## Incidents Reported

<table>
<thead>
<tr>
<th>DATE</th>
<th>INJURY</th>
<th>DESCRIPTION:</th>
<th>CAUSES:</th>
<th>PREVENTION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/17/2020</td>
<td>Forehead</td>
<td>While tightening the lug nuts on a wheel the extension broke and fell forward hitting forehead on tire resulting in a cut on the forehead from either the tire or glasses.</td>
<td>Overexertion</td>
<td>Verify the tool you are about to use is adequate for the task.</td>
</tr>
<tr>
<td></td>
<td>2020</td>
<td>Month</td>
<td>YTD</td>
<td></td>
</tr>
<tr>
<td>------------------------------------</td>
<td>------------</td>
<td>-------</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Total Incidents Reported</td>
<td>1</td>
<td>1</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Recordable Case(s)</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Restricted Duty Case(s)</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Lost Workday Case(s)</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Vehicle</td>
<td>Driver’s Account:</td>
<td>Prevention</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>---------</td>
<td>------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>5-13-2020</td>
<td>441</td>
<td>While driving vehicle 441 turned corner too sharp and nicked driver side bin door against a garbage can.</td>
<td>Stay alert, utilize defensive driving skills</td>
<td></td>
</tr>
<tr>
<td>5-26-2020</td>
<td>429</td>
<td>Backing up 429 (alone). Got too close to 448 hit side of it, sun was in eyes.</td>
<td>Be aware of surroundings and environmental conditions</td>
<td></td>
</tr>
<tr>
<td>5-27-2020</td>
<td>442</td>
<td>While driving on rocky terrain, rock kicked up and popped off the running board step.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Close Calls

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-1-2020</td>
<td>Wanapum Dam</td>
<td>Six hand sanitizer stands were delivered to Wanapum Dam. While setting the stands out an employee tore their shirt on one of the stands. Further investigation showed the quality of the fabrication was less than optimal and left several sharp edges on the mounting plates, welding wire ends sticking out from the welds. Numerous poor welds resulted in legs bending with little or no force and unsafe metal sharp edges made the stands unusable.</td>
</tr>
<tr>
<td>5-1-2020</td>
<td>Wanapum Dam</td>
<td>Shaft Tensioners were borrowed from Priest Rapids while using the Tensioners it was noticed that the Tensioners had a 3/8&quot;x 16 NC swivel eye threaded into a 10mm x 1.5 threaded hole. The under sized picking eye could have pulled out dropping the Tensioner.</td>
</tr>
<tr>
<td>5-18-2020</td>
<td>PEC</td>
<td>While heading home at the end of the shift at PEC an employee noticed an empty boat motoring in circles in Potholes lake. The employee turned around went back to investigate. Upon arrival an elderly gentleman was seen in the water clinging to the side of the boat, distressed and yelling for help. The employee called his coworker explaining to him the situation and location for support. The employee removed his boots and dove into the water swimming out to the boat. He then climbed into the boat gained control of the boat. Was not able to pull the man into the boat so he ran the boat to shore and got the man out of the water. Our employee most likely saved this mans life! The water temperature is in the 50's and the gentleman was not wearing a life jacket. His fishing pole had fallen into the lake and while reaching for it he fell into the water.</td>
</tr>
<tr>
<td>5-19-2020</td>
<td>Wanapum Dam</td>
<td>Mounting bolts missing from top of fixed ladder on Wanapum Unit 04 stator.</td>
</tr>
<tr>
<td>5-27-2020</td>
<td>MLSC</td>
<td>While manually opening the roll up door, two of the rollers fell off allowing the door to travel past the stops and letting one section of the door to come off the track.</td>
</tr>
<tr>
<td>5-28-2020</td>
<td>Priest Rapids Dam</td>
<td>Employee was exiting PR Spillway Gallery when they encountered a rattle snake outdoors near the column that supports the fish ladder. Operations was notified.</td>
</tr>
<tr>
<td>Date</td>
<td>Location</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>5-19-2020</td>
<td>Moses Lake</td>
<td>District contractor hit a city water main approximately 6 feet below street level while boring under one of the entrances to the Lowe’s parking lot. Further investigation is being performed to determine the root cause of the incident and potential actions to prevent a similar incident in the future.</td>
</tr>
<tr>
<td>5-18-2020</td>
<td>Quincy</td>
<td>A District contractor hit a live underground primary distribution line while digging a trench to install conduit. Locates had been called and the line was marked. The power strike occurred next to a gravel road where some of the locate marks had been erased by traffic. An assumption was made about the path of power through the area with missing marks. Operator did not follow trenching protocol and very the exact location of power by hand digging or with a vac truck prior to trenching.</td>
</tr>
<tr>
<td>5-26-2020</td>
<td>Priest Rapids Dam</td>
<td>P08 SSG (speed signal generator) was being moved by the contractor from the erection bay to the 3rd floor of the Priest Rapids Powerhouse for installation. The shipping crate that the SSG came in had been partially disassembled by other crew members. Contractors used a pallet jack to move the crate onto the freight elevator. The SSG weighs approximately 60lbs. After exiting freight elevator and making a corner the SSG tipped onto its side. The screws securing the SSG support frame had been removed when the shipping container was partially disassembled. Some damage occurred to the SSG, no injuries occurred.</td>
</tr>
</tbody>
</table>
2020 incidents Year to Date Summary

