



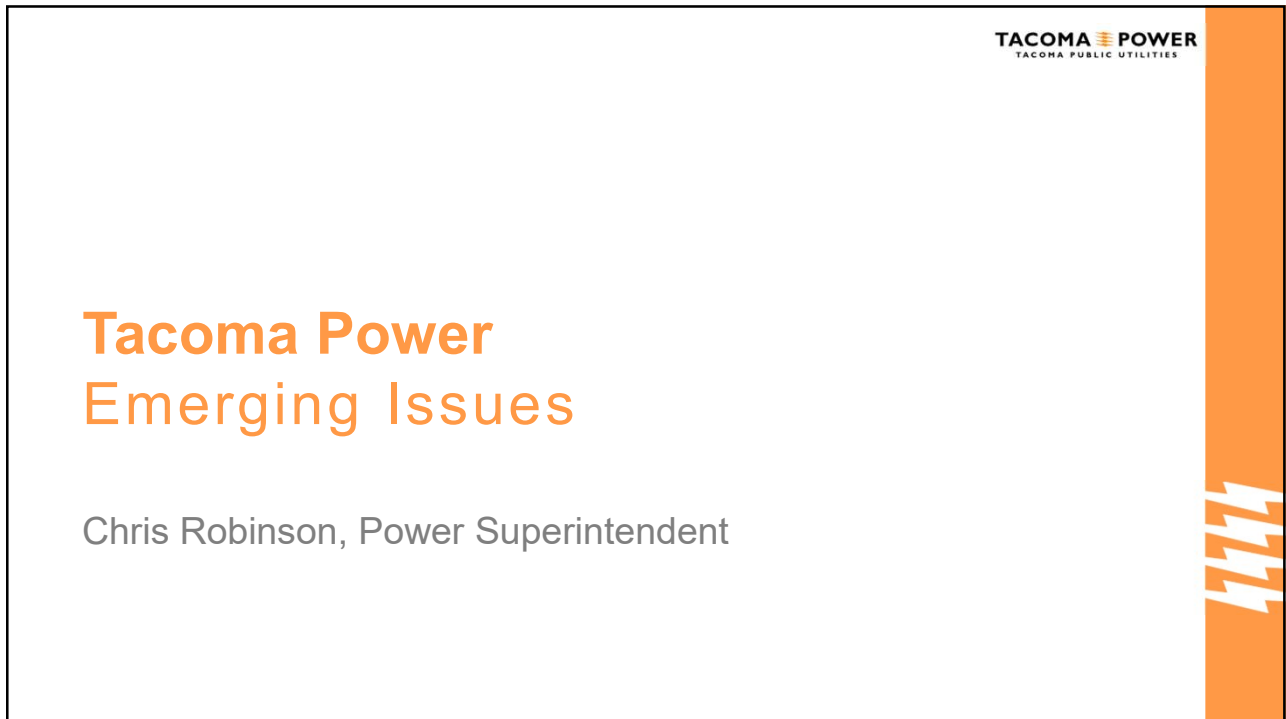
Serving our customers

Tacoma Public Utilities Emerging Issues

Joint City Council/Public Utility Board Study Session
May 21, 2024




1



TACOMA POWER
TACOMA PUBLIC UTILITIES

Tacoma Power Emerging Issues

Chris Robinson, Power Superintendent

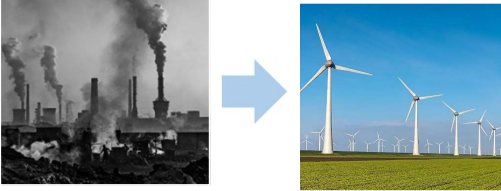


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Climate Change Trifecta

TACOMA POWER
TACOMA PUBLIC UTILITIES

Utility Sector Energy Transition



