

Demand Response Pilot Commission Presentation

Baxter Gillette & Dave Churchman

February 13, 2024



Powering our way of life.

Overview Demand Response and Pilot Program

- **What is Demand Response?**
- **Why are we looking at Demand Response?**
- **Overview of the proposed program**
- **Q&A**

What is demand response?

"Demand response is a non-persistent intentional change in net electricity usage by end-use customers from normal consumptive patterns in response to a request on behalf of, or by, a power and/or distribution/transmission system operator. This change is driven by an agreement, potentially financial, or tariff between two or more participating parties"

- Capacity Reduction
- Flattening the Demand Curve

Types of Demand Response

Load Shape



Type

Peak Clipping

Valley Filling

Load Shifting

Flexible Load Shape
Dynamic Energy Management

Demand Side Management

Some Regional Program Mentions



BPA - DVR Pilot program



Avista - Bilateral agreement (30 MW)



Clark PUD EV Charging Pilot



Idaho Power and Flathead Electric TOU



Puget Sound Energy - expects 40% enrollment in FlexSmart by 2024



PacifiCorp - WattSmart and BYOT



Seattle City Light - DLC programs and pilots



Snohomish PUD - \$30M grant from DOE for Smart Grid



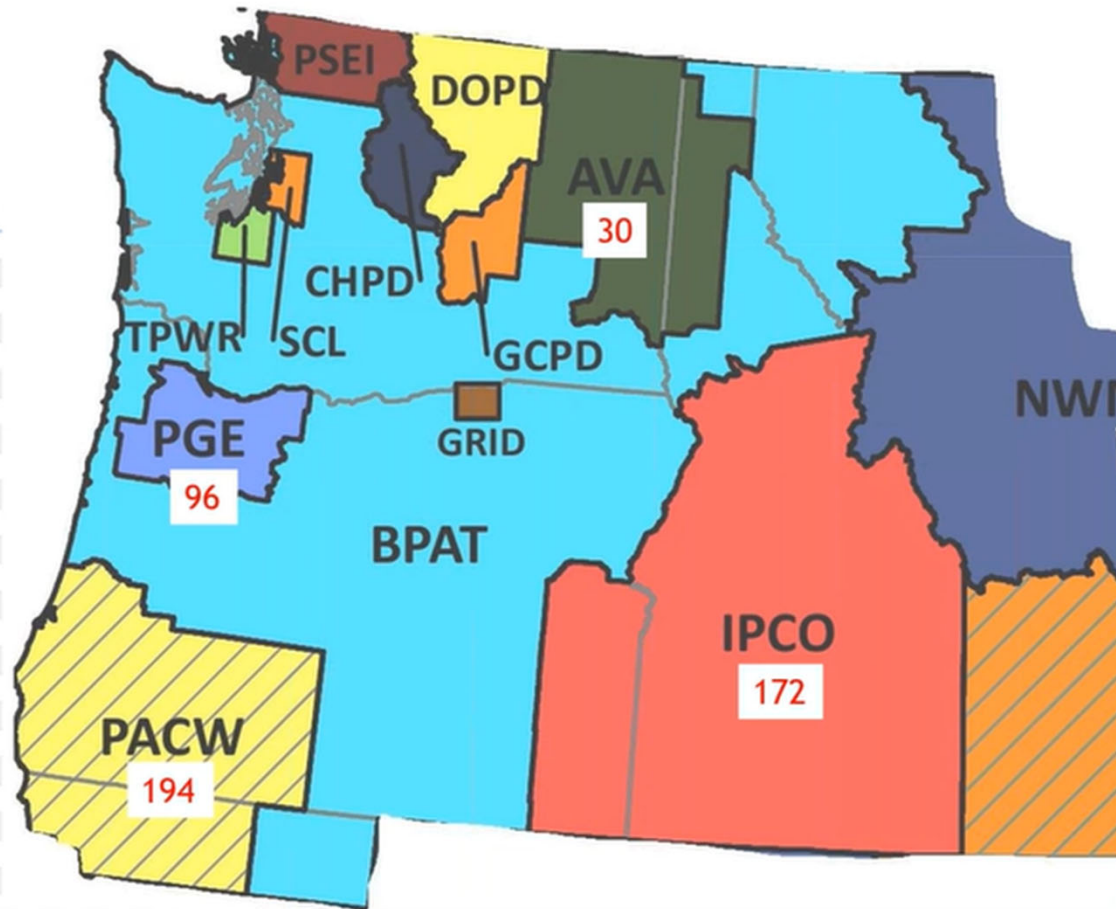
Tacoma Power - Water Heater Pilot Program

Northwest Power Planning Council Presentation 12/12/23

Some Current NW Programs

Current average
deployable Peak
Demand Response in MW

Utility	Product	Sector	Pilot or Commercialized
Avista	Peak	COM	Commercialized
Avista	TOU	RES	Pilot
Avista	WH	RES	Pilot
BPA	DVR	RES	Pilot
Flathead Electric	TOU	RES	Commercialized
Idaho Power	DLC	AG	Commercialized
Idaho Power	DLC	RES	Commercialized
Idaho Power	TOU	COM	Commercialized
PacifiCorp	DLC	AG	Commercialized
PacifiCorp	DLC	AG	Pilot
PacifiCorp	DLC	RES	Pilot
Portland General Electric	DLC	COM	Pilot
Portland General Electric	DLC	RES	Pilot
Portland General Electric	Peak	COM	Pilot
Portland General Electric	TOU	RES	Pilot
Portland General Electric	WH	RES	Pilot
Puget Sound Energy	DLC	RES	Commercialized
Puget Sound Energy	Peak	COM	Commercialized
Seattle City Light	DLC	RES	Commercialized
Seattle City Light	TOU	COM	Pilot
SnoPUD	DLC	RES	Pilot
SnoPUD	TOU	RES	Pilot
Tacoma Power	TOU	COM	Commercialized
Tacoma Power	TOU	RES	Pilot



Why Demand Response?

Benefits All Customers

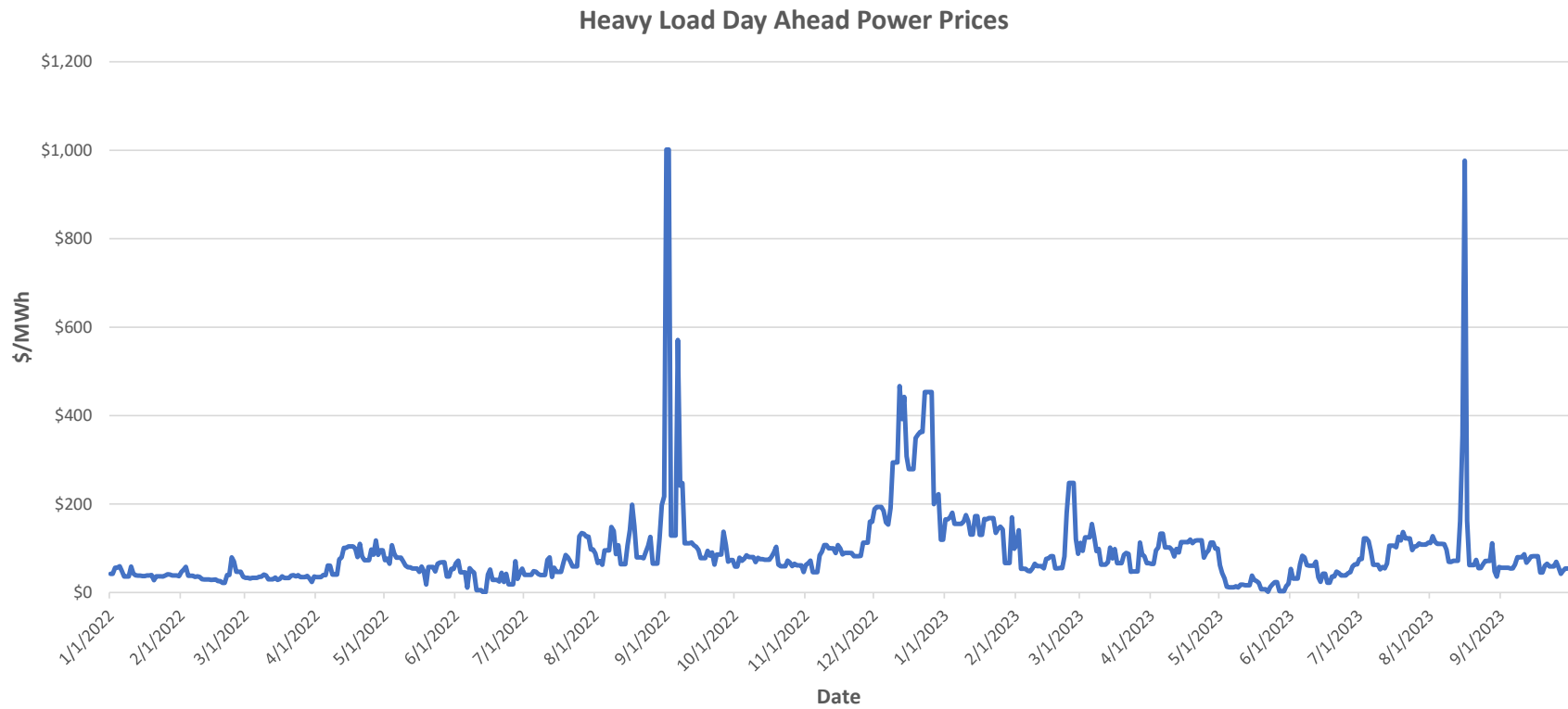
Operate existing generation more efficiently

Opportunity for reduced costs / increased revenues

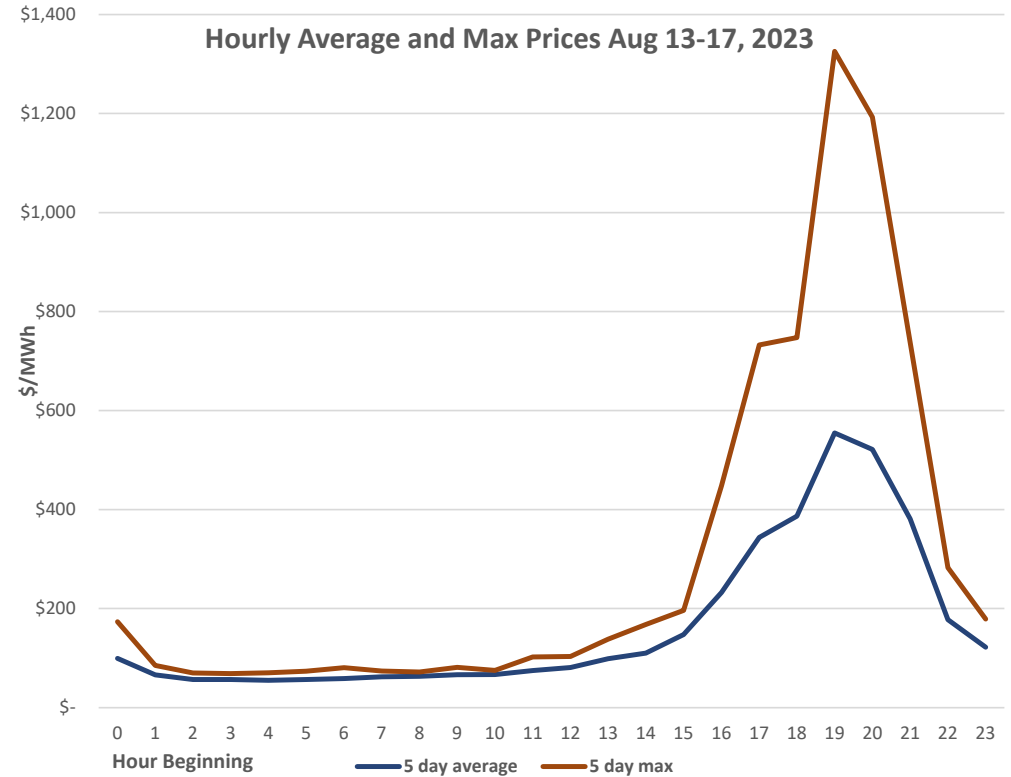
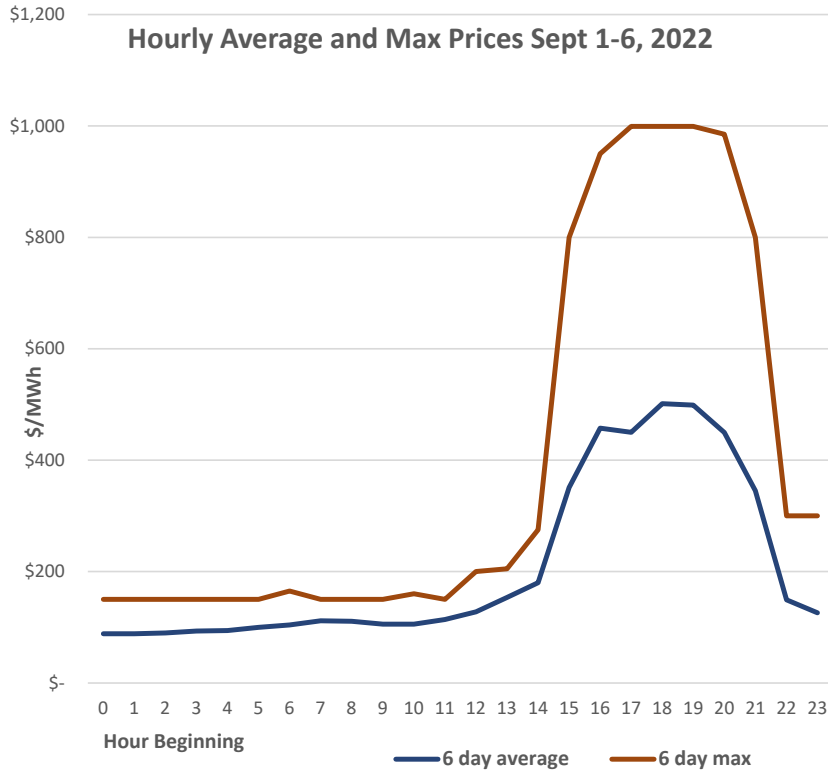
Lower cost than alternative generation assets

