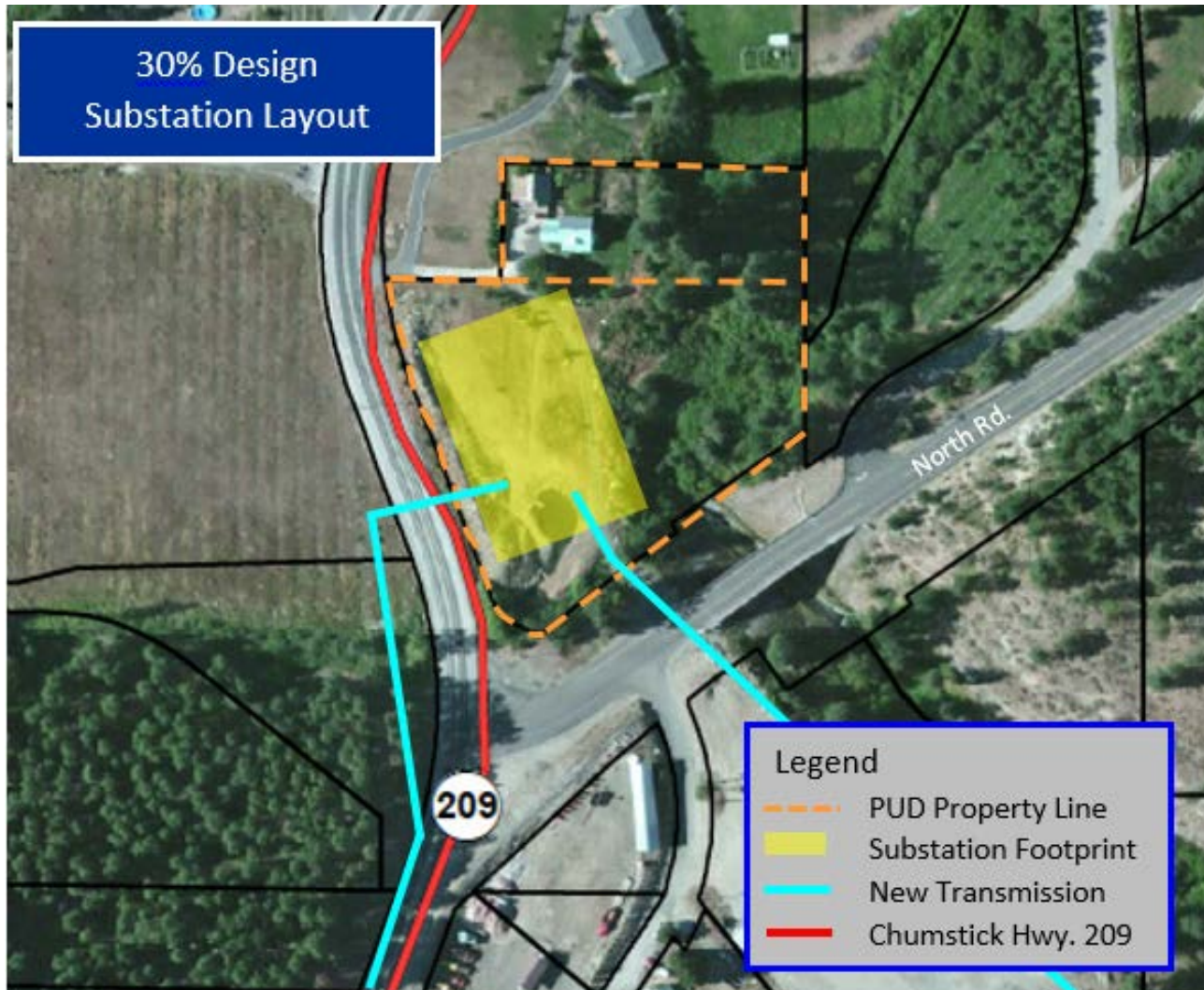
Timing	Activity	Audience	Details
October	Phone calls	<ul style="list-style-type: none"> T Line Property Owners stakeholder group 	<ul style="list-style-type: none"> Real Estate Services and Project Manager will reach out directly to property owners adjacent to or in line with new transmission
October <i>(after property owner outreach)</i>	Postcard and email	<ul style="list-style-type: none"> Substation Design stakeholder group Transmission Line Route stakeholder group 	<ul style="list-style-type: none"> High-level explanation of current status 30% design on substation and transmission line Next steps for Substation Design process Drive virtual traffic to website for more detail
Q2 2020	Site Grading Plan & General Arrangement	<ul style="list-style-type: none"> Substation Design stakeholder group 	<ul style="list-style-type: none"> Present site grading plan, including elevation of substation and access road Present general arrangement of equipment inside substation
Q1/Q2 2021	Design Alternatives <i>(Step 1 of iterative process)</i>	<ul style="list-style-type: none"> Substation Design stakeholder group 	<ul style="list-style-type: none"> Architect will provide approx. 3 renderings Stakeholders provide input Project Manager and Engineering provide input Architect narrows based on input <i>Method of engagement may vary depending on COVID19 requirements</i>
Q2 2021	Preferred Alternatives <i>(Step 2 of iterative process)</i>	<ul style="list-style-type: none"> Substation Design stakeholder group 	<ul style="list-style-type: none"> Architect will provide 1 – 2 renderings Will balance stakeholder input with PUD standards and requirements Stakeholders provide input Architect narrows to final design
Q3 2021	Final Design <i>(Step 3 of iterative process)</i>	<ul style="list-style-type: none"> 1st: Substation Design stakeholder group Then: all other stakeholder groups, general public 	<ul style="list-style-type: none"> Present final design of substation

