



2025 PERFORMANCE MEASURES

Q1	Q2	Q3	Q4
<u>Telephone Service Level</u>			

Annette Cobb
Page 2

Q1	Q2	Q3	Q4
<u>Electronic Payments</u>			

Annette Cobb
Page 3

Q1	Q2	Q3	Q4
<u>Service Order Process</u>			

Michelle Ness
Page 4

Q1	Q2	Q3	Q4
<u>Rates</u>			

Keith Mercer
Page 5/6

Q1	Q2	Q3	Q4
<u>Back Bill Rate</u>			

Annette Cobb
Page 7

Q1	Q2	Q3	Q4
<u>Reserves/Days Cash on Hand</u>			

Keith Mercer
Page 8

Q1	Q2	Q3	Q4
<u>O&M/Capital</u>			

Kent Zirker
Page 9

Q1	Q2	Q3	Q4
<u>O&M Costs per Customer</u>			

Kent Zirker
Page 10

Q1	Q2	Q3	Q4
<u>Collections</u>			

Annette Cobb
Page 11

Q1	Q2	Q3	Q4
<u>Safety</u>			

Steve Hunter
Page 12

Q1	Q2	Q3	Q4
<u>Safety Training & Meetings</u>			

Karen Dunlap
Page 13

Q1	Q2	Q3	Q4
<u>Conservation I-937</u>			

Chris Johnson
Page 14

Q1	Q2	Q3	Q4
<u>Broadband Network Reliability</u>			

Chris Folta
Page 15

Q1	Q2	Q3	Q4
<u>Electric Reliability</u>			

Evan Edwards
Page 16/17

Q1	Q2	Q3	Q4
<u>Electric System Outages</u>			

Evan Edwards
Pages 18 - 20

Q1	Q2	Q3	Q4
<u>Enterprise Application Reliability</u>			

Jennifer Holbrook
Page 21

Q1	Q2	Q3	Q4
<u>Infrastructure Component Reliability</u>			

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 Level (Customer Service Queue)

2025 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 120 seconds.

How Performance Measure is Computed

The performance measure is calculated by dividing the number of calls answered within 120 seconds by the total number of calls answered that month. The monthly percentage is graphed and analyzed on an XmR chart. Current central line and process limits are calculated based on data from July 2024 through June 2025. (For more information on XmR charts, see Appendix A.)

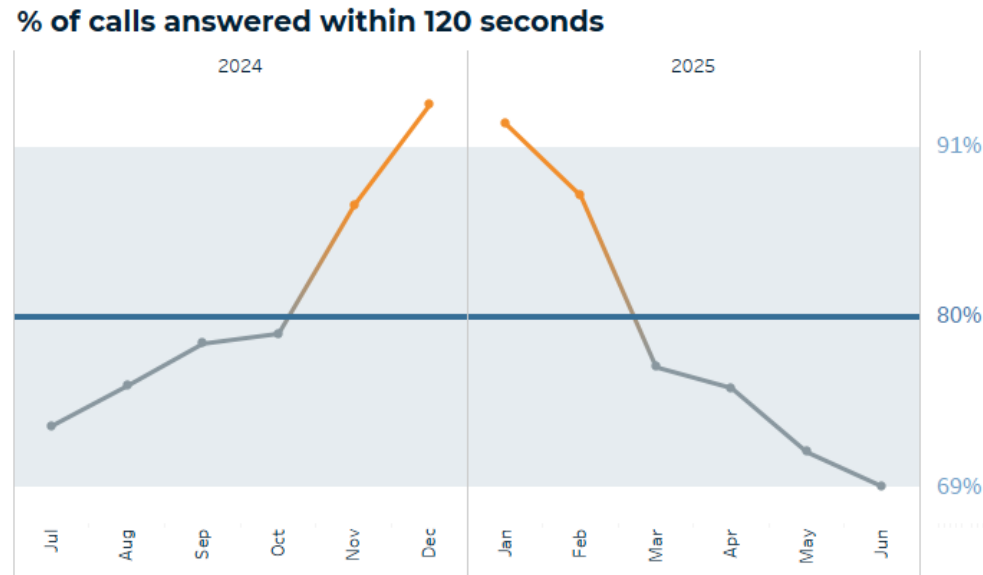
Performance Rating	
Green ✓	performance within limits, no unfavorable signal
Yellow ▲	showing an unfavorable signal, no action needed to correct
Red ✗	showing an unfavorable signal, action needed to correct