Resource Diversity

Daily Wholesale Power Prices Jan 22 – Sept 23



Hourly Wholesale Prices



California Net Load

California's duck curve is getting deeper

CAISO lowest net load day each spring (March–May, 2015–2023), gigawatts

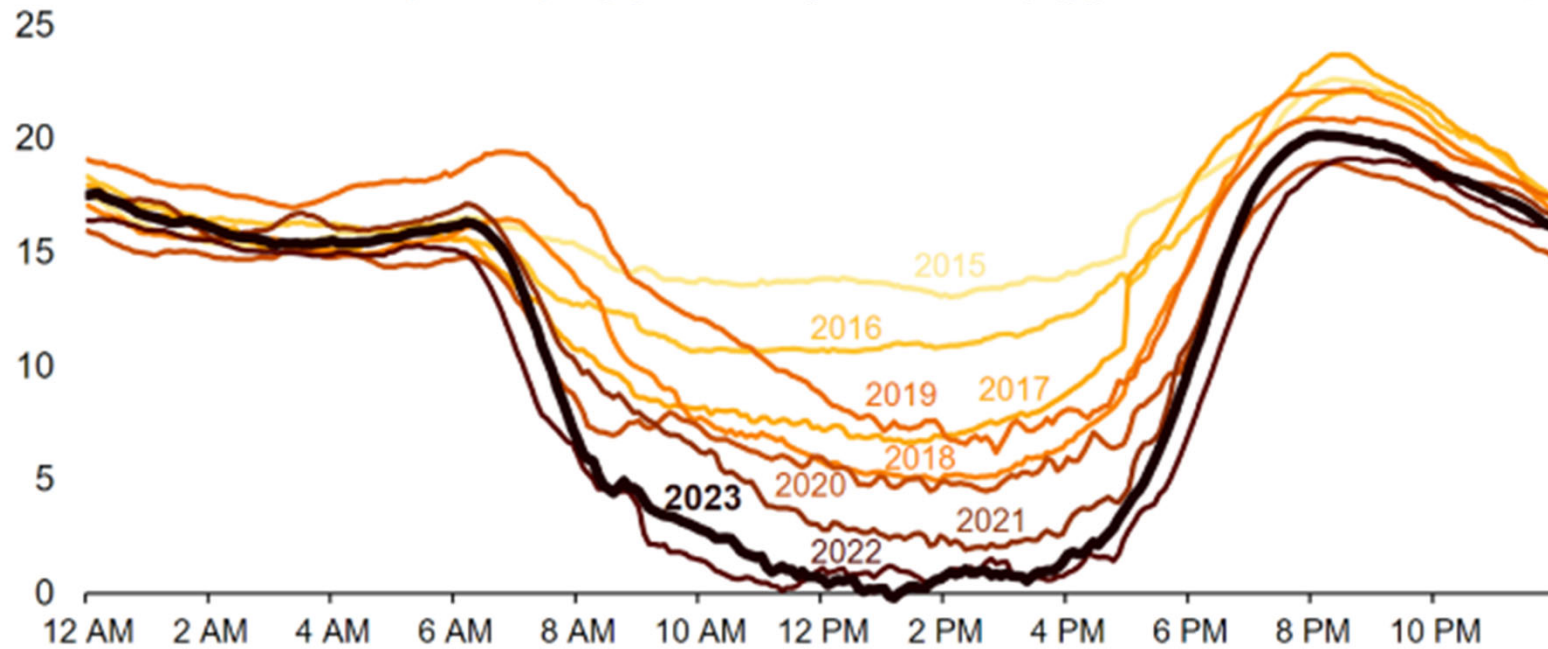
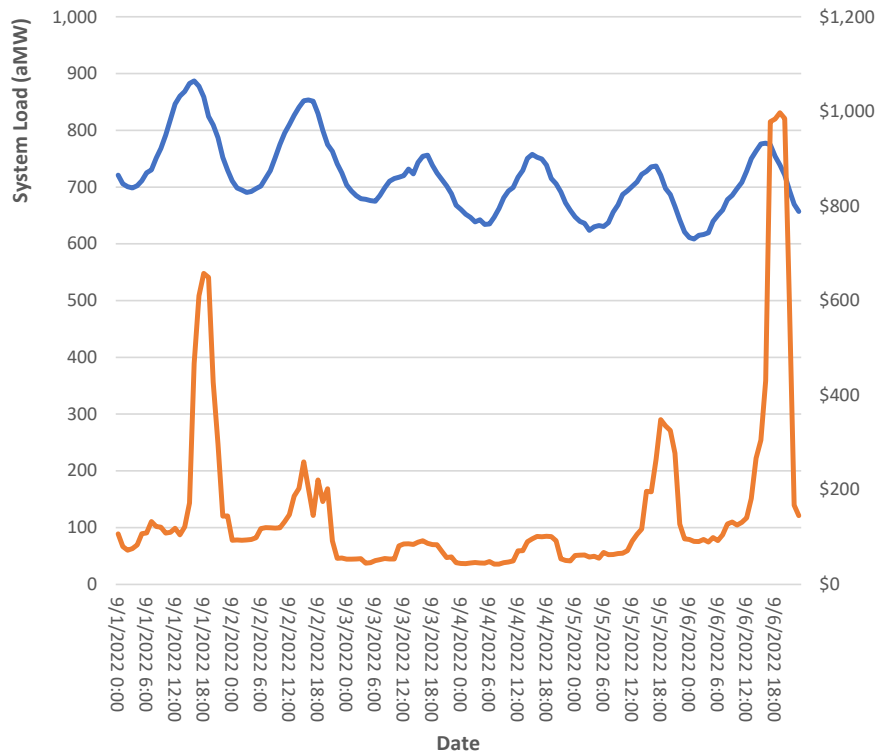


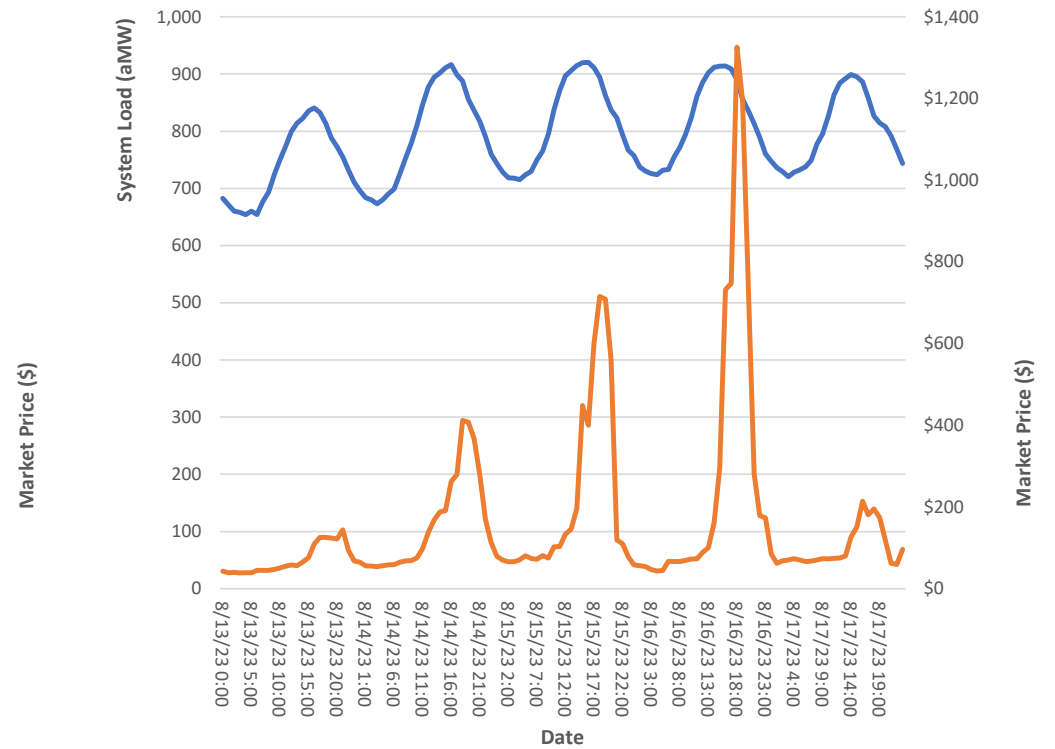
Image: Energy Information Administration

Hourly Prices and Loads

September 1-6, 2022



August 13-17, 2023



Demand Response Pilot Overview



Powering our way of life.

Why Cryptocurrency?

- Cryptocurrency customers have asked us if Demand Response programs are available at Grant PUD
 - Experience with other utilities
 - Customers interviewed represent that they can ramp within a few minutes down and less than 10 minutes up
- Cryptocurrency loads have innate flexibility
 - Short duration work cycles, typically less than 10 minutes
 - Mining rigs represent high proportion of total load (low load overheads)
- High probability of success
 - Miners already have remote monitoring and control for facilities and can schedule reductions
 - Knowledgeable and focused on the power cost relative to product revenue that drives margins
 - Likely to perform to their forecast due to awareness of computing load and load overheads
- Low chance of customer dissatisfaction
 - Low risk (volume and price) and low externalities (unidentified risks, misunderstood costs)
 - See the long run value of avoiding building new capacity and energy to serve loads
- Experience may be used to develop Demand Response for more complicated industrial and agriculture / irrigation customers

Grant PUD Crypto Pilot Highlights

- Pilot program for less than a year
- Cryptocurrency customers only
 - Based on representations of fast ramp response
 - Individual premises loads of at least 0.5 aMW (may change threshold)
- Participation is voluntary
- Grant PUD has no direct control of loads – rely upon customer load response
- Purpose is to educate organization on DR, prepare and learn for future Grant PUD controlled DR programs, generate higher net revenue during high priced periods, and provide a customer benefit

Milestones

- Q4: Met individually with internal and external stakeholders
- 1/17 – EROC supported as proposed
- 1/22 – Presented to Executive team
- 2/13 – Review with Commission
- Early March – customer outreach, billing calculator and performance calculators finalized
- March – agreements signed, billing testing (CS)
- April 8 – proposed start date (dependent upon market prices, so will probably be June or later before offers extended)

Benefits

- Financially advantageous to all customers
 - Enhance net wholesale revenues
 - Discover labor overheads
- Business intelligence for product development
 - Cryptominers' price sensitivity
 - Customers' power usage effectiveness (PUE) and overhead load requirements
 - Diversity of mining efficiencies across customers and within sites
- Viability of resource in IRP and WRAP
 - Post-pilot analysis of more granular load data
 - Use actual data to determine load control capabilities for possible future inclusion in IRPs and WRAP

Crypto Demand Response Pilot

Questions / Comments?

Appendix: Stakeholder Checklist

Contract Name	Crypto Currency Demand Response	Effective Term	April 2024 - March 2025
Counterparty	Crypto Currency RS17 Customers	Execution Date	Apr-24
For Power Contracts exceeding the limits in the Energy Management and Reporting Policy			

Grant County PUD Contract Approval Sheet

Pre-Execution Requirement	Task	Completed By	Date
Contract Review and Approval	District delegated representative has reviewed and approves the contract for the indicated purpose.		

Purpose	Designee	Signature (NA=not applicable) Printed Name	Date
Financial Impact			
<i>Commercial Rationale</i>	Power Portfolio Strategy	Rich Flanigan <i>via email</i>	15-Jan-2024
<i>Power Supply Impacts</i>	Energy Supply Management	John Mertlich <i>via email</i>	
	Business Intelligence and Market Analytics	Paul Dietz <i>via email</i>	9-Jan-2024
District Ability to Perform			
<i>Transmission</i>	Wholesale Services	NA NA	
<i>Balancing Area</i>	Dispatch	Mike Stussy <i>via email</i>	9-Jan-2024
<i>Tagging and Scheduling</i>	Wholesale Services	Renate Rectenwald <i>via email</i>	12-Jan-2024
<i>Daily Execution</i>	Wholesale Services	Peter Graf <i>via email</i>	19-Jan-2024
<i>Daily Execution</i>	Power Portfolio Strategy	Dave Churchman <i>via email</i>	17-Jan-2024
<i>Customer Engagement</i>	Large Power Solutions	Louis Szablya <i>via email</i>	17-Jan-2024
<i>Load Reduction Verification, Billing Credit Calc</i>	Large Power Solutions	Baxter Gillette <i>via email</i>	16-Jan-2024

Appendix: Stakeholder Checklist (cont)

Deal Management Review			
<i>Scheduling and Operations</i>	Wholesale Services	Peter Graf	19-Jan-2024
		<i>via email</i>	
<i>Controls, Authority, Risk Mgmt</i>	Business Intelligence and Market Analytics	Paul Dietz	9-Jan-2024
		<i>via email</i>	
<i>Reliability Compliance</i>	Compliance	Glen Pruitt	12-Jan-2024
		<i>via email</i>	
Contract Review			
<i>Legal Review</i>	Attorney	Mitch Delabarre	19-Dec-2023
		<i>via email</i>	
Finance and Accounting Review			
<i>Accounting Treatment</i>	Accounting	Jennifer Sager	16-Jan-2024
		<i>via email</i>	
<i>Billing</i>	Customer Solutions	Cary West	9-Jan-2024
		<i>via email</i>	
<i>Billing</i>	Customer Solutions	Kerrie Wendell	12-Jan-2024
		<i>via email</i>	
<i>Treasury Issues</i>	Treasury	Angelina Johnson	16-Jan-2024
		<i>via email</i>	
<i>Bond Compliance</i>	Finance	NA	
		<i>NA</i>	
Management Approval			
<i>CXO Approval</i>	CCO	Ty Ehrman	15-Jan-2024
		<i>via email</i>	
<i>CXO Approval</i>	Managing Director, Energy Supply Management	John Mertlich	
		<i>via email</i>	
<i>Commission Approval</i>	Attorney	NA	
		<i>NA</i>	

Appendix: Department Responsibilities

- LPS:
 - Meet with customers to describe program
 - Coordinate contract execution
 - Address any customer performance issues with customer
 - Ongoing resource for questions / input
- ESM (Flanigan/Manville Departments)
 - Coordinate with Morgan Stanley
 - Determine when and at what price to make offering
 - Document customer commitment
 - Notify impacted stakeholders
 - Review customer performance
 - Calculate customer Billing Credit (with LPS support)
 - Calculate Pilot performance (with Risk validation)
 - Archive customer commitment

Appendix: Department Responsibilities

- Dispatch:
 - Monitor load reduction and reserves in realtime
 - Communicate as necessary with Morgan
- Customer Solutions:
 - Administer and apply Credits to customer bills
- Accounting:
 - Record Billing Credits appropriately
- EMS - Risk:
 - Confirmation of Billing Credits calculation
 - Validate Pilot performance
- Compliance
 - Review for NERC compliance – DADs reporting and MOD 31
 - Glenn has provided guidance memo

Appendix: Pilot Risks Overview

Market Risk

- The prices paid to customers could exceed increased wholesale revenue from the Morgan Stanley contract.

