

# Quarterly Electric Load Update

Nov. 21, 2022



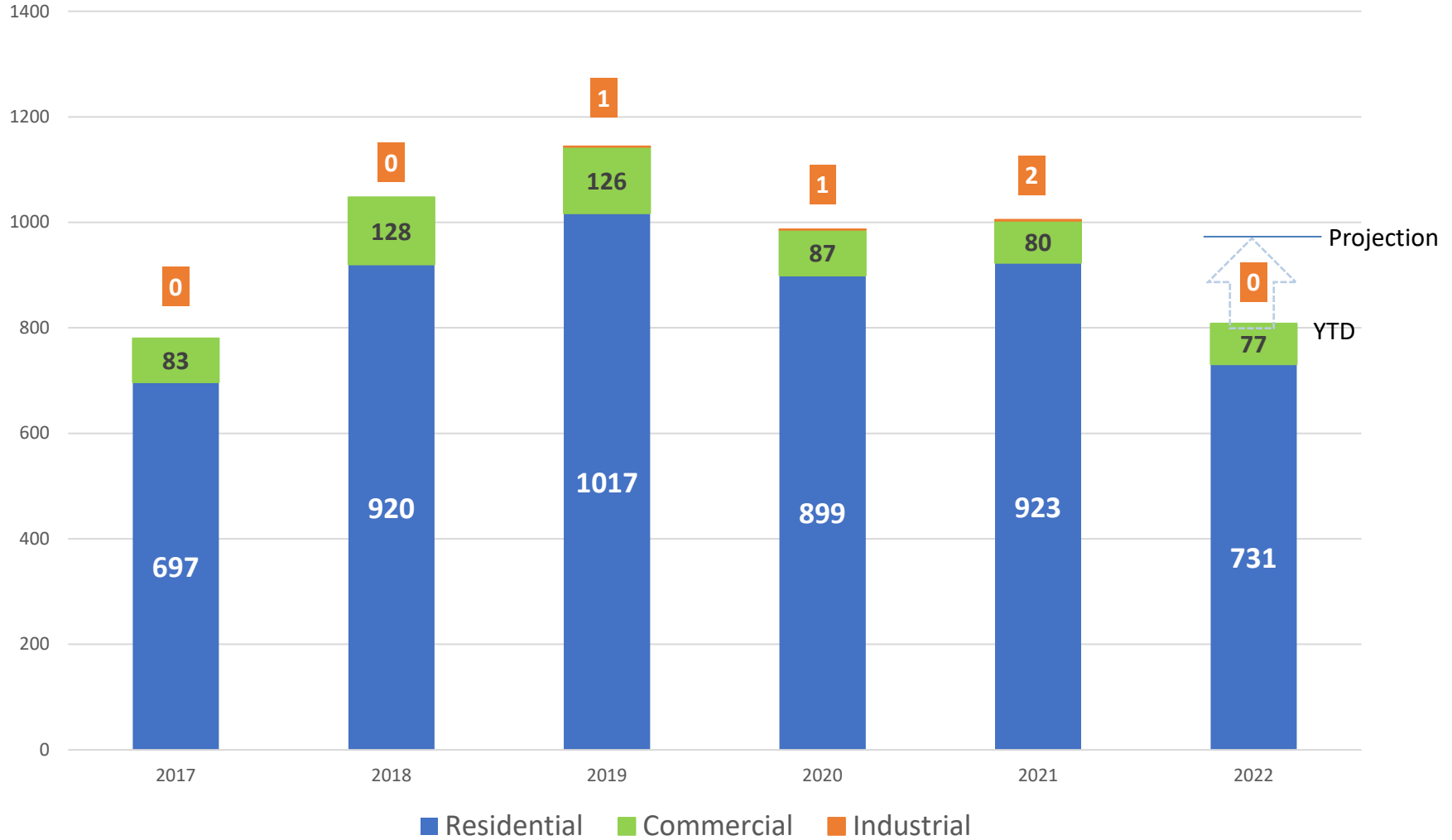
Presented by:  
Andy Wendell, Director of Customer Service  
Chad Rissman, Director of Engineering

# Why we are here today



- 2022 new services and meters installed
- Growth for 2022 & Load forecast update
- County wide development & large loads
- Substation build status update
  
