

# **Substation Program Strategic Communications & Manson Area Capacity Improvements**

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# Why we're here:

Informational only – no action requested

## **Substation Program**

### **Strategic Communications**

- Background
- Objectives
- Deliverables

## **Manson Area**

### **Capacity Improvements**

- Project Overview
- Outreach Strategy



# Strategic Communications

## Mission:

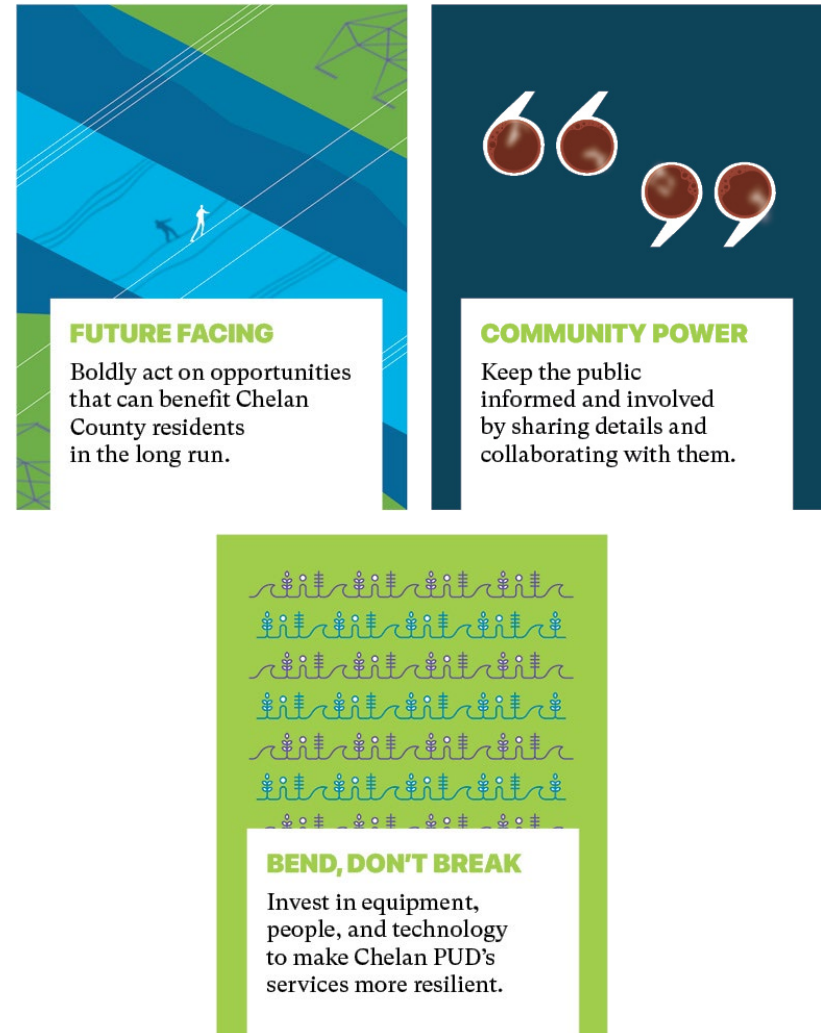
To increase awareness and understanding of the Substation program with internal and external stakeholders.

## Background:

- The Substation Program was established to systematically manage how the PUD plans, acquires, and builds new substations. We are planning for Energy and Water Forever.

## Objectives:

- Reinforce the value of long-range planning: Bend, don't break.
- Develop tools and methods that are repeatable and scalable.
- Communicate consistent, accessible messages, particularly the 'why'.







## SUBSTATION PROGRAM

Planning to power

# Chelan PUD 50-year vision — our plan for resilient and reliable power generation

## Planning to Power — all the way to 2075

Substations are an integral part of Chelan PUD's electrical power system, bringing together generation, transmission, and distribution, so that electricity can reach our 50,000 customers. In partnership with the community, we created the

Substation Program to systematically manage how the PUD plans, acquires and builds new substations.