Performance Monitoring Risk

- Performance measurement cannot be calculated on the day of the transaction. This could result in an accumulation in differences to expectations that may not be detected for the better part of a month.

Intra Hour Planning Risk

- Failure to perform by customers could result in intra-hour deficit or surplus compared to planned amount.

Third Party Performance Risk

- The program may present unacceptable operational or financial challenges to Morgan Stanley. If this occurs, it could cause various effects, up to and including, early cessation of the program.

Governance Risk

- Inadequate governance coverage could raise questions of authority to perform these actions.

Operational Risk

- Inadequate controls could result in lack of oversight, poor communication and/or inaccurate valuation.

Perception/Reputation Risk

- In other states, large payouts to cryptominers have created negative publicity and angered utility customers. Past public comment has been negative towards crypto mining in Grant County.

Appendix: Risk Detail

Market Risk

The prices paid to customers could exceed increased wholesale revenue from the Morgan Stanley contract

- Pricing will be done the day before after seeing indicative day ahead prices.
- Pricing is anticipated to be a small group of hours – likely 4, 6, or 8 hour blocks.
- These hours typically trade at a significant premium compared to 16-hour on-peak block prices.
- Differences between day-ahead indicative price and index settle prices could cause a loss if the settle price is lower than indicative prices.
- Differences between estimated hourly price relationships used for pricing and the published hourly index prices could cause a loss if the index hourly price relationships deviate from the estimated price relationships.

Mitigation

- Intent is to price conservatively to account for the risks above, particularly at onset. That will need to be balanced with risk of underpricing which will limit customer participation resulting in a lost revenue opportunity. While not visible, this lost revenue will result in undervaluation of the program benefits.

Appendix: Risk Detail

Performance Monitoring Risk

Performance measurement cannot be calculated on the day of the transaction. This could result in an accumulation in differences to expectations that may not be detected for the better part of a month.

- The PowerDex hourly index information can take three weeks or more to publish.
- Valuable feedback information will therefore not be available to adjust price offerings during this period.
- Likewise, poor program performance may accumulate and remain undetected for three or more weeks.

Mitigation

- Price conservatively in view of the day-ahead indications and historical hourly load price patterns.

Appendix: Risk Detail

Intra Hour Planning Risk

Failure to perform by customers could result in intra-hour deficit or surplus compared to planned amount.

- If Morgan anticipates load reduction and sets up system going into the hour based on that load reduction does not occur, it could create an intra-hour shortage compared to forecast.
- Likewise, if load does not pick up after the event ends as anticipated, it could result in intra-hour surplus compared to forecast.

Mitigation

- Incentives to encourage customer performance in the contract including expulsion from the program.
- Plan to engage with customers directly any time a substantive failure to perform occurs.
- If a customer fails to perform, GPUD has the capacity to restrict future customer participation by not advancing an offer or terminating the contract.
- Have discussed with Morgan and they did not have any concerns at that time. We will coordinate in advance with Morgan to walk through the process and confirm they understand the program.
- Morgan does have intra-hour flexibility using their PRP rights if necessary. They won't want to use that flexibility for this purpose but because of that flexibility do not anticipate this would become a real time reliability issue.
- If a customer does not perform, we will check in with Morgan to inform of our actions to resolve to ensure positive ongoing relationship.

Appendix: Risk Detail

Third-Party Performance Risk

The program may present unacceptable operational or financial challenges to Morgan Stanley. If this occurs, it could cause various effects, up to and including, early cessation of the program.

- There may be unidentified conditions (beyond Intra-Hour Planning Risk) that may make the pilot unacceptable to Morgan Stanley.
- They may assert that our contract with them has restrictions that prohibit or curtail day-ahead changes to loads or resources.

Mitigation:

- We have discussed the pilot with Morgan and they did not have any concerns at that time and did not foresee any issues.
- If Morgan raises operational issues, we will seek to remedy them.
- If Morgan seeks renumeration we will pause the program and bring the issue to ESM for resolution/authorization.
- If a cost-effective path to remedy is not available, we will terminate the pilot with all parties early per the Master Agreement.

Appendix: Risk Detail

Governance Risk

Inadequate governance coverage could raise questions of authority to perform these actions.

Mitigation:

- Vetted with legal – contract will provide basis of arrangement and Customer Service Policy will cover if not specifically covered in the contract.
- The Customer Service Policy was approved by the Commission and provides for Demand Response programs.
- Risk Management Policy including role and authority was updated relative to DR programs.
- EROC and Exec team have been briefed and support the pilot.
- Commission will be briefed with opportunity to register concerns.
- Checklist sent to stakeholders with opportunity to register concerns.

Appendix: Risk Detail

Operational Risk

Inadequate process or procedure controls could result in lack of oversight, poor communication and/or inaccurate valuation.

- Lack of procedures and informed staff could result in internal task failures.
- Task failures may affect customers and other parties, such as Morgan Stanley.

Mitigation:

- Checklist sent to stakeholders with opportunity to register concerns.
- We have engaged all parties with task roles.
- We are developing high-level process flow diagrams with an accompanying narrative by late Feb, early March.
- Procedures are left to individual departments as they see necessary.

Appendix: Risk Detail

Perception/Reputation Risk

In other states large payouts to crypto miners have created negative publicity and angered other utility customers.

Mitigation

- Limit customer payout to a bill credit. Customer will not receive payment even if credit exceeds the bill. Those credits will be rolled over to the following month(s).
- If concerns arise, GPUD can stop pilot at any time by simply not offering.
- RS 17 rate schedule and base bill calculations are unchanged.
- Program will most likely result in benefit to core customers.

MEMORANDUM

February 13, 2024

TO: Rich Wallen, General Manager

VIA: Rich Flanigan, Senior Manager Wholesale Marketing Supply /s/ *RF*
Louis Szablya, Senior Manager Large Power Solutions

FROM: Baxter Gillette, Large Power Solutions /s/ *BAG*
Dave Churchman, Wholesale Marketing /s/ *DC*

SUBJECT: FYI Demand Response Pilot

Purpose: To provide background information on a Demand Response pilot program.

Discussion: Demand response (DR) is a program that partners with customers to reduce retail loads during times of need such as peak load hours or grid instability. DR programs have been used as an alternative to supply side resources for decades in the energy industry to help utilities meet peak loads, particularly during periods of scarce supply and/or high wholesale market prices. During the energy crisis in the early 2000's, Grant PUD entered into several agreements with large load customers to reduce loads for this purpose. Since that time, Grant PUD has occasionally entered into arrangements with large load customers when particularly attractive opportunities existed.

Historically, most short-term load peaking needs in the Northwest have been met with hydro and natural gas peaking units. However, in Washington those resources alternatives are now difficult, risky, and expensive to permit, construct, and operate. Going forward, Grant PUD is considering alternative peaking alternatives such as batteries, pumped hydro storage, clean fueled turbines, and load based options such as demand response.

Large Power Solutions and ESM have been working to develop a voluntary pilot demand response program for cryptocurrency customers. This customer group was selected as the test group because they can already manage their load and just a handful of customers represents substantial MW size for demand response. If this pilot is successful, staff will evaluate the potential to expand offerings to additional customers and to shift the program from a voluntary load reduction program to one in which Grant PUD can directly curtail load on demand. The insights gained from this effort will help inform the viability of other potential programs such as an irrigation demand response program.

This is an advantageous time for Grant PUD to explore a demand response program due to multiple factors that have placed upward pressure on wholesale prices in the Northwest wholesale markets including:

- The Washington Climate Commitment Act (CCA) requires generators to consign carbon allowances to the State when dispatching carbon emitting resources resulting in higher dispatch costs for carbon fueled resources and subsequently higher prices. This requirement is in place now.
- There is widespread acceptance of the Western Resource Adequacy Program (WRAP) requirements throughout the region which will require participating members to prove they have sufficient capacity to meet projected peak demand in future years. GPUD is physically short during peak load periods and DR resources may qualify towards meeting peak demand.

- Existing coal resources continue to be retired. While this reduction in coal is offset by increased renewable and battery resources, these retirements will reduce reliable, dispatchable power.
- There is a significant upward shift in NW load projections driven by increased demand from new large-load customers and regional policies that are increasing electrification.
- Wholesale power prices have seen increased volatility over the past few years, particularly in short-term markets. High price variability reflects the issues discussed above, but also provides an attractive economic opportunity to evaluate a pilot offering.

Goals of the Demand Response Pilot Program:

- Provide a learning opportunity for the organization through a simple pilot program with a limited number of customers to better understand the value proposition and work necessary across the organization to facilitate future DR programs.
- Profitably convert retail to wholesale transactions by reducing retail sales and increasing wholesale sales for short periods where there is a clear value proposition for *all* customers, including core customers.
- Develop a simple and easy-to-implement offering for customers that will encourage high levels of participation while minimizing both Grant PUD and customer costs and risks.
- Develop an understanding of customer's price sensitivity for load reduction by enabling customers the opportunity to earn billing credits when the opportunity exists for Grant to derive higher value in the wholesale market. This will assist in evaluation of future Demand Response opportunities and offerings.
- Help inform if demand response programs are a viable future capacity option as part of a broader resource portfolio. Understand if customers can reliably perform load reductions and establish a baseline program for inclusion in future Western Resource Adequacy Program (WRAP) calculations to reduce Grant PUD's capacity requirement and ameliorate associated costs.

Key Features of the Pilot Program:

1. Eligible Industry: Cryptocurrency customers who have had an aggregate demand for at least the last 2 months over 0.50 megawatt (500 kilowatts). Participation is voluntary.
2. Potential MW participation: Total eligible loads as of January 2023 are approximately 40 aMW, although that number could change over the course of the pilot.
3. Term of Pilot Program: Up to 11 months anticipated from April 2024 – February 2025
4. Governance:
 1. External: The "Voluntary Demand Response Pilot Program Agreement", which references the Customer Service Policy, executed between Grant PUD and each Customer.
 2. Any terms not specifically covered in the Agreement default to the Commission Approved Customer Service Policy which authorizes Demand Response programs.
 3. Internal: GCPUD's Energy Risk Management Policy and Energy Risk Oversight Committee oversight
5. Transactions and Daily Operations:
 - Offer: When daily wholesale prices are high enough to create a value opportunity for both participating customers and Grant PUD, Grant will determine the hours of proposed curtailment and the associated bill credit price and communicate that information for the following day(s) to participating customers.
 - Accept and Confirm: Customers that choose to participate will respond with hourly curtailment volumes via email to GPUD for those hours proposed by Grant PUD for the

- following scheduling day(s). Grant will respond to the customer with confirmation of hours and volumes.
- Communicate: Staff will sum the transaction volumes, update the appropriate day-ahead forecasts, and relay the information to internal employees in Customer Solutions, EMS, LPS, and Dispatch as well as Grant's Slice Services provider, Morgan Stanley.
6. Authorized Transactors: Authorized Wholesale Personnel develop pricing and make offers as described in the Energy Risk Management and Reporting Policy (Policy).
 7. Performance Measurement: Customer performance is measured using Grant PUD's AMM 15-minute interval data. Customer load is calculated before, during, and after the Performance Period to determine the actual load change, and then compared to the transaction's Nominated Volume. Customer must deliver at least 90% of Nominated Volume. Volume less than 90% will result in zero Billing Credits for the Transaction. Curtailment above 110% of the Nominated Volume will be capped at 110% of the Nominated Volume.
 8. Penalties: There are no penalties applied for non-attainment of Volume. However, staff may suspend participation for customers who fail to perform and will discuss issues of non-performance with customers.
 9. Billing: Billing Credits are calculated based upon the offered price (\$/kWh) multiplied by the delivered total load reduction (kWh) within the limits described above.
 1. Billing Credits will be applied to the Premises under a single customer account and bill.
 2. Billing Credits may be carried over month-to-month on a Premises basis, subject to a minimum monthly bill of zero.
 3. Billing Credits cannot be "cashed out".
 4. Grant PUD will work with Customers to transfer any unused billing credits to a new Customer at the same Premises.
 10. Evaluate: Risk Management function will independently review the performance including estimated benefits and costs.

Justification: Discussed above. Primary objective is to develop organizational knowledge and capability related to Demand Response to help evaluate future opportunities.

Financial Considerations: The primary purpose of this program is organizational learning. Program costs are entirely internal labor costs. Based upon historical price data and estimated price offerings this program is anticipated to cover costs and produce a benefit for core customers. Benefits and costs are closely correlated to number of wholesale pricing events and future outcomes will vary substantially depending upon the future wholesale market.

