COMMISSION AGENDA ACTION FORM

Meeting Date:	November 26, 2024	
Subject:	Performance Measurement Report – 3rd Quarter 2024	
Authored by:	Kent Zirker	Staff Preparing Item
Presenter:	Jon Meyer	Staff Presenting Item (if applicable or N/A)
Approved by:	Jon Meyer	Dept. Director/Manager
Approved for Commission:	Rick Dunn	General Manager/Asst GM

Type of Agenda Item:	**Type of Action Needed:** *(Multiple boxes can be checked, if necessary)*	
☐ Consent Agenda	☐ Pass Motion	☐ Decision / Direction
☒ Business Agenda	☐ Pass Resolution	☒ Info Only
☐ Public Hearing	☐ Contract/Change Order	☐ Info Only/Possible Action
☐ Other Business	☐ Sign Letter / Document	☐ Presentation Included

Motion for Commission Consideration:

None.

Background/Summary

Performance measurement is a process that assesses the effectiveness of organizations or work groups in achieving their mission and objectives. District staff have developed 17 performance measures aligned with District values. The District's performance measurement program focuses on high-level measures that provide information to staff, the Commission, and the public as to the performance of the District in key areas. The report is available on the District's website, consistent with our objective to openly provide information to our stakeholders allowing them to measure the effectiveness of our performance.

During the 3rd quarter, 15 of the 17 performance measures were rated green as having positive quarterly performance, one was red, and one was blue. Staff will highlight the following measures during the Commission meeting:

- *Electric Reliability Indices*
- *Enterprise Application Reliability*
- *Infrastructure Component Reliability*

Recommendation

Staff have prepared and will review the Performance Measurement Report for the 3rd quarter of 2024.

Fiscal Impact

N/A

2024 PERFORMANCE MEASURES

Q1	Q2	Q3	Q4	Measure	Owner	Page
Q1	Q2	Q3	Q4	Telephone Service Level	Annette Cobb	Page 2
Q1	Q2	Q3	Q4	Electronic Payments	Annette Cobb	Page 3
Q1	Q2	Q3	Q4	Service Order Process	Michelle Ness	Page 4
Q1	Q2	Q3	Q4	Rates	Keith Mercer	Page 5/6
Q1	Q2	Q3	Q4	Back Bill Rate	Annette Cobb	Page 7
Q1	Q2	Q3	Q4	Reserves/Days Cash on Hand	Keith Mercer	Page 8
Q1	Q2	Q3	Q4	O&M/Capital	Kent Zirker	Page 9
Q1	Q2	Q3	Q4	O&M Costs per Customer	Kent Zirker	Page 10
Q1	Q2	Q3	Q4	Collections	Annette Cobb	Page 11
Q1	Q2	Q3	Q4	Safety	Steve Hunter	Page 12
Q1	Q2	Q3	Q4	Safety Training & Meetings	Karen Dunlap	Page 13
Q1	Q2	Q3	Q4	Conservation I-937	Chris Johnson	Page 14
Q1	Q2	Q3	Q4	Broadband Network Reliability	Chris Folta	Page 15
Q1	Q2	Q3	Q4	Electric Reliability	Evan Edwards	Page 16/17
Q1	Q2	Q3	Q4	Electric System Outages	Evan Edwards	Pages 18 - 20
Q1	Q2	Q3	Q4	Enterprise Application Reliability	Jennifer Holbrook	Page 21
Q1	Q2	Q3	Q4	Infrastructure Component Reliability	Duane Crum	Page 22

The color assigned for each measure is a subjective evaluation of both the quarterly results, shown in the quarterly squares as well as the year-to-date review for the calendar year compared to established targets, shown in the large box. The legend below provides general guidance for assigning colors.

- Positive performance - positive year review and exceeding quarterly expectation
- Improvement needed - concern about year review and less than quarterly expectation
- Adverse performance - negative year review and negative quarterly performance
- Data not available or no activity during the quarter

Performance Measure Title

Telephone Service Levels (Customer Service Queue)

2024 Status			
Q1	Q2	Q3	Q4
✗	✗	■	
Outlook: ✓			

Definition

Measures the timeliness of answering calls routed to the Customer Service queue and the effectiveness of department staff in terms of monitoring and managing the call queue. Staff strives to answer most calls within 30 seconds and almost all calls within 120 seconds.

How Performance Measure is Computed

The performance measures are calculated by dividing the number of calls answered within 30 or 120 seconds by the total number of calls answered that month. The monthly percentages are graphed and analyzed on an XmR chart. Current central line and process limits are calculated based on data from January 2022 through December 2023. (For more information on XmR charts, see Appendix A.)

Performance Rating	
Green ✓	performance within limits, no unfavorable signal
Yellow △	showing an unfavorable signal, no action needed to correct
Red ✗	showing unfavorable signal, action needed to correct

Performance Measure Objectives

The current objective is to carefully monitor the Customer Service queue and maintain telephone service levels within normal limits. Managing the queue will allow staff to evaluate performance expectations and then set further informed, appropriate performance objectives.

This performance measure is under construction. The District's phone system data reporting capabilities are being evaluated.

Responsible Manager: Annette Cobb Data Provider: Kristen Demory Report Date: 11/4/2024

Performance Measure Title

Electronic Payments

2024 Status			
Q1	Q2	Q3	Q4
✓	✓	✓	
Outlook: ✓			

Definition

Measures the percentage of total payments made to the District using electronic payment channels. Payment channels currently offered by the District include: Auto Pay, the SmartHub website and mobile application, the Integrated Voice Recognition (IVR) telephone system, Pay Now (one time payment via website), payment kiosks, and a customer's bank website. Providing multiple electronic payment channels is a customer convenience that can lead to increased satisfaction and further the District's efforts in customer engagement. Increasing the number of electronic payments can lower costs by reducing staff time and possible errors associated with manual processes.

How Performance Measure is Computed

Electronic payment percentage is calculated as the total number of electronic payments divided by the total number of all payments made that month. The monthly percentages are graphed and analyzed on an XmR chart. Current central line and process limits are calculated based on data from November 2023 through September 2024. (For more information on XmR charts, see Appendix A.)

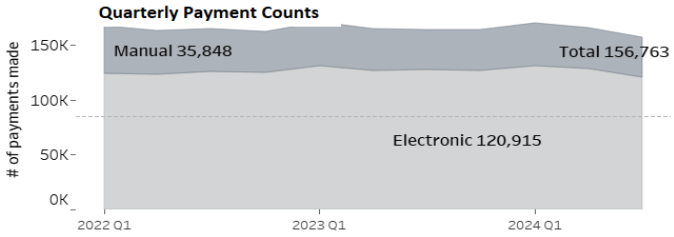
Performance Rating	
Green ✓	performance within limits, no unfavorable signal
Yellow △	showing an unfavorable signal, no action needed to correct
Red ✗	showing unfavorable signal, action needed to correct

Performance Measure Objectives

The current objective is to maintain performance within normal limits for at least six months. Customer adoption of several electronic payment channels is driving a continual upward trend that has repeatedly exceeded the upper limit. However, it is expected that the measure will eventually find a consistent level of performance. When the trend naturally levels out, staff will discuss further objectives.

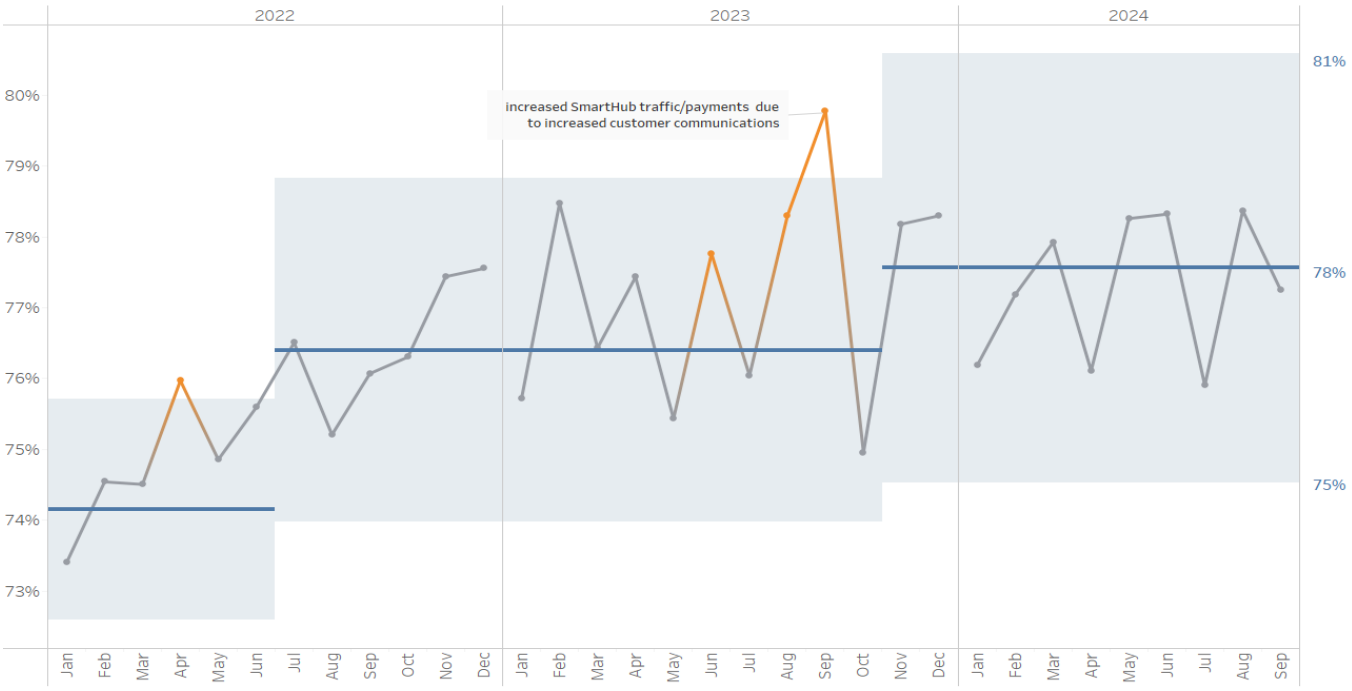
Quarterly Performance Summary

Customer utilization of electronic payments was within the recalculated normal limits during Q3. The limits were recalculated as a result of multiple consecutive quarters generating positive short run signals due to the gradual ongoing adoption of AutoPay and SmartHub App. The new central line is currently set at 78% of customer payments made electronically, with normal performance expected within ± 3% of that. The rating for the year is green and the outlook is positive.



Payment Channels		# of payments this quarter	% of total	% of Total Change since 2022
Manual		35,848	23%	▼3%
Electronic	Auto Pay	Self Serve	49,689	32%	▲5%
	SmartHub App	Self Serve	20,819	13%	▲1%
	SmartHub Web	Self Serve	18,201	12%	▸0%
	Pay Now	Self Serve	16,855	11%	▼1%
	Bank Website		8,064	5%	▸0%
	IVR	Self Serve	6,836	4%	▼2%
	Kiosk	Self Serve	451	0%	▼1%

% of payments made electronically



Responsible Manager: Annette Cobb Data Provider: Kristen Demory Report Date: 10/16/2024

2024 Status			
Q1	Q2	Q3	Q4
Outlook			

Performance Measure Title

Service Order Time Tracking

Definition

Once a new or altered service is eligible for energization*, the following items will be measured:
1) Length of time it takes the Operations Center to energize a new service once Engineering has transitioned the electronic service order to them in the Work Management system, after the customer has met the criteria described by the * below.
2) Length of time it takes to set up the customer account in the Customer Information System (CIS) system for billing after Operations transitions it over to them from the Work Management system.
3) Total services include electric metered services and production meters installed for solar customers. Solar services are net metered customers with a second separate production meter for energy produced.
Eligible for energization is based on the customer meeting the following criteria: trench has been inspected on an underground service, fees have been paid, L & I state approval has been received, and customer is ready for power. The District has no control over the time span to energize a new or altered service until the criteria has been met.

How Connection Performance Measure is Computed - Table

After Engineering has released all holds in the Work Management system, the service order is transitioned to Operations. Performance is measured from the date received by Operations in CIS and the completion date of when the meter was set (energized).

How CIS System Performance Measure is Computed - Table

This performance is measured from the date Customer Service receives the electronic Service Order from Operations, to the date Customer Service closes the electronic service order. This shows the average number of days for Customer Service to set up the customer account.

