Priest Rapids Dam Turbine Generator Upgrade

Wicket Gate Servomotor Rehabilitation

Contract #230-4249; Change Order #26

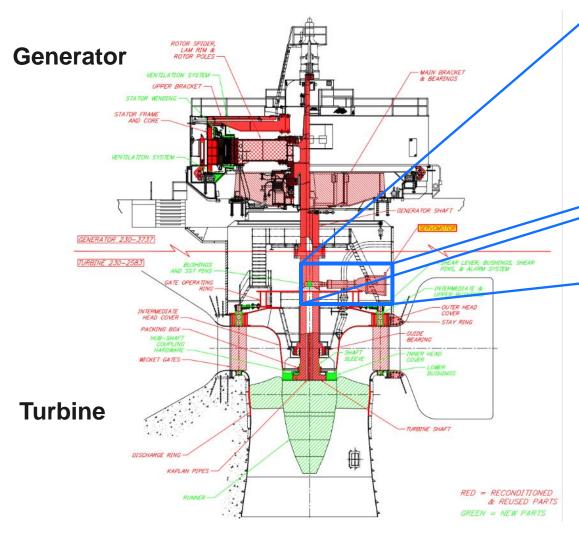
Mark Beaulieu, Grant PUD, Mechanical Engineer



Powering our way of life.

Wicket Gate Servomotor Assemblies

Wicket Gate Servomotor Assembly

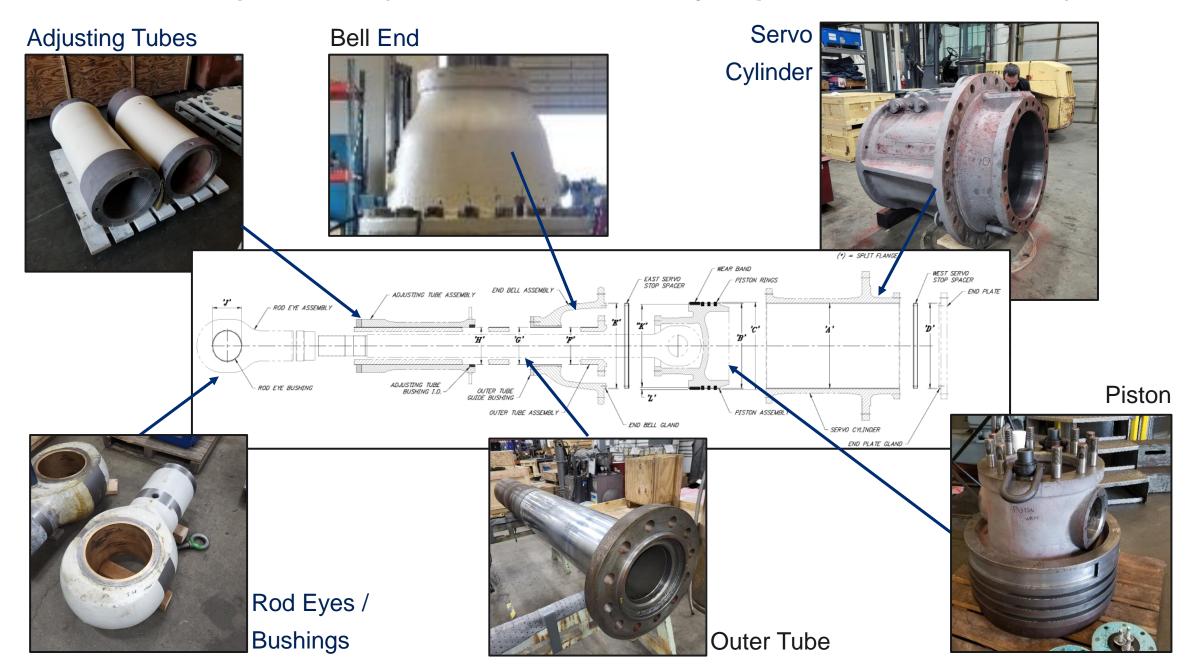


Turbine / Generator Section View





Base Contract Scope of Work (Servomotor Disassembly/Inspection/Lead Abatement)

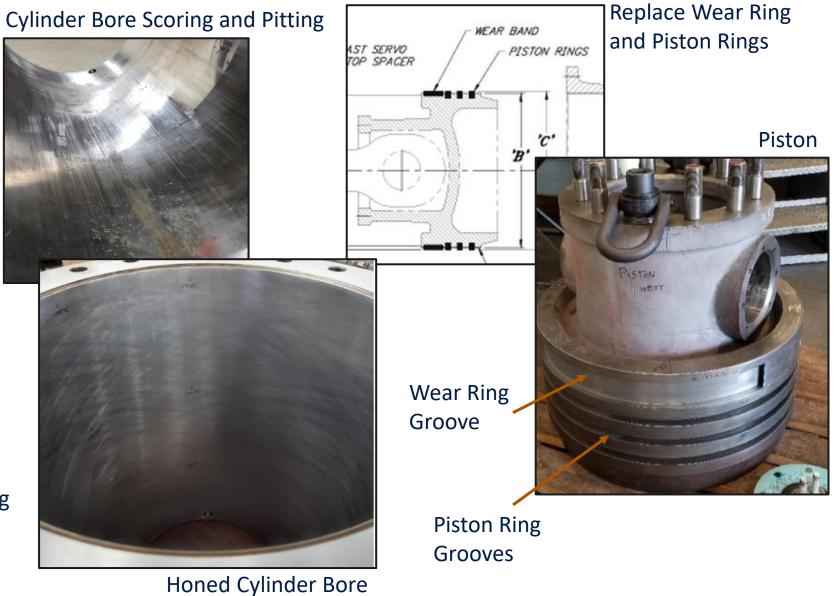


Base Contract Scope of Work (Honing/Machining/Polishing/Wear Part Replacement)

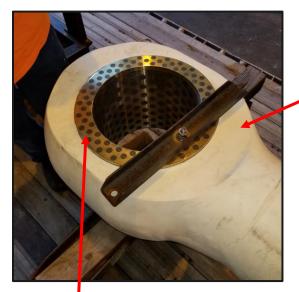




- Replace Outer Tube Guide Bushing
- Weld build-up and machine the Cylinder End Plate and Bell End Gland.
- Rod Eye Bushing (Original Design)



Change Order 26 Scope of Work



Improved Rod Eye Bushing

Additional modifications to existing Rod Eyes to accommodate improved bushing design and the new Superbolt tensioners.

Link Rod





New Link Rods (Machined)



Superbolt

Tensioner

Change Order 26 Scope of Work

Machine Mounting Surface For Position Sensor (East Servo Only)

Machine O-ring Grooves

NDE
Inspections
Performed
Under
Separate
Contract



Install Tapped Holes For Jacking Screws



Not Pictured:

• Stroke Limiting Spacers set the Servo stroke to 32.5"

Excavation Grinding and Weld Repair
Of NDE Crack Indications

Paint, Final Assembly, and Pressure Test (Base Contract Scope)

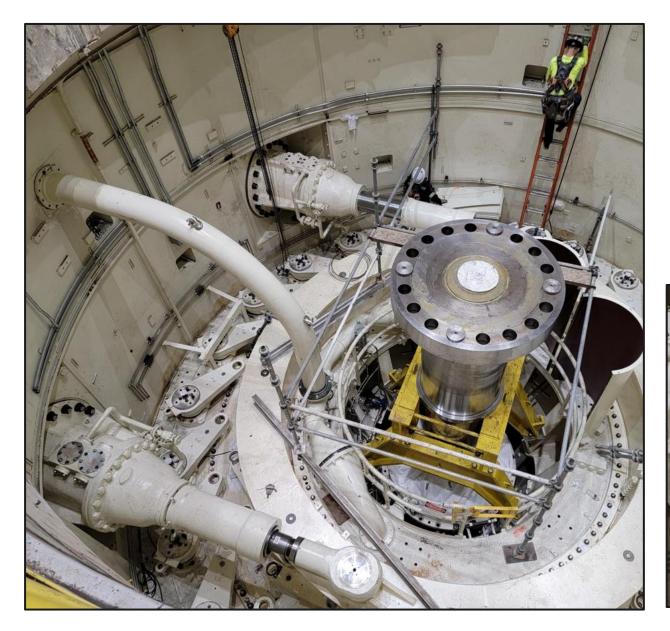
East Servomotor



West Servomotor

Pressure Test Ports





Questions?