Change Order History: See attached change order table.

Legal Review: Stakeholder review including legal review, provided in presentation information.

Recommendation: Commission approval through resolution is not required to move forward with the pilot program, however staff would appreciate any input or feedback from the Commission.

Enterprise Technology Business Review

Commission Update – February 2024



Powering our way of life.

Agenda

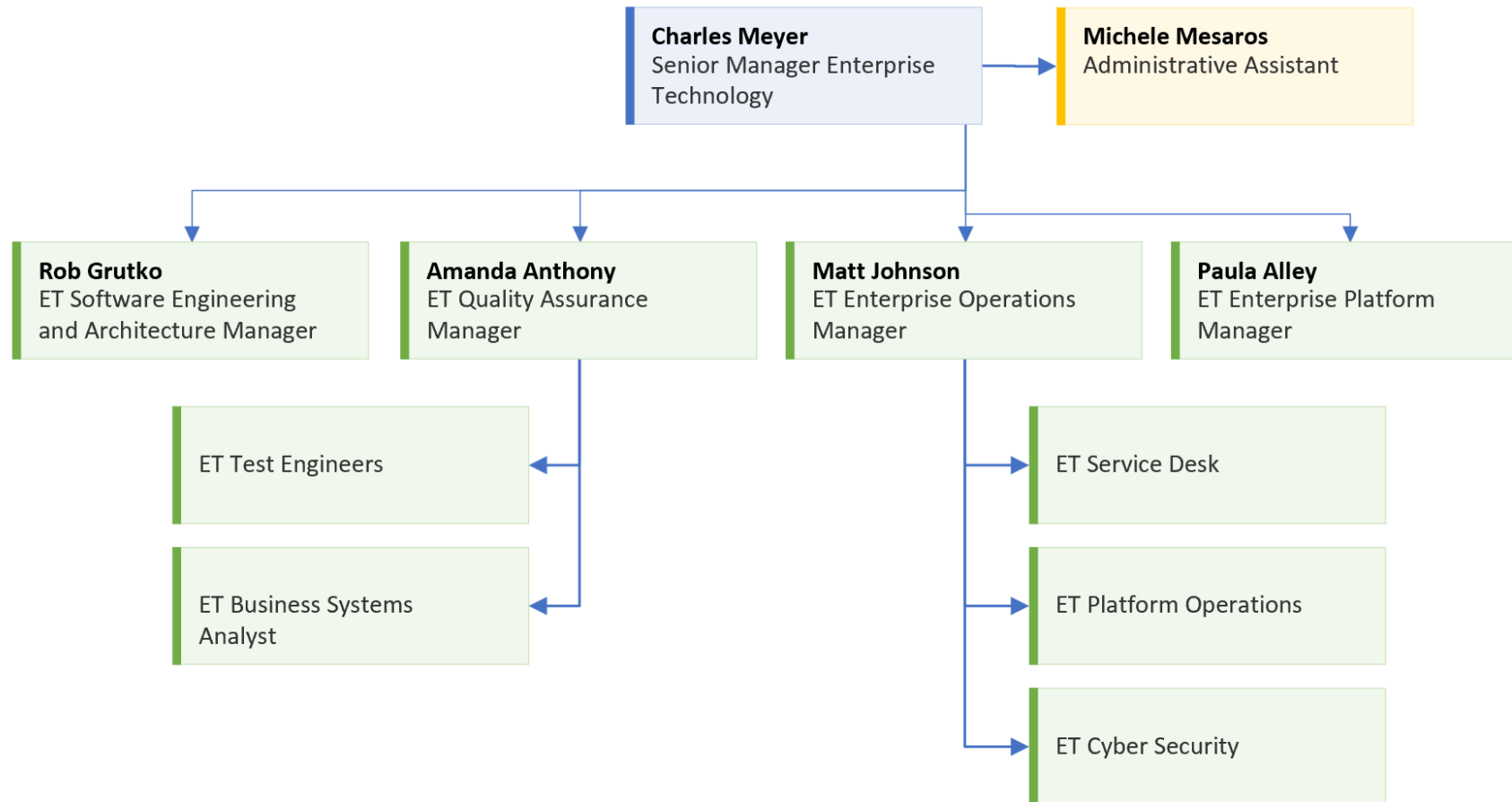
- 1. Functional Review**
- 2. Technology Project Update**

01

Functional Review

**Key Accomplishments
Since Last Update**

Enterprise Technology Organization



Service Desk

Service Desk has modified schedules and internal policies to better support District needs:

- Continuing with split 4/10 schedule, improved response times and better service noticed by Craft workers on similar schedules

Staffing Changes

- Created Desktop Engineer Position – Kyle Swanson (22 years at the District!) moved up from Service Desk II
 - Allows better segregation of duties, freeing up L2's to focus on regular duties - Better collaboration with Platform Operations
- Backfilling positions to ensure reliable support the District's IT needs.
 - Jeffrey Brock moved from Service Desk Specialist I to II
 - Jeff Jones moved from LA to FTR
 - New Hire: Chris Balbuena – From Moses Lake, great attitude and professionalism
 - Preparing to Backfill 1 more position.

Key Performance Indicators – Reaching our Goals

- Completed over 7,500 Service Requests/Incidents in 2023
- Maintained Target of <30 Open Tickets per Technician
- SLA Improvement Tracking 2023 (Target of 95%)



Requests Within SLA: 2023

94% ↑

% of Requests within SLA: 77%

Platform Operations

Focus on continuous improvement of our Core IT Services and Server Infrastructure

-Stabilization -Standardization -Documentation -Processes -Governance

Email Systems and Infrastructure

-Exchange Infrastructure is all on supported versions -Legacy Servers/Appliances decommissioned

Microsoft Enterprise Agreement

-5 year VS 3 year -Locked in pricing -Cost Savings -Reduced Administration overhead

SQL Roadmap and Migrations

- Migrate SQL Instances to most current version possible

Total	2019	2022	Decomm	In Progress	Not Started
39	18	9	6	4	2

A few of our Projects In-Flight

-Fish Count Infrastructure Refresh -Network Core Replacement -IT Service redundancy and Disaster Recovery
-Fiber Autoprov Migration -ITSM and CMDB -Server Hardening Policies

Cyber Security

Patch Management

- Building on last year's deployment of Tenable
- Engaged with other IT teams to build a program of regular patch management

Penetration Testing

- Identified a preferred vendor to work with
- Hoping to have first engagement mid-year

Azure Security Score

- Working with Platform Operations and the Service Desk
- Recommendations to increase our overall posture
- We continue to maintain a higher-than-average score when compared to similar organizations

Mobile App Management and WebApp policies

- Worked with Service Desk on policy guidance to reduce attack surface and exposure of corporate data
- Service Desk built, tested, and rolled out organization wide

Type	Patched
All Vulns	4003
CVSS 10	855
Exploitable	1730
Windows	3725

Comparison



Enterprise Applications

Enterprise Applications manages and maintains all our enterprise applications at the District to ensure the business has the tools it needs to meet their business processes. Successes mid-year to now for 2023:

- **Completed** taking the Fall release of UKG (our Human Capital Management System) in November 2023 without any issues.
- **Completed** the CCS 22C release in September 2023 and just recently took 23A in Production in January 2024.
- **Configured** the tool which we currently use for our hoteling software called Robin to be able to allow external visitor check-ins on an iPad. Safety is looking at using this to replace the tool iLobby that currently costs \$900/month.
- **Completed** the upgrade of MSGP software which also included upgrading our server environments to more current supported hardware/software and went live in September 2023. Getting us to the latest version of MSGP gave us more opportunity to look at automation of manual financial processes.
- **Completed** Maximo configuration changes to support the Power Production's new Compliance Tracking program and enhanced Job Plans
- **Continue** to support the multiple enterprise applications to maintain/manage and to address any issues or new business needs.

Software Engineering and Architecture

Software Engineering & Architecture provides all the enterprise architecture and software development activities for the District.

- **Operlog** upgrade project.
 - Requirements documentation – Install and Owner's Manual.
 - Upgrade base program from older code version.
- **Continued** support of development activities projects.
 - Financial Reporting / Financial Database.
 - Union Seniority Database
- **Consolidating & Supporting** FME workspaces (2014) to support one production instance.
 - Fish Count / Water Quality / CCS / Maximo / Arcos
- **Continued** development and support of SharePoint and PowerApps applications

Quality Assurance

Quality Assurance provides the organization with a framework and team to ensure the quality of the solutions developed and implemented by the Enterprise Technology organization. Key accomplishments for Quarter 4 of 2023:

- **Continued and Concluded** quality assurance and quality control activities in support of the Enterprise Technology Roadmap implementations of a Field Service Management system (Clevest).
- **Continued** to grow the Business Systems Analyst team
 - Added Sarah Sutton from Customer Solutions to our team in October 2023
 - Establish an intake and evaluation process for all technology resource requests
 - Adding tooling to better enable staff such as Modern Requirements that sits on our Azure DevOps tenant to support Requirements gathering, functional spec building, test planning, sizing, reporting, and execution efforts.
- **On-going** quality assurance and control activities in various Capital and O&M projects/initiatives.
 - Apprentice Tracking, PowerApp for PD Electric Dept
 - Job Site Review, PowerApp for Safety Dept., CI Team 6, and Big 3 in 2023
 - Oracle CCS Upgrade to 23A, in support of Customer Solutions
 - Operlog upgrade and improvements, in support of PP Operations
 - Vena, in support of Finance and Big 3 in 2023

02

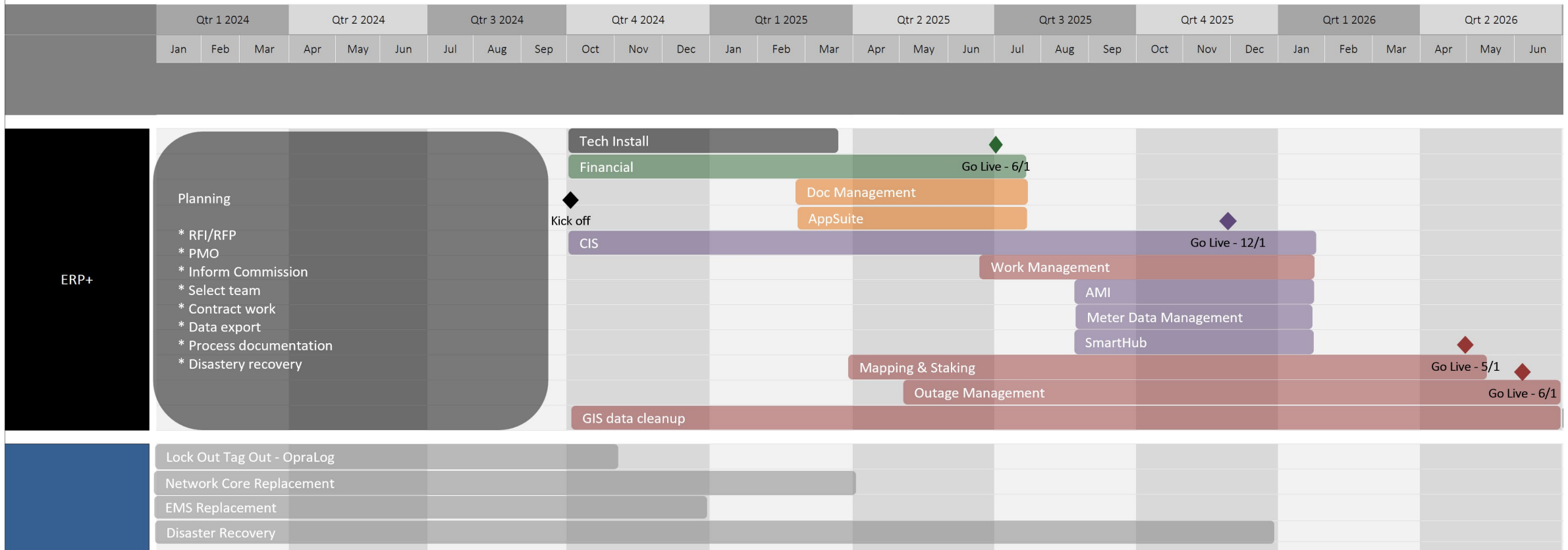
Technology Project Update

Key Projects in Flight

2024 Technology Roadmap

Technology Roadmap for 2024 and beyond.

Technology Roadmap



Roadmap Planning

- 2024 – 2026 is a heavy focus on ERP+ selection and implementation.
 - Currently in the RFI process
 - Deeper dives into process and requirements
 - Communications with OCM
- Upgrading key infrastructure components is a focus for 2024.
- Moving the disaster recovery implementation along in 2024, focus on infrastructure and servers for Criticality Level Tier 0 (core sources).



Powering our way of life.