Goal

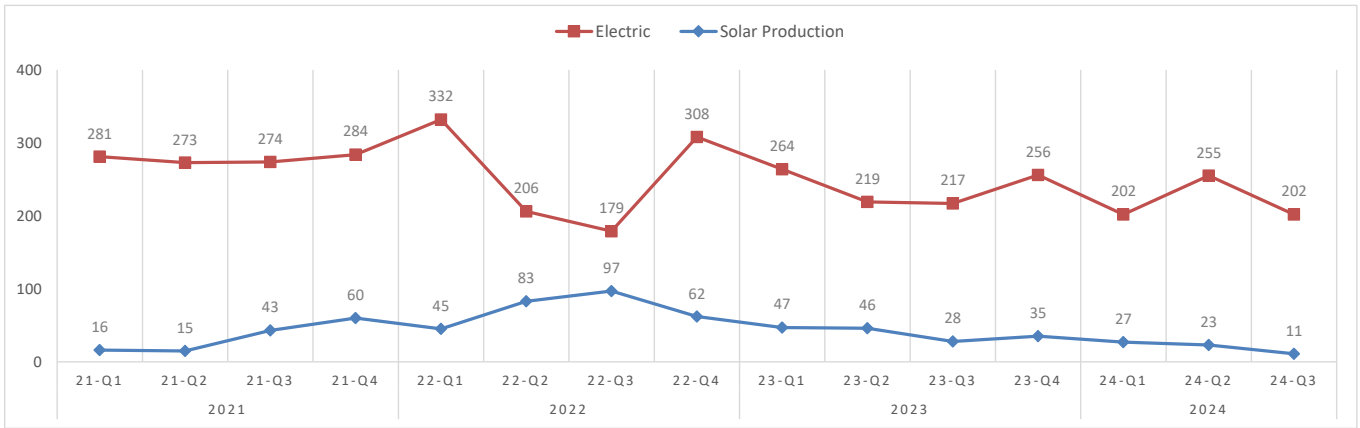
The goal is to energize new services within an average of 7 days after customer criteria has been met, then have the Service Order transitioned from Operations to Customer Service and have new accounts set up in CIS within an average of one week (5 days).

Rating Criteria:	Operations	Customer Service	Combined Rating
	7 days or less	5 days or less	Both green
	8 - 9 days	6 - 7 days	Either is yellow
	> 9 days	> 7 days	Either is red

	Q1		Q2		Q3		Q4	
In Days	Goal	Actual	Goal	Actual	Goal	Actual	Goal	Actual
Connection (Chart)	7	3.4	7	2.6	7	2.2	7	
CIS System	5	3.9	5	2.0	5	1.9	5	
Total new services count		229		278		213		

Quarterly Performance Summary

During the third quarter of 2024 it took on average 2.2 days for a new service to be energized once the customer had met all requirements, meeting the criteria of 7 days or less. The time from the service order being available to Customer Service to the account being activated was 1.9 days, meeting the criteria of 5 days or less. There were a total of 213 new services energized (202 electric, 11 solar production) in the third quarter of 2024. We are green for the quarter and green for the outlook.



	2021	2022	2023	2024
Electric	1112	1025	956	659
Solar Production	134	287	156	61
Total Services	1246	1312	1112	720

Responsible Manager: Michelle Ness
Data Providers: Brenda Webb

Report Date: 10/29/2024

Performance Measure Title
Rate Comparisons

2024 Status			
Q1	Q2	Q3	Q4
Outlook			

Definition
This indicator compares the District's Residential monthly base charge and average monthly bill to other utilities in the Northwest. A benchmarking base amount of 1,300 kWh (energy), 7 kW (demand), and 30 days (base charge) is used for comparison purposes.

How Performance Measure is Computed
Gather current rates from 34 utilities throughout the Northwest and graph Benton PUD in relation to these utilities. Utilities selected for comparisons are a combination of Public Utility Districts, Cooperative Utilities, and Investor-Owned Utilities.

Goal
Performance will be measured based on a quarterly rate comparison. A green rating will be assigned if the District's average monthly bill is below the median, a yellow rating will be assigned if the District's average monthly bill is in the quartile above the median, and a red rating will be assigned if the District's average monthly bill is in the highest quartile. In addition, the average residential increases over a five year period as compared against the CPI-U annually will be factored into the rating and outlook. The Residential monthly base charge is shown for comparison purposes only.

Residential Average Monthly Bill

	Goal	Actual
Q1	< $134	$115
Q2	< $134	$115
Q3	< $136	$115
Q4		

Residential Monthly Base Charge Comparison

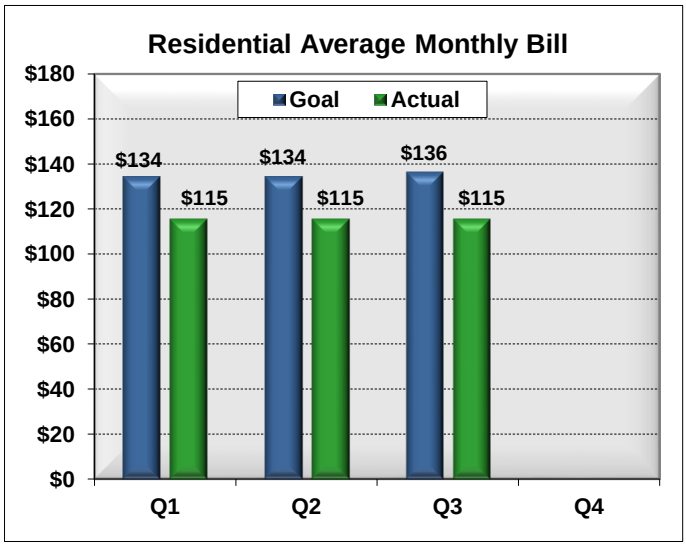
	COSA	Median	Actual
Q1	$38	$24	$19
Q2	$38	$24	$19
Q3	$38	$25	$19
Q4			

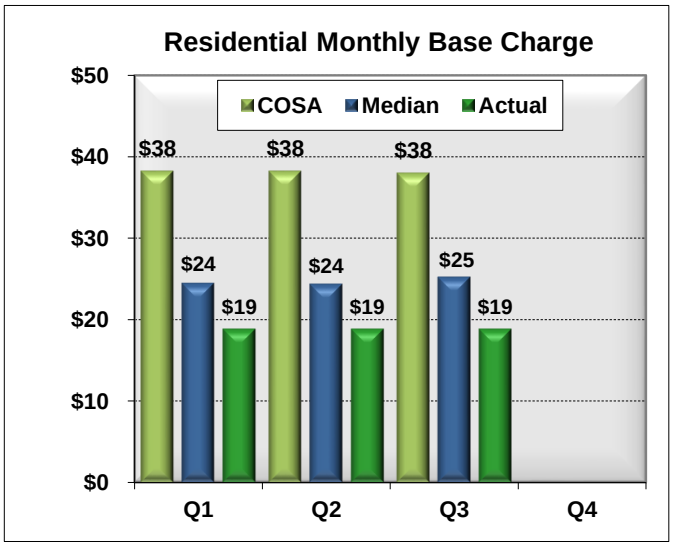
BPUD Avg Yearly Residential Rate Increase Compared to CPI-U*

	BPUD Avg Yearly % Increase	CPI-U* Avg Yearly % Increase
5 Year	0.6%	4.0%
10 Year	1.4%	2.8%
15 Year	2.1%	2.4%

*Consumer Price Index for All Urban Consumers (CPI-U) U.S. city average series for all items, not seasonally adjusted. The above percentages utilize the October to October CPI-U.

Quarterly Performance Summary
During Q3 2024 the District's Residential rates were below the median of comparable utilities for the average monthly bill so a green rating was assigned. In Q3, two of the benchmark utilities had a Residential rate increase; Avista (8.7% increase in energy); and Idaho Power (5.0% in energy). In Q2, nine of the benchmark utilities had a Residential rate increase and in Q1 2024, fourteen of the benchmark utilities had a Residential rate increase.

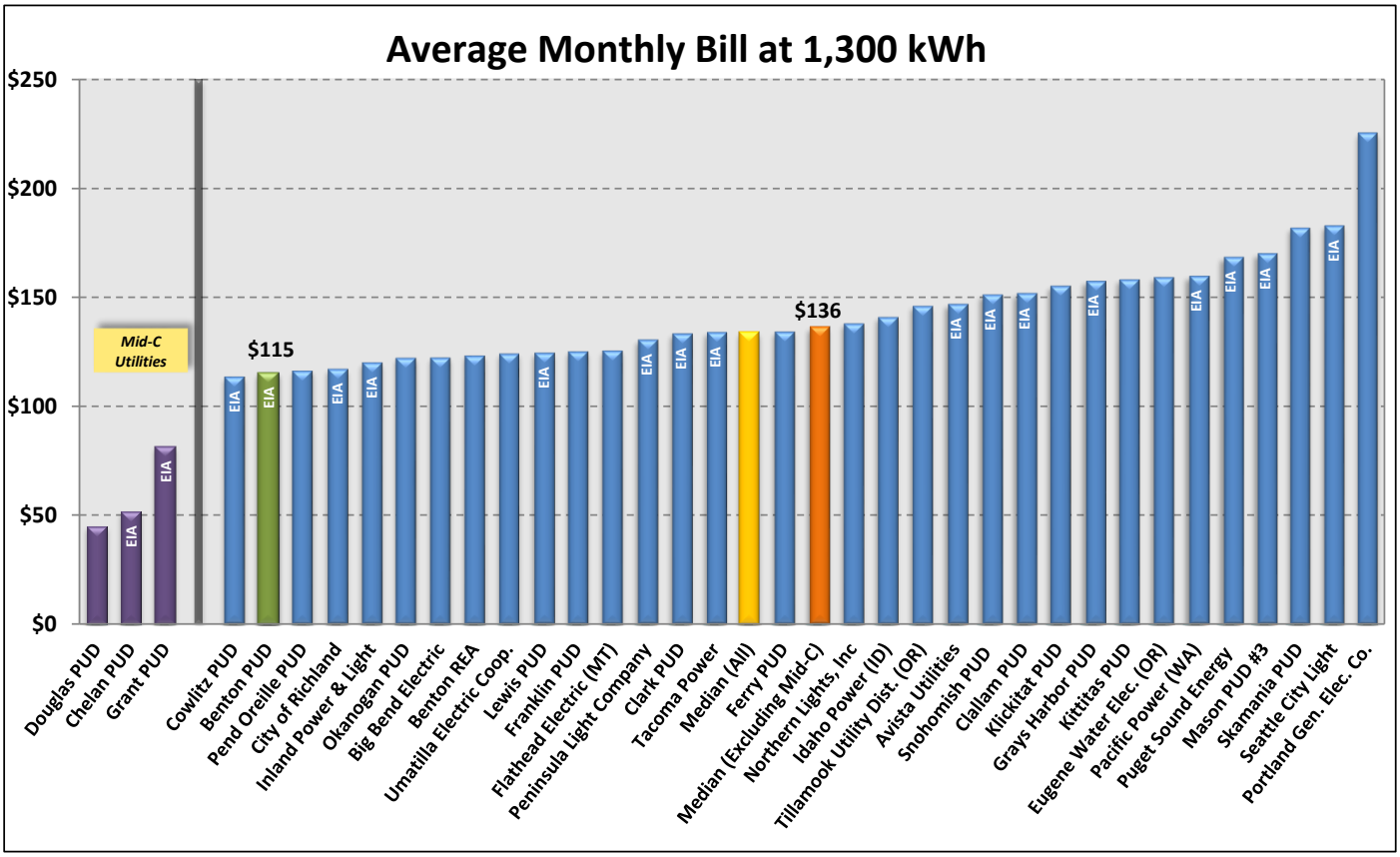


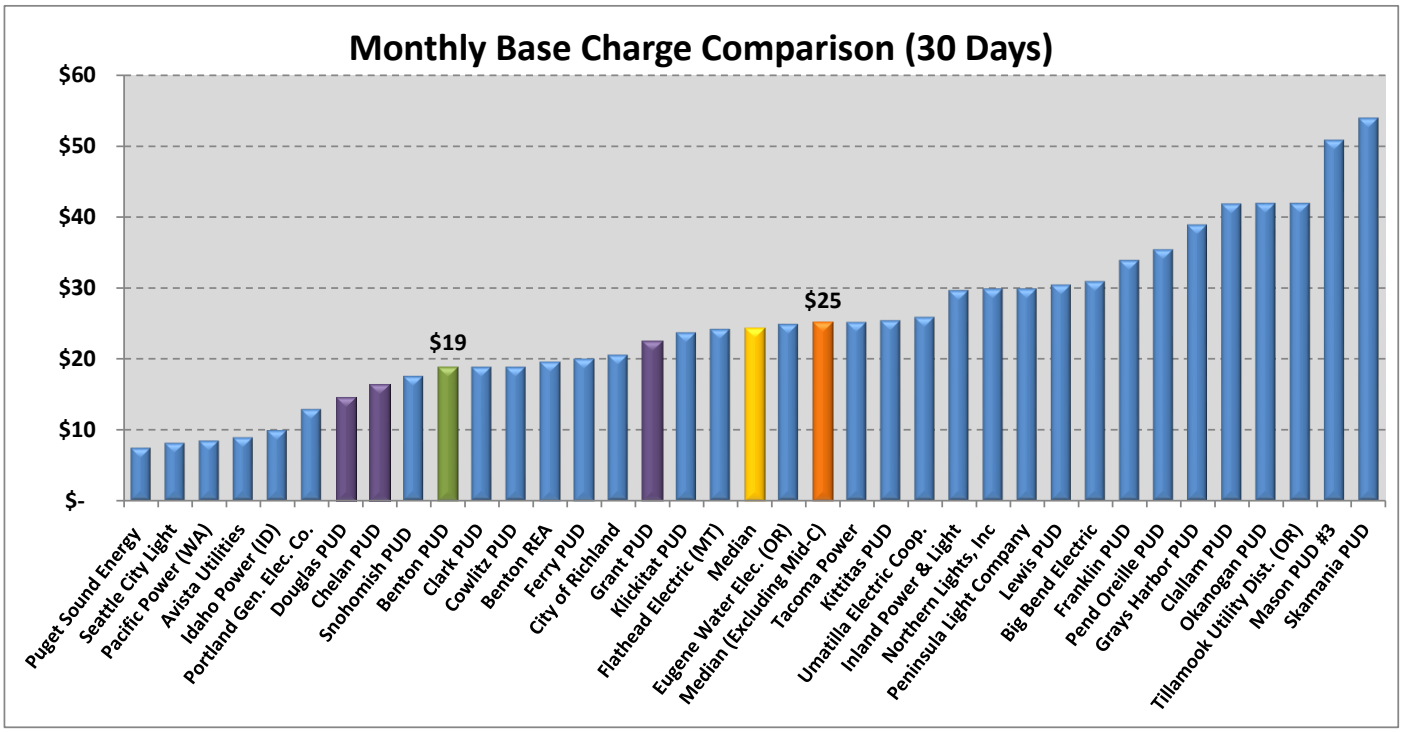


Responsible Manager: Keith Mercer

Data Provider: Katie Grandgeorge

Report Date: 10/25/2024





Average bill information has been calculated by Benton PUD staff using data from other utilities' websites. This bill calculation is Benton PUD's best effort to provide comparable information. Mid-C Utilities are utilities that own major hydro facilities.