Powering our way of life.

EPMO Power Delivery Projects Design Build 2 Update - February 2025

Table of Contents



Design-Build vs Bid-Build

Progress Status and Timeline

Accomplishments

GMP4 Overview

Accomplishments



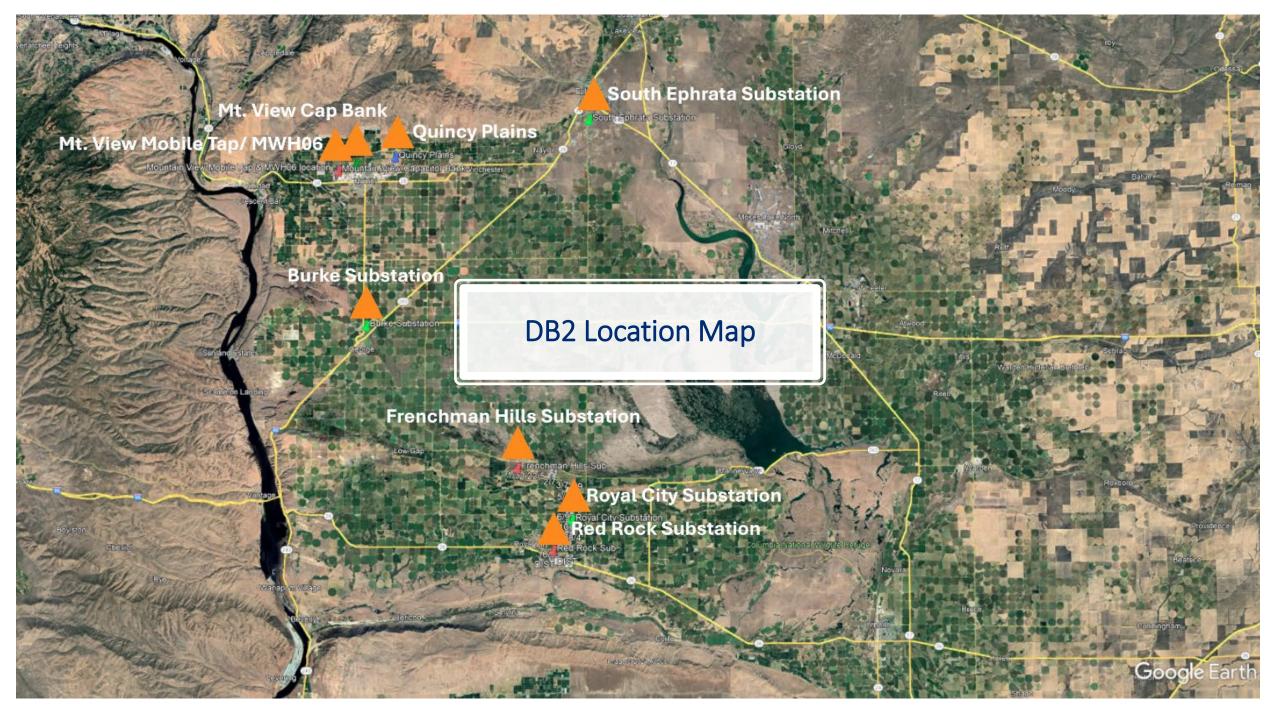
Design-Build vs Bid-Build



Design-Bid-Build: Keeps the roles of designer and contractor separate. The owner is responsible for the design and creating a bid package. Then the owner develops and executes a labor contract for construction.



Design-Build: Combines the roles of designer and contractor into a single entity. The builder creates design drawings and builds the project. Design and construction is in parallel.

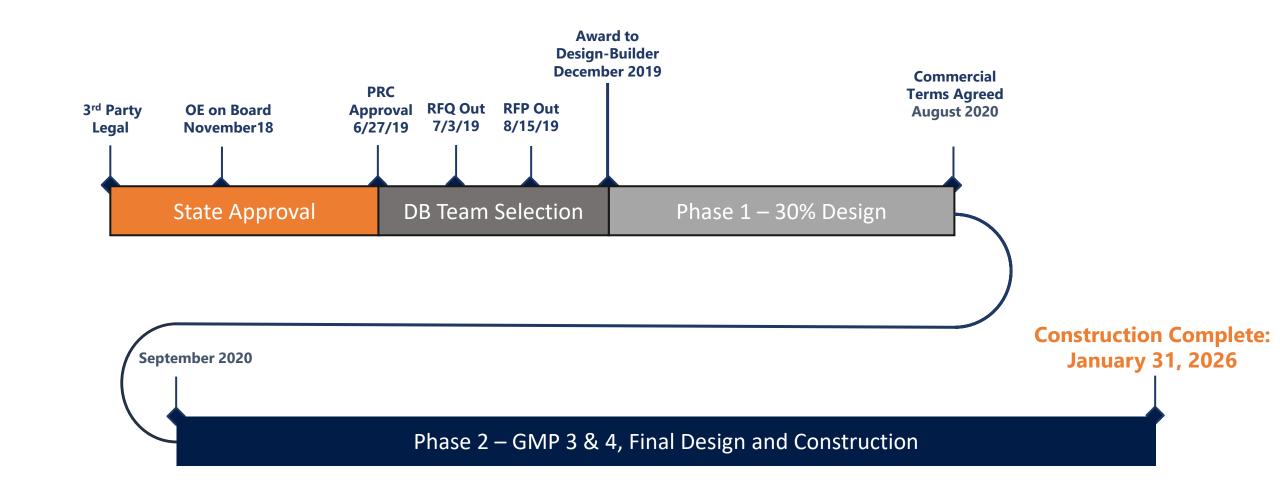




Design Build 2 Program Status

		Project Progress		S			
No.	Project Site	25%	50%	75%	100%	Current Design, Procurement and Construction	Energize Date
1.0	Quincy Plains Substation				100%	Energized	June 28, 2021
2.0	Burke Substation				100%	Energized	March 28, 2022
3.0A	Mountain View Mobile Tap				100%	Energized	May 8, 2021
10.0	Royal City Substation				100%	Energized	January 06, 2023
4.0	Baird Springs Line Up 1 and 2				00/	1 st Line Up energized	September 12, 2024
4.0					95%	2 nd Line Up energization pending customer need by date and T&C	TBD
3.0	MT View Cap Bank			75%		Remaining SOW transferred to QTEP	TBD
6.0	Frenchman Hill Substation				100%	Contracted scope completed November 26, 2024	TBD
8.0	South Ephrata Substation & Ring Bus			65%		In Construction	Q4 2025
3.0B	Mountain View Distribution (MWH06)	15%				Civil 100%. Electrical 60%. Material procurement and construction to be funded by GMP4	Q1 2026
5.0	Red Rock Substation			85%		In construction	TBD
7.0	Red Rock Transmission		50%			In construction	TBD