Employee Safety

- Level 6 – Fatality or Hospitalization
- Level 5 – Lost Work Day Case(s)
- Level 4 – Restricted Duty Case(s)
- Level 3 – Recordable Injury Case(s)
- Level 2 – First Aid Case(s)
- Level 1 – Serious Close Call
- Level 0 - Other – Close Call

**2020**

- 37

**2019**

- 67

Recordable Cases TTL.
# Leading & Lagging Indicators

## Recordable Injury Rate

<table>
<thead>
<tr>
<th>Month</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun-19</td>
<td>3.1</td>
</tr>
<tr>
<td>Jul-19</td>
<td>2.6</td>
</tr>
<tr>
<td>Aug-19</td>
<td>2.4</td>
</tr>
<tr>
<td>Sep-19</td>
<td>2.9</td>
</tr>
<tr>
<td>Oct-19</td>
<td>3.0</td>
</tr>
<tr>
<td>Nov-19</td>
<td>2.7</td>
</tr>
<tr>
<td>Dec-19</td>
<td>3.2</td>
</tr>
<tr>
<td>Jan-20</td>
<td>2.9</td>
</tr>
<tr>
<td>Feb-20</td>
<td>2.9</td>
</tr>
<tr>
<td>Mar-20</td>
<td>3.0</td>
</tr>
<tr>
<td>Apr-20</td>
<td>2.9</td>
</tr>
<tr>
<td>May-20</td>
<td>2.5</td>
</tr>
</tbody>
</table>

## Jobsite Reviews Conducted

<table>
<thead>
<tr>
<th>Month</th>
<th>Reviews Conducted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun-19</td>
<td>50</td>
</tr>
<tr>
<td>Jul-19</td>
<td>43</td>
</tr>
<tr>
<td>Aug-19</td>
<td>82</td>
</tr>
<tr>
<td>Sep-19</td>
<td>78</td>
</tr>
<tr>
<td>Oct-19</td>
<td>82</td>
</tr>
<tr>
<td>Nov-19</td>
<td>72</td>
</tr>
<tr>
<td>Dec-19</td>
<td>79</td>
</tr>
<tr>
<td>Jan-20</td>
<td>71</td>
</tr>
<tr>
<td>Feb-20</td>
<td>68</td>
</tr>
<tr>
<td>Mar-20</td>
<td>39</td>
</tr>
<tr>
<td>Apr-20</td>
<td>34</td>
</tr>
<tr>
<td>May-20</td>
<td>40</td>
</tr>
</tbody>
</table>

## Safety Meeting Attendance

<table>
<thead>
<tr>
<th>Month</th>
<th>Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun-19</td>
<td>92%</td>
</tr>
<tr>
<td>Jul-19</td>
<td>95%</td>
</tr>
<tr>
<td>Aug-19</td>
<td>96%</td>
</tr>
<tr>
<td>Sep-19</td>
<td>96%</td>
</tr>
<tr>
<td>Oct-19</td>
<td>96%</td>
</tr>
<tr>
<td>Nov-19</td>
<td>95%</td>
</tr>
<tr>
<td>Dec-19</td>
<td>96%</td>
</tr>
<tr>
<td>Jan-20</td>
<td>95%</td>
</tr>
<tr>
<td>Feb-20</td>
<td>95%</td>
</tr>
<tr>
<td>Mar-20</td>
<td>87%</td>
</tr>
<tr>
<td>Apr-20</td>
<td>91%</td>
</tr>
<tr>
<td>May-20</td>
<td>97%</td>
</tr>
</tbody>
</table>
12 MONTH ROLLING - RECORDABLE INJURY RATE - 2019 VS. 2020
## Safety Action Item Critical Success Factors

### Incident Reporting (Date of Entry into System vs Data of Distribution Systemwide)

- Number of Close Calls in May = 10
- Number of Close Calls sent Next day after being entered into the system = 3

### Number of Open Action Items over 60 days old = 65

- Year 2017 = 9
- Year 2018 = 12
- Year 2019 = 33
- Year 2020 = 10
# Incident Reporting (Date of Incident vs. Date of Entry into System) for May 2020

<table>
<thead>
<tr>
<th>Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Total Number of Injuries = 1</td>
</tr>
<tr>
<td>• Total Number of Injuries Which Date of Incident and Date Entered into System Match = 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mobile</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Total Number of Mobile Incidents = 4</td>
</tr>
<tr>
<td>• Total Number of Mobile Incidents that Date of Incident and Date Entered into system match = 4</td>
</tr>
</tbody>
</table>
Thank You!