**Timing is subject to change*

30% Design Draft Concept



30% Design
Substation Layout



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North Shore Substation Outreach Plan Details

- **Background:**

- Substation siting process completed in 2017
- Substation property visible from adjacent properties with existing homes and undeveloped
- Construction scheduled for late 2021

- **Stakeholder groups:**

- Project neighbors – *we anticipate this being the most engaged group given the proximity to the substation, and will update frequently via email listserv and outreach activities*
- City and County government – *periodic updates on design status*
- General public in Chelan/Manson – *periodic broad outreach in the community on design progress*

- **Engagement level:**

- Substation Design – *PUD will involve stakeholders in design elements of the substation including fencing, walls, landscaping and lighting through an iterative process*

North Shore Substation Outreach Next Steps

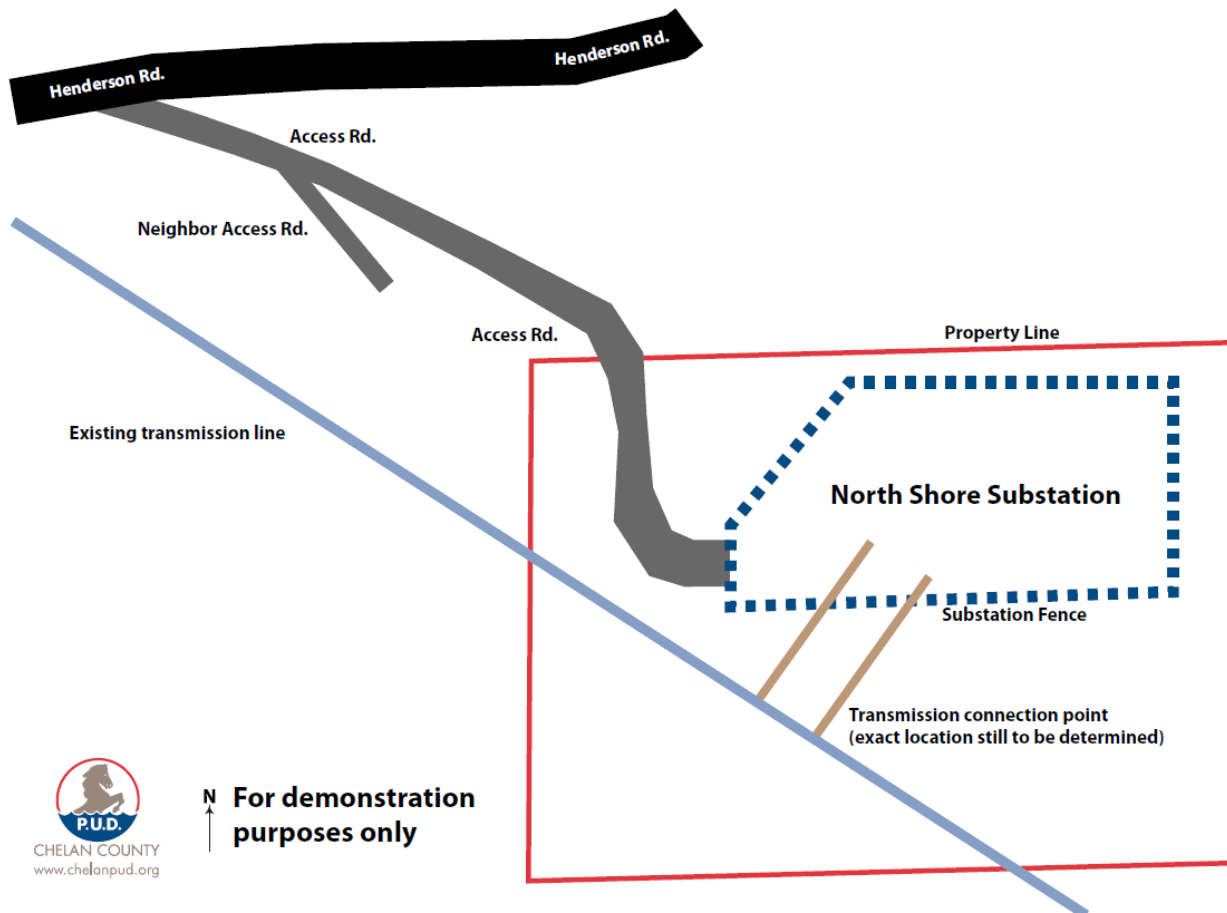
Timing	Activity	Details
June 2020	Design update email (Complete)	<ul style="list-style-type: none"> Described socially distanced outreach approach and that design outreach would begin later this year due to COVID-19.
October 2020	Substation Footprint & Orientation	<ul style="list-style-type: none"> Place flags on site at the corners of the substation fence, send online survey to neighbors to determine potential visibility. Include drawing of substation fence line in relation to property line, access road location, and transmission connection point.
November 2020	Site Grading Plan	<ul style="list-style-type: none"> Present site grading plan, including elevation of substation and access road.
February 2021	Design Alternatives	<ul style="list-style-type: none"> Architect will provide 2 – 3 design alternatives for stakeholder review. Outreach activities may include stakeholder meetings, tours, and Online Open House.
April 2021	Preferred Alternative	<ul style="list-style-type: none"> Present preferred design based on feedback from stakeholders in previous phase and additional considerations such as cost and feasibility.
May 2021	Final Design	<ul style="list-style-type: none"> Present final design of substation



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Substation Footprint & Orientation Outreach Map



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For demonstration purposes only

