

Guiding Principle 14 Update

November 13, 2024

GP14: Resource Planning



GP14 Resource Planning



Tacoma Public Utilities' highest priority is providing safe and reliable power, water, and rail services that meet or exceed customer needs over the long term (20 to 60 years).

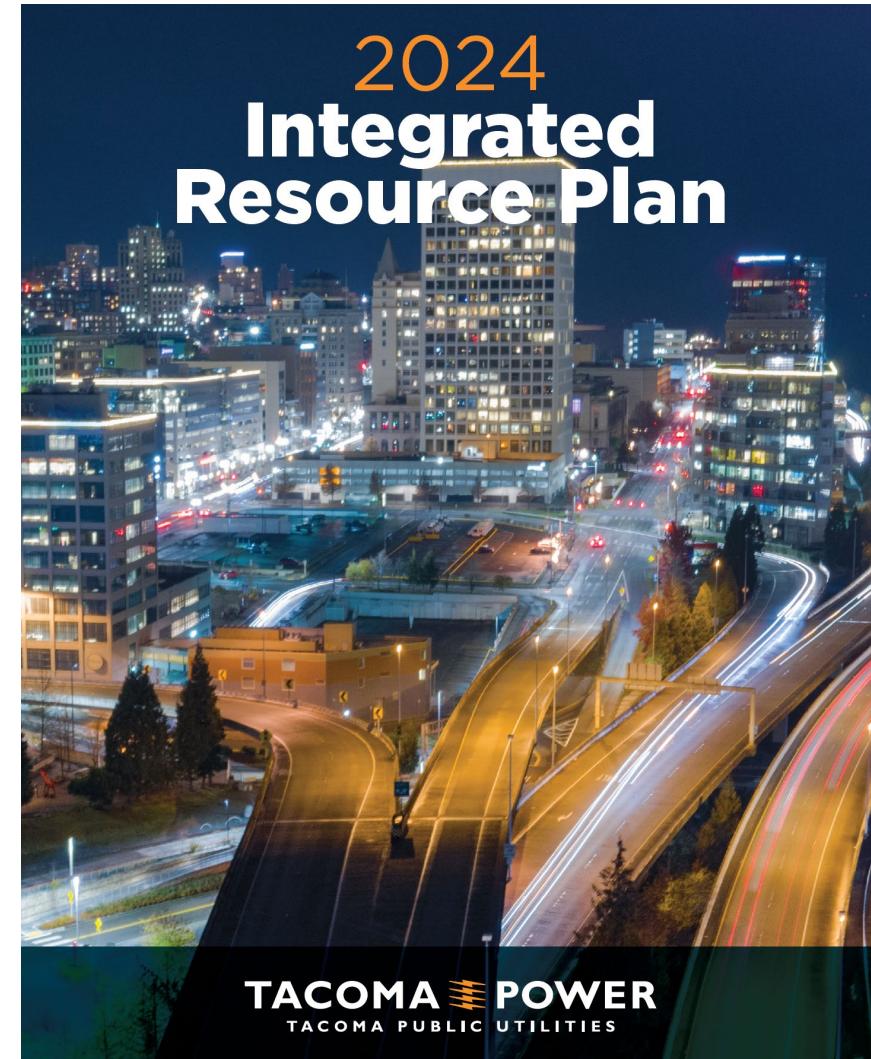


Power Resource Planning



Power Integrated Resource Plan (IRP)

- Two-year cadence, per state law (RCW 19.280)
- 20-year outlook
- Public input process accompanies each IRP
- Last IRP completed August 2024



Reminder of Recommended Resource Strategy

Continue to purchase Slice/Block product if possible

- Puts us in the best summer energy position
- Puts us in the best peaking capacity position
- Lowest cost

Make incremental investments in existing resource infrastructure where cost-effective

- Explore pumped storage at Cowlitz River Project
- Explore incremental capacity additions at existing dams during generator rebuilds
- Help customers save even more energy (conservation)
- Help customers shift when they use energy (demand response)

Other

- Actively track “risk factors”
- Rely on wholesale market for occasional summer energy needs in medium run and evaluate continuing this strategy in long-run
- Explore opportunities to make operational adjustments to maximize winter capacity
- Explore collaborative opportunities with retail customers to add low-cost resources

Action Plan: Supply-side resources

Next 2 years

- Update BPA analysis and sign new contract
- Continue to seek FERC authorization to restore Riffe Lake elevation
- Conduct Cowlitz pumped storage feasibility and cost assessment provided funding mechanism remains in place after November election
- Evaluate opportunities to add incremental capacity to existing generators during scheduled rebuilds

Major updates since August

**BPA will be offering
Slice/Block product**

**Study session update is
scheduled for January 8**

**We are currently
reviewing vendor
proposals**

Collaboration with customers

Next 2 years

Major updates since August

- **Conservation:** Acquire 2-year conservation target of 55,992 MWh set in 2024-2043 conservation potential assessment (CPA)
- **Demand response (DR):** Acquire 2 MW of demand response. Continue piloting demand response opportunities & begin to scale up those found to be successful and cost-effective in pilots
- **Other opportunities:** Explore opportunities to collaborate with retail customers to add resources at a low cost to the utility



As of October 2024, we are forecasted to meet 109% of the 2024-2025 conservation target of 55,992 MWh



Tacoma Power has identified priority DR offerings to pilot

Other important actions

Next 2 years

- Develop a plan to track progress of electrification and data center load growth and begin tracking
- Evaluate feasibility of continuing to rely on wholesale market for occasional summer energy needs in long-run
- Explore opportunities to make operational adjustments to maximize winter capacity

Major updates since August

**No major updates yet.
These efforts are
planned for 2025.**

What's next?