Powering our way of life.
Safety

SHIP Update – Q2 2020

Powering our way of life.
The Commission receives the Monthly Safety Report – this report is only a small part of our monthly Safety Meetings.
Safety Meetings at Grant PUD

The backbone of our Safety Meetings are our Chairs and Scribes:

• They keep the meetings fresh
• They keep the meetings informative
• They give their hearts and treasures
Today’s Goal
Provide an insight into the May Safety Meetings

I would like to share portions of our May Safety Meetings. I would like you to see what some of these safety leaders have contributed.
Rationalizing Unsafe Choices
(Trevor Kristensen – Chair WD)

Rationalizing Unsafe Choices Safety Talk

Making the decision to follow every single safety rule or procedure does not come natural to us. We constantly have to work towards making the right decisions every single day. Many times individuals find ways to rationalize not working safely. It is important for each worker to recognize this error trap and address it when it arises.
Rationalizing Unsafe Choices
(Trevor Kristensen – Chair WD)

Why We Rationalize Unsafe Choices

For the most part we all know what the right choice is when it comes to safety during a specific work task. Safety trainings, policies, procedures, labels, etc. all communicate what needs to be done in order to mitigate hazards and work safely. The problem is, there are many factors that affect whether or not we want to make the right decisions in a given moment. A few of these factors include:

• Time pressure
• Lack of supervision around
• Lack of enforcement of rules
• Energy levels
• Mood
Reminder about PPE and decontamination
Reminder about why we cough into our elbow
Powering our way of life.
Modifications to General Service Rate Schedule 2, Streetlighting Rate Schedule 6 and the Fee Schedule

Rich Cole, Energy Services
Robert Brill, Rates and Pricing Economist
June 23, 2020
Commission Action Requested

- **Purpose:** To request Commission approval for modification of Rate Schedule No. 2, General Service, Rate Schedule No. 6, Street Lighting Service and the Fee Schedule.

- The modification to Rate Schedule 2 would add a new fee schedule for small devices that consume energy but do not justify the cost of a meter.

- The change to Rate Schedule 6 would add LED into the Street Lighting schedule in response to recent interest from cities within the County.

- The change to the Fee Schedule is to correct 4.5.1.A Item “up to 2500 KVA” to “500 KVA” and correct fee from “100%” to “75%”.

Rate Schedule 2 Discussion

- Grant PUD’s business practice of billing a flat rate for energy usage for non-metered infrastructure started with the City of Warden when they constructed a streetlight in 1956.

- The kWh energy component is based on the equipment and calculated at the time the customer requests service, as shown in Exhibit A for Rate Schedule 2F.
Rate Schedule 6

Discussion

• Streetlight technology, cost and availability has changed over the years. The Cities within Grant County PUD’s operational area expressed a desire to have current conventional lights changed to LED.

• Updating Rate Schedule 6 to include LED’s clarifies the rates charged to customers that choose to convert or install LED streetlights. Staff is not proposing any change to the existing rate blocks currently reflected on Rate Schedule 6.
Fee Schedule Change Discussion

• Corrected 4.5.1.A Item “up to 2500 KVA” to “500 KVA”. This modification was missed after previous resolution approval of Section 8 of CSP. Section 8 handles cost policy for Rate 7 customers above 500 KVA. Rate 7 customers will now pay 100% of service facility costs per section 8.

• Corrected 4.5.1.A Fee from “100%” to “75%”. Rate schedule 1, 2, and 3 customers pay 75% until maximum is met, then customers pay 100% beyond maximum limit.
Questions?
Security Budget