Performance Measure Objectives

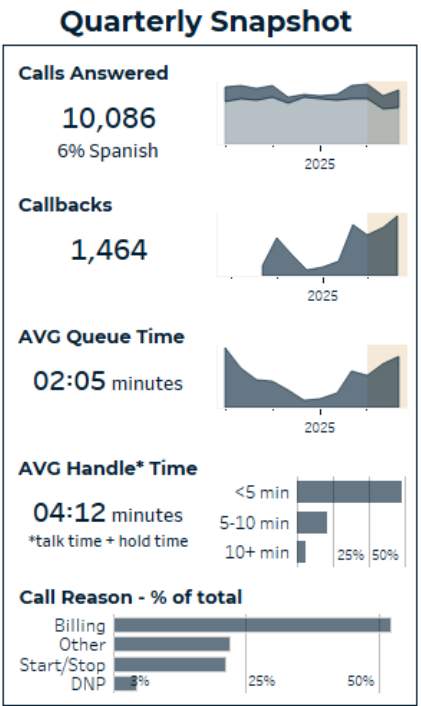
The current objective is to carefully monitor the Customer Service queue and maintain telephone service levels within normal limits amid evolving business practices. Managing the queue will allow staff to assess performance expectations and then set future goals that are informed and appropriate. Staff will also track and present supplementary phone queue data in addition to the XmR chart. While these additional metrics do not directly influence performance ratings, they provide valuable insights into aspects of the queue experience beyond call response times, helping to inform and refine future objectives.

Quarterly Performance Summary

The revised telephone service level was within normal limits during Q2. The central line is currently set at 80% with expected performance within $\pm 11\%$ of that. The rating for the quarter is green and the outlook is yellow (cautious). Supplementary metrics showed increases in all categories, largely due to reduced staff availability during training of new hires. The limits were recalculated this quarter using a full 12 months of data from the new phone system (previously only 9 months of data was available). This resulted in a shift of the central line from 83% to 80% and a narrower expected range, improving sensitivity from $\pm 13\%$ to $\pm 11\%$. The updated limits provide a more accurate view of service level expectations moving forward.



Additional Comments
N/A





Performance Measure Title
Electronic Payments

2025 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.)

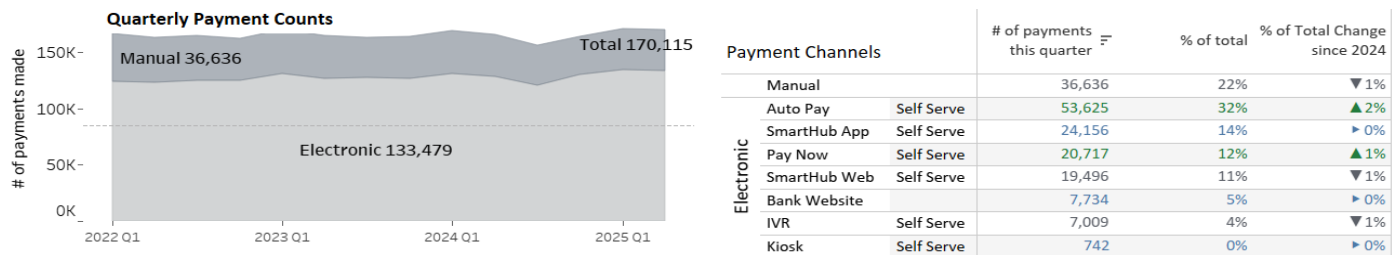
Performance Rating	
Green ✓	performance within limits, no unfavorable signal
Yellow ⚠	showing an unfavorable signal, no action needed to correct
Red ✗	showing unfavorable signal, action needed to correct