Project Timeline



Recent Accomplishments



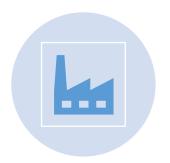
Resumed construction at South Ephrata Substation



Construction kick-off at Red Rock Transmission Line



Replacement transformer received for Red Rock Substation and resumed construction



Providing load to large industrial customer from Baird Springs Substation

GMP4 Overview

- This will increase the contract price from \$104,609,829.15 to \$110,316,381.25
- Extends completion date from March 31, 2025 to January 31, 2026
- Requesting Commission approval of Change Order No. 13 to Contract 130-09724 with Quanta Infrastructure Solutions Group, LLC. in the amount of \$5,706,552.10 on February 28, 2025

Cost Revision

	Current Budget	Change Order No.13	Revised Total Cost
QISG - TOTAL COST	\$104,609,829	\$5,706,552	\$110,316,381
0.0 - General Conditions - Not to Exceed	\$21,930,147	\$2,616,826	\$24,546,972
1.0 - Quincy Plains Substation	\$1,635,687	N/A	\$1,635,687
2.0 - Burke Substation Rebuild	\$6,579,929	\$10,830	\$6,590,759
3.0 - Mountain View Cap Bank	\$16,005,025	(\$1,992,140)	\$14,012,885
3.0A – Mountain View Mobile Tap	\$2,682,352	N/A	\$2,682,352
3.0B – Mountain View Distribution (MWH06)	\$1,014,251	\$4,509,822	\$5,524,074
4.0 - Baird Springs Substation	\$10,369,731	\$12,010	\$10,381,741
5.0 - Red Rock Substation	\$6,661,965	\$8,789	\$6,670,754
6.0 - Frenchman Hill Substation	\$1,753,333	\$15,234	\$1,768,567
7.0 - Red Rock Transmission Line	\$21,081,623	\$315,692	\$21,397,315
8.0 - South Ephrata Substation	\$8,871,971	\$198,816	\$9,070,787
9.0 - South Ephrata Ring Bus	\$62,478	N/A	\$62,478
10.0 - Royal City Substation	\$5,961,337	\$10,673	\$5,972,010



QISG GMP 4 Amendment - \$5.7 Million, Q1 2025:

- Procurement and construction of MWH06
- Revision of lighting circuit scope at Frenchman Hills Substation
- Red Rock Transmission Line construction
- South Ephrata Substation and Ring Bus distribution rack install
- As-Built Drawing Records Update

Mountain View Distribution (MWH06): \$4,509,822



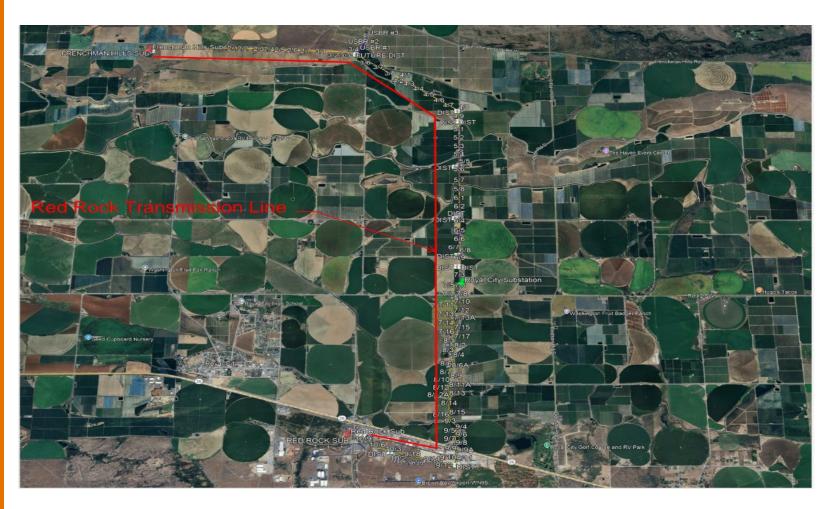
 Procure material and construct two 41 MVA distribution transformer lineups to replace mobile transformers located at Mountain View Substation

Frenchman Hills Substation: \$15,234



Revised lighting circuit installation

Red Rock Transmission Line: \$315,692



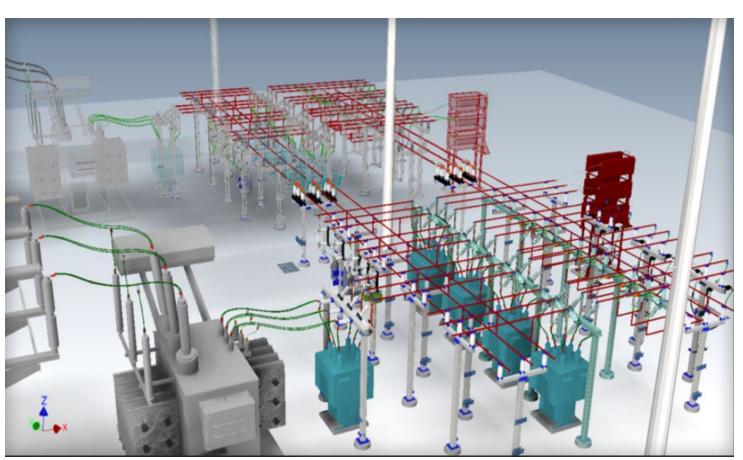
 Labor rate adjustment to complete construction in 2025

South Ephrata Substation & Ring Bus: \$198,816



- Potelco labor rate adjustment in 2025
- Tommer labor rate adjustment in 2025
- Complete design & material procurement
- Update as-builts to latest District substation drawing template
- Re-installation of the distribution rack

As-Built Drawings



Update station drawing templates for:

- Burke Substation
- Mountain View Substation
- Baird Springs Substation
- Red Rock Substation
- South Ephrata Substation
- Royal City Substation

Questions?



Thank You



QUARTERLY BUSINESS REVIEW

SafetyFebruary 2025



PD Safety Team Updates



Eric Johnson
Sr, Safety Coordinator/PD Lead



Danny Combs
Safety Coordinator

✓ PD Field Support



Jordan Rang
Safety Coordinator
/Contractor Support



Kristen Dorsey
Safety Coordinator
/Program and cultural support



PP Safety Team Updates



Nichole Bortle
Sr, Safety Coordinator/PP Lead



Iley Mace
Safety Coordinator
/PP Field Support



JohnPrice
Sr, Safety Coordinator
/Industrial Hygene Lead



Jessica Ziegler

Data Analysis

/Data coordination and support



Q4 Recap

Quarterly Goals

- Improve Key Performance Indicator tracking and reporting
 - Incorporate CI Team 6 improvements on the Job Site Review (JSR) Program
 into our monthly Safety Report. In addition to reporting additional data
 from JSRs Safety worked with the CI Team to make the data available to
 managers and supervisors.
 - Incorporate safety action item reportibg into the Condition Reporting system



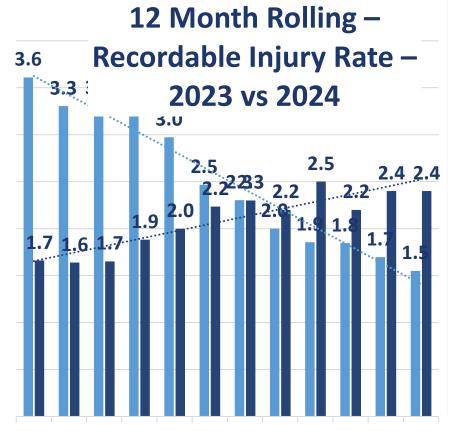
2024 TICR and EMR

Experience Modification Rate

The experience factor is calculated using the three-year period ending 18 months before the rates go into effect. The company's claim costs and reported hours are used to calculate the EMF.