Performance Measure Title

2024 Status			
Q1	Q2	Q3	Q4
●	●	●	
Outlook: ●			

Back Bills and Billing Corrections Due to District Errors

Definition

Back bills and bill corrections can have a significant impact on customers and on District staff. While some back bills are due to customer error (signing up for service at the wrong apartment or mislabeled meter bases), other back bills are preventable. Some examples of avoidable back bills include equipment failure that is overlooked for a period of time and results in a back bill of more than one month, or not transferring a low income discount when a customer moves. Only preventable back bills due to staff error, or those that were caused by equipment failure not detected in a timely manner, will be counted in this performance measure. When a significant back bill occurs, the rating could be assigned a yellow or red rating depending on the severity of the back bill. This rating would be assigned regardless of the number of back bills during the period.

How Performance Measure is Computed

On a quarterly basis, the number of back bills caused by the following reasons will be reported: defective meter, incorrect multiplier, service orders not processed in a timely manner, data entry error in CIS, missing low income discount, incorrect bill cycle, switched meters and data entry errors. Back bills are processed by the Billing Specialist and will be tracked in a spreadsheet that captures the number of back bills falling into these categories, and the nature of the back bill (i.e. customer error or District error). Each customer affected by a back bill will be counted as "1". For example, all customers affected by a District-caused meter switch will be counted.

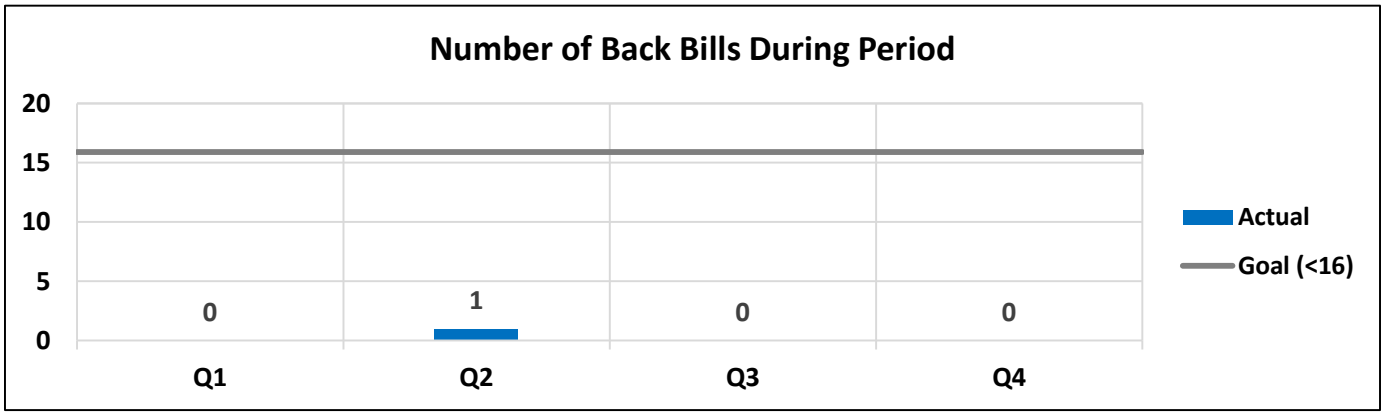
Goal

Fewer than 16 back bills each quarter.

		Number of Back Bills	
	Number of Bills Issued	Goal	Actual
Q1	144,699	<16	0
Q2	145,013	<16	2
Q3	145,508	<16	0
Q4	0	<16	-

Performance Rating	
Green ●	Fewer than 16
Yellow △	Between 16-24
Red ◆	Greater than 24

There were no reportable back bills in Q3 2024.



Responsible Manager: Annette Cobb

Data Provider: Annette Cobb

Report Date: 10/28/2024

2024 Status			
Q1	Q2	Q3	Q4
Outlook			

Performance Measure Title

Unrestricted Reserves / Days Cash on Hand

Definition

Days Cash on Hand measures the number of days an enterprise can cover its operating expenses using unrestricted cash and investments and assuming no additional revenue is collected. Total Unrestricted Reserves include Minimum Operating Reserves and Designated Reserves, such as the Power Market Volatility Account, Customer Deposits Account, and Special Capital Account, as defined in the District's Financial Policies adopted by Resolution 2657 and reported in the monthly financial statements. Beginning in 2015, Minimum Operating Reserves are defined as 90 days cash on hand. This ratio is useful for measuring the relative strength of a utility's financial liquidity. It must be evaluated in conjunction with identified immediate risks to cash flow and compared to the number of days it takes for the utility to raise its rates and begin to receive additional revenues.

How Performance Measure is Computed

Days Cash on Hand is computed by multiplying the total unrestricted cash and investments by 365 and then dividing that result by the total operating expenses (excluding depreciation and amortization). Operating expenses will be based on the latest forecast at the end of each quarter.

Goal

The District's current Financial Policies establish a Minimum Operating Reserve of 90 Days Cash on Hand and require financial plans to maintain Days Cash on Hand to achieve or maintain the Targeted Bond Rating (median of public power utilities). Targeted Days Cash on Hand shall consider relevant and recent benchmark data published by rating agencies for similar rated utilities as well as input from the District's Financial Advisor and recent experience with Rating Agencies. Staff's recommended Targeted Days Cash on Hand is 120 days +/-10%. This measure will be rated "green" if the Days Cash on Hand is at or above the bottom of the recommended range (108 days), "yellow" if the year-end forecast for Days Cash on Hand is between the Minimum Operating Reserve (90 days) and the bottom of the recommended range or 10% over the top of the recommended range, and "red" if the Days Cash on Hand is lower than the Minimum Operating Reserve. A "green" rating may be designated if reserves are 10% over the top of the recommended range as a result of a bond issue and/or the financial forecast shows a rate increase in the next year.

DCOH	District Minimum	District Target	Construction Account	Actual	Total
Q1	90	108 to 132	40	137	177
Q2	90	108 to 132	10	155	165
Q3	90	108 to 132	0	161	161
Q4	90	108 to 132			

Reserves	Minimum	Budget[1]	Construction Account	Actual	Total
Q1	$31.47M	$59.29M	$13.83M	$47.84M	$61.67M
Q2	$31.47M	$56.04M	$3.44M	$54.34M	$57.78M
Q3	$31.47M	$51.92M	$0.00M	$56.83M	$56.83M
Q4	$31.47M	$50.04M			

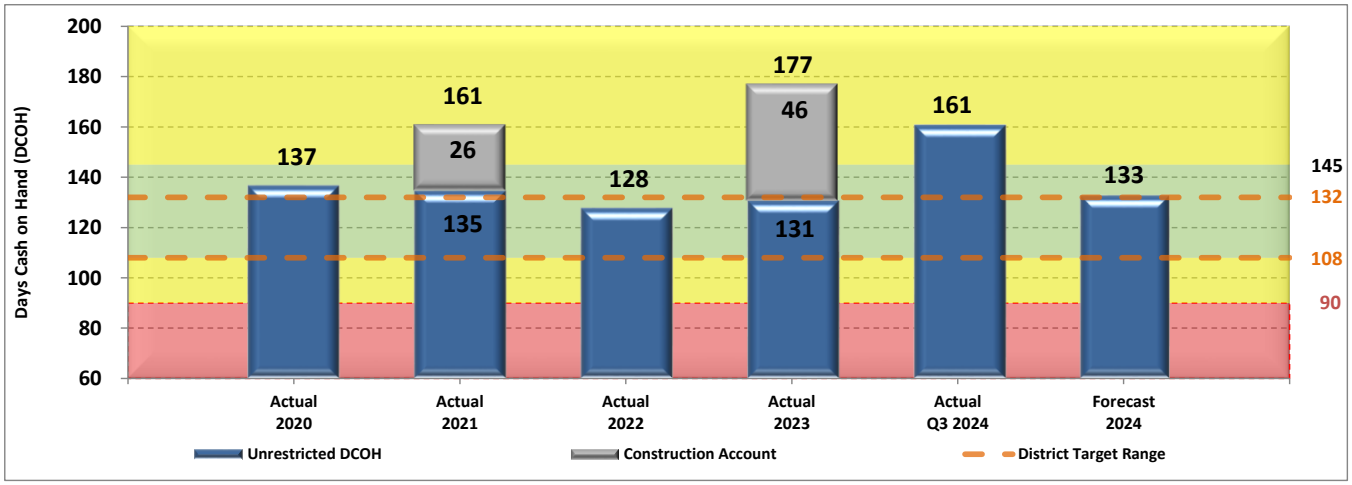
[1] Includes Construction Account

Designated Reserves - Year-end Forecast*	
Description	**DCOH**
Minimum Operating Reserves	90
Power Market Volatility	14
Special Capital	18
Customer Deposits	5
Climate Commitment Act	6
Undesignated Reserves	0
Current 2024 Year-end Forecast	**133**
Construction Account	0
Total Year-End Forecast	**133**

*Designated reserve breakdown is still to be decided by the Commission

Quarterly Performance Summary

The District completed the process of issuing $25 million in new bonds, with the proceeds received at the end of Q4 2023. The proceeds were placed in a restricted Construction Account and later transferred to Unrestricted Reserves as Capital expenditures were reimbursed. By the end of Q3 2024, the entire balance of the Construction Account had been moved to the Unrestricted Reserves. The District had 161 total DCOH at the end of Q3 indicating a yellow rating. However, due to the surplus in reserves resulting from the bond issuance, Q3 and the overall outlook is rated green.



Responsible Manager: Keith Mercer

Data Provider: Katie Grandgeorge

Report Date: 10/25/2024

Performance Measure Title

O&M / Net Capital

2024 Status			
Q1	Q2	Q3	Q4
Outlook			

Definition

This indicator measures the District's actual operations and maintenance (O&M) expenses vs. budget and the actual net capital expenditures vs. budget on a year-to-date basis. O&M expenses include transmission, distribution, broadband and all District internal costs and exclude power supply costs, taxes, depreciation, interest expense and other non-operating expenses. O&M and capital expenditures are a subset of all expenditures incurred by the District. While all costs are controllable by the District in the long-term, management has more direct control of these costs over the short-term and may more immediately impact District financial results through decisions in these areas.

How Performance Measure is Computed

The official budget that is approved by the Commission for the calendar year will represent the standard against which actual results are measured. The original budget is amended by the Commission during the 4th quarter of each year. Year-to-date O&M expenses and net capital expenditures will be compared to budget at the end of each quarter.

Goal

Meet the year-to-date budget projections.