STATE AND FEDERAL LEGISLATIVE UPDATE

Feb. 13, 2024

Chuck Allen: Senior Manager of External Affairs & Communications

Ryan Holterhoff: Senior Policy Analyst – Government Affairs

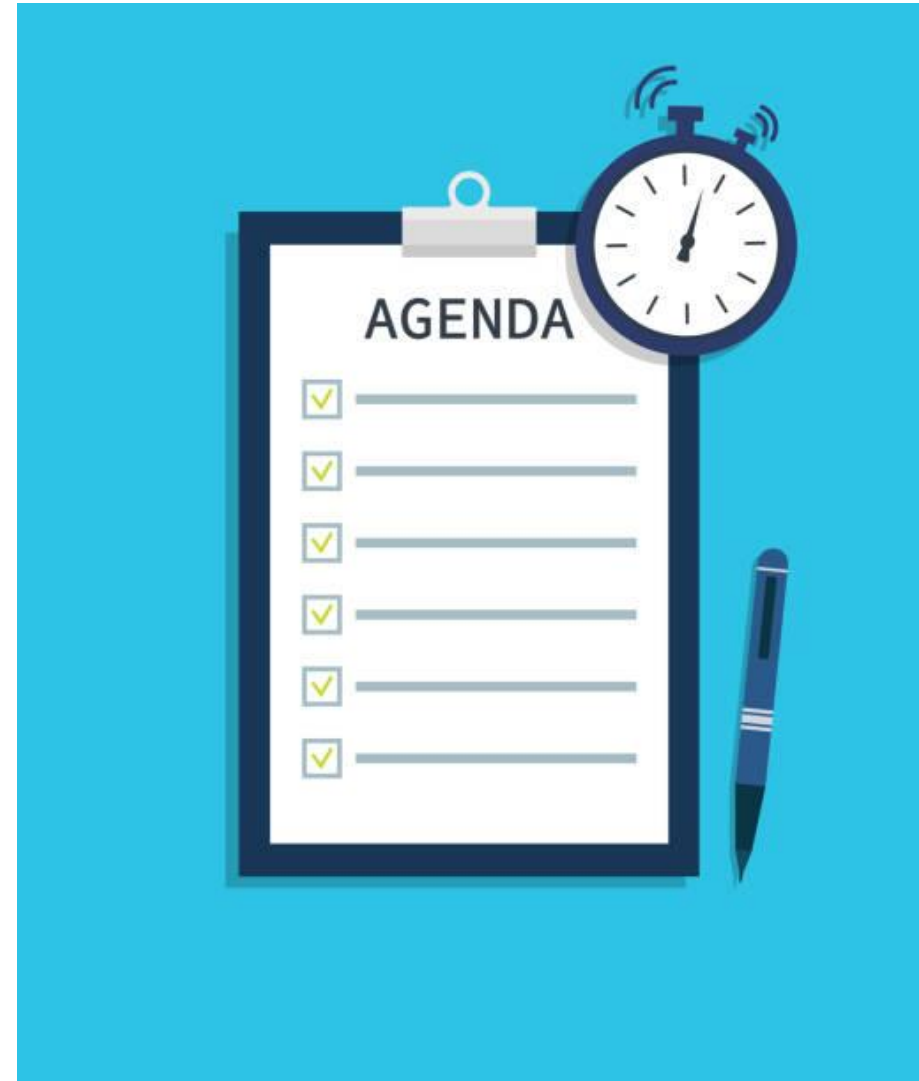


Powering our way of life.

Agenda

Key Topics

- *State Issues and Topics* –
 - 2024 session overview/update
 - Key state issues
- *Federal Issues and Topics* –
 - Second session of Congress begins
 - Top federal priorities





State Legislative

Update

State legislative session

Scheduled: January 8- March 7 (60 days)



Jan. 31 - Last day to be out of the policy committee in the house of origin



Feb. 5 - Last day to be out of the fiscal committee in the house of origin



Feb. 13 - Last day for bills to be out of the house of origin



Feb. 21 - Last day for bills in the opposite house to be out of policy committee



Feb. 26- Last day for bills in the opposite house to be out of fiscal committee



March 1 - Last day to consider opposite house bills except for budget and revenue matters



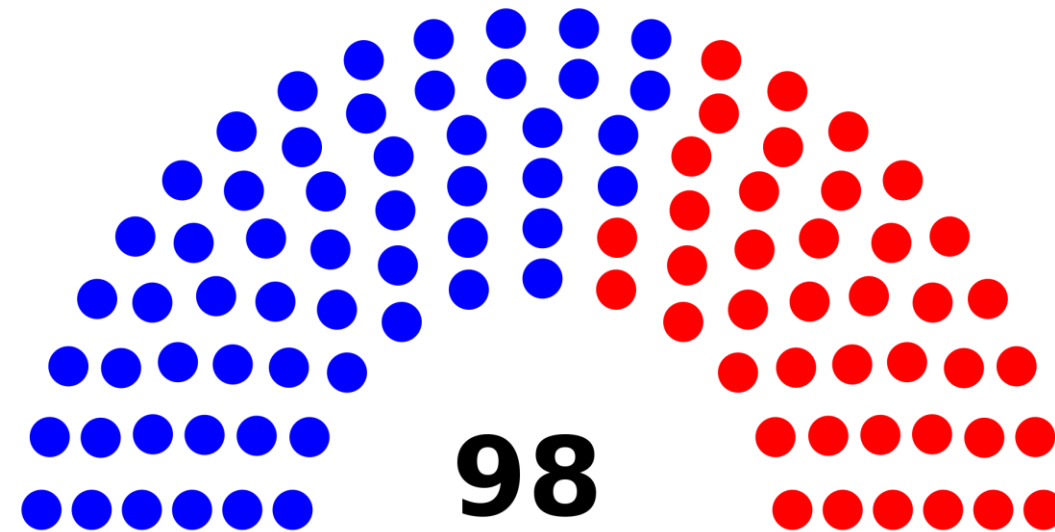
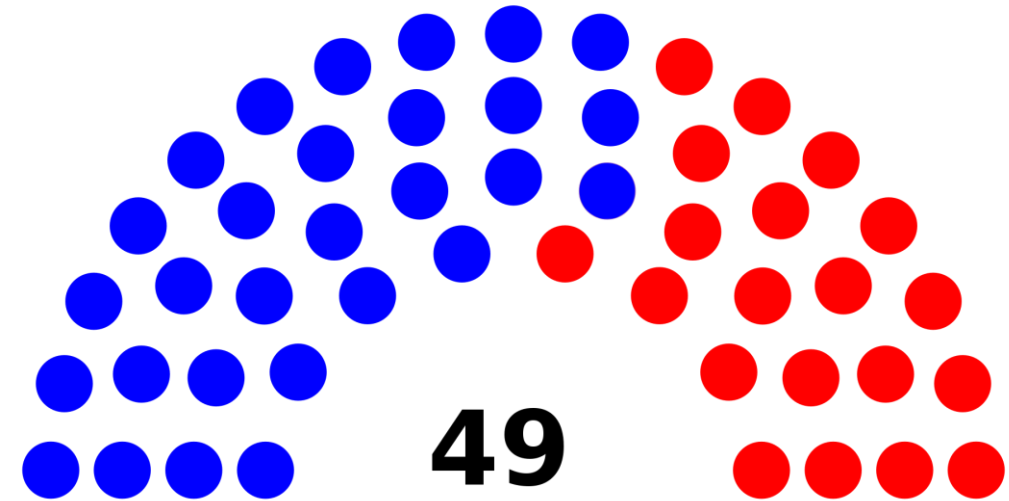
March 7 - End of the regular session

2024 Legislative Cycle

Session Overview

- Supplemental budget year
 - Governor Inslee released his nearly \$71 billion supplemental state budget in December.
 - \$941 million for climate and clean energy programs
- Democrats control both chambers with a 29-20 majority in the Senate and 58-40 edge in the House.
- Governor Inslee's final year in office and last legislative session. Three terms 2013-2024.

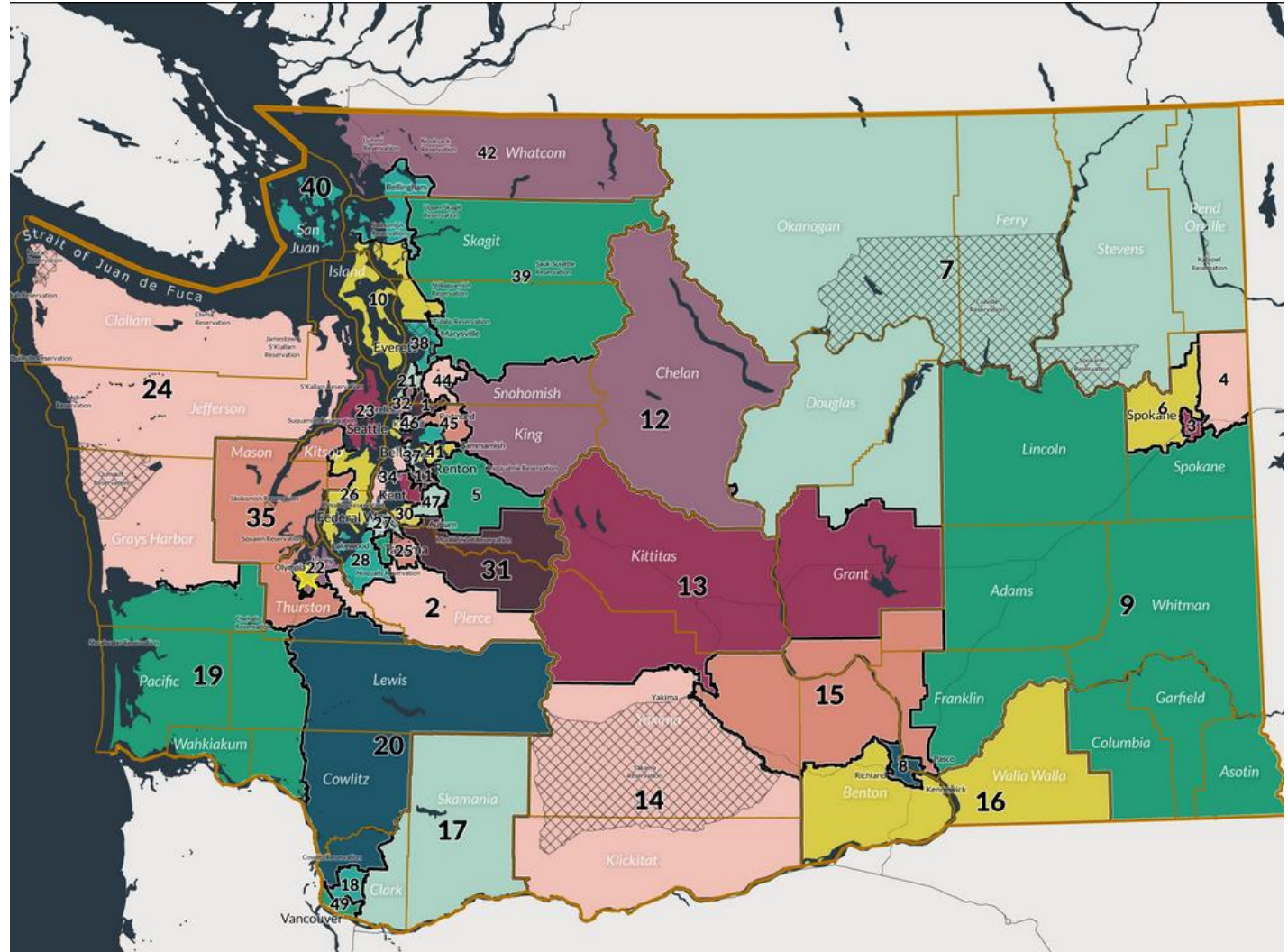
State Senate Make-up



State House Make-up

Grant County's Legislative Districts

- District 7
 - Sen. Shelly Short*
 - Rep. Jacquelin Maycumber
 - Rep. Joel Kretz
- District 13
 - Sen. Judy Warnick
 - Rep. Tom Dent
 - Rep. Alex Ybarra*
- District 15
 - Sen. Nikki Torres
 - Rep. Bruce Chandler
 - Rep. Bryan Sandlin*



* Member of Senate/House energy committee

2024 state session

Overview

- The Dept. of Ecology's final quarterly report for the cap-and-invest program showed an estimated \$1.8 billion in 2023 auction proceeds
- Other Climate Commitment Act (CCA) Uncertainty
 - Initiative to repeal
 - CCA fix bills
- Low-income Energy Assistance activities based on the requirements in the Clean Energy Transformation Act (CETA)
 - Dept. of Commerce Workshops
 - Gov. Inslee proposal for \$200 utility bill credit
 - HB 2234 Concerning energy assistance for low-income households

Key issues

Some of the Bills we are tracking

Linking WA Carbon Market

- HB 2201/SB 6058: Would facilitate the linkage of Washington's carbon market with the California and Quebec Carbon market.
- Requested by the Dept. of Ecology
- California and the province of Quebec currently have linked carbon emissions market that functions similar to WA's program
- Would allow allowance auctions to be held jointly and could help stabilize costs

Providing solar consumer protections

- SB 6256: The intent is to establish rules of business practice for solar contractors and solar salespersons
- The bill should help to limit the circumstances where unscrupulous solar companies mislead the public about the benefits of solar and which lead to utilities having to deal with dissatisfied customers
- Clarifies that installation of the solar system may not begin until the applicable utility approves the interconnection application

Key issues

Some of the Bills we are tracking

Energy assistance for low-income households

- HB 2234: The legislation ensures utilities can more efficiently and effectively administer low-income programs required under the Clean Energy Transformation Act (CETA)
- It clarifies that utilities with less than 25,000 customers only need to offer one program instead of multiple programs
- It would also clarify that assistance can be targeted to a subset of low-income households with a higher energy burden

Tax on no-cost allowance

- HB 2199: Authorizes an exemption of B&O/PUTC taxes from amounts received as the result of the sale of allowances in Washington's carbon market
- The bill would be both retroactive and prospective
- By law, benefits of no-cost allowance sales are to be used for the benefit of rate payers, starting first with low-income rate payers. This would ensure customers derive the full benefits of any proceeds

Key issues

Some of the Bills we are tracking

Transitioning WA to a clean energy future

- HB 1589: Prohibits any large gas company serving more than 500,000 customers from providing new natural gas service
- Creates exemptions for certain types of facilities (e.g. medical care, military, manufacturing)
- Concerns over transitioning a large amount of customers to electricity at a time when the grid is already strained.

Reducing emission from small off-road engines

- HB 2051: Adopts California's small off-road engine and equipment standards
- Exempts chainsaws and generators
- Establishes a temporary grant program for local government for zero emission outdoor power equipment
- Also creates a temporary sales and use tax exemption for zero-emission outdoor power equipment
- Worked with WPUDA to provide other potential exemptions

The image features a blurred background of the United States Capitol dome under a bright sky. In the foreground on the left, an American flag is partially visible, waving on a flagpole with a gold finial. The text 'Federal Legislative' is overlaid in white on the flag and the blurred background.