Performance Measure Objectives

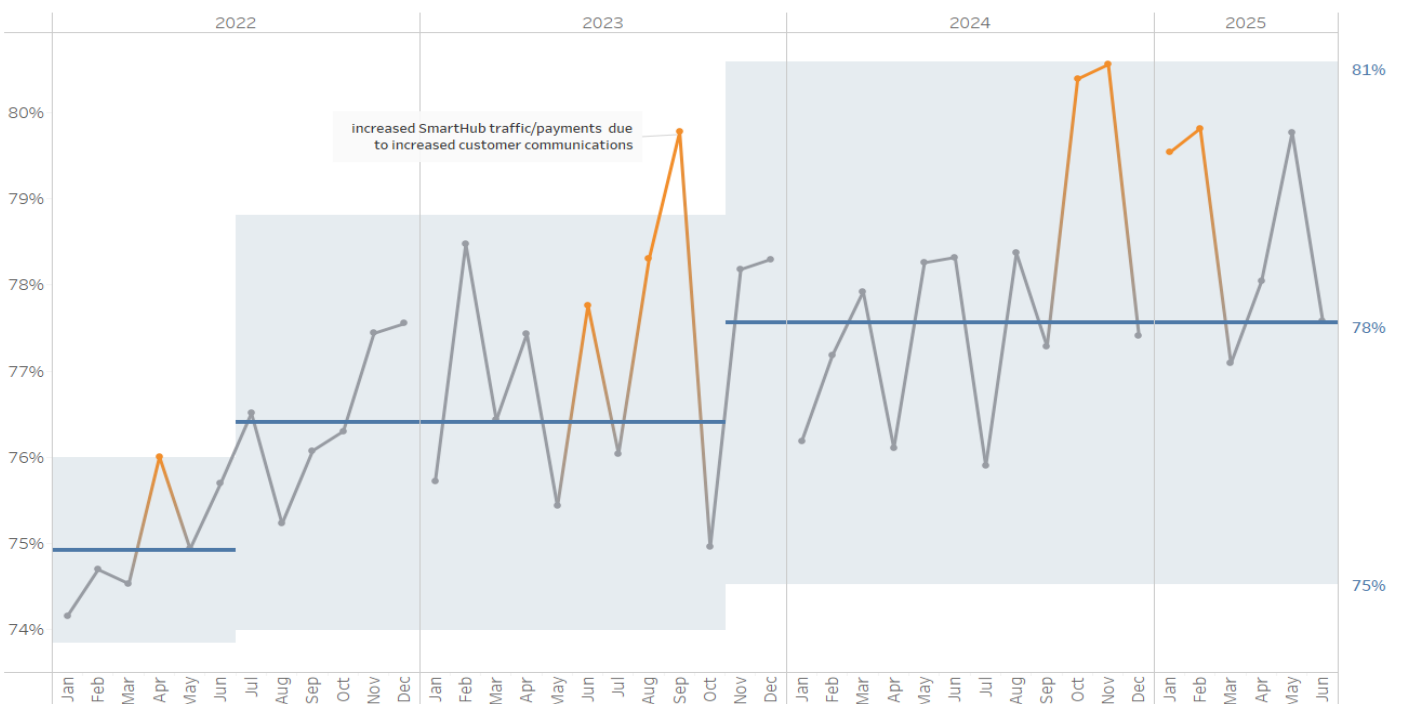
The current objective is to maintain performance within normal limits for at least six months. Customer adoption of several electronic payment channels is driving a continual upward trend that has repeatedly exceeded the upper limit. However, it is expected that the measure will eventually find a consistent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

Quarterly Performance Summary

Customer utilization of electronic payments was within normal limits during Q2. The central line is currently set at 78% of customer payments made electronically, with normal performance expected within $\pm 3\%$ of that. Customers continue to increase usage of Auto Pay and Pay Now. The rating for the year is green and the outlook is positive.



% of payments made electronically





2025 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

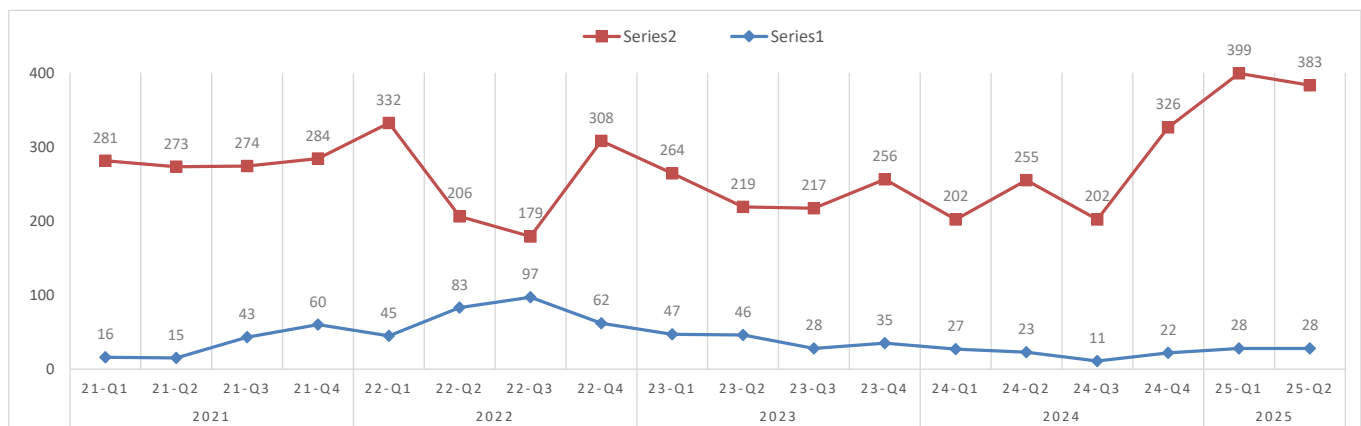
The goal is to energize new services within an average of 7 days after customer criteria has been met, then have the Service Order transitioned from Operations to Customer Service and have new accounts set up in CIS within an average of one week (5 days).

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	
	Goal	Actual	Goal	Actual	Goal	Actual	Goal	Actual
In Days	7	3.4	7	2.3	7		7	
Connection (Chart)	5	3.9	5	3.8	5		5	
CIS System								
Total new services count		427		411				

Quarterly Performance Summary

During the second quarter of 2025 it took on average 2.3 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 3.8 days, meeting the criteria of 5 days or less. There were a total of 411 new services energized (383 electric, 28 solar production) in the quarter. We are green for the quarter and green for the outlook.