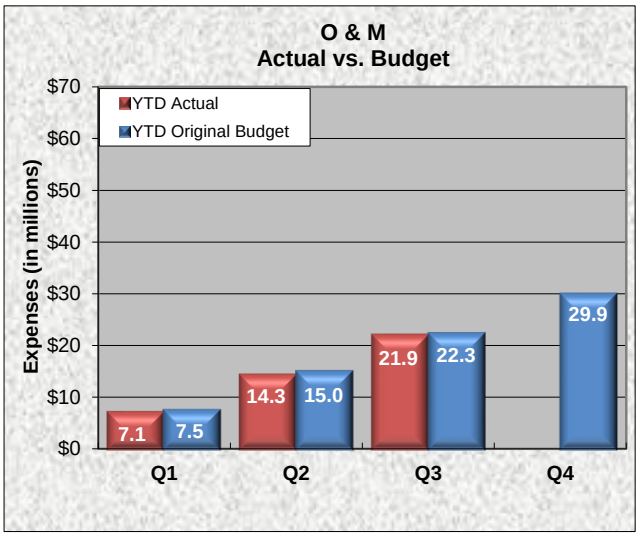
in millions

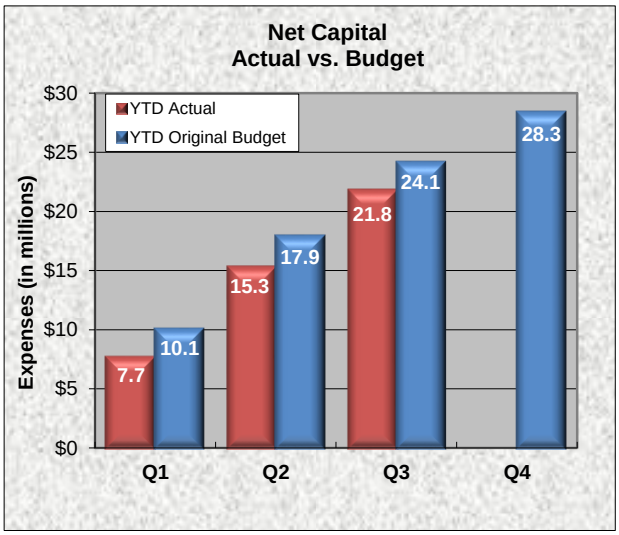
	O & M				Net Capital		
	YTD Original Budget	YTD Actual	% of Total Budget*		YTD Original Budget	YTD Actual	% of Total Budget*
Q1	$7.515	$7.097	24%	Q1	$10.092	$7.706	27%
Q2	$14.976	$14.288	48%	Q2	$17.945	$15.317	54%
Q3	$22.274	$21.899	73%	Q3	$24.125	$21.778	77%
Q4	$29.878		0%	Q4	$28.347		0%

** % of total original budget, **actuals do not include pension expense*

Quarterly Performance Summary

The numbers included in this calculation are based on preliminary financial data. O&M expenses of $21.9 million through the third quarter are 1.7% or $0.4 million under the the original budget. A large portion of the variance to budget is under-runs in general administration and outside services expenses. Net capital expenditures of $21.8 million through the third quarter are 12.9% or $3.2 million under the original net capital budget. The variance is primarily related to timing of costs related to capacity & reliability, customer growth, and security projects. These measures are rated green for the quarter and outlook.





Responsible Manager: Kent Zirker
Data Provider: Janelle Herrington

Report Date: 10/21/2024

Performance Measure Title

O&M Costs per Customer

2024 Status			
Q1	Q2	Q3	Q4
Outlook			

Definition

This performance measure will track the District's non-power operating and maintenance (O&M) costs per customer, excluding broadband and reimbursable mutual aid costs and including bad debt expense. O&M expenses are a subset of all expenditures incurred by the District. While all costs are controllable by the District in the long-term, management has more direct control of O&M costs over the short-term and may more immediately impact District financial results through decisions in these areas.

How Performance Measure is Computed

Actual O&M expenses, excluding broadband and reimbursable mutual aid costs and including bad debt expense, as reported in the financial statements will be divided by the average number of active service agreements on a rolling 12-month basis. Results at the end of each quarter will be compared to the 2024 calculated budget of $503 per customer. The 2024 calculated amount was developed from the 2024 budget of $499 per customer incremented by $200,000 or $4 per customer to allow for variations in the level of internal labor charged to capital projects vs expense. A rating of green will be assigned if the O&M costs per customer are less than 2% above budget; a rating of yellow will be assigned if the O&M costs per customer are more than 2% but less than 3% above budget; a rating of red will be assigned if the O&M costs per customer are more than 3% above budget.

Goal

Maintain or decrease the O&M costs per customer as compared to the 2024 budget of $503 per customer.

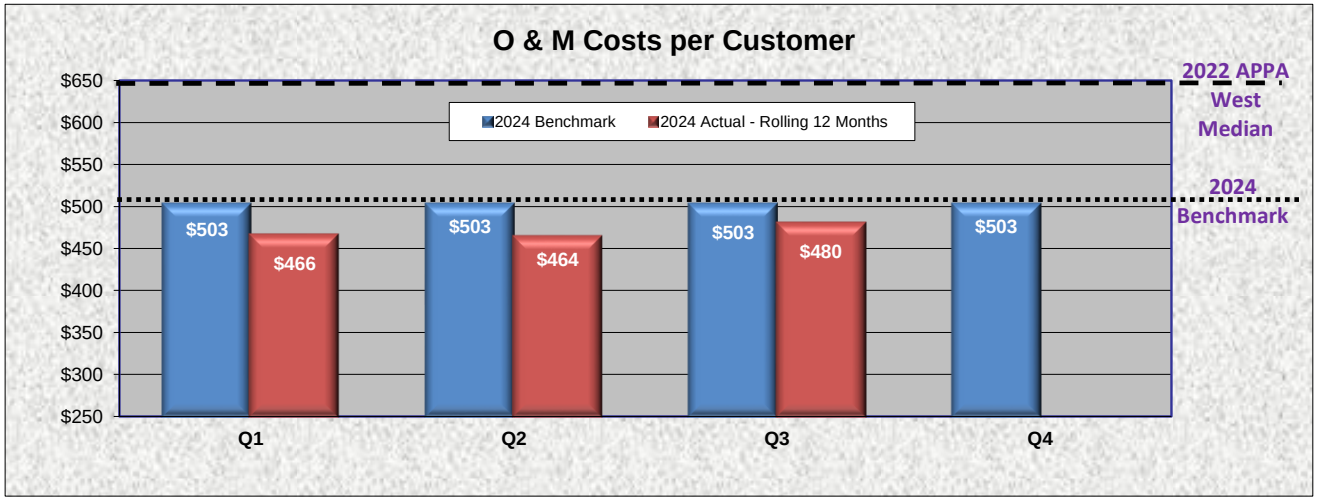
	O & M	
	2024 Budget	2024 Actual
Q1	$503	$466
Q2	$503	$464
Q3	$503	$480
Q4	$503	

Information Only	Stated Year Dollars	2024[1] Dollars
Benton PUD - CY 2022 Actual*	$443	$470
Benton PUD - CY 2023 Actual*	$443	$456
Benton PUD - CY 2024 Budget*	$477	$477
APPA - 2021 West median[2]	$597	$652
APPA - 2022 West median[2]	$605	$642

** includes bad debt expense, does not include GASB pension entry*
(1) Escalated at 3% per year
(2) Selected Financial and Operating Ratios of Public Power Systems survey
(Note: accounting for payroll taxes and benefits may vary among utilities)

Quarterly Performance Summary

The numbers included in this calculation are based on preliminary financial data. O&M costs per customer on a rolling 12-month basis at the end of the third quarter were $480, which is 2.6% below the budget amount. The budget amount is calculated based on information from the original budget. A large portion of the variance to the original budget is under-runs in general administration expenses (insurance, maintenance expenses, and general expenses) of $375k and outside services of $277k. The District continues to be well below the APPA West median of $642.



Responsible Manager: Kent Zirker

Data Provider: Janelle Herrington

Report Date: 10/21/2024

2024 Status			
Q1	Q2	Q3	Q4
●	●	●	
Outlook: ●			

Performance Measure Title

Accounts Receivable Collections

Definition

Percentage of accounts receivable that are outstanding and less than 60 days after billing.

How Performance Measure is Computed

The percentage is calculated by dividing the amount of accounts receivable under 60 days by the total amount of accounts receivable for electric customers. This measure does not include miscellaneous accounts receivable, such as power billings or cost reimbursements.

Goal

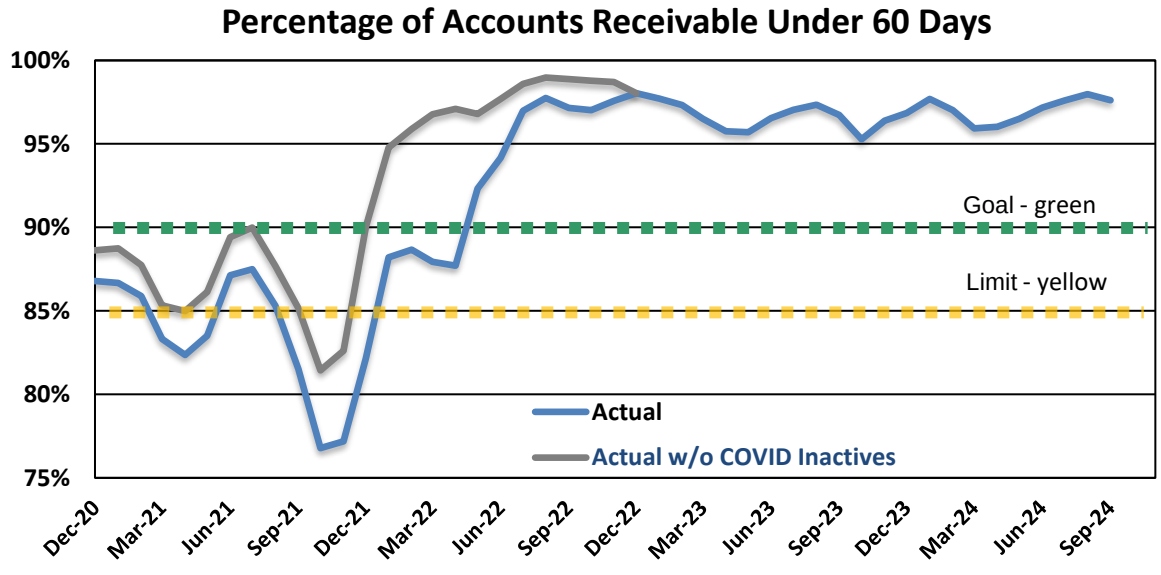
The goal is to increase the percentage of accounts receivable under 60 days to a level of 90% or more of the total accounts receivable. A green rating will be achieved if the actual results are at 90% or higher; a yellow rating will be assigned if the actual results are between 85% to 90%; a red rating will be assigned if the actual results are below 85%.

			Actual
Q1	90%	Q1	96%
Q2	90%	Q2	97%
Q3	90%	Q3	98%
Q4	90%	Q4	

Performance Rating	
Green ●	>= 90%
Yellow ▲	85% - 89%
Red ◆	< 85%

Quarterly Performance Summary

The monthly percentage of outstanding accounts receivable under 60 days including inactive accounts were 98%, 98%, and 98% respectively during Q3. The quarter and outlook are rated green.



Responsible Manager: Annette Cobb

Data Provider: Kent Zirker

Report Date: 10/21/2024

2024 Status			
Q1	Q2	Q3	Q4
Outlook			

Performance Measure Title

Safety

Definition

The measure will benchmark reportable injuries or illnesses as recorded on the OSHA 300 log. The summary will specify incidents and look for trends and opportunities to correct through training, retraining, work procedure changes, engineering controls or other reasonable actions to address.

How Performance Measure is Computed

We will use the OSHA Form 300A "Summary of Work Related Injuries and Illnesses" for safety benchmarking against the Bureau of Labor Statistic numbers published each year. The basic requirement for recording an illness or injury is if it results in any of the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, loss of consciousness, or a significant injury or illness diagnosed by a physician or other licensed health care professional. The incidence rates are calculated according to the following formula: (N/EH) x 200,000 where N = number of incidents for the previous 12-months and EH = total hours worked by all employees during the same 12-month period. The 200,000 is the constant for 100 full-time workers working 40 hours per week for 50 weeks per year.