Electrification



Extreme Weather Events, Wildfire



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3

The Energy Transition

TACOMA POWER
TACOMA PUBLIC UTILITIES

Coal



Natural Gas



Batteries



Hydro



Wind



Solar



Advanced Nuclear



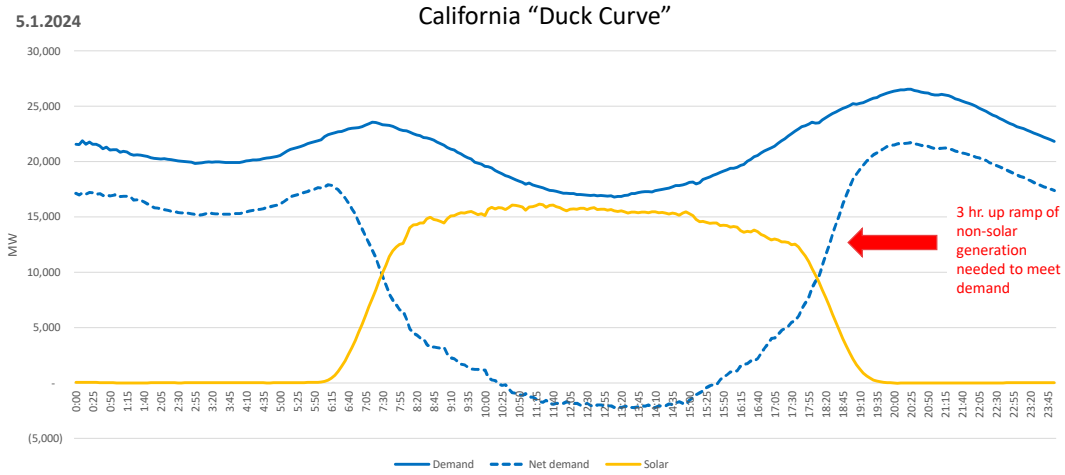
Conservation & DSM



4

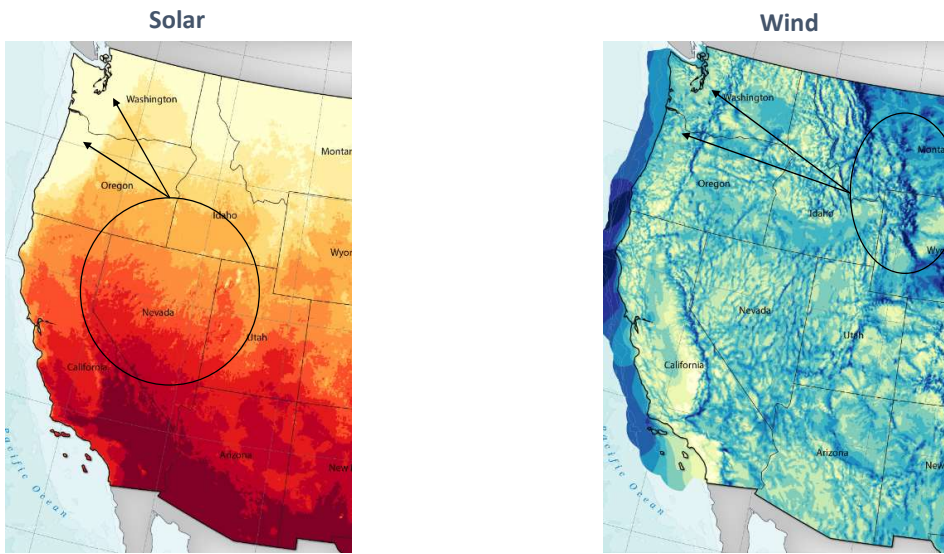
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Operational Challenges: Solar Only Generates Power when the Sun is Shining