Just as Chelan County must adapt to increasing demand and growth in our communities, the PUD will continue

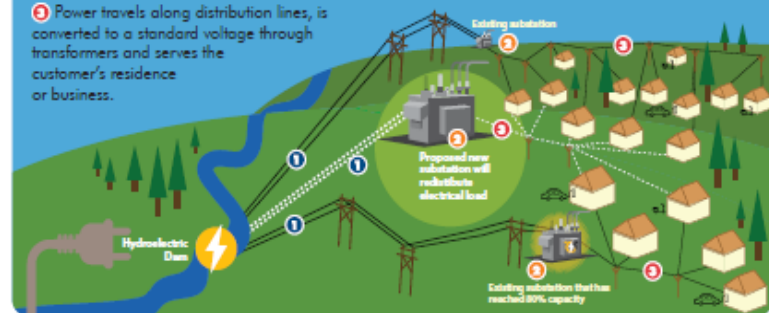
to light the best path forward to serve our customer-owners. To meet modern electricity usage and maintain reliable service to our growing/dynamic community, the PUD plans to build 15 new substations over the next 10 years.

## New substations adapt to increasing demand

① Power travels via transmission lines to substations. We currently have 34 substations, and each one can serve up to 1,500 homes.

② Electrical voltage is reduced at the substation to an appropriate level for residential and commercial use.

③ Power travels along distribution lines, is converted to a standard voltage through transformers and serves the customer's residence or business.

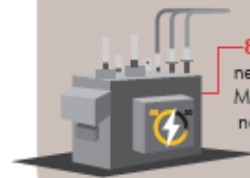


## Modern increased energy needs:

- ↑ Residential occupancy — home office, remote work, rentals
- ↑ Growth and development
- ↑ EV and Electric Charging (Electric and Hybrid vehicles, bikes, scooters, etc.)
- ↑ Household Appliances
- ↑ Technology & AI
- ↑ Entertainment
- ↑ Home Office
- ↑ Heating & Cooling
- ↑ Devices



## WHEN is a new substation needed?



When an existing substation is consistently reaching **80% capacity**, it triggers the PUD to begin looking into the need for a new substation. The PUD refers to this as an 80/20 Model and it initiates the process of identifying a location for a new substation and the associated transmission and distribution lines, in order to continue resilient and reliable service.

To meet increasing energy demands, Chelan PUD is planning to build 15 new Substations over the next ten years. Here's our plan for expanding resiliency to safekeep our investments. This is how you help us get there.

	Phase I — PLAN Typical timeline* Years 0-2	Phase II — ACQUIRE Years 2-4	Phase III — BUILD Years 4-5
<b>What the PUD does in each phase</b>	<ul style="list-style-type: none"> <li>Identify the need for new substations through forecasting electrical load growth.</li> <li>Using the 80/20 Model and community engagement to locate potential sites.</li> </ul>	<ul style="list-style-type: none"> <li>Identify and narrow potential sites using site evaluation criteria where additional electrical capacity is needed.</li> <li>Acquire property, easements and permitting and perform feasibility and due diligence.</li> </ul>	<ul style="list-style-type: none"> <li>Design the substation components.</li> <li>Procure equipment and perform construction.</li> <li>Energize and connect customers to the new substation.</li> </ul>
<b>How the PUD partners with the community</b>	<b>Inform:</b> <ul style="list-style-type: none"> <li>We will inform the public through community meetings, mailers, emails, media and website.</li> </ul>	<b>Involve:</b> <ul style="list-style-type: none"> <li>We will involve impacted stakeholders in the site selection process through a series of meetings and communications.</li> </ul>	<b>Consult:</b> <ul style="list-style-type: none"> <li>We will consult impacted stakeholders during the design process through a series of meetings and communications.</li> </ul>
<b>In partnership, our promise to you</b>	<ul style="list-style-type: none"> <li>We will provide you with balanced and frequent information.</li> </ul>	<ul style="list-style-type: none"> <li>We will ensure stakeholder feedback is considered and reflected in decision making.</li> </ul>	<ul style="list-style-type: none"> <li>We will listen to and acknowledge concerns.**</li> </ul>