Federal Legislative

Update



118th congressional - second session

Issues we are following

Columbia River Operating System— In December, the U.S. Government (USG) filed an agreement in Oregon to resolve an Endangered Species Act lawsuit against the federally owned dams on the Columbia and Snake Rivers. Under the agreement the USG commits to helping tribes build replacement power for the four Lower Snake River Dams

There have been letters from many industry associations and also four of Washington's representatives sent a letter to the Council on Environmental Quality (CEQ), regarding the filed settlement agreement voicing concerns and "questions regarding funding sources, increased projected rates for the Bonneville Power Administration (BPA) and customers, and the U.S. Government's (USG) ability to carry out its commitments in the settlement."

Congress of the United States

Washington, DC 20515

December 22, 2023

Page 2

The Honorable Brenda Mallory
Chair
Council on Environmental Quality
730 Jackson Place NW
Washington, DC 20503

Dear Chair Mallory:

We write to you today regarding the filed settlement on Columbia River System Operations and the efforts to resolve disputes between the parties in litigation. We have long supported efforts that restore salmon and other native fish populations back to the Columbia River Basin. However, we have concerns and outstanding questions regarding funding sources, increased projected rates for the Bonneville Power Administration (BPA) and consumers, and the US Government (USG)'s ability to carry out its commitments in the settlement.

We are concerned with the lack of clarity in how the USG plans to finance the projects laid out in this document. Some language in the settlement document does not adequately delineate or describe a commitment's source of funding. For example, the document states that the actions taken under the Mid-Columbia Restoration Plan "will likely require at least doubling current levels of mitigation and restoration funding," which the Six Sovereigns have indicated "would likely cost upwards of \$200M/year in additional funding over the next ten years". USG has not provided the programs or federal agencies that would supply the funding, nor the appropriations requests needed to fulfill these commitments. Though the USG, in coordination with the regional sovereigns, are compelled to develop an agreed upon set of actions by June 30th, 2024 for the Mid-Columbia Restoration Plan, the agreement has commitments that risk the USG leaving yet another tribal commitment unfunded if not properly clarified.

We understand that the settlement will require funds appropriated by Congress to meet the commitments laid out in the settlement. We look forward to the clarity that the Office of Management and Budget's Crosscut Budget set to be released January 2024 will provide and ask that information be shared with Members representing congressional districts and states in the region. If Congress is unable to appropriate the required funds, what other funding sources will USG rely on to meet the commitments in the settlement?

Together, Congress and this administration have invested billions of dollars to phase out carbon-emitting sources and spur a new green net-zero emissions economy, which would not be possible without the reliable, baseload contributions of clean hydropower energy. We appreciate the Administration's efforts to work with tribes of the region to provide technical assistance, conduct analysis on prospective tribal-owned energy projects, and support fish restoration. It is critical that the USG continue to partner with all tribal nations in the region through our clean energy tribal funding programs, and also all regional stakeholders, including BPA. To that end, we have questions regarding the proposed Pacific Northwest Tribal Energy Program and BPA's obligations.

BPA has an obligation to follow its statutory requirements on resource acquisitions as laid out by the Northwest Power Act in Section 6(c). Without any specifics of the projects or the estimated cost of power for future tribal energy projects, it's unclear whether BPA's resource acquisition process would allow for purchase of power agreements to move forth. However, the document states: "When considering resource acquisitions necessary meet the Administration's obligations, BPA shall consider purchases of power generated by tribally-owned or


sponsored power resources, as appropriate, consistent with the Tribal Preference Authority, which allows Federal agencies to prioritize purchasing tribally-owned energy." What expectation does the Administration have that BPA will in fact purchase power from tribally-owned or sponsored power resources if BPA's resource acquisition process does not permit tribal-owned energy to be purchased?

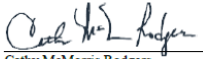
The document places a cap on BPA funding commitments at \$300 million, which BPA estimates will, in combination with prior USG investments in the region, result in a 2.7% rate increase for 10 years. This is concerning for the utilities in Washington State who purchase a substantial portion of their energy mix from BPA. Rate increases have the hardest impact on low-income ratepayers. The document further states that BPA will use either the GDP Deflator published by the US Bureau of Economic Analysis or will be addressed on a project-specific basis. Is the cap also subject to rise due to inflation calculations?

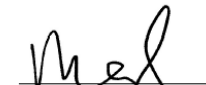
We would also like to emphasize that some stakeholders who rely on the dams, such as utilities, navigation, transportation, recreation, and agricultural interests in our districts, have conveyed to us considerable frustration and a sense of being excluded from the mediation process that yielded this agreement. We appreciate the acknowledgement that congressional approval is required to remove the Lower Snake River Dams. However, the document's framing of all new power generation as "replacement" is also of concern to some of our utilities who are working to meet our state's electrification goals. As the implementation of many of these commitments rely on cooperation from those outside of the agreement, we strongly urge the Administration to engage in a more robust and transparent manner with all stakeholders in the region as they move forward to next steps in this settlement process. It is essential to continue an open, regional dialogue if we are to have any hope of enhancing access for salmon to critical habitat and expanding clean energy sources.


Thank you for your consideration of these concerns and questions and we appreciate your attention to restoration of the Columbia River Basin salmon and other native fish populations under threat.

Sincerely,


Kim Schrier, M.D.
Member of Congress


Cathy McMorris Rodgers
Member of Congress


Marie Ghesenkamp Perez
Member of Congress


Dan Newhouse
Member of Congress

Clarity on Post-2024 River Operations

Columbia River Treaty

- 10 years since the Regional Recommendation was forwarded to the State Department
 - It was the product of several years of collaborative work
 - All major stakeholders with significant interest
- Canadian officials have recently acknowledged that the Canadian Entitlement is presently worth more than \$300 million per year
- The region needs to understand what / if any changes should be expected regarding river operations as flood control operations are scheduled to change in September

Other federal items

Government Funding and investment requests

- On Jan. 18 Congress passed a two-tiered continuing resolution to fund the government through early March. A topline funding deal for the remainder of 2024 was announced in early January, the extension will hopefully allow for final passage of the necessary appropriation bills.
- S. 2994 and H.R. 6653 Maintaining and Enhancing Hydroelectricity and River Restoration Act would support future dam safety projects and environmental improvements through a 30% Investment Tax Credit
- The American Public Power Association and several energy-related trade associations sent a letter urging Congress to include \$1.2 billion in funding to bolster domestic transformer manufacturing

Thank You



Powering our way of life.

Attorney review _____
Auditor review _____
Manager review

RESOLUTION NO. 8608

A RESOLUTION ESTABLISHING DELEGATED PURCHASING AUTHORITY
LIMITS AND SUPERSEDING RESOLUTION NO. 8534

Recitals:

The District's Commission has determined that it is desirable and in the District's best interests to make changes to the levels of purchasing authority delegated to the District's management.

NOW THEREFORE, BE IT RESOLVED by the Board of Commissioners of Public Utility District No. 2 of Grant County, Washington, as follows:

Section 1. The District's General Manager or his delegate is hereby delegated the authority to enter into contracts, except for purchase of real property, for and on behalf of the District which do not exceed the sum of \$1,000,000.00. The General Manager or his delegate may, in their discretion, refer any purchase of any amount to the Commission for approval.

Section 2. All contracts shall be in strict compliance with all laws and District policies. The District's General Counsel shall approve all policies and forms to be used for procurement. Any contract which is not on the District's approved boilerplate form shall first be submitted for review by the District's Legal Counsel or Auditor.

Section 3.

A. Contracts for lease of real property exceeding \$5,000.00 per year shall be reported in writing to the Commission as soon as practical following execution.

B. Purchases of goods or services shall not be split for purposes of avoiding the limitations contained herein.

C. Any purchase of goods or services approved by management pursuant to this resolution must be included in the District's current approved budget.

D. Emergency purchases shall continue to be governed by District Resolution No. 6425 (no dollar limit on General Manager's authority).

E. Wholesale electric power purchases shall continue to be governed by District Resolution No. ~~7650~~.

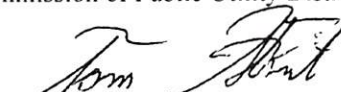
Transmission -
7869
Power -
7560

Section 4. Except as otherwise provided herein, all purchases of goods or services shall require prior Commission approval by motion or resolution.

Section 5. The authority of the General Manager as specified in Section 1 shall be reviewed by the Commission in February 2014 and every subsequent February occurring in even numbered years.


Section 6. This resolution shall be effective April 1, 2012 and shall supersede and amend all prior District resolutions, including Resolution No. 8534, to the extent that they conflict with the delegation limits set forth in this resolution.

PASSED AND APPROVED by the Commission of Public Utility District No. 2 of Grant County, Washington, this 12th day of March, 2012.

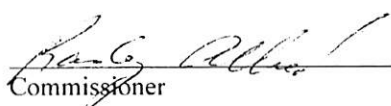


President

ATTEST:

Secretary


Commissioner

Vice President


Commissioner

Attorney review _____
Auditor review _____
Manager review *cl*

RESOLUTION NO. 8609

A RESOLUTION ESTABLISHING NEW CHANGE ORDER
APPROVAL LIMITS AND SUPERSEDING RESOLUTION NO. 8535

Recitals:

The District's Commission has determined that it is desirable and in the District's best interests to make changes to the levels of change order approval authority delegated to the District's management.

NOW THEREFORE, BE IT RESOLVED by the Board of Commissioners of Public Utility District No. 2 of Grant County, Washington, as follows:

Section 1. All change orders shall require prior approval by Commission motion except as provided below.

Section 2. The General Manager or his/her delegate is hereby delegated the authority to execute one or more change orders to any existing contract, provided the cumulative dollar amount of the particular contract, including all prior change orders and the new change order(s), does not exceed the Commission delegated contract authority limits under Resolution No. 8608 as the same may be amended from time to time.

Section 3. For contracts which have received prior Commission approval by motion or resolution, the General Manager or his/her delegate may execute one or more change orders, provided the dollar amount of the new change orders(s), on a cumulative basis, does not exceed \$500,000.00.

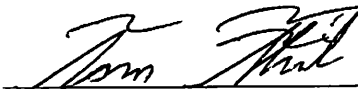
Section 4. A report of all change orders shall be provided to the Commission monthly.

Section 5. All change orders shall be in strict compliance with all laws and District policies. The District's General Counsel shall approve all policies and forms to be used for procurement.

Section 6. The authority of the General Manager to approve change orders as specified in Section 3 shall be reviewed by the Commission in February 2014 and every subsequent February occurring in even numbered years.

Section 7. This resolution shall be effective April 1, 2012 and shall supersede and amend all prior resolutions, including Resolution No. 8535 to the extent that they conflict with the delegation limits set forth in this resolution.

PASSED AND APPROVED by the Commission of Public Utility District No. 2 of Grant County, Washington, this 12th day of March, 2012.

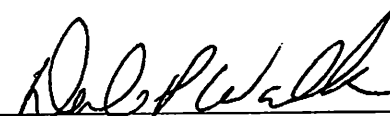


President


ATTEST:

Secretary

Vice President



Commissioner



Commissioner

ESM Quarterly Business Report 2024-Q1

February 13, 2024



Powering our way of life.

Contents/Agenda

1) Introductions

- Re-branding
- Organization Structure
- Summary of 2024 Work

2) Business Intelligence & Market Analytics

- Org Structure
- 2024 Work Plan
- 2025 and Beyond
- Hiring Plan

3) Power Portfolio Strategy

- Org Structure / Hiring Plan
- 2024 Work Plan
- 2025 and Beyond

4) ESM Research

- Org Structure
- 2024 Work Plan
- 2025 and Beyond

4) Net Power Reporting & Metrics

- Org Structure
- 2024 Work Plan
- 2025 and Beyond
- Hiring Plan

5) Wholesale Services

- Org Structure
- 2024 Work Plan
- 2025 and Beyond
- Hiring Plan

6) Integrating & Partnering

- Finance
- Customer Experience
- Enterprise Technology
- Other

Introductions

1) Re-Branding

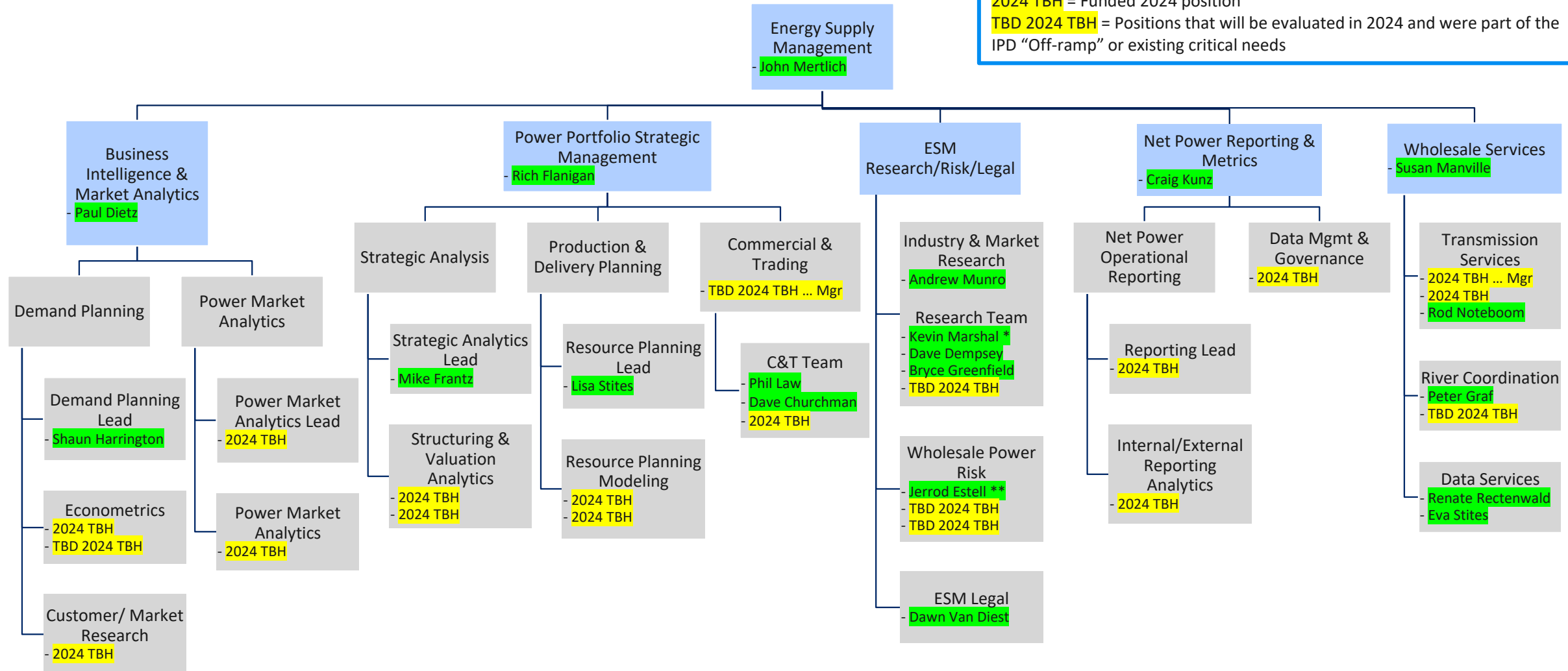
Intentional Power Demand is now ***Energy Supply Management*** (ESM)