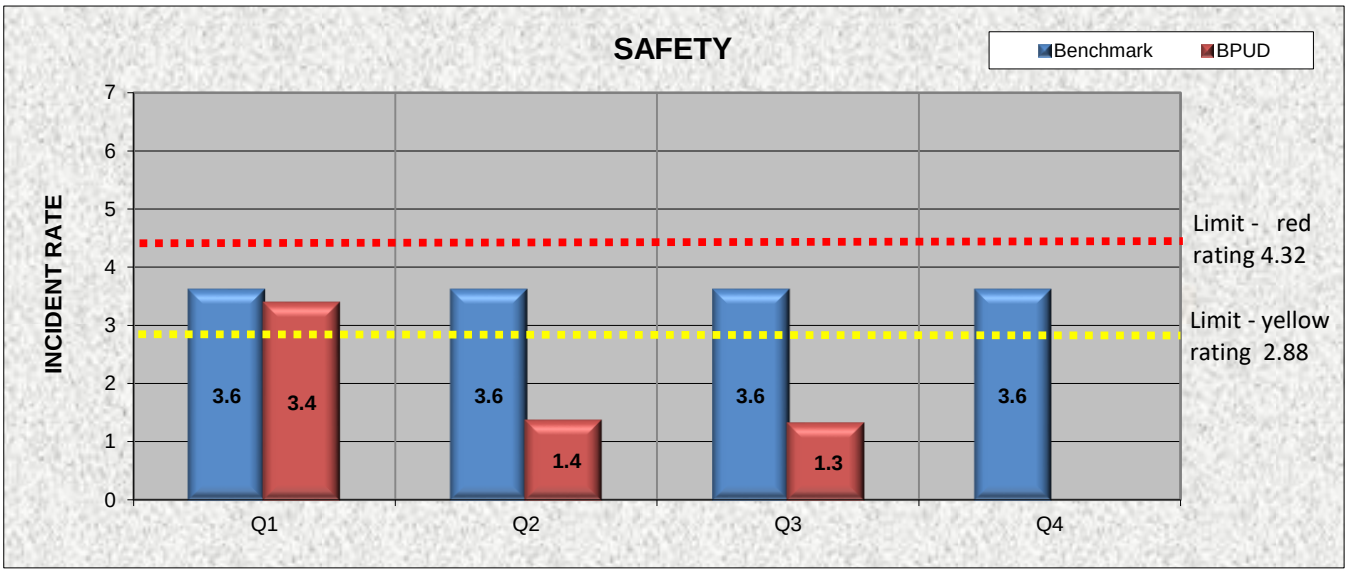
Benchmark (not to exceed)

The benchmark is to be less than the Total Recordable Cases as published annually by the Bureau of Labor Statistics. This figure changes annually as a result of OSHA 300 log reports. This measure will be rated green if BPUD calculated reportable incidents are below 80% of the benchmark, yellow if they are between 80%-120% of the benchmark, and red if they are over 120% of the benchmark or as a result of a serious injury and/or Labor and Industries citation.

	Benchmark	BPUD
Q1	3.6	3.4
Q2	3.6	1.4
Q3	3.6	1.3
Q4	3.6	

Quarterly Performance Summary

There were two incidents reported on the OSHA 300 form in the last 12 months (October 1, 2023 - September 30, 2024):
~ 03.06.24: Journeyman Lineman suffered a concussion and cuts to head when carrying a shovel - 11 days lost time
~ 02.20.24: Apprentice Lineman suffered flash burn to both eyes - 1 day lost time



Responsible Manager: Steve Hunter

Data Provider: Gabrielle Purdom

Report Date: 10/23/2024

Performance Measure Title

2024 Status			
Q1	Q2	Q3	Q4
✓	✓	✓	
Outlook:			✓

Safety Meeting and Training Attendance

Definition

This performance measure reflects the results achieved in meeting the safety program training and participation goals for the quarter. The training goal includes those trainings sponsored by the District and where attendance is required. The participation aspect includes non-training activities that depend upon employee involvement. The goal is to ensure the majority of scheduled participants attend the trainings or meetings while allowing flexibility for those on protected leave. Failing to achieve the goals may reflect other legitimate schedule conflicts, ineffective course frequency or length, priority-setting improvements needed for participants and/or their managers, or other interfering factors.

How Performance Measure is Computed

The target is derived each quarter based on the group participation goals approved by the Central Safety Committee and Leadership Team. It is the percentage of training/meeting attendendance against the expected attendance, as well as the number of Operations crew reports turned in. The rating is set so all of the meeting and training attendance averaged together must equal 90% or above to achieve a green rating. A yellow rating reflects an average between 80-89% , and a red rating is less than 80% average attendance.

Performance Rating:	Green: ✓ AVG ≥ 90%	Yellow: △ AVG = 80-89%	Red: ✗ AVG < 80%

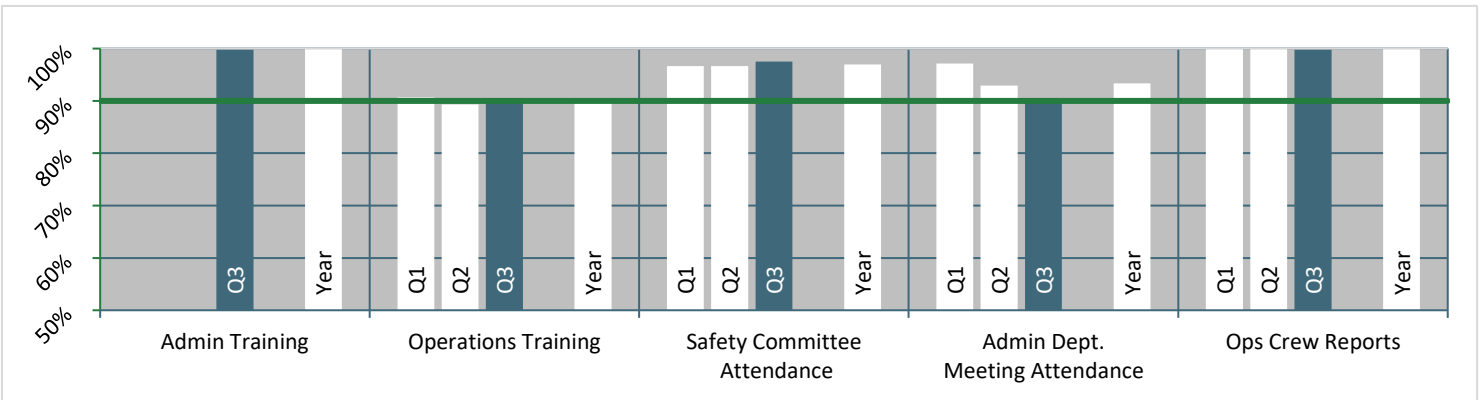
Goal

Achieve minimum 90% or greater average attendance and participation at safety-related trainings and meetings.

	Training Attendance			Participation				Goals
	Admin Training	Ops Training	AVG	Committee Attendance	Admin Dept Attendance	Ops Crew Reports	AVG	Overall AVG
Q1	N/A	91%	91%	97%	97%	100%	98%	94%
Q2	N/A	89%	89%	97%	93%	100%	97%	93%
Q3	**100%**	**90%**	**95%**	**98%**	**90%**	**100%**	**96%**	**95%**
Q4								
Year	100%	90%	92%	97%	93%	100%	97%	94%

Quarterly Performance Summary

The outlook for the quarter and overall year is green. In the third quarter, the Administrative and Operations groups averaged 95% across the safety training and participation goals set for both groups. For the quarter, 90% of Operations participated in crew/shop trainings and covered Situational Awareness for Field Staff, Confined Spaces & Substation Orientation, and Hazardous Materials. 100% of Crew Reports were returned. The Admin biannual safety training was on Power Line Safety & Demo Trailer and was completed by 100% of Admin staff. 90% of Admin staff reviewed monthly safety information. The Safety Committees averaged 98% attendance overall.



Responsible Manager: Karen Dunlap

Data Provider: Kristen Demory

Report Date: 10/16/2024

2024 Status			
Q1	Q2	Q3	Q4
Outlook			

Performance Measure Title

Conservation Plan 2024-2025 Biennial Actuals/Target

Definition

The District will monitor quarterly conservation achievements and compliance with the Energy Independence Act (EIA) target of 1.11 aMW which was established through the Amended Conservation Potential Assessment presented to the Commission on April 23, 2024.

How Performance Measure is Computed

Status is determined by the two target levels in the chart below. Above the EIA Target is green, between the EIA Target and Carryover level is yellow, below the Carryover level is red. Quarterly status is calculated by prorating all current conservation to a 24 month period and adding it to NEEA savings. (Note: Although NEEA actual savings are not received until April-May for the previous year, an estimate of 50% of NEEAs estimated savings are used in the chart until actuals are received). Projected savings are based on Energy Programs budget estimates divided into monthly allocations for all sectors except Industrial. Projections from the Industrial sector are based on pending projects reported to the District by the ESI program.

Goal

Ensure the District is on track to meet the 2024-25 conservation biennial target. Green Outlook rating is the "Projected Final Savings" meeting or exceeding the EIA target. Yellow rating is between the EIA Target and Carryover level. Red rating is below the Carryover level.

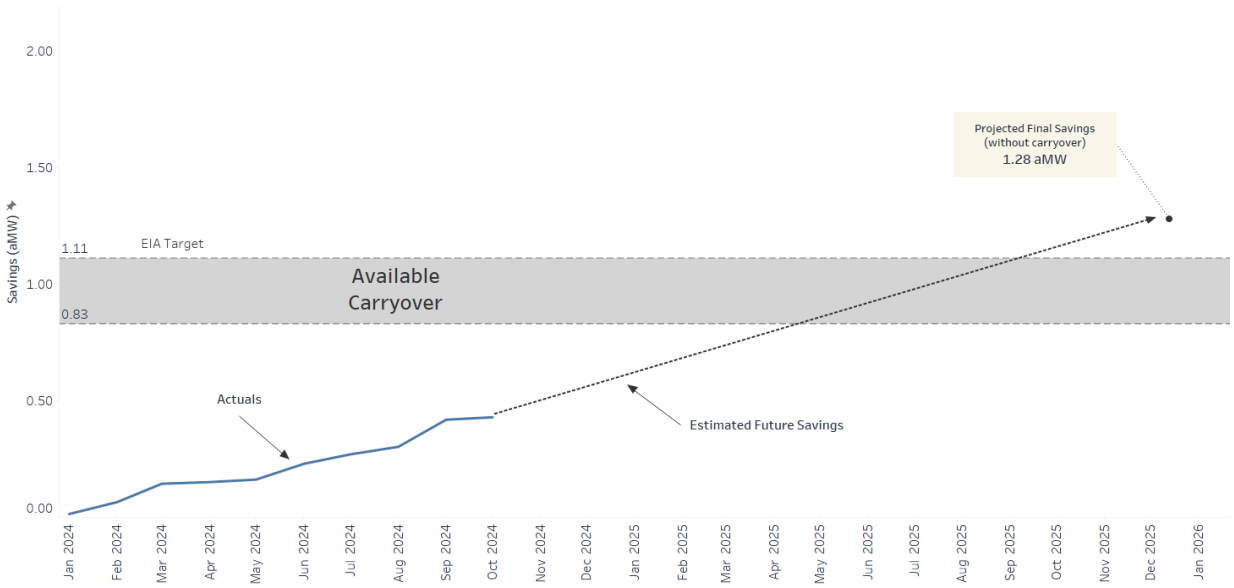
2024	Q1		Q2		Q3		Q4	
	Proj	Actual	Proj	Actual	Proj	Actual	Proj	Actual
Residential	0.019	0.013	0.019	0.018	0.019	0.027	0.021	
Commercial	0.063	0.038	0.063	0.063	0.063	0.055	0.058	
Industrial	0.085	0.080	0.085	0.000	0.085	0.094	0.075	
Agricultural	0.023	0.014	0.023	0.000	0.023	0.013	0.008	
U.S.E.	0.000	0.000	0.000	0.004	0.000	0.000	0.036	

2025	Q1		Q2		Q3		Q4		Total	
	Proj	Actual	Proj	Actual	Proj	Actual	Proj	Actual	Proj	Actual
Residential	0.019		0.019		0.019		0.019		0.097	0.059
Commercial	0.030		0.030		0.030		0.030		0.178	0.156
Industrial	0.043		0.043		0.043		0.043		0.245	0.174
Agricultural	0.008		0.008		0.008		0.008		0.038	0.026
U.S.E.	0.036		0.036		0.036		0.036		0.070	0.004
							NEEA*		0.228	
							Total aMW		1.273	

*Based on 50% of NEEA provided estimate for 2024 and 2025.

Quarterly Performance Summary

Quarter 3 was the highest savings total for any quarter in 2024 as the District acquired more than 0.16 aMW of savings. This was largely due to the completion of a plant expansion project at Tree Top in Prosser which accounted for almost half of the total conservation in the quarter. The overall outlook for the biennium continues to be positive and current projections show the District acquiring 1.48 aMW of savings, well above the EIA target of 1.11 aMW.



Responsible Manager: Chris Johnson

Data Provider: Terry Mapes

Report Date: 10/9/2024

Performance Measure Title

Broadband Network Reliability Report

All Green	=
Any Yellow	=
Any Red	=

2024 Status			
Q1	Q2	Q3	Q4
Outlook			

Definition

This report reflects Benton's network performance, identified by two (2) primary categories and two (2) subcategories.

3 - 9s		4 - 9s		5 - 9s	
99.9	=G	99.99	=G	99.999	=G
99.85	=Y	99.985	=Y	99.9985	=Y
99	=R	99.9	=R	99.99	=R

Primary categories

Core - Backbone Network
Distribution - Tail circuit and Customer Fiber

Subcategories

Dark Fiber - Non-lit services
Wireless Carrier - Services provided to Wireless Carriers (T-Mobile, US Cellular, AT&T, Sprint and Verizon)

The District's Broadband network consists of these four (4) segments and each of these segments will be measured independently as a part of the total network reliability. The measure of value and performance of a network is determined by the reliability of the network and at the extent to which it can maintain an adequate level of "up" time and service to the end users. The measurements and tracking process will allow the Broadband technical and management staff to determine the level of service and value of the network to the Retail Service Providers and the end users they serve. The results of the measurements will be part of the rate setting structure, level of service guarantees provided to RSPs and performance of staff.