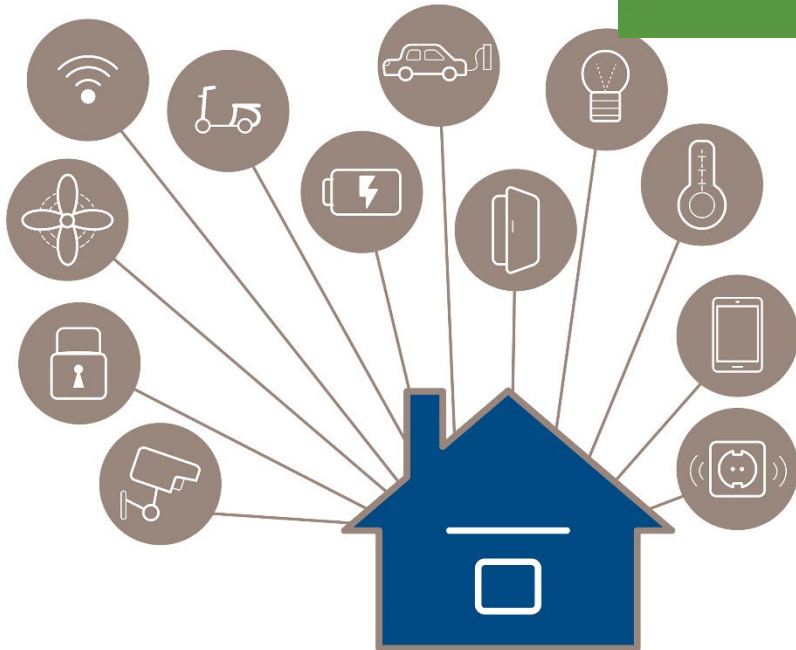
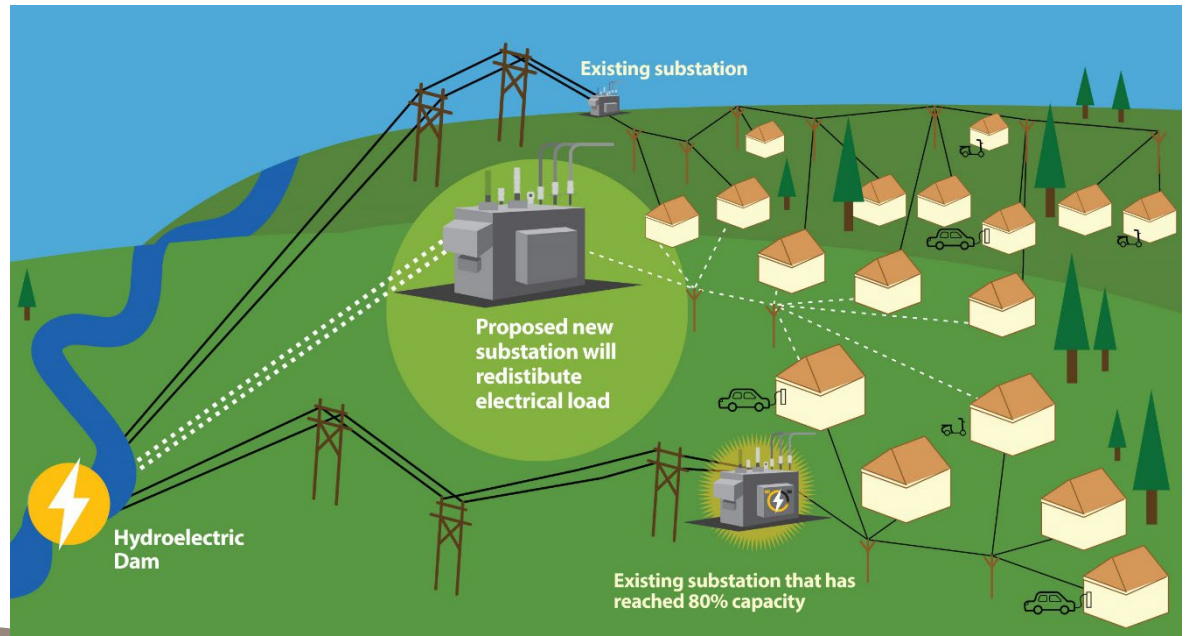
\*A Substation Program project's priority may shift once it begins the Planning or Acquire phase. The timing shown represents the average period of time within each phase, however, there may be idle periods in between phases which can extend the overall length of time to advance fully from Planning to the Build phase.