- ESM is more descriptive of the work the team will be doing
- ESM is more easily understood outside of Grant PUD
 - Enabling coordination with external parties (both commercial and organizational)
 - “Energy Supply Management” is not an uncommon standard naming convention for a business unit that manages the Resource Planning & Procurement, Load & Price Forecasting, Net Power Reporting, and Wholesale Management
- The name “Intentional Power Demand” was intended to help facilitate the change from the matrixed approach to an organized business unit

Introductions

2) Organization Structure

* Kevin Marshal is a shared resource and reports direct to the GM
 ** Wholesale Power Risk functions and personnel will report to Paul Dietz for business continuity reasons
 Green = Current Employee
 2024 TBH = Funded 2024 position
 TBD 2024 TBH = Positions that will be evaluated in 2024 and were part of the IPD "Off-ramp" or existing critical needs



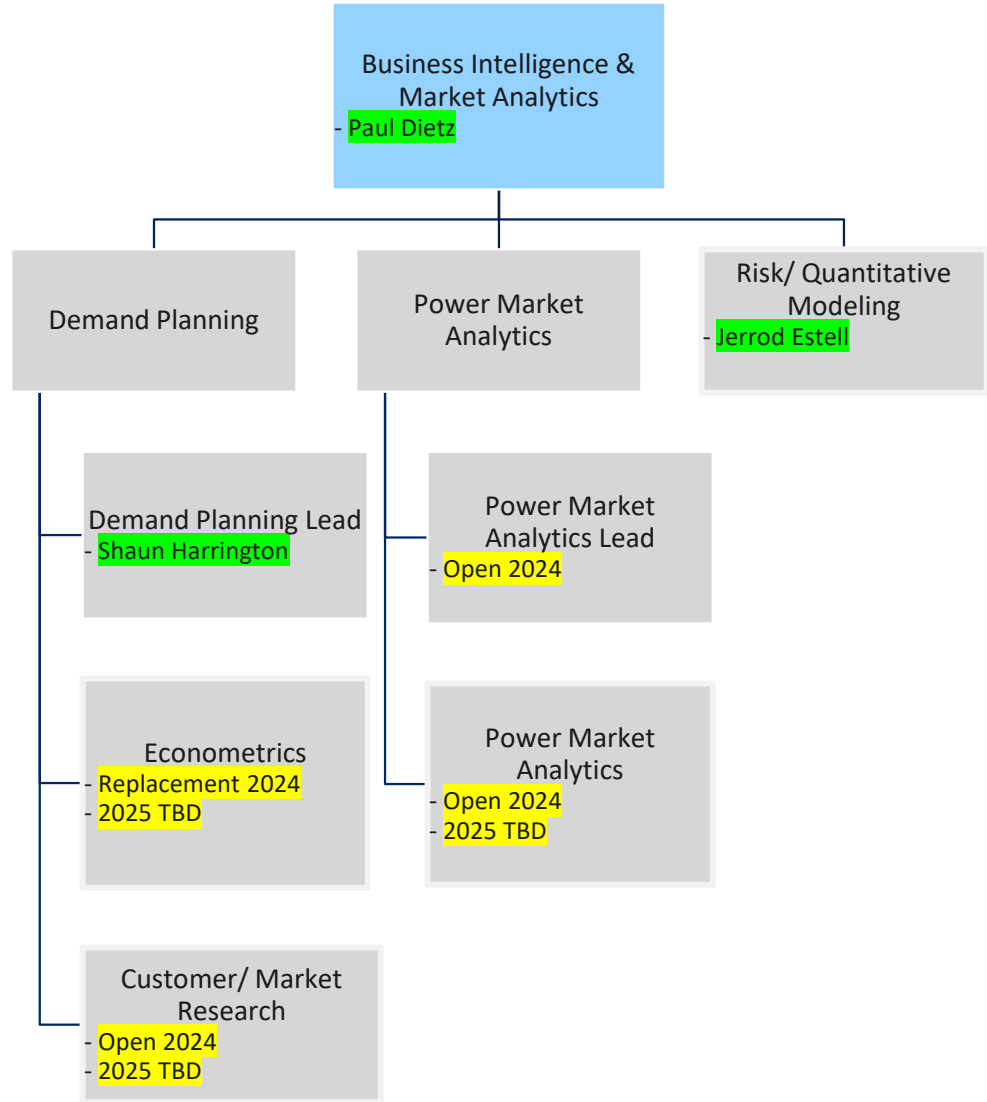
Business Intelligence & Market Analytics (BIMA)

BIMA comprises expert economic modelers and forecasters dedicated to analyzing the impact of emerging external factors on GCPUD's operational goals. We delve into the dynamics of market supply and demand, both locally and globally, and assess the influence of changing public policies on our markets.

In a nutshell: We keep our eyes on what's coming our way

Introductions

2) Organization Structure



Business Intelligence & Market Analytics

2024 Work Plan:

Enhanced Load Forecasting: Shift to hourly short, medium, and long-term forecasts of power demand, energy, and retail sales

Market Analytics: Supply and Demand Fundamentals leading to Price Forecasts and other economic information

Business Intelligence Reporting Tool (BIRT): A single go-to place for at-a-glance Energy Supply Management dashboards and information

Value Stream Roadmaps: A complete plan describing what BIMA will provide to GCPUD stakeholders

BIMA Reporting Package Roadmaps: These will be BIMA's most significant load and price forecast contributions to the BIRT

Business Intelligence & Market Analytics

2025 and Beyond:

Maturation: 2025 will be a program maturation year

Continual learning: Using history to inform model updates and improvement

Consumer Demand Fundamentals: Taking load forecasting to the next level

Understanding Markets Developments: Market dynamics and value mapping of our changing electricity and ancillary marketplaces

Public Policy Support: Leveraging our economics and modeling skills to support our decision makers

Business Intelligence & Market Analytics

2024 Hiring Plan:

Post Date:

Demand Planning

Senior Economist (replacement)

February 2024

Senior (or Research) Economist

March 2024

Market Analytics

Lead (or Senior) Economist

April 2024

Senior (or Research) Economist

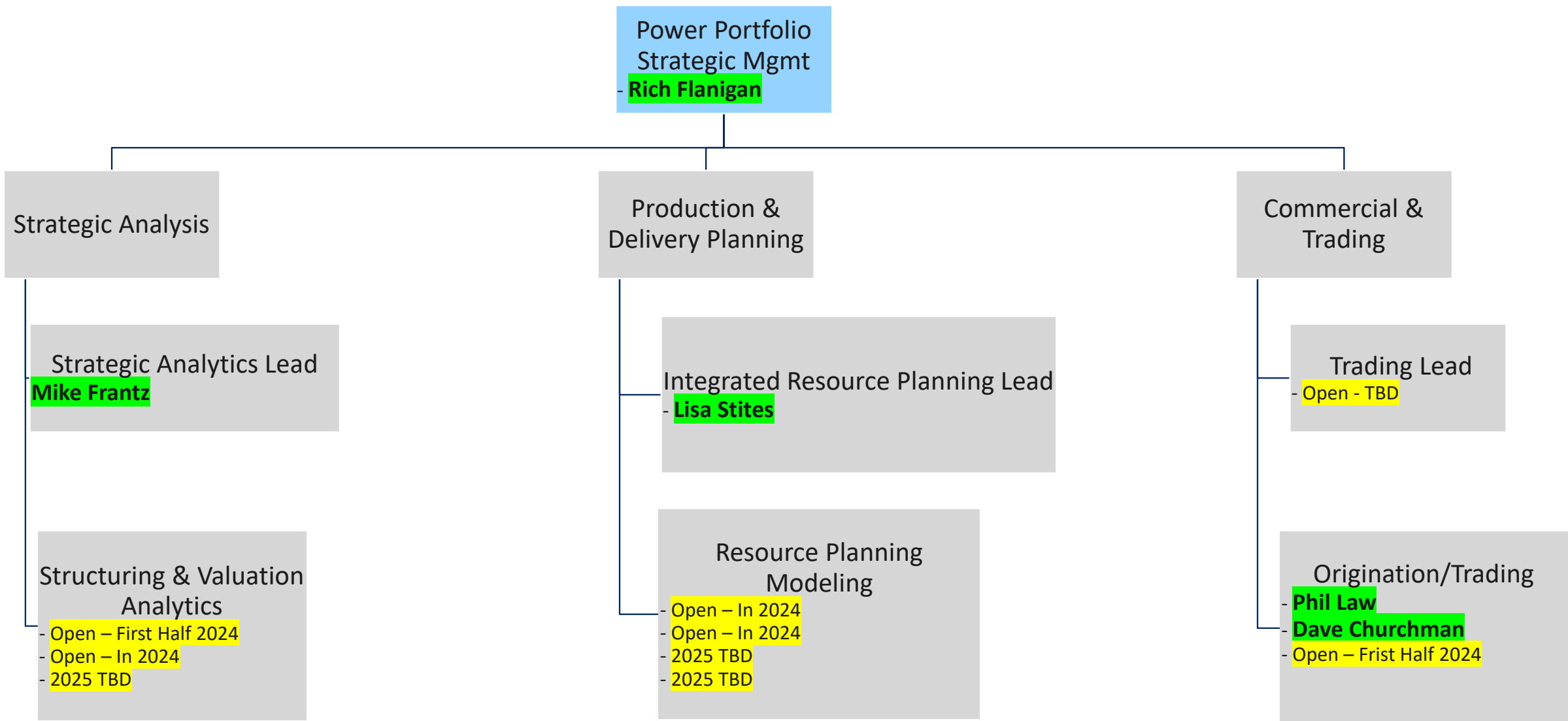
March 2024

Power Portfolio Strategy

Power Portfolio Strategy (PPS) – The analytics and decisioning function for the Strategic Recommendations coming from ESM.

Introductions – Power Portfolio Strategy

- Organization Structure / Hiring Plan



Power Portfolio Strategy

2024 Work Plan:

Resource Planning:

- **Enhanced Integrated Resource Plan** – file 2024 IRP, strategy to integrate transmission planning, incorporate Loss of Load Expectation
- **Capacity Request for Proposal (RFP)** – evaluate and score RFP projects, identify any short-listed projects, present findings to ELT/Commission, contracting if needed

Power Portfolio Hedging:

- **Slice Agreement** – identify structure for new 10% slice, market slice, negotiate contract
- **Portfolio Service Slice (Pooling Agreement)** – develop strategy and structure for next Service Slice, begin marketing
- **Carbon legislation** – monitoring and mitigating effects on portfolio

Power Portfolio Analysis:

- **Portfolio modeling** – develop plan for execution, identify links with resource planning
- **Market participation** – plan for future day-ahead market, WRAP participation

Power Portfolio Strategy

2025 and Beyond:

Evaluate and finalize structure

- Personnel and modeling resource needs
- Identify and track Key Performance Metrics (KPI)

Continue to enhance future resource planning

- Advance IRP and portfolio modeling to help inform decision making
- Enhancing and expanding future capacity Request for Proposals (RFP)

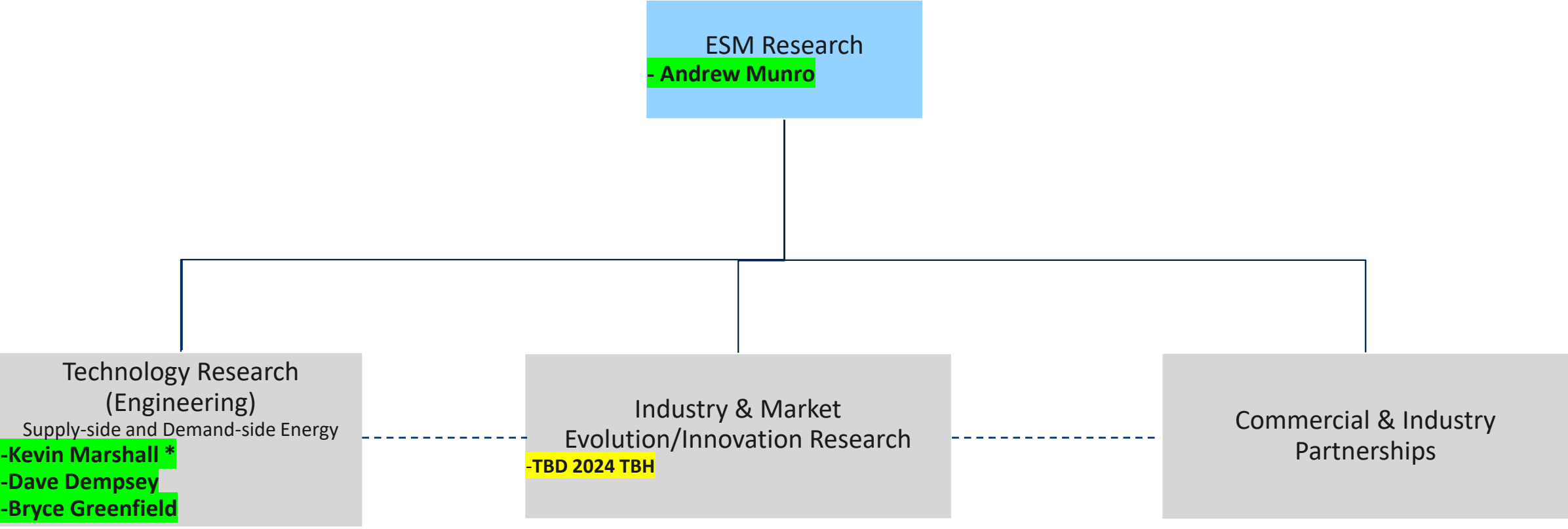
Power Portfolio Hedging and Analysis:

- Implementing new Portfolio Service Slice
- Progressing towards 2030 CETA goals
- Entering binding Western Resource Adequacy Program (WRAP)
- Investigating, planning, and potentially implementing new market structure

“Powered by Research”

Mission: We drive energy innovation using rigorous exploration, research and engineering analysis to meet today’s challenges and anticipate tomorrow’s needs.