TOTAL: $1,899,587
O&M: $1,240,409
LABOR: $629,178
TRAVEL AND TRAINING: $30,000

Budget compared to Year-end Projections.
# Genetec Project

**Budget:** $2.27M  
**Life to Date:** $1,228,652.81

<table>
<thead>
<tr>
<th>Milestones/Deployment</th>
<th>Target Dates</th>
<th>Actual Date</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coulee City</td>
<td>Dec-18</td>
<td>1/11/19</td>
<td>Site is 100% complete including CO.</td>
</tr>
<tr>
<td>Royal City</td>
<td>February 4 – 8, 2019</td>
<td>2/22/19</td>
<td>CO (1) camera issue resolved. Need to install camera then site will be 100% complete.</td>
</tr>
<tr>
<td>Ephrata Annex</td>
<td>March 4 - 8, 2019</td>
<td>3/8/19</td>
<td>CO tasks CR installed 3rd door &amp; comm room. 100% complete.</td>
</tr>
<tr>
<td>Quincy Local Office</td>
<td>March 18 – 22, 2019</td>
<td>3/22/19</td>
<td>Require CO one camera install.</td>
</tr>
<tr>
<td>Moses Lake Local Office</td>
<td>April 8 – 12, 2019</td>
<td>4/26/19</td>
<td>100% complete.</td>
</tr>
<tr>
<td>Wanapum Maintenance Center</td>
<td>April 15 – May 2019</td>
<td>6/14/19</td>
<td>Carpentry camera &amp; storage bldng door ordered.</td>
</tr>
<tr>
<td>Moses Lake Service Center</td>
<td>Jul-19</td>
<td>10/11/19</td>
<td>Back Dispatch center remodel in progress. Genetec implementation for this building pending completion of remodel.</td>
</tr>
<tr>
<td>HOB</td>
<td>June 10 – 21, 2019</td>
<td>7/12/19</td>
<td>100% complete.</td>
</tr>
<tr>
<td>Ephrata Service Center</td>
<td>Jul-19</td>
<td>Target date 3/13</td>
<td>Anticipate 100% completion including CO hardware installation. All buildings are commissioned. Electric Shop is 90% complete.</td>
</tr>
<tr>
<td>Heritage Center</td>
<td>Aug-19</td>
<td>11/12/19</td>
<td>Glass bread sensors &amp; wireless panic buttons to be installed while at PR Facilities in April.</td>
</tr>
<tr>
<td>Ephrata HQ</td>
<td>Oct-19</td>
<td>4/30/20</td>
<td>Facilities work for site prep is in progress. Critical path activity is CIP Environment completion. In progress.</td>
</tr>
<tr>
<td>Priest Rapids Maint Buildings</td>
<td>Nov-19</td>
<td>3/31/20</td>
<td>Site prep in progress.</td>
</tr>
<tr>
<td>Quincy Chute</td>
<td>Oct-19</td>
<td>Feb-2020</td>
<td>Delay in network gear installation. IT resource contraint &amp; new resources.</td>
</tr>
<tr>
<td>Potholes East Canal</td>
<td>November 2019</td>
<td>Feb-2020</td>
<td>Delay in network gear installation. IT resource contraint &amp; new resources.</td>
</tr>
<tr>
<td>Wanapum Switchyard</td>
<td>Nov-19</td>
<td>Apr - 2020</td>
<td>Scheduled</td>
</tr>
<tr>
<td>Phase 2: Hydro Dams</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project close</td>
<td>December 2020</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**CIP 014 Improvements**

**Project Scope**

Wanapum Switchyard has been identified as a critical station/substation under NERC CIP-014-2. As a result the District must conduct a physical security assessment and plan to protect critical assets within the switchyard. As this yard is a shared facility with Bonneville Power Administration. Our goal is to develop a comprehensive security solution for the site. CIP-014 also requires a threat and vulnerability assessment of Ephrata Dispatch and implementation of mitigating measures to address identified vulnerabilities. The scope of work would include the increased security measures at Ephrata Dispatch.

**UPDATE March 2020:**

BPA not in favor of us to install a gate that would impact their access.

After conducting a review, we are looking at immediate options for improving cameras on-site and installing analytics to the cameras that would allow us to design virtual fence lines, intrusion detection and provide real-time alerts.

BPA has noted their improvement plan will include new and improved fencing within the next 2 years. We will review our options down the road for our fence improvement opportunities as well.

**Project Budget: $650k**

Improvement deadline is July 2020
Emergency Management
Incident Command System Status

Status Update: Emergency Management

Incident Command System (ICS)
Incident Management Team (IMT)

Training

Basic on-line ICS (700, 100 and 200) classes for the identified IMT were completed in January.

The FEMA Intermediate ICS for Expanding Incidents (ICS-300) class took place January 21st-23rd at BBCC with 33 previously identified IMT members in attendance. The instruction, 21 hours in length, was well received and participation throughout the interactive class was high and engaging.

The ICS G-0402 NIMS Overview for Senior Officials (Executives, Elected, & Appointed) took place at the conclusion of the ICS-300 class on January 23rd. The majority of our Executive Team and Commissioners were in attendance. As with the ICS-300 class this group was engaged, asking pertinent questions in understanding their role in times of crisis.

Emergency Operations Center (EOC)

Considerations for development of an EOC will be addressed in our Business Continuity and Comprehensive Emergency Operations plans (BCP/CEOP). An emphasis will remain on consideration of a mobile Incident Command Post (ICP) which is the more likely need for the District with our vast campus, various work disciplines and assignments. This work will take place with the assistance of a consultant with the following projected time lines:

- Phase 1 – Discovery and Assessment (2 Months)
- Phase 2 – Development of a Comprehensive Emergency Operations Plan (12 months)
- Phase 3 – Development of a Business Continuity Plan (4 Months)

These timelines are estimates that the Discovery and Assessment phase will drive. Originally set to begin in April 2020, the COVID-19 response and the availability of travel of our consultant may delay or cause the phases to taken of order.

Emergency Action Plan (EAP) Coordinator

The transition of Dave in this role has been initiated as he works closely with the Dam Safety group specific to his responsibilities. The role/responsibilities of the EAP coordinator is required and governed by FERC.
Powering our way of life.
Corrective Action Program

Quarterly Commission Update 6/23/2020

Powering our way of life.
Mission:
To promote the efficient and reliable generation and delivery of energy through a structured and consistent application of a corrective action program.