Performance Objectives

Target performance for Core network is 5-9's, Distribution at 3-9's, Cellular Carriers at 4-9's & Dark Fiber at 4-9's.

Core Network

	Goal	Actual
Q1	99.999%	100.000%
Q2	99.999%	100.000%
Q3	99.999%	100.000%
Q4	99.999%	

Distribution Network

	Goal	Actual
Q1	99.9%	99.9999994%
Q2	99.9%	99.9999996%
Q3	99.9%	99.9999921%
Q4	99.9%	

Cellular Carriers

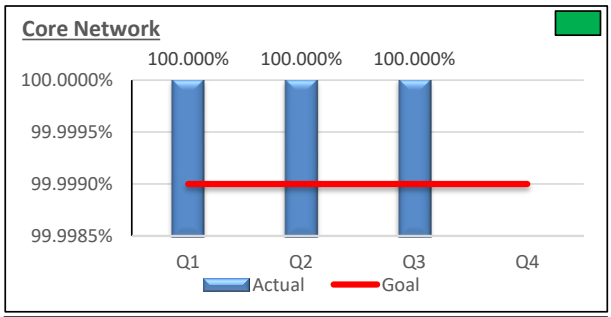
	Goal	Actual
Q1	99.99%	100.00%
Q2	99.99%	100.00%
Q3	99.99%	99.9998%
Q4	99.99%	

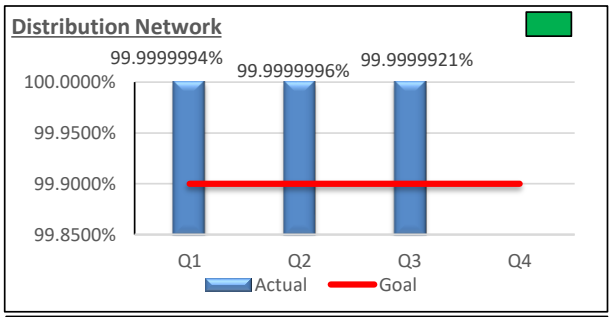
Dark Fiber

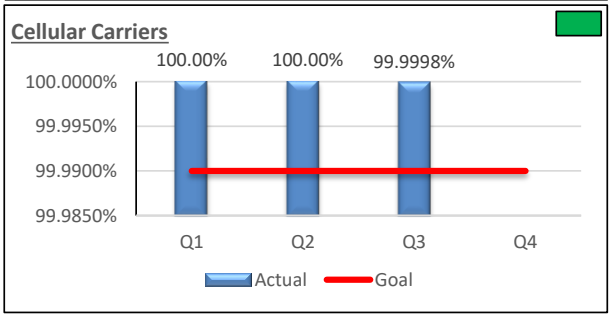
	Goal	Actual
Q1	99.99%	100.00%
Q2	99.99%	100.00%
Q3	99.99%	100.00%
Q4	99.99%	

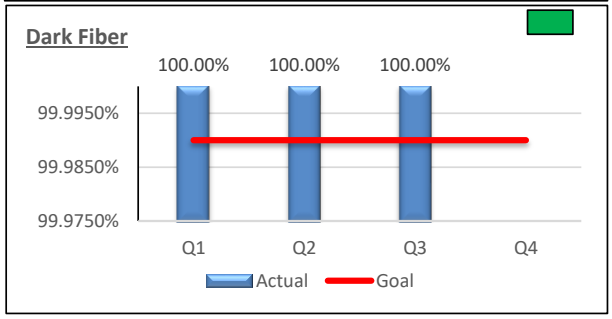
Quarterly Performance Summary

The Performance Measure is rated green for the Quarter 3 in 2024. On June 21st the primary routing engine for the core router in Kennewick reset. This caused service degradation for 75 internet customers for 3 minutes. Services restored as the device switched to the secondary routing engine. Engineers worked with the equipment vendor but were unable to determine the cause. Routing engines were replaced in a maintenance window stabilizing the device.









Responsible Manager: Chris Folta

Data Provider: Adrian Mata

Report Date: 10/22/2024

2024 Status			
Q1	Q2	Q3	Q4
Outlook			

Performance Measure Title

Electric Reliability

Definitions

SAIFI - System average interruption frequency index
Indicates how often the average customer experiences a sustained (greater than or equal to 5 minutes) interruption.

$$SAIFI = \frac{\Sigma \text{ Number of Customer Interruptions}}{\text{Number of Customers Served}}$$

SAIDI - System average interruption duration index
Indicates the total duration of interruption for the average customer during a predefined period of time.

$$SAIDI = \frac{\Sigma \text{ Customer Interruption Duration}}{\text{Number of Customers Served}}$$

CAIDI - Customer average interruption duration index
Indicates the average time required to restore service.

$$CAIDI = \frac{\Sigma \text{ Customer Interruption Duration}}{\Sigma \text{ Number of Customer Interruptions}} = \frac{SAIDI}{SAIFI}$$

Major Event Day - A day in which the daily system SAIDI exceeds a Major Event Day threshold value (TMED). Statistically, days exceeding the TMED threshold are days on which the energy delivery system experiences stresses significantly beyond those that are typically expected.

How Performance Measure is Computed

Interruption information is logged into the District's Outage Management System (OMS), either automatically from the District's SCADA system or manually. Tableau is used to calculate and report statistics for interruptions lasting longer than five mintues, excluding planned outages and customer problems.

Charts are presented that include and exclude Major Event Days (MEDs). The MED data is provided as it is the summation of our customer's experience. These large MED outages are often events that interrupt the District's electrical service but may not be the result of an electrical fault or equipment failure on the District's electrical system. Events such as BPA transmission outages or weather events that overwhelm the District's ability to rapidly respond.

The second set of charts excludes MED outages and provides a reportable quarterly metric reflecting outages caused only by electrical faults or equipment failures on the District's electrical system. This allows the District to identify actionable trends in SAIFI, SAIDI, and CAIDI values for outages that occured on the District's electrical system.

Goal

Compare recent 12-month performance to a goal equal to a four year (2005-2008) historical average. The performance rating will be "green" if the index is up to 20% above the goal, "yellow" if between 20% and 40% above and "red" if greater than 40% above the goal.

Quarterly Performance Summary

Time Period: 12-month time period from October 2023 to September 2024.

	MEDs Included	MEDs Excluded	Goal	Rating
SAIFI	**0.55**	**0.40**	**0.5**	
SAIDI	**61.1**	**40.6**	**60**	
CAIDI	**111.3**	**102.4**	**120**	

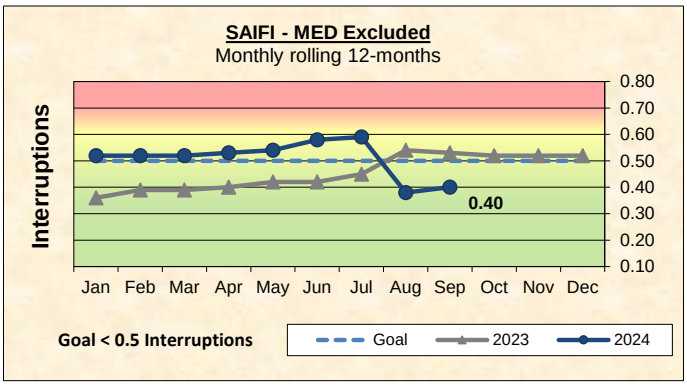
Over the 12-month time period from October 2023 to September 2024, **SAIFI of 0.4** interruptions is less than the goal of 0.5, resulting in a green rating. **SAIDI of 40.6** minutes is less than the goal of 60, resulting in a green rating. **CAIDI of 102.4** minutes is less than the goal of 120, resulting in a green rating.

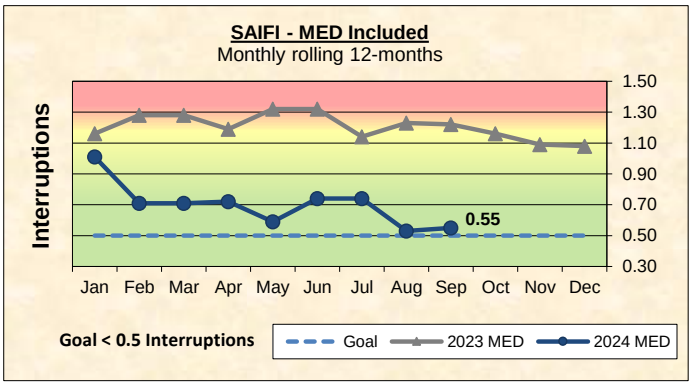
For the non-MED data, SAIFI decreased for the current quarter, meaning the average customer experiences an outage about every 30 months for general outages. SAIDI decreased to 40.6 minutes and had been trending about a 50 minute average. CAIDI increasing to 102.4 was anticipated with the Angus-Franklin outage falling off the calculation. Q2 is being given a green rating.

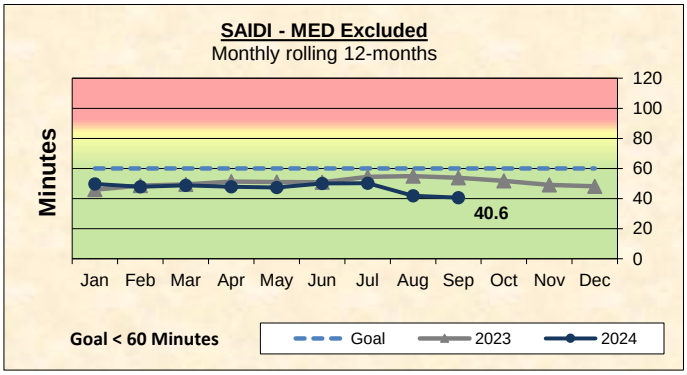
With MED data included, SAIFI decreased to **0.55**, SAIDI decreased to **61.1**, and CAIDI increased to **111.3**. SAIFI is benefitting from Q3-2023 falling off the calculation which had much more customers out than Q3-2024 did.

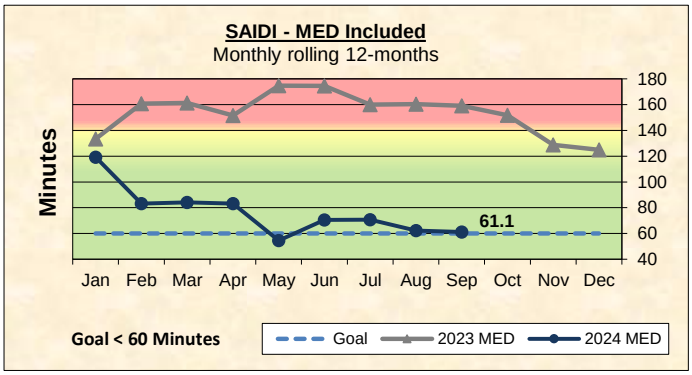
A SAIFI of 0.55 means every single one of our customers could have expected an outage within the last 22 months. In reality we had a subset of our customers who experienced multiple outages in the last 22 months. With MED's included our customers experienced an average restoration time of 1 hour and 53 minutes.

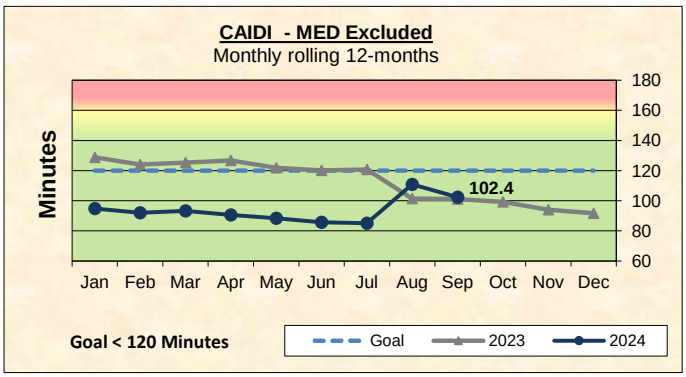
Responsible Manager: Evan Edwards
Data Provider: Dax Berven
Report Date: 10/14/2024

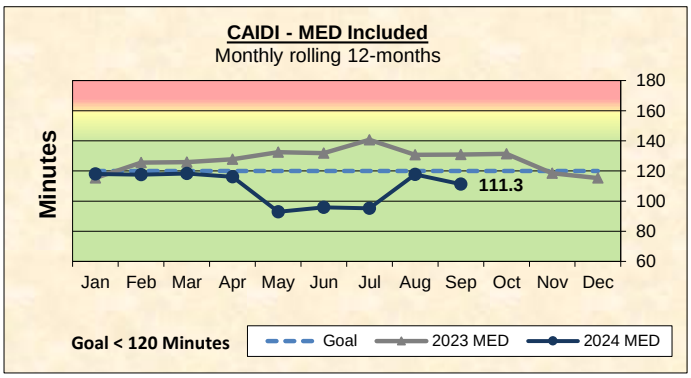












Responsible Manager: Evan Edwards

Data Provider: Dax Berven

Report Date: 10/14/2024

2024 Status			
Q1	Q2	Q3	Q4
Outlook			

Performance Measure Title
Electric System Outages

Definitions

Outage - Interruption of electrical service, for greater than or equal to 5 minutes, to one or more customers, excluding planned outages.
Cause - The reason the outage occurred.
Region - The geographic zone, as defined by the District's Geographical Information System, where the outage occurred.
Customer - A metered electrical service point for which an active bill account is established at a specific location.
Customer Minutes Out - The number of customers interrupted in an outage multiplied by the duration of the outage in minutes.
MED - Major Event Day

How Performance Measure is Computed

Outage information is logged into the District's Outage Management System (OMS). Every outage that occurs has an associated cause, region, number of customers affected and the number of customer minutes out. The outage data is queried from the OMS database using reporting tools and entered into a spreadsheet for summation and graphing purposes. The data is reported for a rolling 12-month time period, which removes any seasonal variation when looking for trends. This data is similar to the data used for calculating the quarterly performance measure titled "Reliability Indices". The reliability indices are useful as a performance indicator and for benchmarking purposes, but they do not provide the detail required to fully understand what factors are influencing reliability.