	2021	2022	2023	2024	2025
Electric	1112	1025	956	985	782
Solar Production	134	287	156	83	56
Total Services	1246	1312	1112	1068	838

Responsible Manager: Michelle Ness

Data Providers: MN

Report Date: 7/30/2025



Performance Measure Title Rate Comparisons

2025 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			Residential Monthly Base Charge Comparison			BPUD Avg Yearly Residential Rate Increase Compared to CPI-U*		
Goal		Actual	COSA	Median	Actual	BPUD Avg Yearly % Increase	CPI-U* Avg Yearly % Increase	
Q1	< \$136	\$115	Q1	\$38	\$25	5 Year	1.0%	4.2%
Q2	< \$143	\$121	Q2	\$38	\$27	10 Year	1.6%	2.9%
Q3			Q3			15 Year	2.3%	2.6%
Q4			Q4					

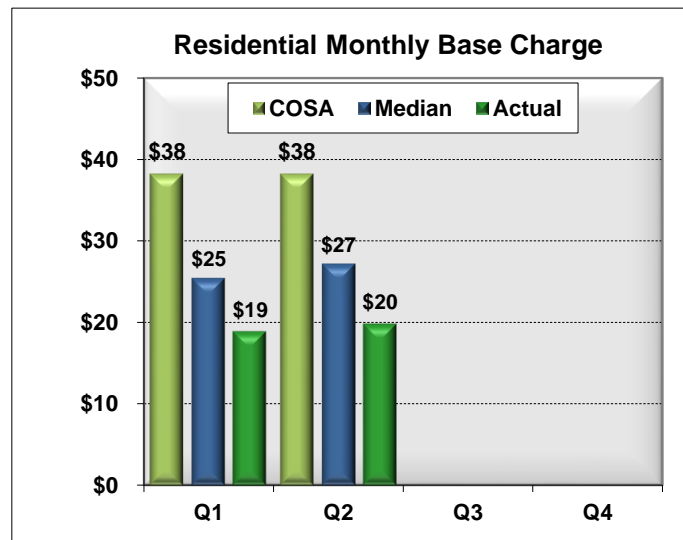
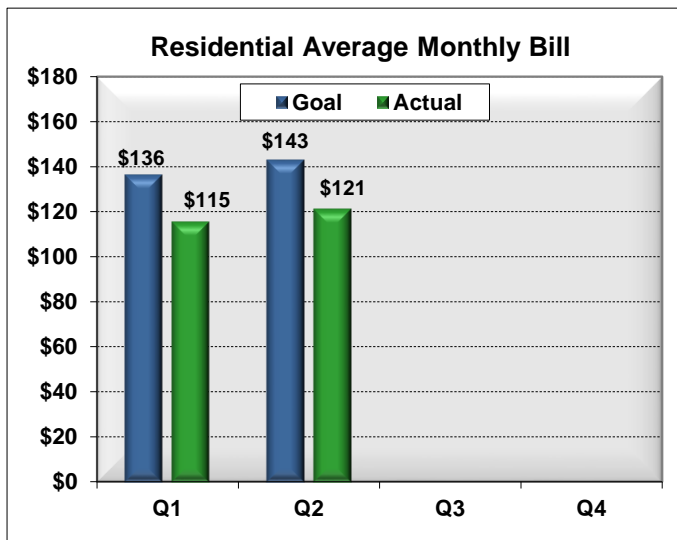
*Consumer Price Index for All Urban Consumers (CPI-U)
*Two years, one from 11 years, and one annually adjusted

*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 Q2 2025, the District's Residential rates were below the median of comparable utilities for the average monthly bill so a green rating was assigned. For those benchmark utilities that had an increase this year, the average increase for **consumer owned utilities is 5.3%** and for benchmark **investor owned utilities it is 17.0%**.