0.74

State average is 1.0



Jan Feb Mar Apr May Jun Jul Aug Sept Oct Nov Dec



SAFETY

Q1 Outlook

Near-Term Plans

Support CI Team 7 efforts on a workplace fatigue safety program

 On 6/12/2025 - Together in Excellence: Safety, Teamwork, and Wellness



Long-Term Strategy

 Utilize Condition reporting data to select areas for improvement using Rapid Improvement Workshops in coordination with the Continuous Improvement Team.

 Work with the Safety Steering Team on Continuous Improvement Team 8 initiatives.



Commission Support: Key Asks

- Upcoming contracts, change orders, policy changes or decision points requiring Commission involvement:
 - Active participation in the Together in Excellence: Safety,
 Teamwork, and Wellness event on 6/12/2025.
 - Support for CI Team 8 program roll-out



Questions?



Thank you!





QBR Summary

Department Name:	Key Presenters:	Date:
Safety	Craig Bressan	02/11/2025

Presenters, please fill out the following information and provide it to Commissioners as a supplement to your presentation.

LAST QUARTER I	RECAP
Quarterly Goals	 Schedule and plan a combination Safety Day, Employee Appreciation Day and a Wellness Event for June of 2025 (Together in Excellence: Safety, Teamwork, and Wellness).
	 Release a tool to allow managers and supervisors to review JSRs for specific areas and teams.

NEAR-TERM PLANS (NEXT QUARTER)

- **Project Updates** Support CI Team 7 efforts on a workplace fatigue safety program
 - On 6/12/2025 Together in Excellence: Safety, Teamwork, and Wellness

anne atuata da la latati na anal analesta an the langua tanan analusan.
scuss strategic initiatives and projects on the longer-term roadmap:
Utilize Condition reporting data to select areas for improvement using Rapid Improvement Workshops in coordination with the Continuous Improvement Team. Work with the Safety Steering Team on Continuous Improvement Team 8 initiatives.

COMMISSIO	N SUPPORT: KEY ASKS
Specific Requests	 Upcoming contracts, change orders, policy changes or decision points requiring Commission involvement:
	 Active participation in the Together in Excellence: Safety, Teamwork, and Wellness event on 6/12/2025.
	Support for CI Team 8 program roll-out

Transportation

February 11th



Q4 Recap

Quarterly Goals

Goal 1: Maintain a 95% fleet availability.

Goal 2: Stand up the apprenticeship program. We hired 2 apprentices, and both will advance to Step 2 in March.



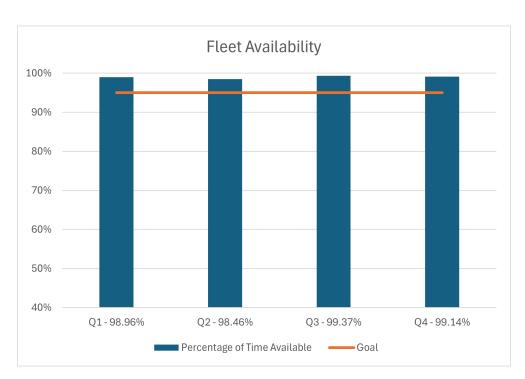
Q4 Recap

Key Metrics

Fleet Availability = # of hours vehicles need to be available for use ÷ # of hours vehicles were out of service for maintenance etc.

Insights

Overall 98.5% availability in 2024





Q1 Outlook

Near-Term Plans

- Re-evaluate capital replacement plan. It's been 5 years since the last update.
- Transitioning from SAMSARA GPS to AssetWORKS GPS. This project will include installation of new GPS units in 650 assets.
- In the final stages of updating the Vehicle/Asset Usage Policy to accommodate the addition of the Vehicle Safety Program, and to make it easier to find vehicle related documents by consolidating policies.



Long-Term Strategy

- Re-evaluating vehicle usage, to reassign vehicles to better meet the needs of other departments without purchasing additional assets.
- Working with other new & growing departments to ensure they have the equipment they need.
- Evaluating vehicle usage and where we can put Electric Vehicles in the district without disrupting productivity, when future regulations require us to purchase them.
- Providing support to ensure departments have the proper equipment to do their work safely and efficiently.



Commission Support: Key Asks

- No upcoming Change Orders or contracts that require Commission involvement.
- We are in the final stages of updating the outdated Vehicle/Asset Usage Policy.



Questions?



Thank you!





QBR Summary

Department Name:	Key Presenters:	Date:
Transportation	Brian Barrows – Fleet Manager	2/11/2025

Presenters, please fill out the following information and provide it to Commissioners as a supplement to your presentation.

LAST QUARTER RECAP

Quarterly Goals

Maintained above 95% fleet availability – Q4 of 2024 we had a 99% fleet availability, 98.5% for all of 2024.

In 2024 we got the apprenticeship program up and running and hired 2 apprentices. They will both move to step 2 in March.

NEAR-TERM PLANS (NEXT QUARTER)

Project Updates

- Re-evaluate capital replacement plan. It's been 5 years since the last update.
- Transitioning from SAMSARA GPS to AssetWorks GPS, includes installation of new GPS units in 650 assets.
- Final stages of updating the Vehicle/Asset Usage Policy to accommodate the addition of the Vehicle Safety Program, and to make it easier to find vehicle related documents by consolidating policies.

Roadmap Discuss strategic initiatives and projects on the longer-term roadmap: Re-evaluating vehicle usage, to reassign vehicles to better meet the needs of other departments without purchasing additional assets. Working with other new and growing departments to ensure they have the equipment they need. Evaluating where we can put EV vehicles in the district without disrupting productivity, when future regulations require us to purchase them. Providing support to ensure departments have the proper equipment to do their work safely & efficiently.

COMMISSION SUPPORT: KEY ASKS Specific Requests • No upcoming Change Orders or contracts that require Commission involvement. We are in the final stages of updating the outdated Vehicle/Asset Usage Policy.



Business Intelligence & Market Analytics 2024 Q4

Matt Birch

Senior Economist

Shaun Harrington

Senior Economist



Overview



Actual & Forecast Billed Sales

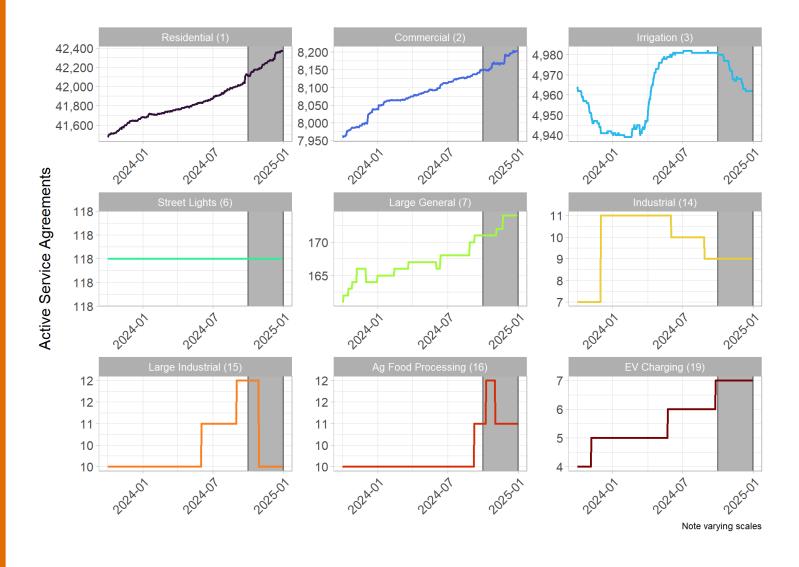
Grant PUD Actual & Forecast Billed Loads