Goal

To identify electric system outage trends by cause and region over a 12-month time period. Trends in the negative direction will result in a yellow rating; otherwise a green rating will apply. No red ratings will be used.

Quarterly Performance Summary

Rolling 12 Months Reported Quarterly (No MED)

Outage Statistics	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3
Outage Count	563	486	535	514	480
Customers Out	29,473	28,352	28,356	31,861	21,784
Customer Minutes Out	2,952,352	2,636,509	2,684,132	2,754,394	2,306,008

Rolling 12 Months Reported Quarterly (MED)

Outage Statistics	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3
Outage Count	667	544	552	531	497
Customers Out	66,960	60,725	39,804	41,348	31,271
Customer Minutes Out	8,844,680	6,847,669	4,557,104	3,838,290	3,389,904

Non-MED Data Summary: For the non-MED data, outage counts,customers out, and customer minutes out decreased over the previous 12 month window. All three have been generally up and down over the past 5 quarters

MED Data Summary: The MED data incorporates the following events:

December 24th, 2023 - Ely Bay 2 Outage
June 2nd, 2024 - Grandview - Red Mountain Transmission Outage (Helicopter Impact)

These events slightly increase the outage counts, increase customers out by about 50%, and increase customer minutes out by about 47%.

Outages by Cause	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3
Equipment	259	241	262	267	270
Animals	82	87	87	82	75
Weather	32	15	24	21	14
Foreign Interference	103	106	123	112	97
Vegetation	60	19	23	20	14
Undetermined	27	18	16	12	10
Total	**563**	**486**	**535**	**514**	**480**

Outage Statistics	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3
Equipment	310	276	273	273	276
Animals	90	92	88	82	75
Weather	43	19	24	21	14
Foreign Interference	107	106	123	123	108
Vegetation	82	25	23	20	14
Undetermined	35	26	21	12	10
Total	**667**	**544**	**552**	**531**	**497**

Cause Summary: For the non-MED data outages caused by Equipment increased slightly. Outages caused by Animals, Weather, Foreign Interference, Vegetation, and Undetermined outages decreased.

With MED data included Animal, Weather, Vegetation, and Undetermined outages were flat and Equipment and Foreign Interference outages increased.

Outages by Region	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3
East Kennewick	199	185	214	206	184
West Kennewick	175	155	166	160	160
Benton City & Prosser	151	113	125	125	117
River & Hanford	38	33	30	23	19
Total	**563**	**486**	**535**	**514**	**480**

Outages by Region	2023-Q3	2023-Q4	2024-Q1	2024-Q2	2024-Q3
East Kennewick	255	227	224	207	185
West Kennewick	206	166	169	160	160
Benton City & Prosser	166	117	128	129	121
River & Hanford	40	34	31	35	31
Total	**667**	**544**	**552**	**531**	**497**

Region Summary: Across the non-MED data East Kennewick, Benton City & Prosser, and the River & Hanford areas all saw a decrease in outage counts, with the West Kennewick area remaining flat. East Kennewick and the Benton City & Prosser saw an increase in customers out, West Kennewick and the River & Hanford areas saw a decrease. The River & Hanford areas saw a slight increase in customer minutes out, East Kennewick remained flat, and West Kennewick and the Benton City & Prosser areas saw a decrease.

When MED data is included the impact is seen generally in the East Kennewick and Benton City & Prosser areas.

Responsible Manager: Evan Edwards
Data Provider: Dax Berven
Report Date: 10/14/2024

Outage Data

Rolling 12-Months, Reported Quarterly

Figure 1.1 - Outage Count (No MED)

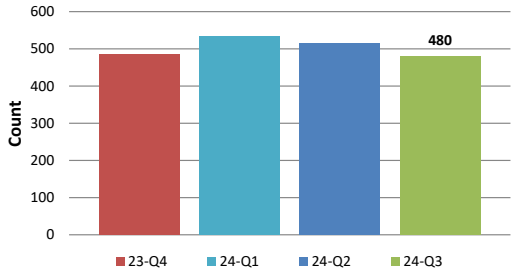


Figure 1.2 - Outage Count by Cause (No MED)

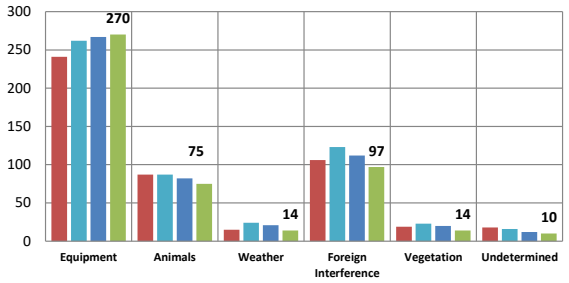


Figure 1.3 - Outage Count by Region (No MED)

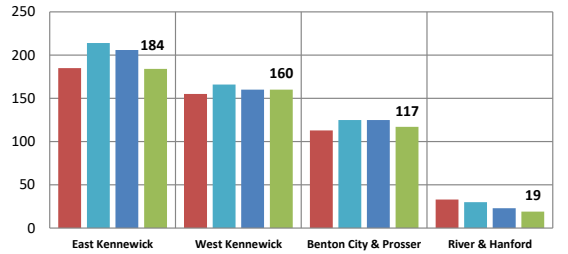


Figure 1.1 - Outage Count (MED)

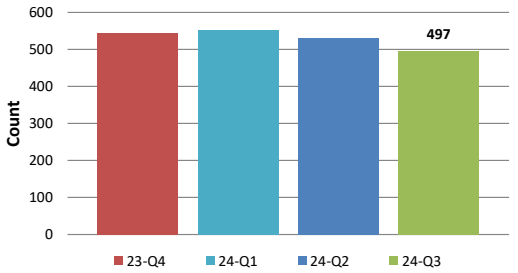


Figure 1.2 - Outage Count by Cause (MED)

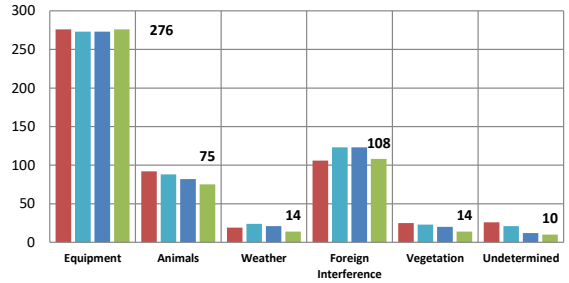


Figure 1.3 - Outage Count by Region (MED)

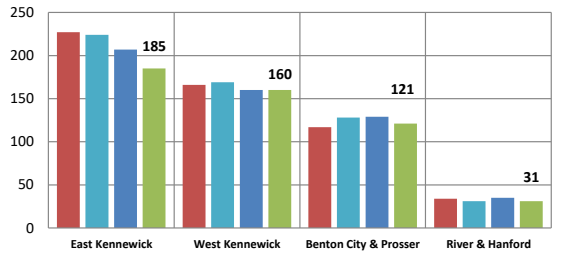


Figure 2.1 - Customers Out (No MED)

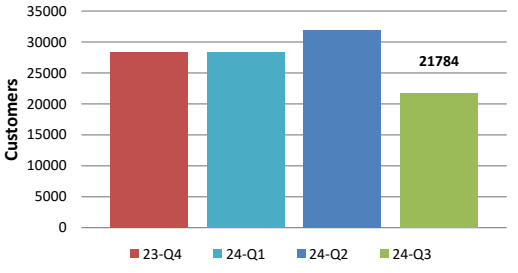


Figure 2.2 - Customers Out by Cause (No MED)

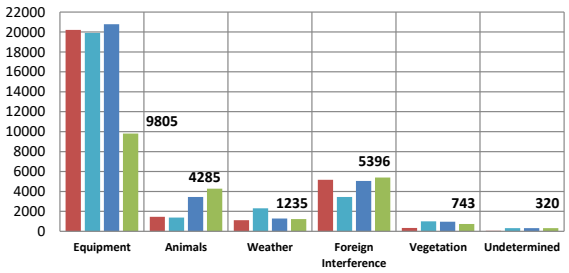


Figure 2.3 - Customers Out by Region (No MED)

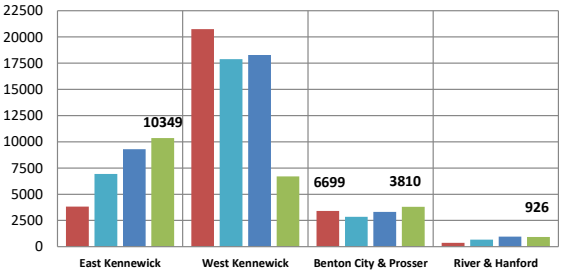


Figure 2.1 - Customers Out (MED)

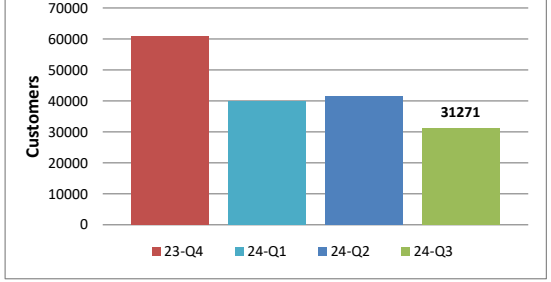


Figure 2.2 - Customers Out by Cause (MED)

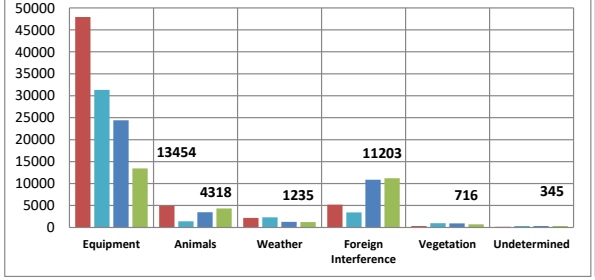
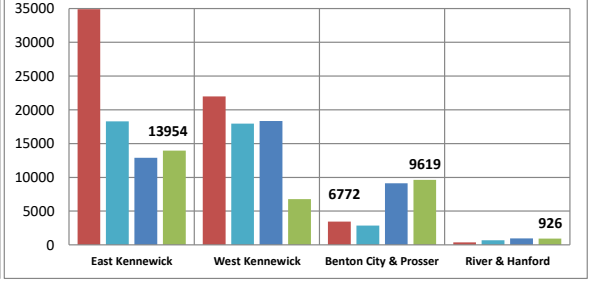


Figure 2.3 - Customers Out by Region (MED)



10/14/2024 DAB

Outage Data

Rolling 12-Months, Reported Quarterly

Figure 3.1 - Customer Minutes Out (k-Min) (No MED)

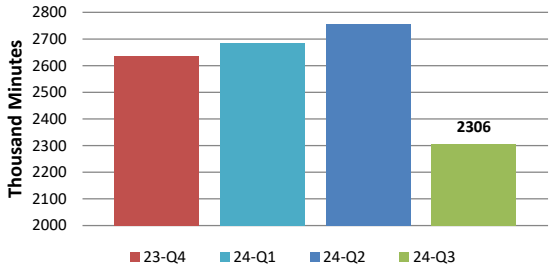


Figure 3.2 - Customer Minutes Out by Cause (k-Min) (No MED)

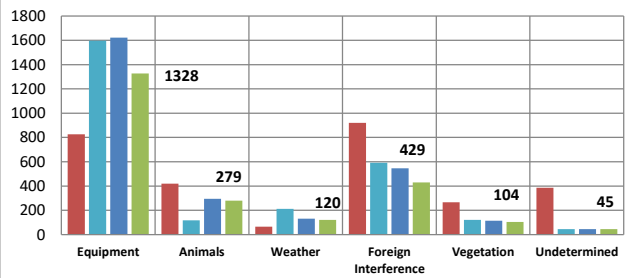


Figure 3.3 - Customer Minutes Out by Region (k-Min) (No MED)