\*\*Chelan County PUD uses principles developed by the International Association of Public Participation (IAP2).



## SUBSTATION PROGRAM

Planning to power



# QUESTIONS?



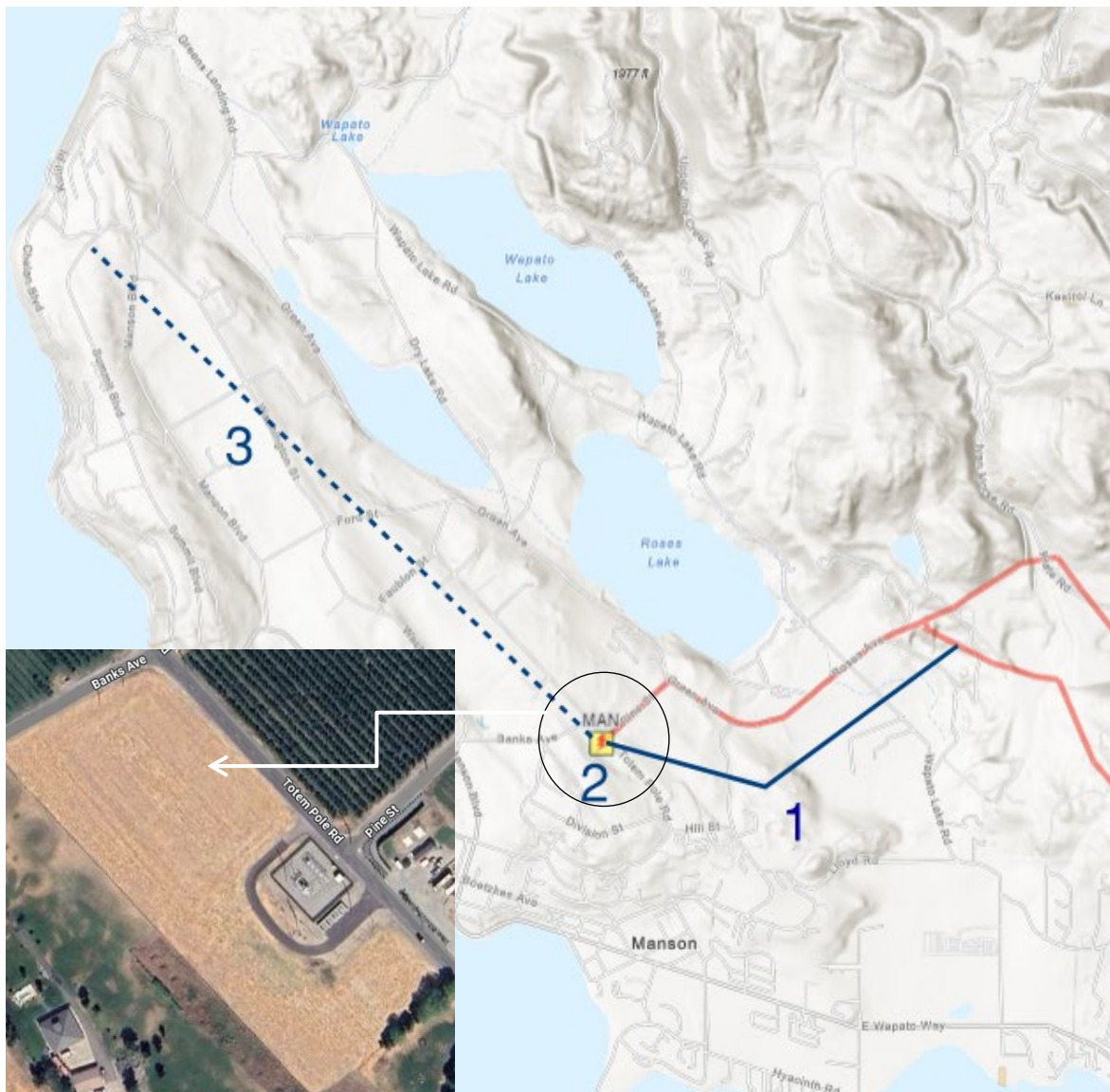


# Manson Capacity Observations



- District planning guidelines monitor three levels of capacity limits:
  - Transmission
  - Transformers
  - Distribution
- Load forecasting shows steady growth in the Manson area
- All three components in the area are nearing ~80% of their capacity thresholds
- These conditions have triggered the need for proactive planning under the Substation Program

# Near Term Capacity Improvements



## 1) Construct short-loop transmission line

- Enhances reliability by enabling power switching during outages

## 2) Install additional power transformer

- Existing substation has sufficient space

## 3) Upgrade the distribution system

- Double-circuit new feeders on existing distribution lines



# Long Term Capacity Improvements



## 3) Upgrade distribution line to transmission line

- Efficient use of resources and brings poles up to standard

## 4) Acquire a new substation somewhere in Area 4

- Addresses long-term capacity needs and improves system reach

## 5) Construct a large transmission loop

- Provides redundancy and aligns with standard utility practice

# Stakeholder Engagement



**Goal:** Engage key stakeholders and explain the purpose and need for the project. Use their feedback to refine our message to the greater Manson area.

- **April:** Reach out to key stakeholder groups to describe the project and proposed alternatives.