Vision:
EXCELLENCE IN SERVICE AND LEADERSHIP
To promote the efficient and reliable generation and delivery of energy through a structured and consistent application of a corrective action program.
We continually seek a deeper understanding of our operating experiences to improve human performance and process performance, as we strive for zero incidents.
Efficiently raising the standard for reliability and stewardship of our resources.
Program Accomplishments

• Cross-Discipline Team Building – Partnering with Continuous Improvement, and Human Performance to Share Skills/Knowledge and Forge an Alliance of Operational Excellence

• Compiling and Managing a Lessons Learned Database for our COVID-19 Response

• Active Development of Condition Reporting System, Currently in Maximo Test Environment – Go live Q4 2020

• CAP Procedure Development ~40% CPL
COVID-19 Lessons Learned - By Priority

Keyword Priority 5 - Strength

Top three Strengths:
• Ownership – 67
• Communications – 37
• Business Continuity – 31
COVID-19 Lessons Learned - By Priority

Keywords by Priorities 1 - Critical | 2 - Important | 3 - Concern

Top three keywords:
• Communications – 104
• Business Continuity – 94
• Accountability – 57
Current Investigations and Corrective Actions

• Communications Gap Identified Through Lessons Learned Analysis
• Wanapum Dam Unit 6 Outage
• Ancient Lake / Frenchman Hills 115kv Transmission Structure Failure
• Gaps in Rigging Program/Practices
W-6 Auxiliary Programmable Logic Controller Failure

5/2/2020 10:06 hrs
W-6 Communication alarm received in control room

5/2/2020 20:19 hrs
W-6 Aux PLC Failure - Shut down Alarm for 4 days

5/2/2020 21:04 hrs
High Turbine Jump Water Level Alarm, Operated air driven pump to manage level

5/2/2020 21:00 hrs
Senior Operator limited W-6 to 55 MW in anticipation of unit trip

5/2/2020 21:12 hrs
Electronic Tech engaged to address comms failures

5/2/2020 21:10 hrs
W-6 tripped on Turbine Guide Bearing Temp Alarm

5/2/2020 21:12 hrs
W-6 Generator Breaker Opened

W-6 Aux PLC - Internal Fault

- Apparent CE1 Aux PLC Processor Firmware Not Latest Version/Level
- Apparent CE2 Aux PLC Hardware & Family No Longer Fully Supported

CE3
No Guidance for Ops Personnel to Implant AUX PLC

W-6 Aux PLC Controls Oil Circulation Pump for Turbine Guide Bearing

CAUSE
Design Decision for Oil Circulation Pump
Failure to Provide Redundant Control for TRG Oil Circulation Pump

5/2/2020 23:59 hrs
Electronics Tech arrives and determines common path is good

5/2/2020 23:00 hrs
Electrical Engineer arrives, performs troubleshooting activities

5/3/2020 00:14 hrs
W-6 Aux PLC Power-Cycled

5/3/2020 00:25 hrs
W-6 Restarted

5/3/2020 00:38 hrs
Bearing Temp Rise - Turbine Guide Bearing

Bearing Temperature increase due to Previous Loss of Oil Circulation

5/3/2020 00:00 hrs
Ran W-6 at speed W/O Load to observe Bearing Temp Reaction

5/3/2020 00:00 hrs
W-6 Breaker Closed - Synced Unit to System

Consequential Event (CE)

Event Sequence

Terminal Event

Causal Factor

Contributing Cause (CC)

CAUSE
2020 Integrated Resource Plan
Public Workshop

Rich Flanigan, Sr. Manager of Wholesale Marketing and Supply
Mike Frantz, Senior Power Supply Analyst
Phil Law, Term Marketer

06/23/2020
Items for Discussion

• What is the Integrated Resource Plan (IRP)?
• Key Risks
  • Load Risk
  • Environmental/Legislative Risk
  • Changing Power Market Risk
  • Resource Adequacy Risk
• IRP Modeling
• Initial Takeaways
• Action Plan
• Timeline/Next Steps
• Q&A
What is an Integrated Resource Plan (IRP)?

• Required by Washington State Law
  • RCW 19.280 - requires “electric utilities in Washington develop comprehensive resource plans that explain the mix of generation and demand-side resources they plan to use to meet their customers' electricity needs in both the short term and the long term.”
  • Filed with the State every 2-years by September 1st.

• An IRP is a comprehensive decision support tool and road map for meeting Grant PUD's objective of providing reliable and least-cost electric service to all of our customers while addressing the substantial risks and uncertainties inherent in the electric utility business.
IRP as a Planning Tool

• IRP is a planning tool used by staff to understand how best to meet our customer’s energy needs in the future

• Key principles used to meet these needs:
  • Maintain reliability of supply
  • Least cost
  • Identify conservation and efficiency opportunities
  • Understand the environmental impacts of resource choices

• IRP is a public process
  • Important to get our customers input
Identified Key Risks

• The key risks identified during IRP process:
  • Load Risk
  • Environmental/Legislative Risk
  • Changing Power Market Risk
  • Resource Supply Risk
  • Water Risk (and operational risk)
  • Transmission Risk