	Actual YTD	Budget Forecast YTD	Forecast Delta
Residential (1)	94.0	100.8	6.8
Commercial (2)	62.7	63.5	0.8
Irrigation (3)	47.9	44.7	-3.2
Street Lights (6)	0.5	0.5	0.0
Large General (7)	46.8	38.3	-8.5
Industrial (14)	34.5	50.4	15.9
Large Industrial (15)	314.1	355.7	41.6
Ag Food Processing (16)	37.9	40.5	2.6
EV Charging (19)	0.3	0.1	-0.2
Total GCPUD	638.7	694.5	55.8

- 2024 Q4 total billed loads were 638.7 aMW.
 - This is 55.8 aMW (8%) below the projected 694.5 aMW.
- Large Industrial (15) accounted for the largest deviation from the forecast at 41.6 aMW below forecast.



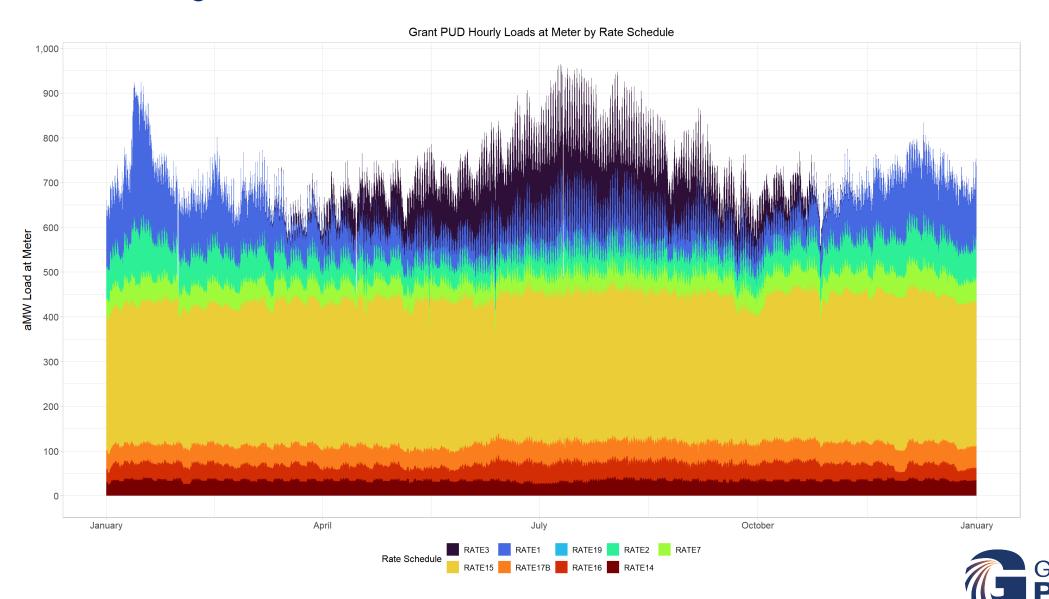
Customer Counts



- Customer counts are counts of active service agreements
- RS3 demonstrates seasonal fluctuation of irrigation customers



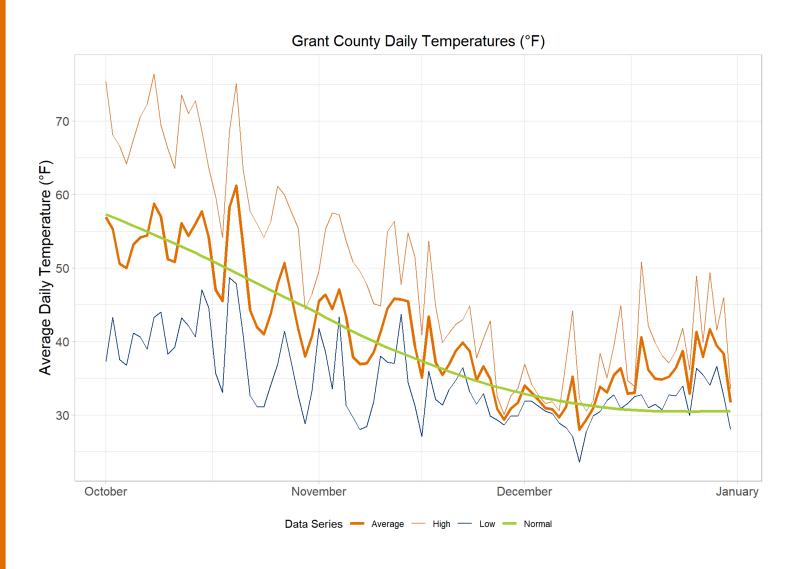
Hourly Loads at Meter



Weather



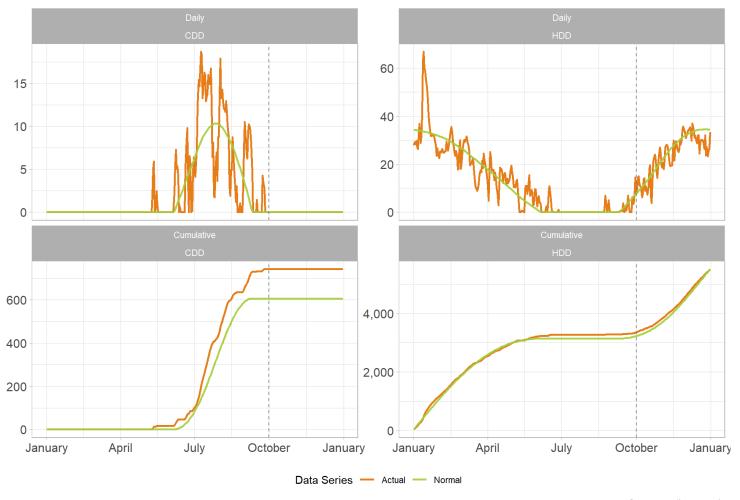
Daily Temperatures



- 56 days with an average temperature above normal.
- 36 days with an average temperature below normal.



Heating & Cooling Degree Days

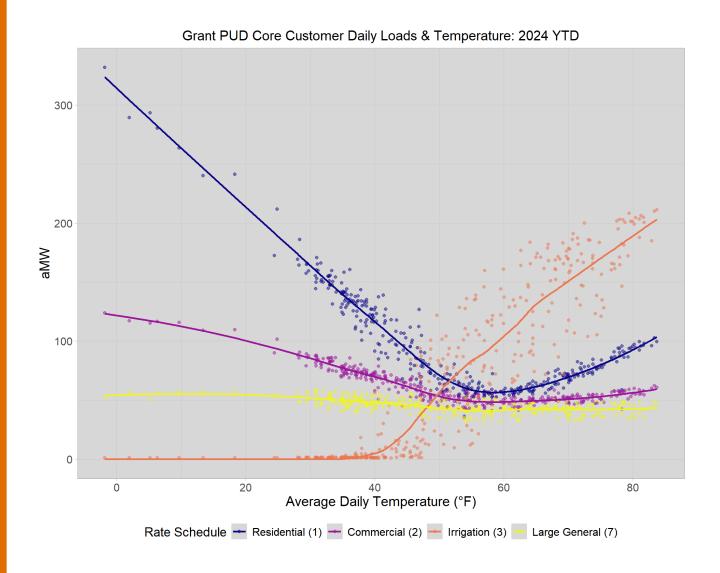


- Gap between normalized and actual daily values is larger for HDD than CDD.
- -5.9% less HDD than normal.
- No CDD in Q4.