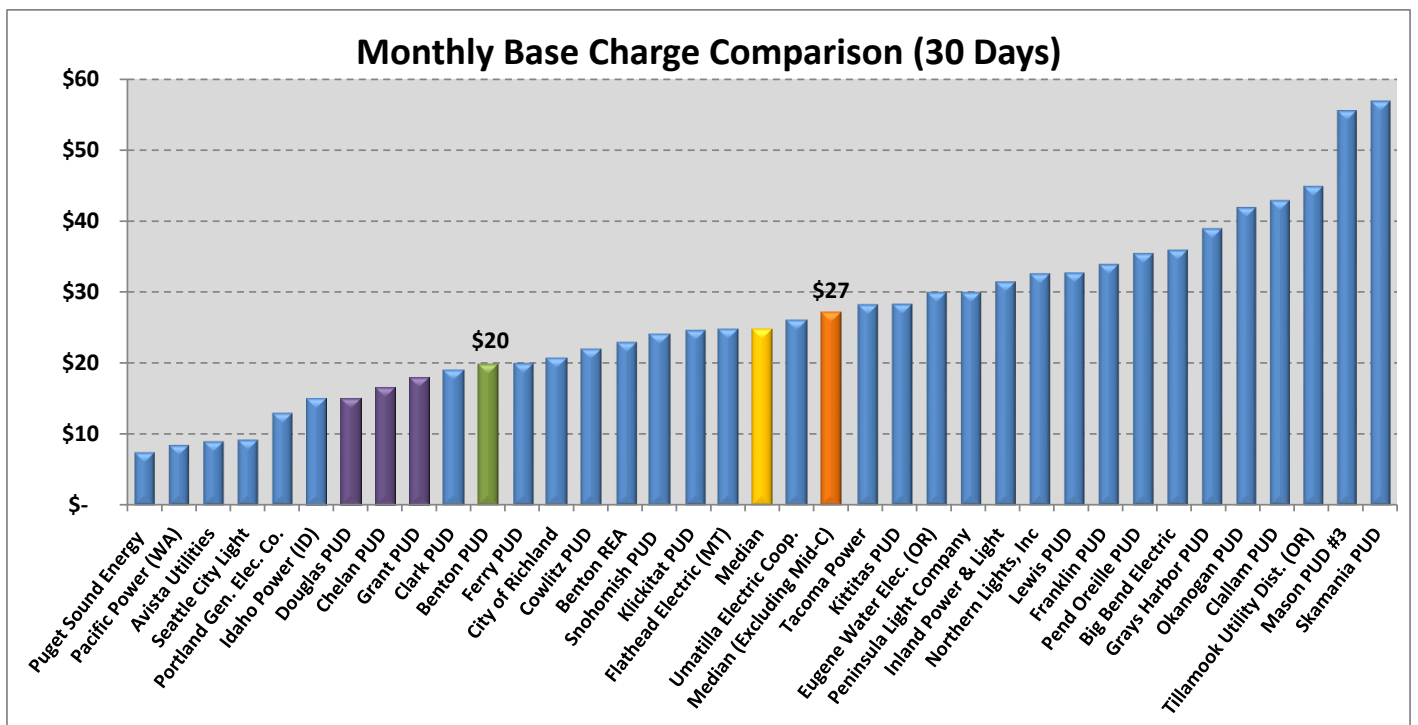
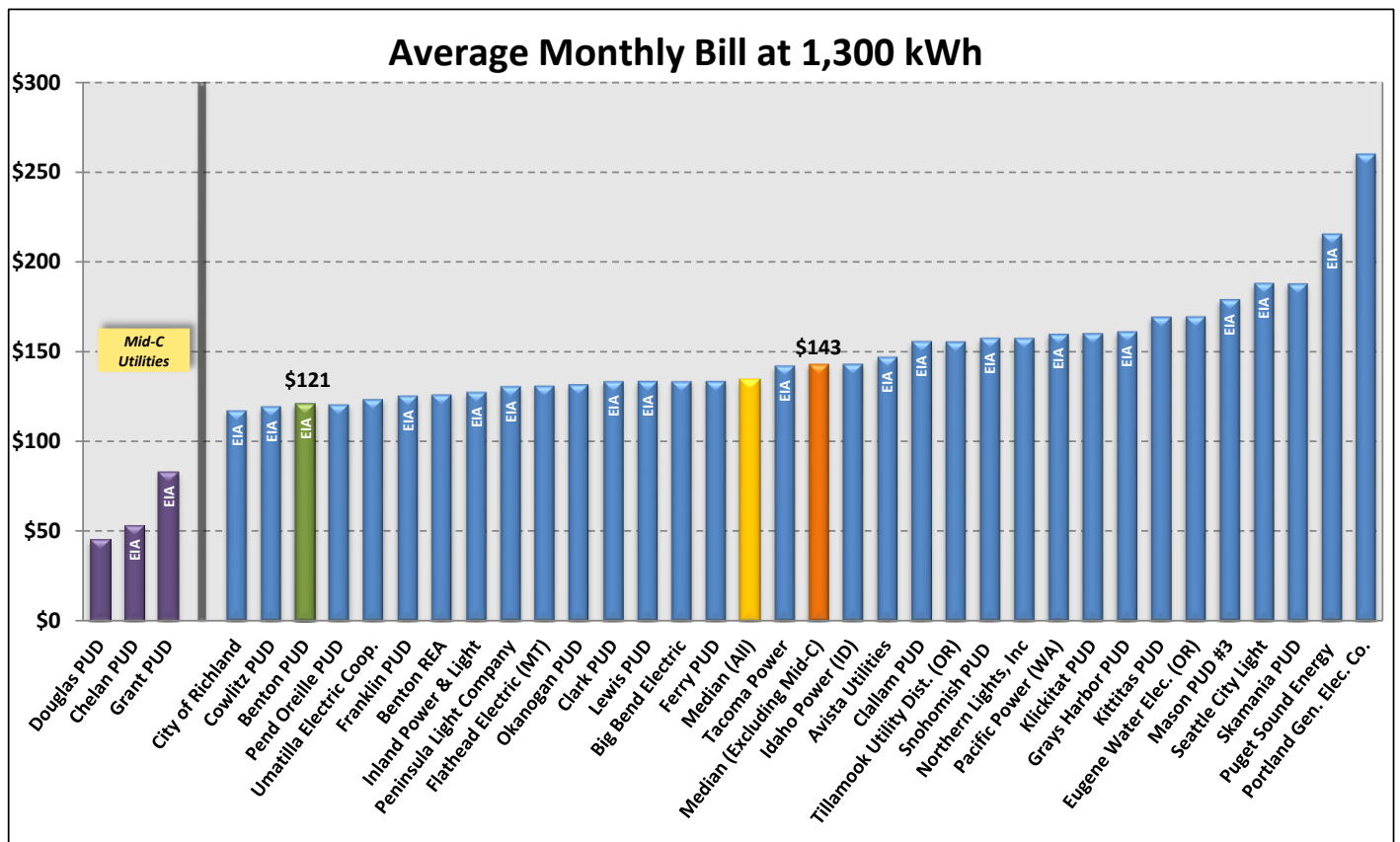
In Q2, Benton PUD and 14 of the other benchmark utilities had residential rate increases; **consumer owned**: Benton PUD (5% overall increase), Clallam PUD (2.5% overall increase), Grays Harbor PUD (2.2% overall increase), Kittitas PUD (7.4% overall increase), Okanogan PUD (5.5% overall increase), Pend Oreille PUD (4.1% overall increase), Snohomish PUD (4.2% overall increase), Tacoma Power (6% overall increase), Tillamook PUD (7% overall increase), Chelan PUD (2.8% overall increase), Grant PUD (2.3% overall increase), Big Bend Electric (9.6% overall increase), Flathead Electric MT (4.8% overall increase), and Northern Lights INC (14.6% overall increase), **investor owned**: Puget Sound Energy (4.2% overall increase).