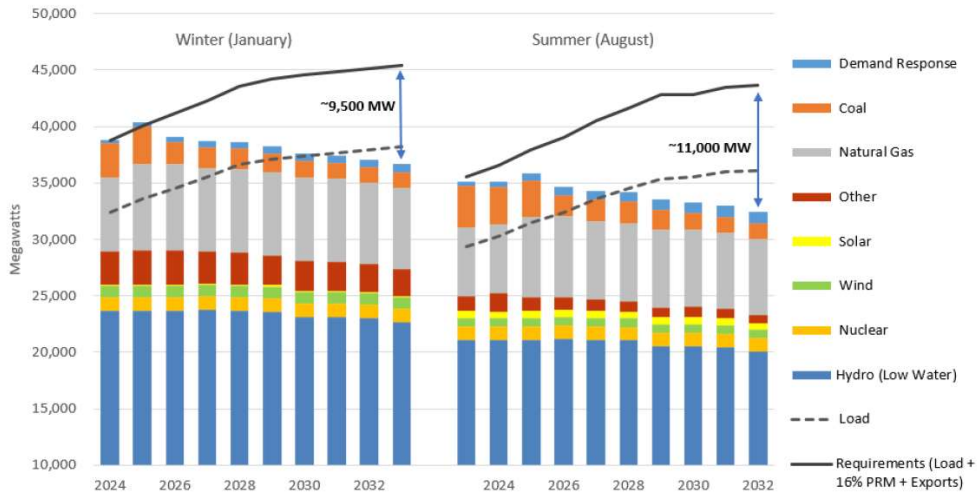
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Transmission Challenges: Best Renewable Potential Far from Population Centers



6

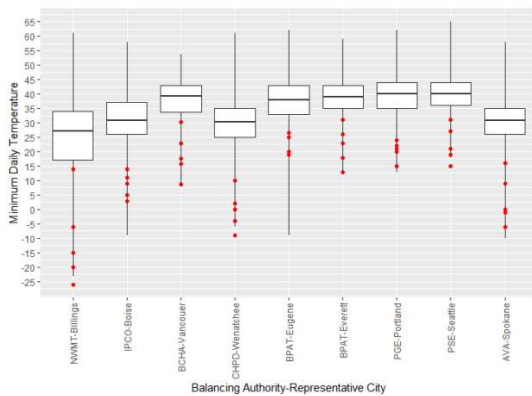
NW Region Electric Demand is Increasing but Generating Capacity is Decreasing



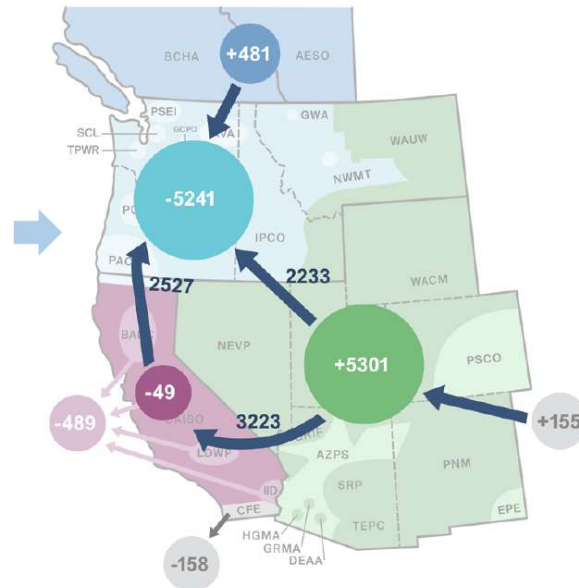
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7

Reliability Risk: January 2024 Cold Weather Event



Vertical lines indicate minimum/maximum range – box indicates the two quartiles [about half the data] around the bold horizontal median line



8

8

Wildfire Risks Mitigation Requiring Huge Investments

➤ California utilities proposed **over \$26 billion for 2023-2025** in wildfire mitigation investments

- Pacific Gas & Electric: \$18 billion
- Southern Cal Edison: \$6 billion
- San Diego Gas & Electric: \$2 billion
- PacifiCorp: \$307 million

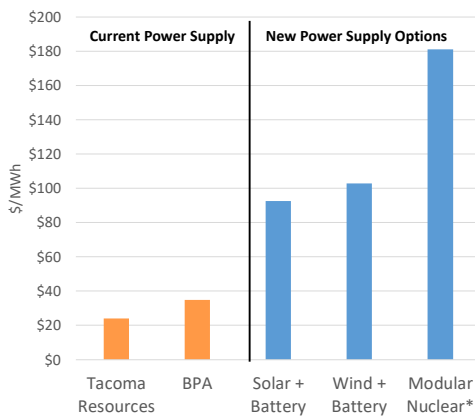


➤ 2 largest Oregon utilities requesting \$185M investments in the coming year for wildfire projects