ESM Research



2024 Work Plan:

Technology Research (Engineering)

Work
Streams:

Technology
Prioritization
& Research

Supply-side &
Demand-side

Research
Queue

GC Energy
Asset
Inventory

Research
Library

Land
Acquisition
for Energy
Supply

ESM Research

2024-25 and Beyond:

Industry & Market
Evolution/Innovation
Research

Commercial &
Partnership
Opportunities

Work
Streams:

Market
Trends
Analysis;
Emerging
Tech.

Customer
Insights;
Regulatory
Research;
Pilot
Projects

BPA Post-
2028
Contract

Government
Funding

Commercial
& Research
Partnership
Dev.

Net Power Reporting & Metrics

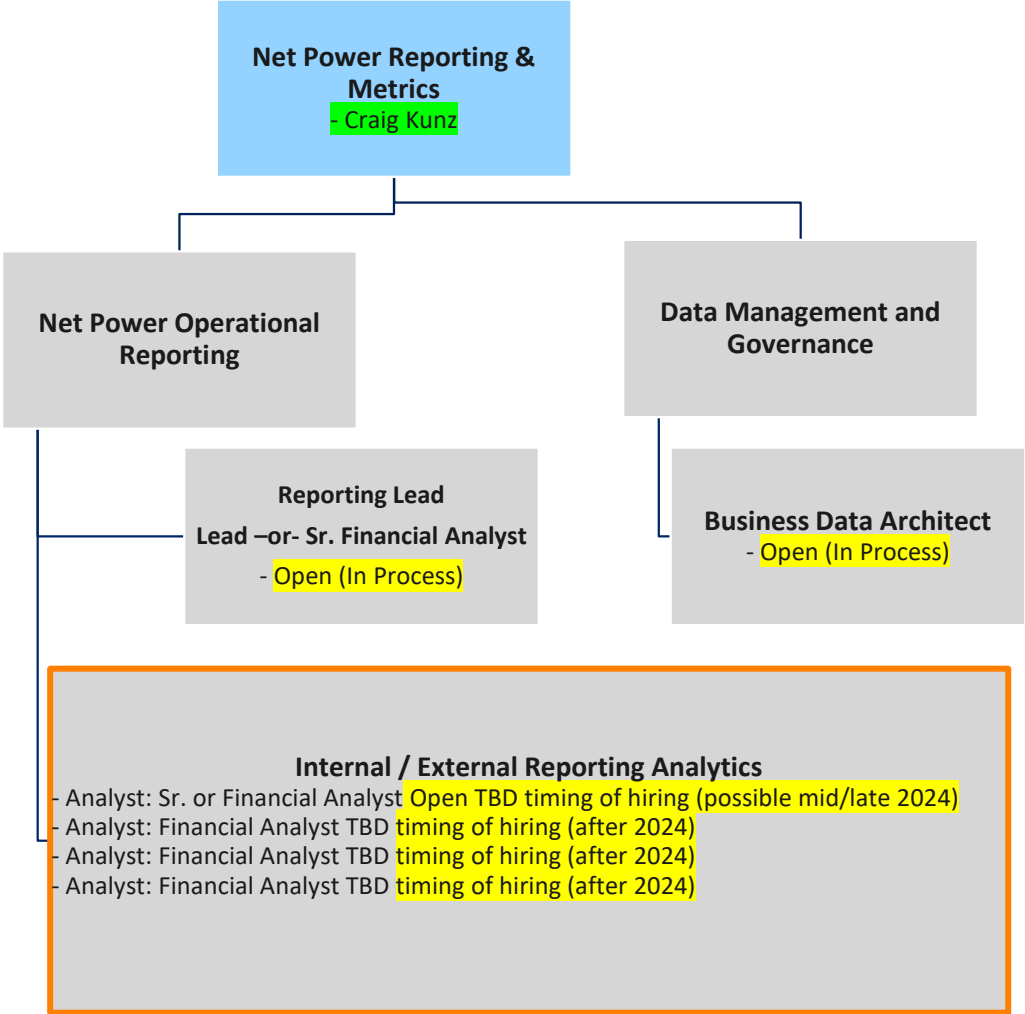
Production and communication of consistent, timely, accurate and integrated Net Power and Gross Margin reporting.

Integrated: Assumptions and related impacts are aligned across all net power and gross margin related results, including the downstream impacts to the District financial statements in detail (general ledger level), allowing comparisons to historical results and key trends and impacts in the future.

- *Cost of Power from Energy sources \$/MWh*
- *Wholesale Revenue from Portfolio components \$/MWh*
- *Retail Revenue and Costs by Class \$/MWh*

Introductions

2) Organization Structure – Net Power Reporting & Metrics



Net Power Reporting & Metrics

2024 Work Plan and Deliverables

- **Leveraging completed efforts performed during 2023**
 - New forecast model, revenue requirement model, debt detail alignment, etc.
- **Production of consistent, timely and integrated net power reporting**
 - Integration with complete financial impacts based on current financial forecasts and assumptions (updated quarterly at minimum)
 - Dollars (\$'s) and related commodity (MWh's) of the District's Energy Portfolio
 - Retail Revenue and Net Wholesale Revenue
 - Measures:
 - 2 years historical actuals results, margin
 - YTD actual results margin
 - Current budget and YTD budget results margin
 - Min 5 to 10 year forecasted results

Net Power Reporting & Metrics

Work Plan 2025 and beyond

- **Quarterly financial reporting packet (integrated results)**
 - Margin Reporting (revenue less expenses) associated with:
 - Retail revenue component by class
 - In alignment with forecasted revenue requirement
 - Key Net Wholesale Revenue components
 - e.g. Slices, Market purchases and Sales, etc.
- **Rolling 4 quarters of 5 year forecasted financial results**
 - e.g. Q3-2024, Q4-2024, Q1-2025, Q2-2025
 - Documented variances, assumptions and trends related to key Net Power and Gross Margin reporting, including
 - Partner and coordination of this work with the Finance team to identify impacts on other key financial indicators

Net Power Reporting & Metrics

Hiring Plan

Function & Position(s)

Approx. Post Date

Net Power Operational Reporting

- Lead -or- Sr. Financial Analyst
- Analyst: Sr. or Financial Analyst
- Analyst: Financial Analyst (up to 3)

In Process: to post ~2/2024

To Post Mid to Late 2024

After 2024, perhaps much later: (timing as demands and workload warrant)

Data Management and Governance

- Business Data Architect

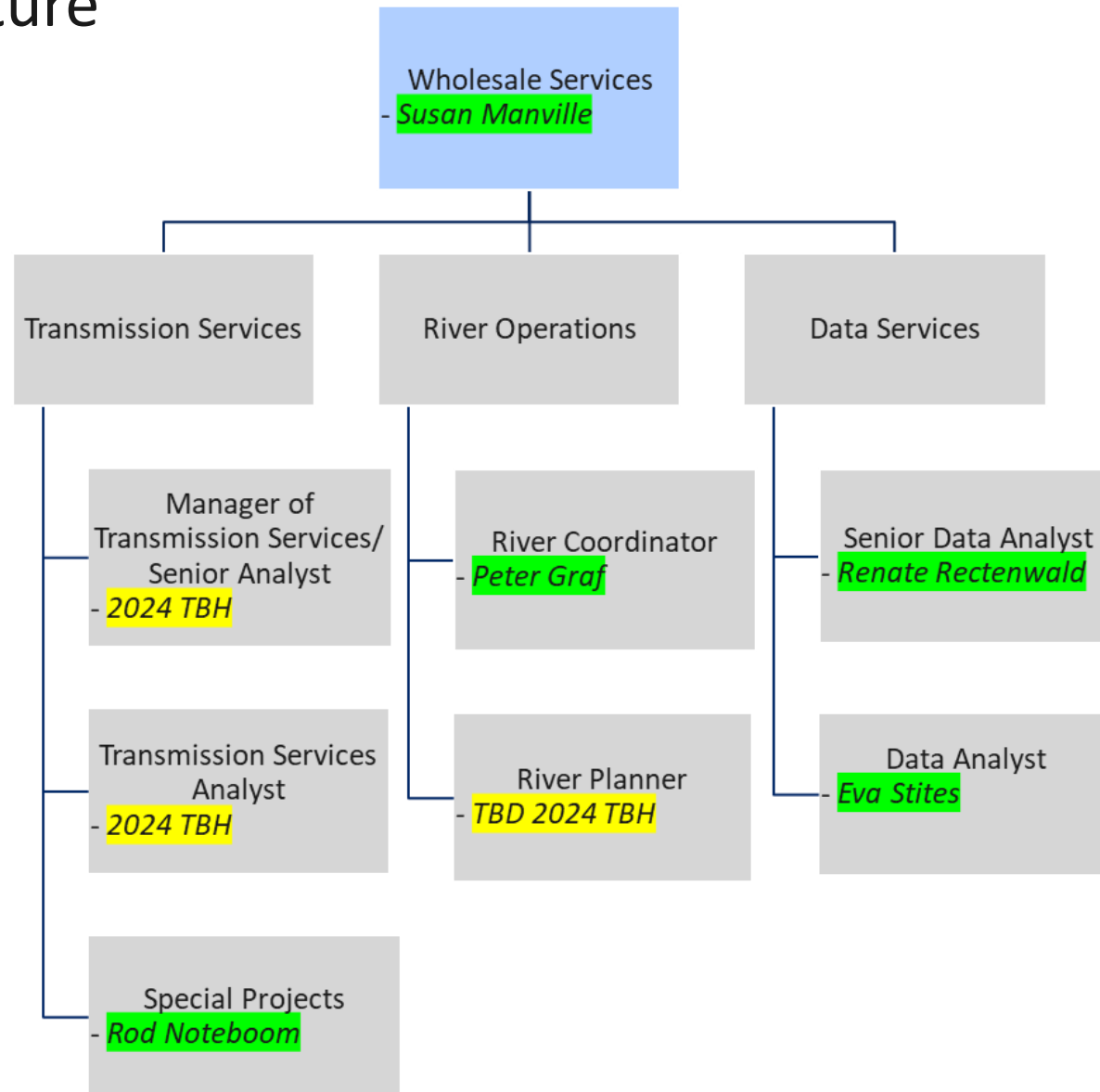
In Process: GEM Resourcing assistance

Wholesale Services

Wholesale Services is the bridge between strategy development and implementation in real-time. We are responsible for planning and coordinating the operational execution of wholesale strategies; maximizing value while ensuring compliance to environmental constraints, regional programs and contractual obligations. Our services support both internal and external wholesale customers.

Wholesale Services

Organization Structure



Wholesale Services

2024 Work Plan:

Energy Supply Management Business Objectives: Develop Reporting Package, Value Streams and Roadmaps for Wholesale Services

Open Access Transmission Tariff (OATT): Finalize Tariff document and project scope; implement revised procedures/agreements

Generation Interconnections: Transition to cluster study process; gain momentum in process execution through improved coordination and communication

Enhanced Constraint Management: Investigate modeling enhancements to optimize reservoir constraint management

Regional Operational Coordination: Participate in various regional efforts in operational coordination and organized market participation

Staffing Plan: Execute 2024 plan and develop plan for 2025 & beyond based on resource needs identified through project scope work

Wholesale Services

2025 and Beyond:

Standardized and Comparable Transmission Service: OATT/OASIS implementation; Transmission Service Provider (TSP) registration; tagging & scheduling improvements

Water Accounting Upgrade/Data Workflows: Execute implementation of new Water Accounting system; develop structured workflow for integration of water/operational/modeling data

Investigate Operational and Constraint Opportunities: Influence operational requirements and performance through coordination with external agencies and collaboration with internal resources

Organized Market Participation Strategies: Develop operational plan for potential transition into an organized market (Day Ahead & Real Time)

Wholesale Services

2024 Hiring Plan:

Post Date:

Transmission Services

- Manager of Transmission Services
(or Senior Transmission Services Analyst)
- Transmission Services Analyst

March 2024

March 2024

River Operations

- River Planner

May 2024

Questions?



Powering our way of life.