• Each key risk was considered in our IRP modeling
Load Risk

• Grant PUD has seen an impressive amount of load growth over the past 10-years
  • Annual growth rate of **3.1%**
  • Majority from a few large industrial customers

• Load growth forecasted to continue over the next 10-years
  • Annual growth rate of **4.9%**
  • Primarily from few existing large industrial customers

• Load growth with few large customers creates concentration risk
  • Risk of quick loss of load (existing or prospective new load)
  • Risk of rapid increase in load with new or existing large customers
Load Growth

![Load Growth Chart]

- Actual
- Forecast

Legend:
- System Losses
- Residential
- Commercial
- Irrigation
- Large General
- Ag Food Process
- Industrial
Environmental/Legislative Risk

• 2020 passage of the Washington State Clean Energy Transformation Act (CETA)
  • Elimination of coal-sourced generation by 2025
  • Carbon-neutral generation by 2030
  • Greenhouse gas emission free by 2045
  • Rulemaking for CETA is still underway and final rules will not be known for several months

• Federal and State legislation concerning the environment is expected to continue.
Current I-937 (RPS) Requirements

- Grant PUD meets I-937 renewable portfolio obligations until 2025 in our Base Load Forecast
  - Renewable standard increased from 9% to 15% in 2020
  - Use existing gains from fish bypass at Wanapum and Priest
  - Using forecasted efficiency gains from turbine and generator replacements at Wanapum and Priest

- To meet needs starting in 2025, Grant PUD plans to use market purchase of eligible RECs to meet renewable standards and Solar Energy beginning in 2026
Changing Power Market Risk

• California Independent System Operator’s (CAISO) Energy Imbalance Market (EIM)
  • In 2020
    • Eleven current participants
  • By 2022
    • Additional ten participants
    • 82% of the loads in the Western Electricity Coordinating Council (WECC) will be participating in the EIM
    • Possible Extended Day-Ahead Market starting
  • This concentration of the load in the EIM may affect Mid-C (hourly and day-ahead) liquidity
Resource Adequacy Risk (RA)

- RA ensures that an electric utility has adequate resources available to serve load across a broad range of weather and system operating conditions.
- As the region retires coal generation and discourages construction of carbon-emitting generation, the supply of dispatchable generation in the energy markets is expected to decrease.
- Grant PUD annually purchases a significant amount of market power to meet our Estimated Unmet District Load (EUDL).
- Regional RA concerns impact the evaluation of the best method(s) of procuring power to ensure reliability of our system.
IRP Modeling

- Looked at different scenarios that addressed key risk
  - A 15% planning margin was used
    - Safeguard against uncertainty (increased load or loss of generation)

- All the scenarios use the following assumptions:
  - Using current physical resources (PRP Avg. Water, QC/PEC, BPA Coulee, Slice Contracts)
  - 15% planning margin used for both energy and capacity needs
  - Firm physical resources used to meet expected load
    - Firm market purchases
    - Power Purchase Agreements (PPA)- solar and/or natural gas

- Base Case
  - Current medium load forecast (used in Financial Forecast)
  - Current environmental constraints
• Grant PUD engaged E3 to provide analytical support as part of development of its 2020 integrated resource plan (IRP)

• E3 was asked to find the least-cost portfolio needed to serve load growth within its service territory in the context of the broader Pacific Northwest clean energy policies

• E3 utilized its Pacific Northwest regional capacity expansion model, RESOLVE, to perform the analysis and determine the least-cost portfolio attributable to the new loads within the Grant PUD service territory
E3 RESOLVE Results Summary

• Results indicate solar is the marginal resource added for energy needs across all load scenarios

• Natural gas is the marginal resource added for capacity needs across all load scenarios
Scenario Runs

• Total of Four (4) Scenarios were analyzed
• Scenarios based on most recent load forecast
  • Medium Low Load Forecast
  • Medium or BASE Load Forecast
  • Medium High Load Forecast
  • High Load Forecast
• All four scenarios considered Clean Energy Transformation Act assumptions
Scenario Runs
Energy Positions – Annual

Annual Energy Position After EUDL - System Load

[Graph showing annual energy positions with different scenarios for 2020 to 2030]
Base Case before - Annual

Annual Loads and Resources
BASE CASE

![Graph showing annual loads and resources for different years ranging from 2020 to 2030. The graph includes categories such as PRP, Other Gen, EUDL - Market, System Load, and Load +15%.](chart.png)
Base Case after - Annual

Annual Loads and Resources
BASE CASE - ADDED RESOURCES
Base Case before – Summer Peak
Base Case after – Summer Peak
Current I-937 RPS Requirements – Base Case
Medium High Load before- Annual
Medium High Load after- Annual

Annual Loads and Resources
MEDIUM HIGH LOAD CASE - ADDED RESOURCES
Med High Load before– Summer Peak

Average Summer Capacity
MED HIGH CASE

MW

2020  2021  2022  2023  2024  2025  2026  2027  2028  2029  2030

District Resource Peak Gen  EUDL Market HLH  Peak Load  Peak Load +15%
Med High Load – Summer Peak
1. Based on the anticipated **annual** energy projections, Grant PUD has enough existing resources to meet expected load growth on an **annual basis** through 2028