- No action requested today

# New meter installs 2017 - 2022 YTD



# New applications & inquiries

## *Application*

- Leavenworth Meadows (Mend property) ~300 units, residential

## *Inquiries*

- Peshastin development ~134 lots, residential
- Lumber mill, Chelan County Natural resources
- Lineage property Wenatchee

# 10-Year Electrical Load Forecast

(Net of energy conservation plans & excludes new large loads)

<i>Date of Forecast</i>	<b>Base Case</b>	<i>High Case</i>	<i>Low Case</i>
April 2022	31 avg MW	107 avg MW	16 avg MW
Annual growth rate %	1.4 %	4.3 %	0.7 %
July 2022	31 avg MW	107 avg MW	16 avg MW
Annual growth rate %	1.4 %	4.3 %	0.7 %
November 2022	<b>15 avg MW</b>	47 avg MW	6 avg MW
Annual growth rate %	<b>0.7 %</b>	2.0 %	0.3 %



- Notes:
- 1) Recalibration of customer class data shifted 10 Yr. load forecast downward
  - 2) Lower than expected growth in 2021 & 2022 forecasts for residential and commercial
  - 3) A realized leveling and moderate reduction of demand from some customer classes
  - 4) Diamond Foundry ramping plan contributes to overall 10 Yr. load forecast

# Substation build plan

## **(34) total active substation**

*Under Peak load conditions:*

(12) of 34 stations at or above 80% loading

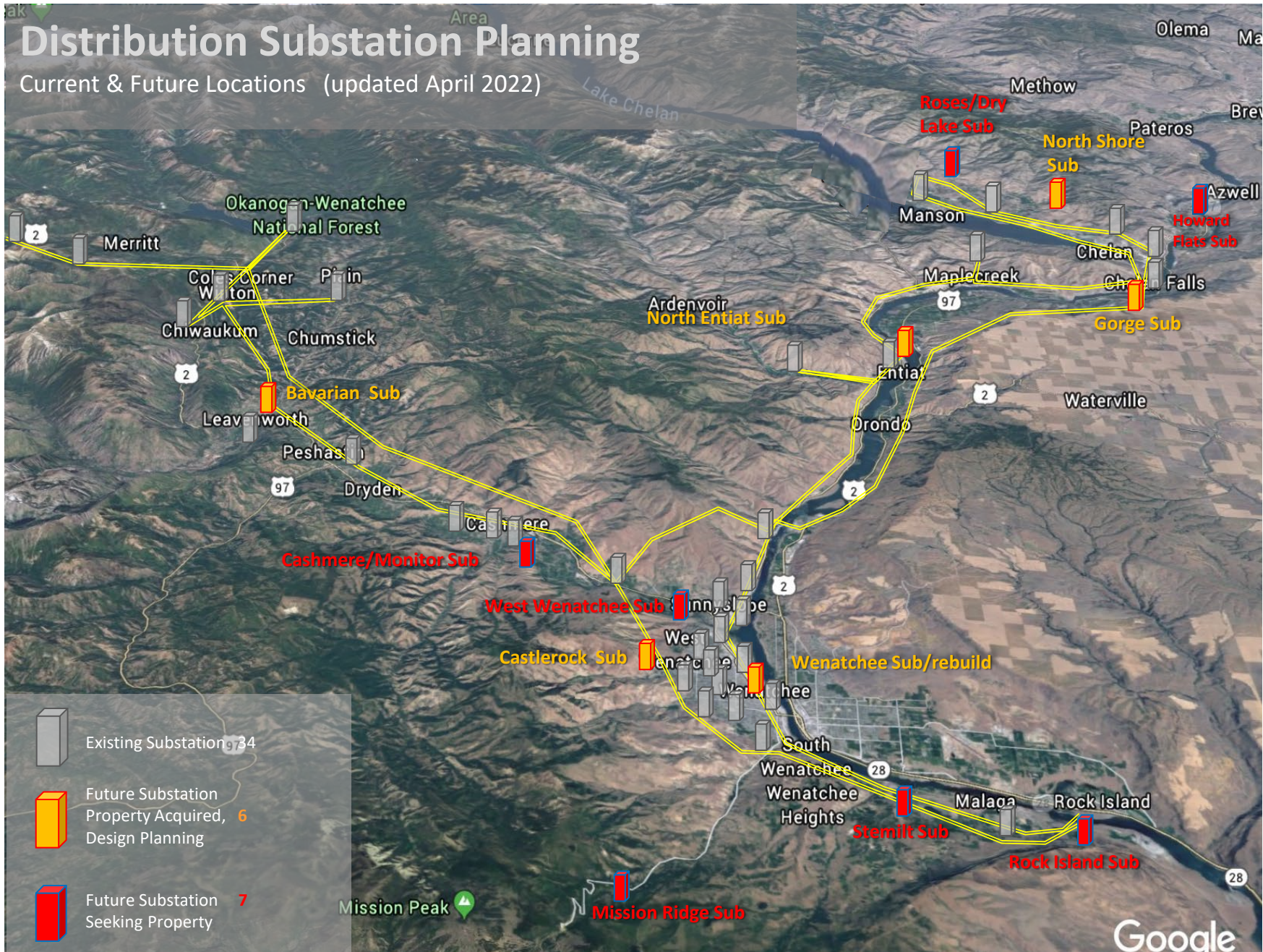
(8) of 34 stations at or above 90% loading