➤ During 2023 more than half the WA fires on DNR lands were in Western WA

Big Cost Increases for...Everything

1. New Power Supply Costs

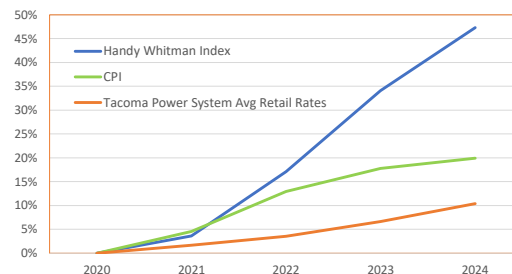


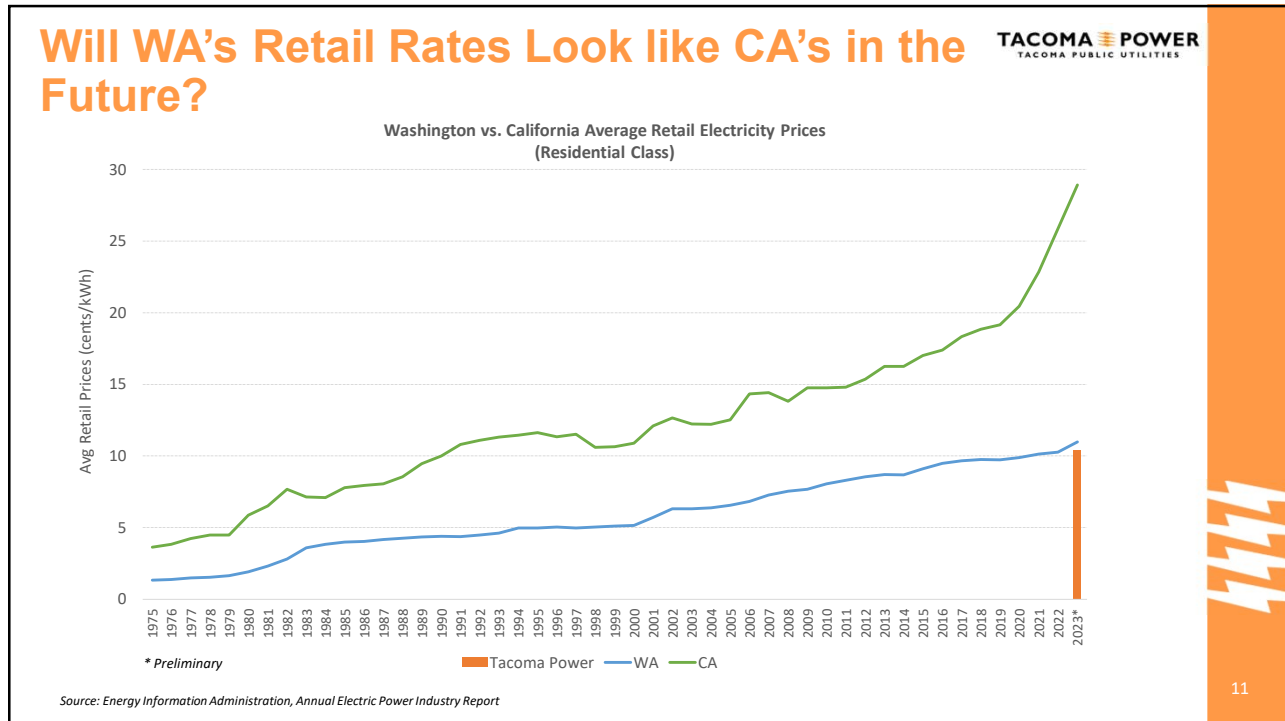
*New Emerging Technology

2. Transmission and Distribution Equipment

Item	2019 to 2023
Transformers	280%
Multiplex Wire	137%
Utility Poles	48%


3. Construction Costs including Labor





11

Recent Peer Utility Rate Increases



UTILITY	RATE INCREASE %	
	2024	2025*
Pacific Gas & Electric (PG&E)	18.5%	TBD
Portland General Electric	17.0%	7.4%
Clark PUD	14.0%	TBD
Pacific Power	12.9%	16.9%
Avista	12.6%	7.8%
Seattle City Light	9.5%	5.0%
Snohomish PUD	5.8%	TBD
Tacoma Power	3.5%	TBD
Grant PUD	3.5%	TBD
Chelan PUD	3.0%	TBD
Puget Sound Energy**	1.7%	17.0%