Responsible Manager: Keith Mercer

Data Provider: Katie Grandgeorge

Report Date: 7/24/2025



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.



2025 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.

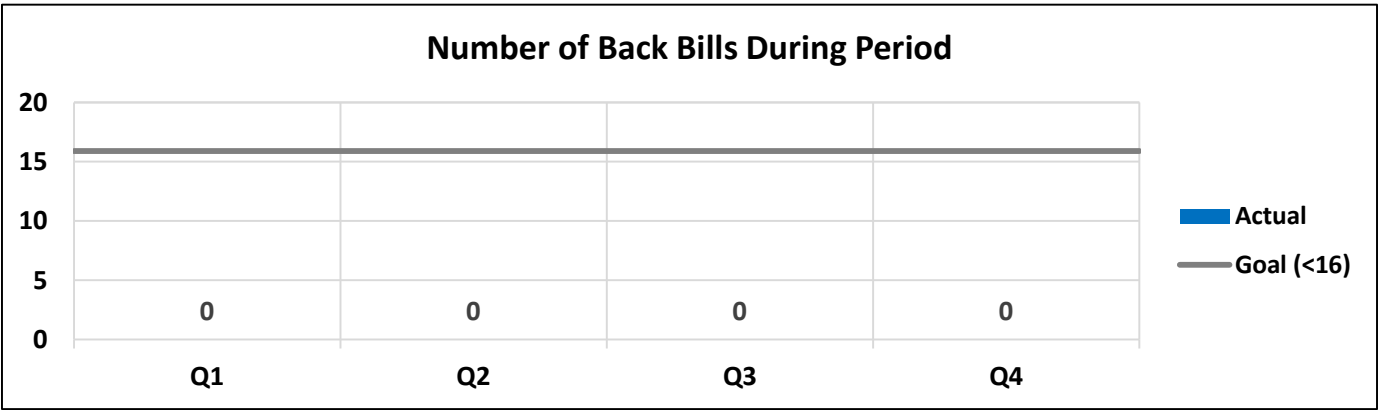
Goal

Fewer than 16 back bills each quarter.

		Number of Back Bills	
	Number of Bills Issued	Goal	Actual
Q1	145,532	<16	0
Q2	146,156	<16	0
Q3	0	<16	0
Q4	0	<16	0

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

There were no reportable back bills in Q2 2025. The Outlook is rated yellow due to a significant billing error in July due to two meters being switched for a long period of time.