(26) of 34 stations at or above 50% loading

- Ensures distribution system reliability for all customers
- Provide system capacity to meet the demands of local growth and development
- Peak demand (generally winter peaks) drive substation build schedule
- Peak demand is typically 2x greater than average energy

# Distribution Substation Planning

Current & Future Locations (updated April 2022)



Google



CHELAN COUNTY

# Chelan PUD Substation Planning

Updated Nov. 2022

Substation & Vicinity		Year needed <sup>1</sup>	Property Acquired	Transmission Required <sup>2</sup>
North Shore Substation	Lake Chelan, Henderson Road	2023	Yes	No
Bavarian Substation	Chumstick Highway Leavenworth	2023	Yes	Yes
Wenatchee Substation	Worthen Street Wenatchee	2024	Yes	No
Castlerock Substation	West Wenatchee, Castlerock Street	2024	Yes	Yes
West Wenatchee Substation	Western Foothills vicinity Wenatchee	2024	No	TBD
Gorge Substation	Gorge Road, South of Chelan City	2024	Yes	Yes
Stemilt Substation	Stemilt Creek/Malaga West Vicinity	2025	No	TBD
Roses Substation	North Shore Lake Chelan, Roses Lake	2025	No	TBD
Entiat North Substation	North End of Entiat City Hwy 97A	2027	Yes	No
Mission Ridge Substation	Mission Ridge / Upper Squilchuck	2030	No	Yes
Cashmere East Substation	Cashmere East / Monitor Vicinity	2030	No	TBD
Howard Flats Substation	Chelan Airport / Howard Flats Vicinity	2029	No	Yes
Rock Island Substation	Rock Island / Malaga East Vicinity	2030	No	TBD

Notes:

1. Year needed is based on forecasted capacity and is subject to change from year to year
2. Transmission required (Y/N) based on if significant new transmission corridors are required