* Proposed **8.7% in 2023

CPUC unanimously approves new PG&E rate hike to cover wildfire mitigation projects

After raising rates by 17% in 2024, PGE requests further hikes for 2025

Clark Public Utilities rates will jump 14.5 percent as of March 1

Pacific Power Increases Rates, Citing Rising Costs And Wildfire Mitigation

Avista Utilities set to raise Washington electricity rates

Weather challenges, demand increases, and rising costs result in changes to customer electricity rates

City Light rates in Seattle to increase by nearly 10% next year

Chelan PUD customers face five years of 3% rate increases

Puget Sound Energy proposes hefty rate hikes to pay for hydro and wind power

12

Trends Unique to Tacoma Power

1. Hydro Relicensing (3 of 4 hydro projects)
2. Dam Safety Program (seismic remediation projects at Cowlitz and Cushman)
3. SAP Now! (Tacoma Power's share is the largest of all department allocations, uncertainty in costs)
4. Grid Modernization (grid upgrades for improved efficiency and resiliency)
5. Power Supply Contract (new Bonneville Power Supply contract in 2028)
6. Home in Tacoma Residential Density Initiative

Total estimated expense for items 1 through 4 is over \$300 million over the next 10 years

13

13

Solutions & Strategies

Overall Industry

- ✓ Retain current federal hydro production assets
- ✓ Develop additional generating capacity
- ✓ Transmission siting and permitting reforms
- ✓ Further development of organized markets (and maybe an RTO).
- ✓ Generating technology advancement
- ✓ Demand side management

Tacoma Power

- ✓ Maintain adequate financial reserves (add to our rate stabilization fund when possible)
- ✓ Maintain AA ratings
- ✓ Steady retail rate increases
- ✓ Grid modernization (prepare for the future)
- ✓ Wildfire Mitigation Strategy
- ✓ Obtain the best BPA contract terms possible
- ✓ Support development of organized markets
- ✓ Mitigate rate increases for income-constrained customers

14

14

For more info, check out the... Seattle Times Climate Lab Series



"Western Washington is one of the worst places in the contiguous United States for solar energy. Perhaps even the worst place"

Seattle Times
May 13, 2024 at 6:00 am

[Solar projects keep sprouting. Can this work in overcast Seattle?](#)

We need renewable power to clean up the grid, slow climate change and meet emission reduction goals. But is solar in Western Washington a worthwhile...

"In Washington, power line fires have destroyed towns and homes. During the Labor Day fires of 2020, five homes were destroyed in Pierce County after a tree fell onto a PSE power line"

Seattle Times
May 5, 2024 at 6:00 am

[PSE may use a 'tool of last resort' as WA wildfire season nears](#)

PSE joins utilities across the Western U.S. that are turning to blackouts to prevent wildfires sparked by powerlines.

"At risk is the affordability and reliability of the region's power."

Seattle Times
May 2, 2024 at 6:00 am
[Surge in electricity demand poses tricky path ahead for PNW utilities, report shows](#)

Without new power sources, transmission lines and battery storage, the region's long-standing and reliable energy system could falter when people need electricity the most.

Tacoma Water Emerging Issues

Scott Dewhirst, Water Superintendent



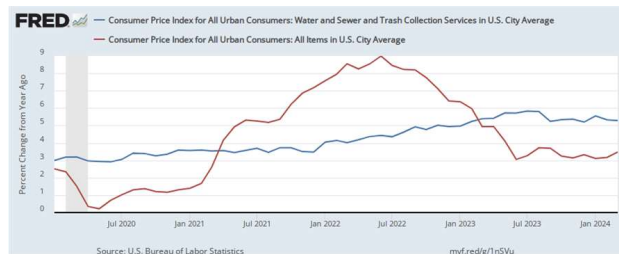
Summary of Water Emerging Issues

- Ongoing impacts from the WestRock Tacoma mill closure
- Employee experience
 - Shifting expectations: work hours; overtime; use of tools/technology; policies
 - Employee safety in the community
- Regulatory mandates: PFAS, Lead and Copper Rule, spoils disposal
- Enterprise-wide technology projects
- Risks to the Water system:
 - Seismic risk/resiliency
 - Climate change impacts to supply availability and forest health
- HHD funding from Federal sources and our cost shares
- Infrastructure cost increase and construction inflation
- Innovative wholesale pricing and additional water sales opportunities