2025

Sign BPA contract by end of year

Create four-year Clean Energy Implementation Plan (CEIP) due

2026

Next IRP due September 2026

Water Resource Planning

Water Integrated Resource Plan (IRP)

- Not required by law, update our IRP every 6 years
 - Last IRP completed in 2018
 - Work is underway for 2024 IRP (Final at end of 2024)
 - Outlook to 2070



Public Engagement

- Public Advisory Committee (4 meetings, 3 completed)
- Solicit informed perspectives on a number of topics including groundwater, lowering future peak demands, climate change, and others
- Increase awareness of current and future management strategies
- Develop key relationships for ongoing public engagement

Working-on from previous IRP

Additional Water Supply Project (AWSP) Phase 1 (Howard Hanson Fish Passage)

- **On track.** Will be on-line in 2031.

Partnering with Corps on Forecast iNformed Reservoir Operations (FIRO)

- **In progress.** Deployed Weather Monitoring equipment. Work Plan approved in September.

Exploring use of groundwater for current and future demands

- **In progress.** Many changes due to PFAS, and demand changes such as loss of WestRock.

Improving and developing new tools from the Yield model

- **In progress.** Presentation tools for both short-term and long-term modeling being created and refreshed.

Continuing to work towards Conservation Goal established in 2018 IRP

- **On track.** 10 year goal.

Key Objectives for 2024 IRP

1 Update Climate change information in model

2 Fold-in new Tacoma Water Demand forecasts

3 Emphasis on groundwater, including PFAS

4 Incorporate loss of WestRock demand into plans

5 Modify Wells Master Plan

6 Changes to Presentation of results

Tentative schedule for 2024 IRP

Q1 2024

- Begin work

Early 2024

- Technical work for Groundwater evaluation
 - Quantity
 - PFAS

Mid 2024

- Updating of Climate Change portion of Yield model

Oct-Nov 2024

- Draft report
- Check-in with Utility Board
- Check-in with Utility Board

Dec 2024+

- Finalize IRP
- Board Approval (January mtg)

3 Public Advisory Committee Meetings Completed, 4th will be in 1st week of December

Rail Resource Planning

Areas of focus for Rail: Locomotives

Locomotive Fleet

	Active Project			Intermediate		Long Term				Recently Repowered				
TMBL #	4001 BEL-1	4002 BEL-2	2100 BEL-3 & CD	3801 BP-CD	3802 BP-CD	1521 CRISI 2024	1522 CRISI 2024	1523 CRISI 2024	1524 CRISI 2024	2200	2201	2316	1525	1526
Builder	EMD	EMD	NRE	EMD	EMD	EMD	EMD	EMD	EMD	EMD	EMD	EMD	EMD	EMD
Tier	0	0	2	0	0	0	0	0	0	2	2	3	0+	0+
Model	GP-40-M	GP-40-M	3GS21B-DE	GP 38-2	GP 38-2	MP15AC	MP15AC	MP15AC	MP15AC	GP-22eco	GP-22eco	GP-23eco	MP15AC	MP15AC
HP	2300	2300	2100	2000	2000	1500	1500	1500	1500	2000	2000	2320	1500	1500
Engine Type	645-E-3	645-E-3	(3) QSK-19	645 E	645 E	645E	645E	645E	645E	8-710eco	8-710eco	8-710G3	645E	645E
Yr Blt	1965	1965	2011	1979	1979	1982	1982	1982	1982	2011	2011	2016	2021	2021

Active Locomotive Projects

Battery-Electric Locomotive Project A: Funding awarded \$12,740,000

- Puget Sound Clean Air Agency as Co-applicant for Puget Sound Regional Council (PSRC) funding.
 - \$3,645,000 awarded
- U.S. DOT Consolidated Rail Infrastructure and Safety Improvement (CRISI) program.
 - \$4,095,000 awarded
- Washington State appropriation from Carbon Emissions Reduction Account.
 - \$5,000,000 awarded
- Tacoma Rail to cover costs if they exceed the partnership funding.

Battery-Electric Locomotive Project B:

- Department of Ecology – VW Settlement Fund
 - \$3,300,000 distribution
- Tacoma Rail to cover costs if they exceed the partnership funding.

Intermediate & Long Term

- Intermediate
 - Three potential consent decree locomotives
 - NDA's on file
- Long Term
 - Recently awarded
 - Four Tier 4 Diesel Locomotive Repowers
 - U.S. DOT Consolidated Rail Infrastructure & Safety Improvement (CRISI)
 - 2027/2028 biennium budget
 - \$8,316,000 awarded
 - \$10,800,000 project total

Other Areas of Focus for Rail

Oil Spill Contingency Plan - Regulatory

- 5-year renewal obtained November 3, 2023
- Worst Case Scenario Drill conducted October 10, 2024

South Intermodal Yard (SIM)

- Current lease with the Port set to expire in 2025
- Interested parties:
 - Port of Tacoma, Class I railroads, SSA Marine, and ILWU Local 23 (Longshore Labor)

Futures - Regionalization

- Trains to & from the BNSF mainline
 - Pilot program underway
- Port of Tacoma & Columbia Group activities
- Considerations of expansion into King County

Refresh Strategic Plan: 2026 – 2030

- Development of upward mobility plan to establish hiring pathways
- Succession planning