Source: weather.wsu.edu



Load Sensitivity to Temperature



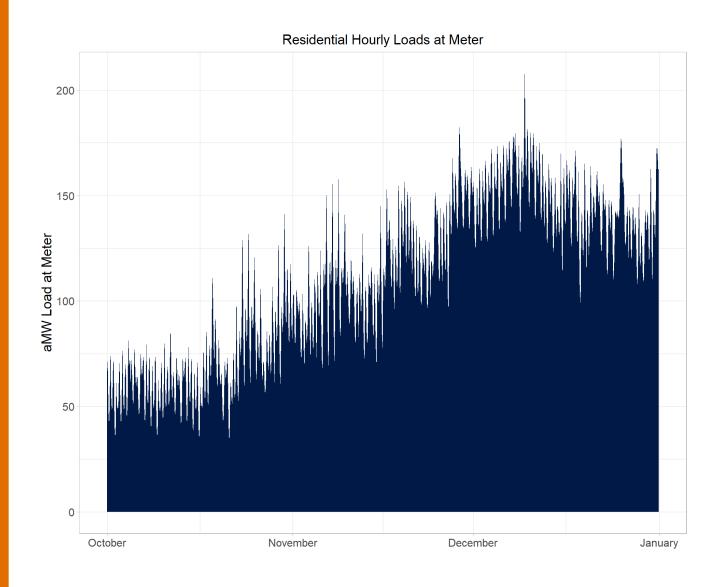
- Residential & commercial demand is minimized around 60°F.
- Irrigation demand picks up at 40°F.
 - Rather than Heating & Cooling Degree days to model irrigation demand, Growing Degree Days are used with a base of 40°F.



aMW Sales Detail



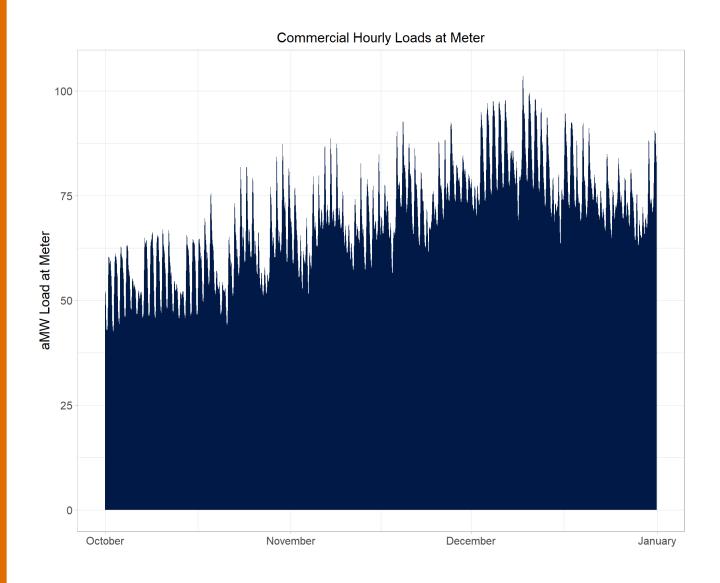
Residential: Rate Schedule 1



- 1.7% customer growth year-over-year.
- 42,370 customers in 2024 Q4, compared to 41,680 a year ago.
- 2024 Q4 aMW: 109.9



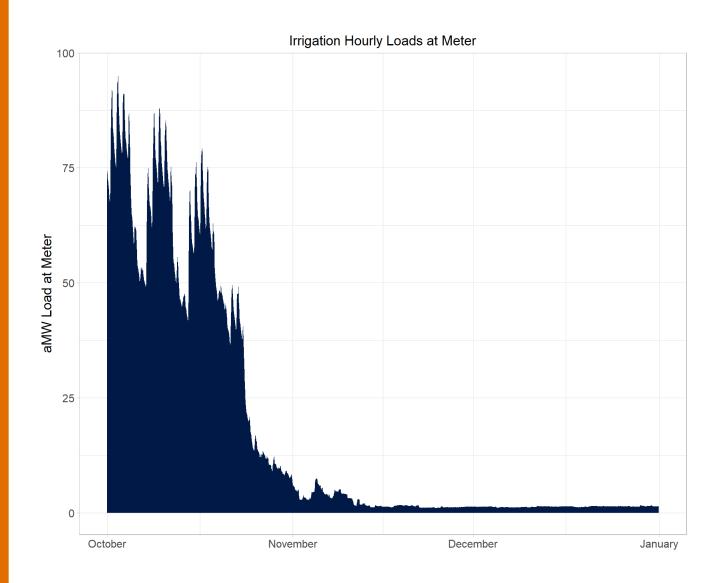
Commercial: Rate Schedule 2



- 2.1% customer growth year-over-year.
- 8,205 customers in 2024 Q4, compared to 8,040 a year ago.
- 2024 Q4 aMW: 69.5



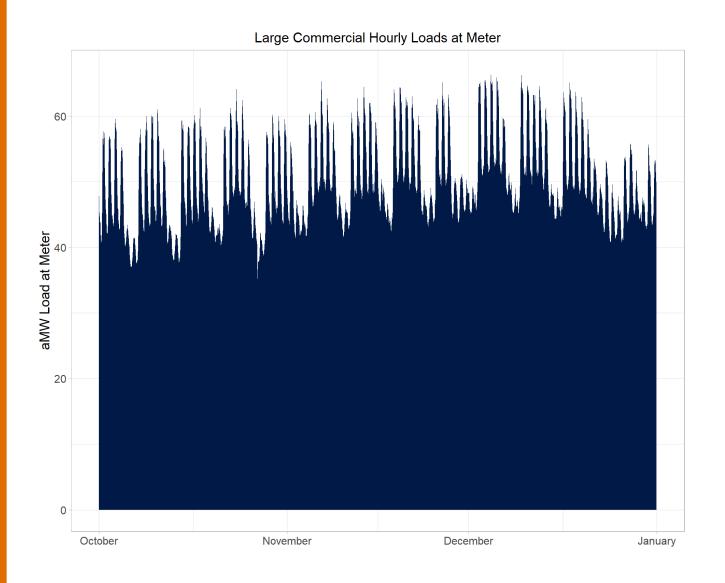
Irrigation: Rate Schedule 3



- 0.4% customer growth year-over-year.
- 4,962 customers in 2024 Q4, compared to 4,941 a year ago.
- 2024 Q4 aMW: 18.2