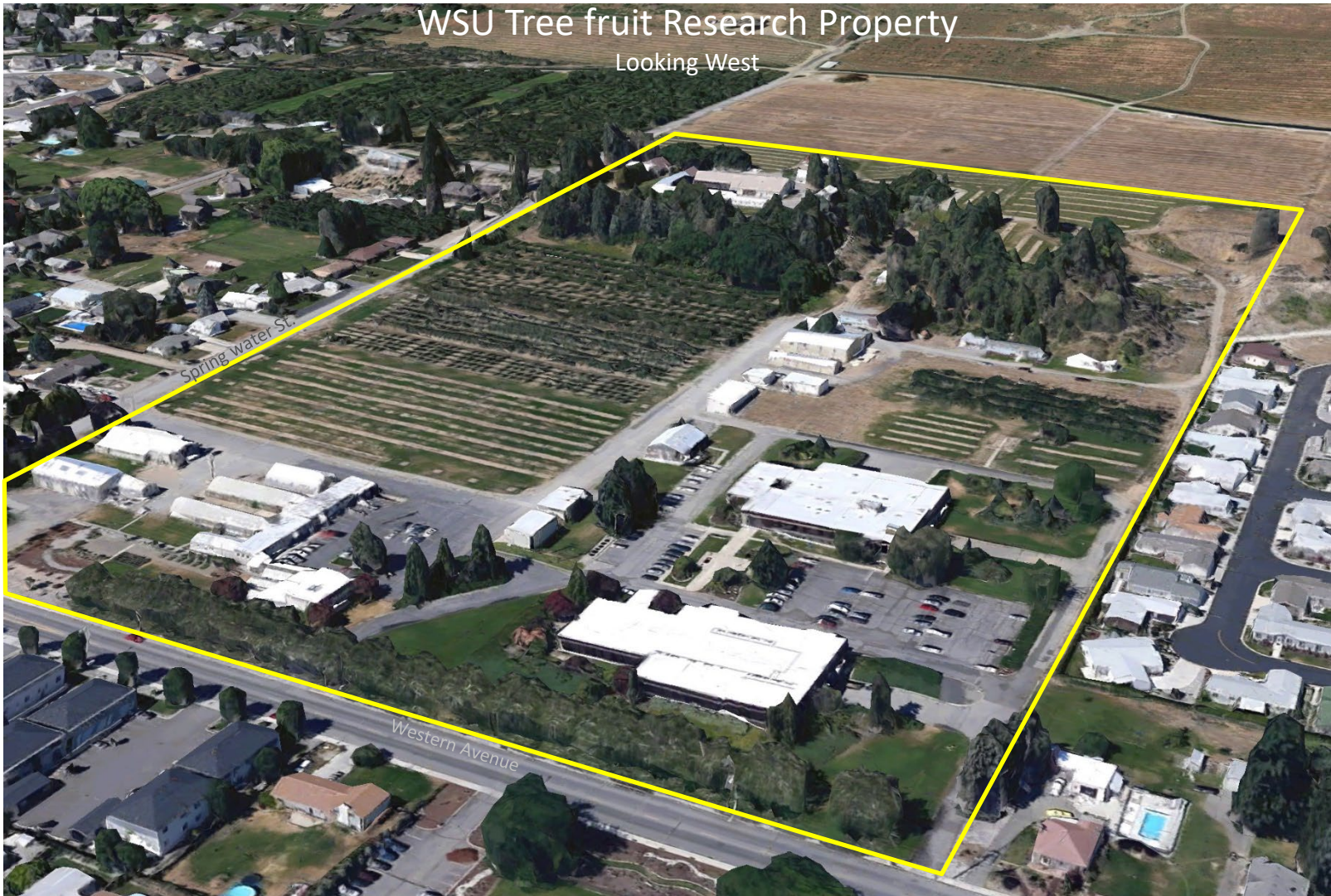
# Current Substation Build Activity

Station	Next Build Phase	Est. Phase Completion
North Shore	Construction	Q2 - 2023
Leavenworth (Bavarian)	Outreach and civil design	Q4 - 2022
Wenatchee (upsized)	Finalize project plan	Q4 - 2022
Wenatchee Foothills	Siting and utility plans	Q3 - 2023
Malaga/Stemilt	Site property evaluations	Ongoing
Various Station Rehab	Miller, South Shore, Summit & Western	Ongoing

*Please note:*

- Schedules are subject to change (station build team is updating)
- See 2022 District Performance Plan for more details

# West Wenatchee Area Substation Siting





# Summary

- New multi-family residential construction remains steady.
- Forecasting 600 to 800 new residential services per year for the next 3 years consistent with historical numbers.
- West Wenatchee Substation property acquisition ramping up.
- Staying on course with the substation build plan ensures reliability for existing customers while introducing electrical system capacity for new development.
- Our Utility Services are positioned well to meet demands of growth in water, electric, wastewater and fiber.
- County wide planning efforts combined with advanced metering (AMI) data are improving our forecasting accuracy.
- The recalibration of retail load forecasts resulted in a reduction of approximately 10 aMW and a corresponding increase in estimated wholesale sales quantities



New Itron AMI meters – under testing

# Questions?

# New Developments

(3 year view housing units)

## SUPPLEMENTARY SLIDE

Leavenworth	=	337
Cashmere	=	64
Chelan	=	520
Wenatchee	=	1,845
Malaga/Mission	=	672
Entiat	=	150
		~ 3,588