Figure 3.1 - Customer Minutes Out (k-Min) (MED)

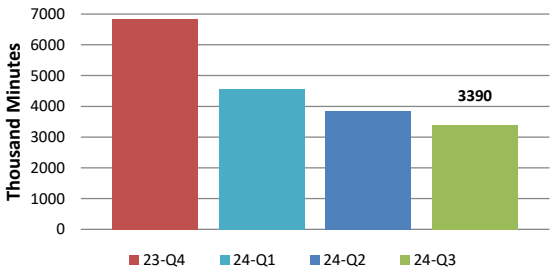


Figure 3.2 - Customer Minutes Out by Cause (k-Min) (MED)

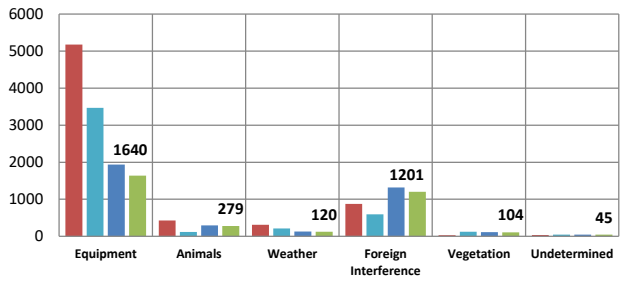


Figure 3.3 - Customer Minutes Out by Region (k-Min) (MED)

10/14/2024 DAB

Select Year:	Select Quarter:
2024	3

Enterprise Application Reliability

Year Status			
Q1	Q2	Q3	Q4
✓	▲	✗	
Outlook			
✓			

1 Yellow or all Green = ✓
2 Yellow or 1 Red = ▲
2 Red = ✗

Definition

Measures the reliability of seven enterprise software applications: HPRM (document management system), iVUE (customer information system, financials and payroll, outage management system, document vault, and work scheduling), GIS (mapping system), SCADA (electrical system monitoring and operations system) and AMI (automated metering system). We will also measure the reliability of the databases that support these applications, along with cloud applications critical to the functions of the District. The measure of value and performance of software applications is determined by the reliability and maintaining an adequate level of "up" time and service to the end users. The measurements will allow management staff to determine the level of service and value of each application to the end users they serve.
*note for the applications to be considered available, all parts must be available as defined by each system owner

How Performance Measure is Computed

Target performance for each application has been defined by the respective System Owner and is indicated in the "Goal" columns below. All goals are based on 24x7 availability. Each system has a Scheduled Maintenance Window for allowed after hours maintenance that will be excluded from the measurements.

Goal

Maintain an adequate level of "up" time and service to end users.

Performance Metric Results

The applicaiton reliability performance measure is rated red for the quarter due to unexpected downtime for the cloud applications and the integration between the AMI and billing applications after a web certificate expired. Once it was reported that users could not access the cloud applications, staff replace the certificate; however the AMI update took significantly longer since vendor support was required to apply the new certificate.

Enterprise Reliability

5 Year Trends

24x7 Applications Uptime % 2024 Q3

	Green Rating > 99.99% 0-13 mins	Yellow Rating 99.96%-99.98% 14-25 mins	Red Rating <=99.95% >26 mins	
5 Year Trends	20-Q1 20-Q2 20-Q3 20-Q4 21-Q1 21-Q2 21-Q3 21-Q4 22-Q1 22-Q2 22-Q3 22-Q4 23-Q1 23-Q2 23-Q3 23-Q4 24-Q1 24-Q2 24-Q3 24-Q4			Current Quarter
Apps Team Data..	✓✓✓✓ ✓✓✓✓ ✓✓✓✓ ✓✓✓✓ ✓✓✓			100.00%
GIS (MapWise)	✓✓✓✓ ✓✗✓✓ ✓✓✓✓ ✓✓✓✓ ✓✓✓			100.00%
HPRM	✗✓✓✓ ✓✓✓✓ ✓✓✓✓ ✓✓✓✓ ✓✗✓			100.00%
iVue	✓✓✓✓ ✓✓✓✓ ✓✓✓✓ ✓✓✓✓ ✓✓✓			100.00%
SCADA	✗✗✓✓ ✓✓✓✓ ▲✓✓✓ ✗✓✓✗ ✓✓✓			100.00%

Cloud Applications Uptime % 2024 Q3

	Green Rating > 99.90% 0-131 mins	Yellow Rating 99.85%-99.89% 132-199 mins	Red Rating <=99.84% >199 mins	
5 Year Trends	20-Q1 20-Q2 20-Q3 20-Q4 21-Q1 21-Q2 21-Q3 21-Q4 22-Q1 22-Q2 22-Q3 22-Q4 23-Q1 23-Q2 23-Q3 23-Q4 24-Q1 24-Q2 24-Q3 24-Q4			Current Quarter
AMI	✓✗✓✗ ✓✓✓✗ ✓✓✗✓ ✓✓✓✓ ✓✓✗			97.49%
Cloud Applications	✓✓✗✓ ✓✓✓✓ ✓✓✗✓ ✓✓▲✓ ✓✓✗			99.81%

Select Year:	Select Quarter:
2024	3

Infrastructure Component Reliability

Year Status			
Q1	Q2	Q3	Q4
✓	✗	✓	
Outlook			
✓			

1 Yellow or all Green = ✓

2 Yellow or 1 Red = ▲

2 Red = ✗

Definition

Measures the reliability of eight key Infrastructure components: Network (Core business computer network), NoaNet Service (Outside Internet provider), Kennewick-Prosser communications link, TEA/SCADA Network (The Energy Authority and SCADA communications), SAN (Storage Area Network), VDI (Virtual Desktop Infrastructure), Phones (Phone System), and Exchange (Email System). The measure of value and performance of infrastructure components is determined by the reliability and maintaining an adequate level of "up" time and service to the end users. The measurements will allow management staff to determine the level of service and value of each application to the end users they serve. Below is a chart to explain the thresholds in minutes of unplanned downtime.

How Performance Measure is Computed

Target performance for each component has been defined by the respective System Owner and is indicated in the "Goal" column below. All components are based on 24x7 availability.

Goal

Maintain an adequate level of "up" time and service to end users.

Performance Metric Results

The performance measure is green for the quarter and green for the outlook. There was no unexpected downtime for any of the Infrastructure measures during the quarter.

Infrastructure Reliability

5 Year Trends

24x7 with 99.99 % Uptime 2024 Q3

	Green Rating > 99.99% 0-13 mins	Yellow Rating 99.96%-99.98% 14-25 mins	Red Rating <=99.95% >26 mins	
5 Year Trends	20-Q1 20-Q2 20-Q3 20-Q4 21-Q1 21-Q2 21-Q3 21-Q4 22-Q1 22-Q2 22-Q3 22-Q4 23-Q1 23-Q2 23-Q3 23-Q4 24-Q1 24-Q2 24-Q3 24-Q4			Current Quarter
Exchange	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✗ ✓			100.00%
Kennewick to Pro..	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✗ ✓ ✓ ✓ ✓ ✓ ✗ ✓			100.00%
SAN	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓			100.00%
VDI	✓ ✗ ✓ ✓ ✓ ✓ ✗ ✓ ✓ ✓ ✓ ✓ ✗ ▲ ✓ ✓ ✓ ✓ ✓			100.00%

24x7 with 99.95% Uptime % 2024 Q3

	Green Rating > 99.95% 0-65 mins	Yellow Rating 99.90%-99.95% 65-129 mins	Red Rating <=99.90% >130 mins	
5 Year Trends	20-Q1 20-Q2 20-Q3 20-Q4 21-Q1 21-Q2 21-Q3 21-Q4 22-Q1 22-Q2 22-Q3 22-Q4 23-Q1 23-Q2 23-Q3 23-Q4 24-Q1 24-Q2 24-Q3 24-Q4			Current Quarter
Phones	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ▲ ✓ ✓ ✓ ✓ ✓ ✓ ✓			100.00%

24x7 with 99.90% Uptime % 2024 Q3

	Green Rating > 99.90% 0-131 mins	Yellow Rating 99.85%-99.89% 132-199 mins	Red Rating <=99.84% >199 mins	
5 Year Trends	20-Q1 20-Q2 20-Q3 20-Q4 21-Q1 21-Q2 21-Q3 21-Q4 22-Q1 22-Q2 22-Q3 22-Q4 23-Q1 23-Q2 23-Q3 23-Q4 24-Q1 24-Q2 24-Q3 24-Q4			Current Quarter
Network	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓			100.00%
NoaNet Service	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓			100.00%
TEA-SCADA Network	✗ ✗ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ▲ ✓ ✓ ✓			100.00%

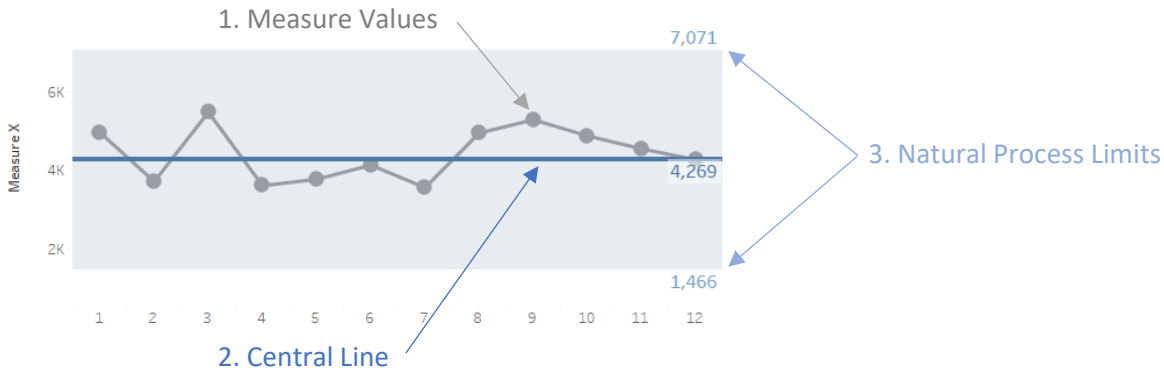
Appendix A

Using XmR Charts for Performance Measurement

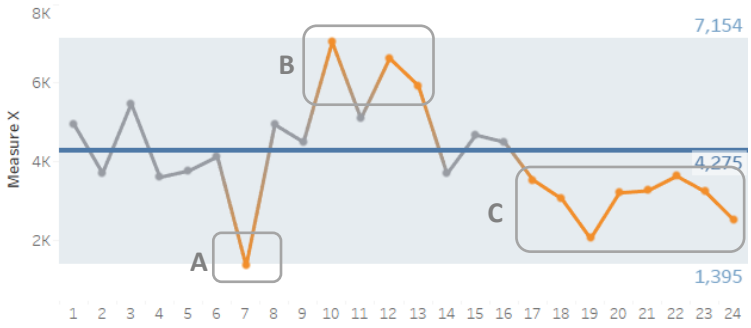
Introduction - This reference was created to support the District's performance measures that utilize XmR charts (a.k.a. process behavior charts). The District's use of XmR charts is intended to be consistent with the recommendations of Stacey Barr, author of the Measure Up Blog.[1] The basic features of XmR charts are explained, but to learn more, readers should refer to the footnotes for Stacey's blog articles. If the footnote hyperlinks are not available to the reader, the articles may be found by accessing the blog website and then using the keyword search tool.

Why use an XmR chart? - To bring focus to the "signals" of performance rather than the "noise" of normal variation.[2] It is an alternative that addresses the limitations of other analysis methods.[3, 4]

What is an XmR chart? - An XmR chart identifies signals of a change in performance by monitoring a measure in the context of its baseline level of performance (Central Line) and its normal variation (Upper and Lower Natural Process Limits).[5] The chart below represents the "X" portion of an XmR chart.[6]



What are the signals on an XmR chart? [7]



3 types of signals:

A. **Outlier** - A point outside of the Natural Process Limits.

B. **Short Run** - At least 3 out of 4 consecutive points closer to the same Natural Process Limit than to the Central Line.

C. **Long Run** - At least 8 consecutive points all on the same side of the Central Line.

How to set targets on an XmR chart? - Refer to these blog articles.[8, 9]

---

[1] https://www.staceybarr.com/measure-up/
[2] Why Statistical Thinking is ESSENTIAL to Great KPIs
[3] 5 Analysis Methods That Make Us Misinterpret KPIs
[4] Why KPI Thresholds Are a Really Bad Idea
[5] Three Things You Need On Every KPI Graph
[6] How to Build an XmR Chart for Your KPI
[7] 3 Essential Signals to Look for in Your KPIs
[8] Three Types of Useful KPI Targets
[9] Principles to Design a PuMP Performance Dashboard