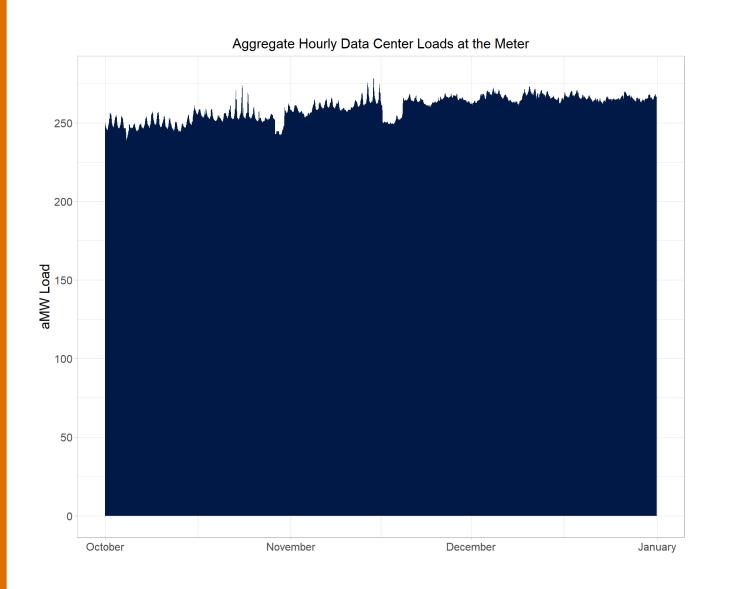
Large General: Rate Schedule 7



- 5.5% customer growth year-over-year.
- 174 customers in 2024 Q4, compared to 165 a year ago.
- 2024 Q4 aMW: 50.1



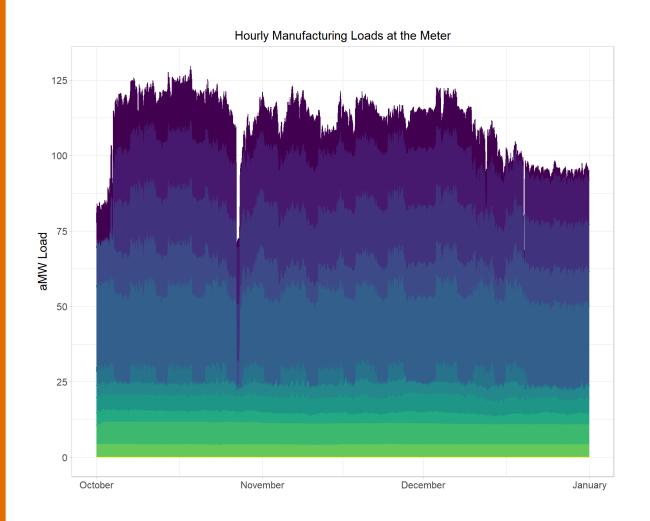
Industrial: Data Centers



- 6 customers
- Data centers were -21.2 aMW (8%) below forecast.
- 4 customers were above forecast, the rest were below.
- 0 were within 10% of their forecast.
- One data center missed its expectation by 41.24 aMW.



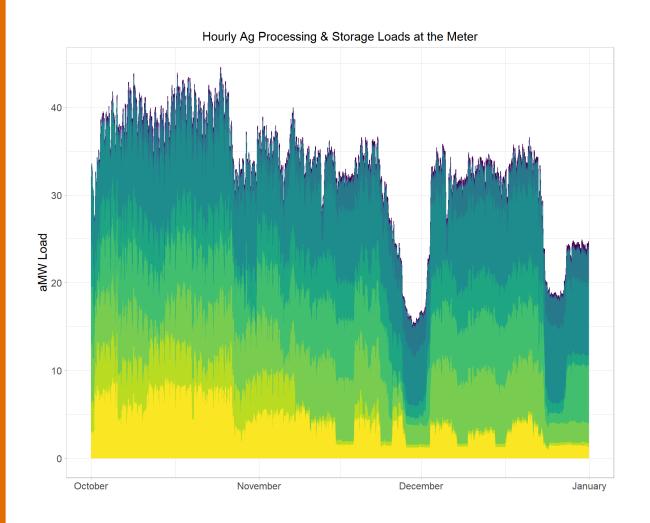
Industrial: Manufacturing



- This group represents 12 customers involved with differing manufacturing processes.
- Manufacturing loads were 107.8 aMW (49.4%) below forecast.
- One customer has not ramped up as quickly as anticipated and accounts for 84.5% of the difference.



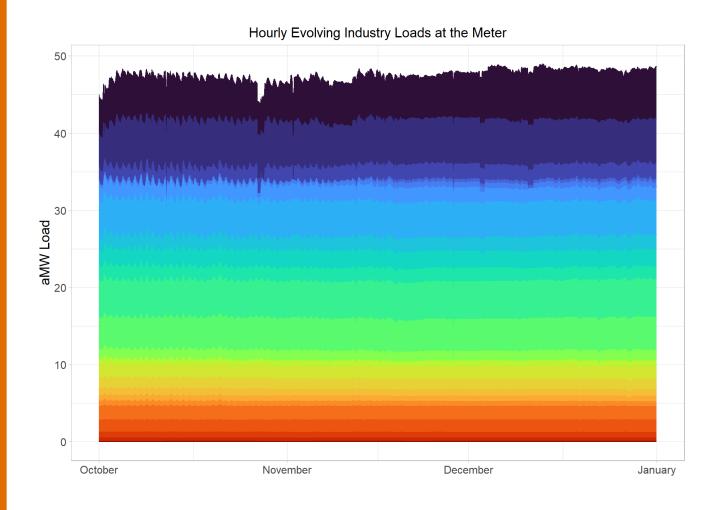
Industrial: Ag Food Processing



- 7 customers.
- Ag Food Processing & Storage loads were 7.9 aMW (19.4%) below forecast.
- 2 customer missed expectations by 1 aMW or more, and the largest miss was 5.6 aMW below expectations.



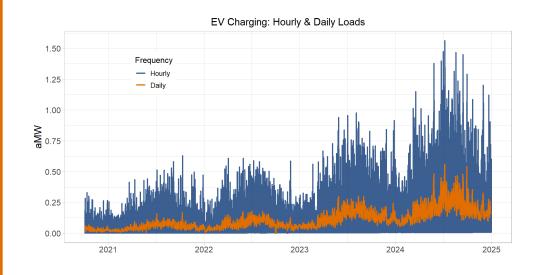
Cryptocurrency: Rate Schedule 17

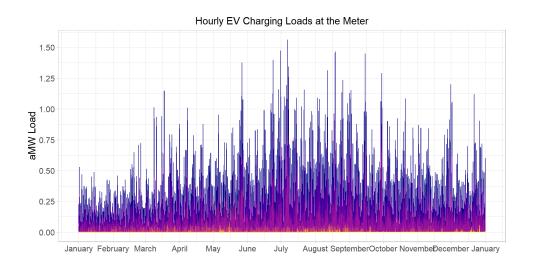


- 18 customers
- Actual aMW was 45.7, and the forecast amount was 41.3 aMW.
 - That is 10.8% above forecast.



EV Fast Charging: Rate Schedule 19





- 6 hour-long periods surpassed 1 aMW in 2024 Q4.
- 2023 Q4 had 0 comparable hour-periods.
- Annual comparison: The most recent 4 quarters had a total of 71 hour-long periods surpassing 1 aMW, compared to 0 in the 4 previous quarters.
- EV sales were 108% above forecast.



Key Takeaways

- Total system billed loads were 55.8 aMW (8%) below forecast.
- Large Industrial (15) accounts for the largest share of the forecast error at 41.6 aMW.
- 5.87% fewer degree days than a typical Q4.
- Maximum hourly aMW for EV Charging in 2024 was 60% higher than in 2023.