2. As a result of the 15% planning margin, additional resource requirements are forecasted as soon as 2026

3. Grant PUD is forecasting to be seasonally capacity-deficit during Summer and Winter beginning in 2026

4. Grant PUD will continue to meet its renewable portfolio obligations without acquiring new resources until 2025. At that time Grant PUD will acquire any expected RPS deficits with market purchases of eligible RECs and is evaluating solar energy purchase power agreements to satisfy energy and RPS requirements
Initial Takeaways

5. Current Grant PUD EUDL Strategy of large market purchases needs to be reconsidered due to possible resource adequacy issues in the WECC

6. Grant PUD load forecast still contains significant uncertainty due to the relatively high percentage of industrial load

7. Grant PUD will need to stay abreast of changes in the utility industry affecting Grant PUD’s planning processes
Proposed Action Plan

• Immediately assemble a team of internal subject matter experts (SME) to determine strategy and execute a plan to research the acquisition of resources to meet forecasted energy and capacity needs
  • Leadership team has been identified
  • Work is being done to identify resources needed to perform extensive analysis for long-term resource needs
  • Preference needs to be given to a firm resource (less reliance on market purchases) to meet capacity/energy needs
  • Team will monitor opportunities to procure low-cost, long-term generating resources particularly resources that qualify for I-937 and CETA compliance

• Continue to implement and achieve cost-effective conservation
Proposed Action Plan

• Continue to refine and improve the retail energy load forecasts, with an emphasis on monitoring changes from the large industrial customers

• Evaluate the opportunities presented by the expansion of the Northwest EIM and/or possible growth of a Regional Transmission Organization (RTO) / Independent System Operator (ISO)

• Continue to participate in regional utility groups that monitor and influence legislation that could affect Grant PUD’s ratepayers
IRP Timeline and Next Steps

• June 23 – IRP Public Workshop (today)

• July 28 – IRP Public Hearing presented at Commission Meeting

• August 25 – Commission action to approve IRP by Resolution

• September 1 – Deadline to file with State of Washington
Questions?
Agenda

1. Why We Exist
2. 2020 Key Business Plan Activities
3. Ongoing Performance Metrics
4. The year ahead
Why we exist

The Team, The Mission, The Vision
The Team

Nels; Learning & Development Manager
Scott; Employee Experience Specialist
Brandi; Sr. Training Coordinator (G&A)
Annette; HR Pro. II
Donna; Administrative Asst. & LMS
Chris; Sr. Training Coordinator (PD)

Sr. Training Coordinator Position Open (PP)
Strategic Plan
Objective 2

OBJECTIVE 2

DESIGN AND SUSTAIN AN ENGAGING & FULFILLING GRANT PUD CULTURE

Workplace culture is the infrastructure that guides how we function. Business outcomes, such as safety, compliance, financial results, and operational excellence, all hinge on a healthy workplace culture that supports people. We continuously design our culture so every role has purpose and every employee has value. We make meaningful investments in our workforce. We encourage transparent and authentic communication, and engage our teammates with respect and empathy.

STRATEGIES

- Recruit, develop and retain a best-in-class workforce
- Translate organizational values into actionable behaviors
- Deliver a rigorous onboarding experience
- Sponsor a vibrant employee association
- Establish a deliberate, continuous learning strategy aligned to business outcomes
- Implement the ADDIE instructional systems design framework for training
- Articulate and reinforce our desired leadership culture
- Deliver industry-leading educational reimbursement programs

KEY METRICS

- Organizational Health Index
- Employee Engagement Assessment
- Educational Reimbursement Target
- Training Effectiveness Assessment
Our Focus

VISION

To reinforce a people-centric culture where employees acknowledge problems, focus on possibilities and share responsibility for their growth.

MISSION

We exist to support organizational health by creating clarity around how we lead, train and treat people at Grant PUD.
Key Business Plan Activities

2020 Focus: Clarity & Community
Q1 Accomplishments: CLARITY

- Code of Excellence
- Working@Grant Launch
- Strategic Plan Objective #2
- Training Process
- Leading@Grant (Managing Remote Teams)
- Educational Reimbursement Policy
Q1 Accomplishments: COMMUNITY

- Design a Team Around Objectives
- Sr. Leader Coaching Cohorts
- Building Resiliency Series
- Virtual New Hire Orientation
- Employee Association Launch
Making Good on Commission Direction: Grow our own

Currently working to provide a mechanism for employees to eliminate barriers to education and grow into new roles, disciplines and career paths (Blue collar, white collar, new collar). Real Time Examples:

- **(Help grow a Dam Safety Engineer)**—U of Wisconsin-Madison Graduate Degree in Engineering Mgmt. $51,025.00
- **(Apprenticeship program to grow a Meter Relay Technician)**—Perry Technical Institute AA in Electrical Technology: $40,000.00
- **(Help grow a Quantitative Analyst)** Purdue University Graduate Degree in Economics: $32,250.00
- Provide recruitment tool to draw the best and or grow the best talent.