Infrastructure Cost Increases

Construction and Other Inflation

The utility generally faces different inflationary pressures than consumers. While customers primarily observe the Consumer Price Index (CPI) as an indicator for inflation, the Construction Cost Index (CCI) is a better indicator for a capital-intensive utility. Long-term financial planning allows the utility to weather periods of high costs in the short term and spread the impact over time.



Ongoing Impacts

The rate of inflation continues to level off, however cost decreases are unlikely, resulting in a new, higher 'normal' cost environment. Our Capital Improvement Plan (CIP) is considerably higher in part due to this higher escalation.

Interest rates for the next several years are expected to be near their highest levels in over a decade, resulting in higher financing costs for our upcoming capital plan.



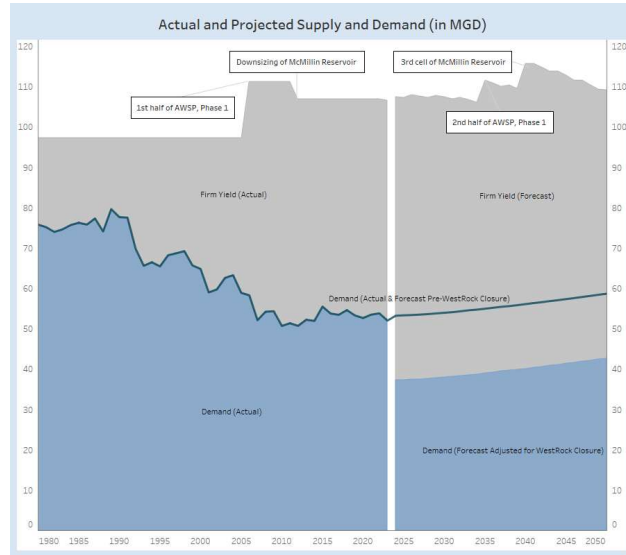
ENR publishes both a Construction Cost Index and Building Cost Index that are widely used in the construction industry. The Construction Cost Index (CCI) tracks 200 hours of common labor at the 20-city average of common labor rates, plus 25 cwt of standard structural steel shapes at the mill price prior to 1996 and the fabricated 20-city price from 1996, plus 1,128 tons of portland cement at the 20-city price, plus 1,088 board ft.

Supply and Market Development

We project our system demand and our supply (Firm Yield) to remain relatively constant. We anticipate this will provide us with an opportunity for market development to serve additional regional water customers.

Additionally, we re-inherited supply back into our water system due to the closure of the WestRock Tacoma mill.

The chart on the right shows our actual supply and demand in average millions of gallons per day from 1990–2021, and our forecast for supply and demand from 2022–2032. Please note there may be days where our system demand exceeds our firm yield due to weather and environmental considerations.



Wholesale Opportunities

Innovative, market-based pricing options may help increase delivery to current customers. (Firgrove, Valley Water)

Additionally, we are actively pursuing potential new water sales contracts to increase revenue and keep rates as low as is responsible. (Cascade, Covington, JBLM)

Serving our customers

Customer Experience and External Affairs

LaTasha Wortham, Deputy Director

Customer Focus

Implement one, unified customer experience strategy to provide equitable service and stakeholder engagement



21

Our NORTH STAR



Our customers and communities experience compassion and equity in action so they are understood, valued, and empowered.

We deliver this through:

- Knowledgeable, empathetic advocacy
- Consistent, transparent, and competent support that provides the right solution
- Understanding, dialogue, and support that reflect our data-driven approach to understanding their current and future expectations

22