Chief Commercial Officer Org

February 2025



Chief Commercial Officer Org

Team Updates



Paul Dietz

Sr. Manager, ESM Forecasting & Market Analytics



Rich Flanigan

Sr. Manager, ESM Trading & Commercial Operations



Andrew Munro

Sr. Manager, ESM Industry & Market Research



Craig Kunz

Sr. Manager, ESM Net Power Reporting & Metrics



Susan Manville

Director, Transmission Strategy & Development



CHIEF COMMERCIAL OFFICER ORG

2024 Recap

Annual Goals	Outcomes
Net Power Reporting (Org Obj)	Monthly Net Power Reporting capability stood-up
Enhanced Load Forecast (Org Obj)	 Finalized Hourly Medium-term and Long-term Forecasts as planned New Load Forecast Policy implemented and rolled out to district employees
Enhanced Integrated Resource Plan (Org Obj)	 Reliability enhancements implemented in 2024 IRP Approach defined for integrating transmission topology into 2026 cycle
Rate Design Strategy (Org Obj)	 Developed a methodology for consistent communication of <i>power cost</i>, <i>power cost</i> allocation for core and non-Core customers, and guidance for use of the wholesale benefit. Detailed rate design of the <i>power cost</i> components is an active 2025 work effort with Rates and Pricing.
Data Management	 Data management and governance roadmap developed Business Data Technology project initiated
Value Stream Roadmaps	Multi-year maturity roadmaps defined for each ESM business unit
Business Intelligence Reporting	 Defined key enterprise-wide reporting use cases Delivered high priority reporting packages, including publishing to ESM SharePoint site
ESM Business Processes	Developed flows, detailed descriptions, and roll-out plans for high priority processes

2024 Recap

Key Metrics

- In 2024, efforts centered on defining ESM metrics and establishing baselines wherever feasible.
- A comprehensive set of 18 metrics/KPIs has been identified, with tracking slated to begin in 2025.
- The most critical KPI for ESM is focused on Resource Plan Execution, ensuring the district is progressing toward resource acquisition targets.

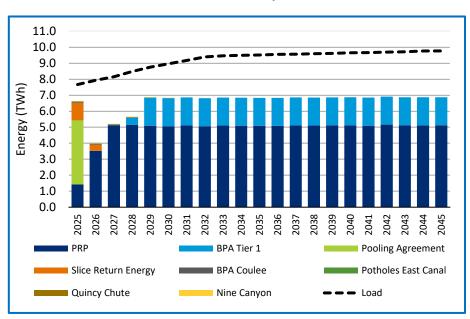
Business unit	# of Metrics/ KPI
ESM-wide	<u>:</u>
Business Intelligence and Market Analytics	į
Net Power Reporting & Metrics	2
Trading and Commercial Operations	7
Industry and Market Research	2
Transmission Strategy and Development	-



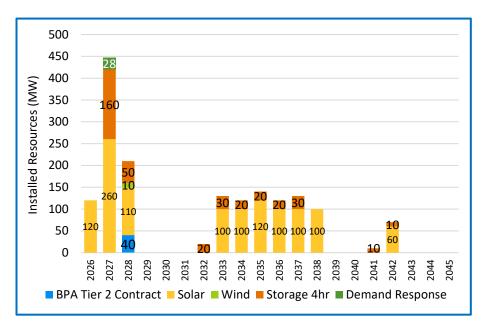
CHIEF COMMERCIAL OFFICER ORG

2024 Recap

Demand & Current/Expected Resources



IRP Preferred Portfolio





CHIEF COMMERCIAL OFFICER ORG

2025 Outlook

Near-Term Plans

- Launch and integrate the Transmission Strategy & Development function within the organization, including hiring key leadership roles, establishing foundational department capabilities, and developing maturity roadmaps.
- Execute contracts for energy and capacity to advance Integrated Resource Plan (IRP) targets, finalize agreements for new pooling and service arrangements, and implement their provisions.
- Enhance load and market forecasting capabilities, including expansion to region and accounting for unbilled energy, commodity, carbon allowance, and key indices used in contracts and valuations
- Introduce and improve automation, presentation quality, and variance explanations in the monthly Net Power Report for greater clarity and actionable insights.
- Implement the Open Access Transmission Tariff (OATT), a critical milestone enabling broader market access and unlocking new revenue opportunities.
- Conduct feasibility studies on integrating a Battery Energy Storage System (BESS) at our hydro plants and identifying 2-3 best options for a potential gas-fired turbine plant in the region, as well as continue SMR discovery work.
- BPA Post-2028 Federal Power (In 2024, BPA Provider of Choice Final Policy and ROD allocated 207 aMW of Tier 1 power).



Long-Term Strategy

- Continue advancing the maturity of the 2024 capabilities (execute on the value-stream roadmaps), and position ESM and TSD orgs to address the evolving challenges of the energy industry and regional priorities.
- Pursue the acquisition of new energy resources (renewables and dispatchable resources for integration and reliability) in a cost-effective manner accelerating procurement ahead of CETA's clean energy target dates when advantageous.
- Invest in the transmission system to capitalize on the benefits of regional coordination, including participation in WRAP and organized markets.
- Transform data management and governance architecture and practices to enable real-time, highprecision insights and ensure broad availability of critical information for all stakeholders.



Commission Support: Key Asks

- Two-way path for information to flow and avoid surprises. What can we do to keep the commission in the loop?
- 2025 commercial engagements include:
 - (i) New Pooling/Service agreement,
 - (ii) Quincy Solar PPA,
 - (iii) Royal Slope Solar PPA,
 - (iv) CBH-PEC buy-out,
 - (v) BPA PoC, and
 - (vi) 2025 Annual Auction.
 - This is a significant amount of work and information that needs to flow to the Commission.
- March/April 2025: ESM Research will seek approval for Awarding Engineering Services Contracts
 to support our exploration of new energy-supply technologies.



Questions?



Thank you!





QBR Summary

Department Name:	Key Presenters:	Date:
Chief Commercial Officer Org	John Mertlich	2/11/2025

Presenters, please fill out the following information and provide it to Commissioners as a supplement to your presentation.

LAST QUARTER RECAP

Quarterly Goals

Recap for all of 2024 – Completed 4 Organizational Objectives:

- (1) Net Power Reporting,
- (2) Enhanced Load Forecasting,
- (3) Enhanced Integrated Resource Planning, and
- (4) Rate Design Strategy

NEAR-TERM PLANS (NEXT QUARTER)

Project Updates

- Execute SPP's Markets+ Phase II Funding Agreement
- Begin Technical Engineering studies for BESS, Turbine Gen, and SMR
- Execute on hiring plan for TS&D
- Execute on 1 to 2 PPAs for renewable energy

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Roadmap	Business C

Business Capability – Continue maturing capabilities and execute the Value-Stream roadmaps.

Navigate the 3 Forces of Accelerated Load Growth, Carbon Goals, and Reliability with:

- (i) Regional Coordination, (ii) New Resources & Technologies, (iii) Business Focus,
- (iv) Transmission, (v) Large Load Partnerships

Strategy

- Continue participation in Markets+ and WRAP
- Continue Technology Research work
- Looking for the next RFP period and the need for dispatchable capacity
- Standing up the TS&D business and working towards long-term transmission planning (2027)
- Finalize the detailed decoupled power cost work support both large customer contract pricing and industrial tariff rates

Taken altogether, this will optimize the cost structure for our customers and defines Grant PUD's Intentional Power Demand Strategy

COMMISSION SUPPORT: KEY ASKS

Specific Requests

- Upcoming contracts & Agreements
 - 2025-Q1: Markets+ Phase II Funding, CBH-PEC buy-out agreement, Engineering Services
 - 2025-Q2: Quincy Solar PPA, 2025 Annual Auction
 - 2025-H2: New Pooling/Services, BPA PoC, Royal Slope Solar PPA, WRAP RFP