Responsible Manager: Annette Cobb
Data Provider: Annette Cobb

Report Date: 7/9/2025



2025 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 104 days (Minimum Operating Reserves (90 days) plus the Power Market Volatility Account (14 days). This measure will be rated "green" if the Days Cash on Hand is at or above the recommended range (104 days), "yellow" if the year-end forecast for Days Cash on Hand is between the Minimum Operating Reserve (90 days) and the recommended range (104 days) or over 145 days with no forecasted drawdown, and "red" if the Days Cash on Hand is lower than the Minimum Operating Reserve. A "green" rating may be designated if reserves are over 145 days 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	Actual
Q1	90	104 to 145	156
Q2	90	104 to 145	139
Q3	90	104 to 145	
Q4	90	104 to 145	

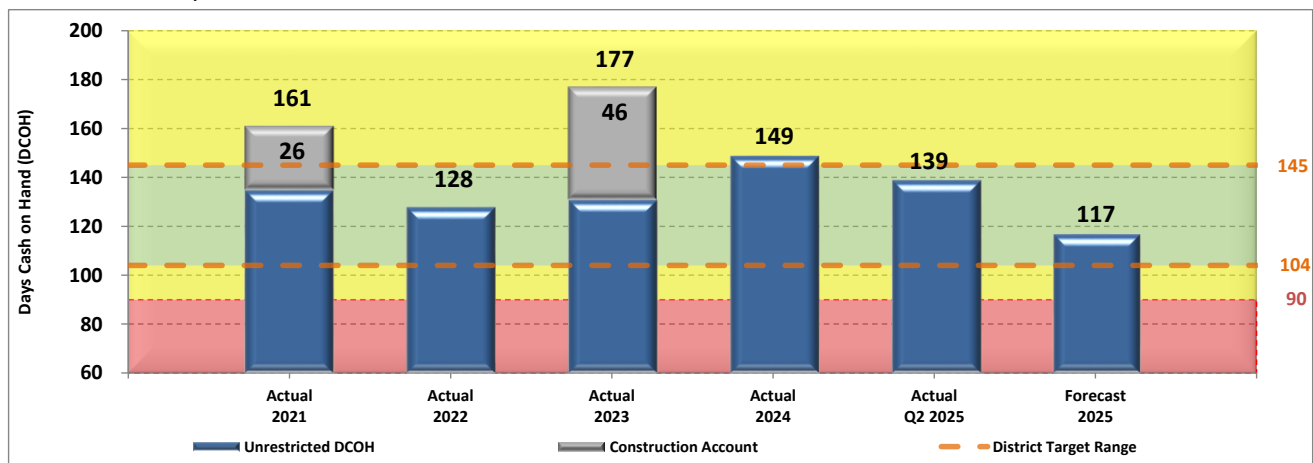
Reserves	Minimum	Budget	Actual
Q1	\$33.12M	\$53.25M	\$56.91M
Q2	\$33.12M	\$53.74M	\$50.54M
Q3			
Q4			

Designated Reserves - Year-end Forecast*	
Description	DCOH
Minimum Operating Reserves	90
Power Market Volatility	14
Special Capital	0
Customer Deposits	3
Climate Commitment Act	10
Undesignated Reserves	0
Current 2025 Year-end Forecast	117
Construction Account	0
Total Year-End Forecast	117

*Designated reserve breakdown is decided by the Commission

Quarterly Performance Summary

As of the end of Q2, the District reported a total of 139 Days Cash on Hand (DCOH), earning a green rating. DCOH levels naturally vary throughout the year and between years due to factors such as gross power costs, operations and maintenance (O&M) expenses, and retail revenue fluctuations. The notable decrease from Q1 to Q2 primarily reflects two timing-related factors: a \$6.5 million Bonneville Power Administration (BPA) invoice for February (Q1) was issued later than usual and not due until April (Q2), and a \$1.8 million debt service interest payment was made in April. Looking ahead, the DCOH forecast for 2025 remains within the green range, projected between 104 and 145 days.



Responsible Manager: Keith Mercer

Data Provider: Katie Grandgeorge

Report Date: 7/24/2025



Performance Measure Title

O&M / Net Capital

2025 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

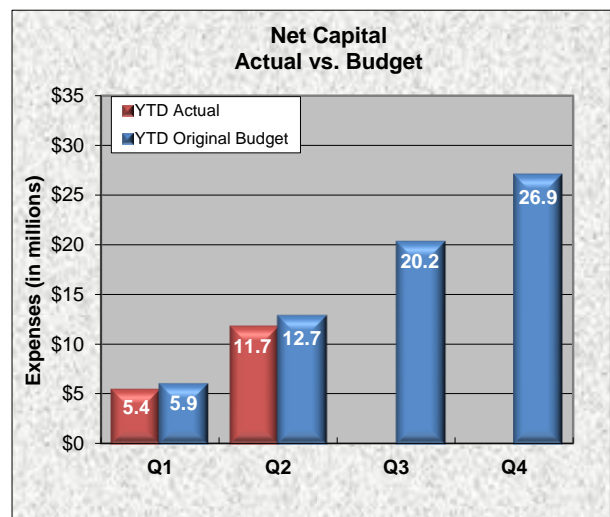
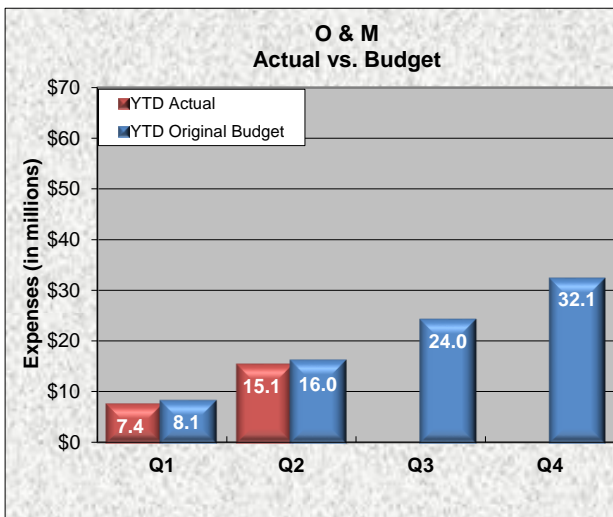
Meet the year-to-date budget projections.