- **Mid - April:** Begin broader outreach to greater Manson area – email and postcard.
- **May - June:** Initiate contact with directly impacted stakeholders.
- **August - September:** Public meeting.

	<b><u>PLAN</u></b> Phase I	<b><u>ACQUIRE</u></b> Phase II	<b><u>BUILD</u></b> Phase III
Typical Timeline	Years 0-2	Years 2-4	Years 4-5
What is the PUD doing?	<ul style="list-style-type: none"> <li>• Load forecasting</li> <li>• Identify the need</li> <li>• Plan for Phases II and III</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and score potential sites</li> <li>• Acquire property and land rights</li> </ul>	<ul style="list-style-type: none"> <li>• Design the substation</li> <li>• Construct the substation</li> <li>• Connect and energize the substation</li> </ul>
How is the PUD engaging the public?	<ul style="list-style-type: none"> <li>• Inform stakeholders</li> <li>• Public meetings, mailers, media</li> </ul> <p><b><u>INFORM</u></b></p>	<ul style="list-style-type: none"> <li>• Gather input on potential sites</li> <li>• Stakeholder focus group</li> </ul> <p><b><u>INVOLVE</u></b></p>	<ul style="list-style-type: none"> <li>• Obtain feedback on design</li> <li>• Neighborhood focus group</li> <li>• Post-construction follow-up</li> </ul> <p><b><u>CONSULT</u></b></p>
Our promise to the public*	We will provide the public with balanced and frequent information.	We will ensure stakeholder feedback is considered and reflected in decision making.	We will listen to and acknowledge concerns.

*\*Based on the International Association for Public Participation (IAP2) Spectrum*



QUESTIONS?