Educational Reimbursement Policy
Building Resiliency: Virtual Support Series

Learning Objectives:

- Managing stress & anxiety
- Leading through change and grief
- Self-care & coping strategies
- Staying connected while working virtually

- 12, opt-in learning cohorts. $1,750/cohort
- 80 employees participated
- 5, 30-min. sessions total
- Option for additional training upon completion. 30 advancing on.
Leadership Coaching: Individualized Intervention

Driver: Org health survey results re: leadership effectiveness.

Purpose: Contract with Henley Leadership for focused interventions.

Spend:

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020 (as of 5/15/20)</th>
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</thead>
<tbody>
<tr>
<td>Spend</td>
<td>$47,526</td>
<td>$136,161</td>
<td>$50,000</td>
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</table>

2020 Change Order: Inclusion of Building Resiliency Series.

Model: Learning & Group Application. Increased effectiveness and cost efficiency. Change from approximately $12k/participant to approximately $4,500/participant. Cascade across leadership body.

Value: Prepare internal candidates for advancement, “Workplace culture” risk mitigation, increased self-awareness, build new leadership competencies, collaborate with peers in ongoing developmental conversations.
<table>
<thead>
<tr>
<th>STAGE 01</th>
<th>STAGE 02</th>
<th>STAGE 03</th>
<th>STAGE 04</th>
<th>STAGE 05</th>
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<tbody>
<tr>
<td><strong>ANALYZE</strong></td>
<td><strong>DESIGN</strong></td>
<td><strong>DEVELOP</strong></td>
<td><strong>IMPLEMENT</strong></td>
<td><strong>EVALUATE</strong></td>
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<td><strong>TRAINING DEVELOPMENT PROCESS</strong></td>
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<tr>
<td>Receive request form</td>
<td>Write learning objective(s) for training</td>
<td>Find different media to support learning objective(s)</td>
<td>Identify facilitators for classroom/instructor-led trainings</td>
<td>Review evaluations • Course Surveys • Quizzes/Tests • Observation Forms</td>
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<tr>
<td>Meet with requestor to gain additional understanding of training needs</td>
<td>Write outline of content, ensuring it matches the learning objective(s)</td>
<td>Create the course • SCORM content for computer-based training • PowerPoint(s) for classroom/instructor-led trainings</td>
<td>Conduct Train-the-Trainer sessions for facilitators</td>
<td>Adjust course based on feedback, if needed</td>
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<td>Conduct needs assessment</td>
<td>Create learning activities • Knowledge checks • Group activities • Opening and/or closing activities</td>
<td>Create learning resources • Handouts • Activity Sheets • Workbooks • Facilitator Guides</td>
<td>Upload and/or release SCORM content to LMS</td>
<td>Complete stages 3 - 5, if adjustments are made</td>
</tr>
<tr>
<td>Approve or deny training (Coordinator and Training Manager)</td>
<td>Create Knowledge Tests • Course Survey • Quizzes/Tests • Observation Forms</td>
<td>Have testing team review; make adjustments based on feedback</td>
<td>Schedule course</td>
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<td>If training is denied, send the requestor an explanation</td>
<td>Have another training coordinator review; make adjustments based on feedback</td>
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<td>Enroll attendees</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Communicate to attendees • Materials to bring • Time and place of training • Due dates of computer-based trainings</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Deliver course</td>
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</table>
Spotlight on Top 15 Mgmt. Skills

1. Show caring & respect
2. Advocate for your team
3. Communicate!
4. Be fair and equitable
5. Involve others in decisions…be collaborative
6. Give autonomy & trust
7. Ask for feedback
8. Deal with and fix problems
9. Be approachable
10. Give recognition & thanks
11. Hold people accountable
12. Be available & responsive
13. Follow through & follow up
14. Make your expectations clear
15. Provide resources/training
Ongoing Performance Metrics
**In-Flight Educational Reimbursements**

7

**McKinsey OHI**

*2019 Overall Organizational Health Index*

- **Benchmark:**
  - Top Decile
  - Top Quartile
  - Second Quartile
  - Third Quartile
  - Bottom Quartile

**Employee Engagement**

TBD Q3 2020

**Training Effectiveness**

⭐⭐⭐⭐⭐⭐

**Orientation Satisfaction**

⭐⭐⭐⭐⭐⭐

**Training Completion**

![PUD Total Chart](chart)

- **Grand Total:** 11,054
- **Current:** 10,603
- **Delinquent:** 194
- **In-Training Window:** 257
Training Completion By Area

Visualize data to support awareness
The Year Ahead

Q3-Q4 Commitments
The Year Ahead…

- Learning & Development Plan & Training Audit
- Employee Appreciation Day
- Performance & Learning Management Solutions
- Working@Grant & Leading@Grant “live” sessions

- Organizational Competency Map
- Identify & Deliver Training “Core” Offerings
- Gallup Q12 Employee Engagement Survey
- Code of Excellence Program Implementation
Questions?