in millions		O & M					Net Capital		
		YTD Original Budget	YTD Actual	% of Total Budget*			YTD Original Budget	YTD Actual	% of Total Budget*
Q1		\$8.069	\$7.359	23%	Q1		\$5.920	\$5.358	20%
Q2		\$16.010	\$15.131	47%	Q2		\$12.735	\$11.680	43%
Q3		\$23.995		0%	Q3		\$20.180		0%
Q4		\$32.072		0%	Q4		\$26.920		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 \$15.1 million through the second quarter are 5.5% or about \$0.9 million under the the original budget. A large portion of the variance to budget is under-runs in system costs (electric construction contracts, operations & maintenance expense) and professional services. Net capital expenditures of \$11.7 million through the second quarter are 8.3% or \$1.1 million under the original net capital budget. Even though Customer Growth expenditures are up about \$1 million over budget, under-runs in Repair and Replace projects, IT, and Operation vehicles are leading to a net under budget. These measures are rated green for the quarter and outlook.





2025 Status			
Q1	Q2	Q3	Q4
Outlook			

Performance Measure Title

O&M Costs per Customer

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 2025 calculated budget of \$535 per customer. The 2025 calculated amount was developed from the 2025 budget of \$532 per customer incremented by \$200,000 or \$3 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 2025 budget of \$535 per customer.

O & M	
	2025 Budget
Q1	\$535
Q2	\$535
Q3	\$535
Q4	\$535

Information Only	Stated Year Dollars	2025 ⁽¹⁾ Dollars
Benton PUD - CY 2023 Actual*	\$443	\$470
Benton PUD - CY 2024 Actual*	\$463	\$477
Benton PUD - CY 2025 Budget*	\$535	\$535
APPA - 2022 West median ⁽²⁾	\$605	\$661
APPA - 2023 West median ⁽²⁾	\$700	\$743

* includes bad debt expense, does not include GASB pension entry

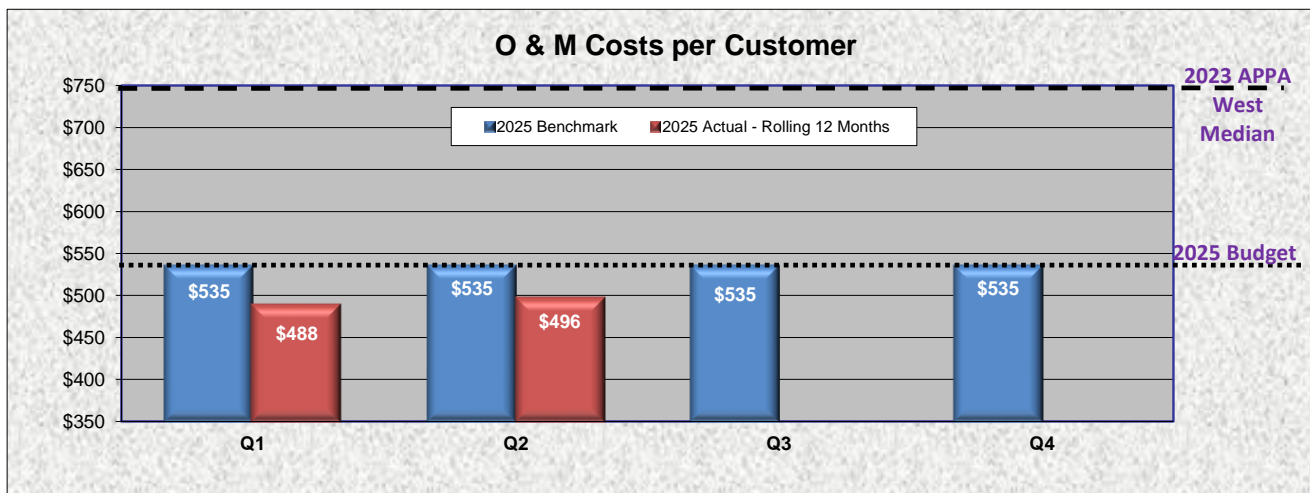
(1) Escalated at 3% per year

(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 second quarter were \$496, which is 7.3% 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 system costs (electric construction contracts, operations & maintenance expense) and professional services. The District continues to be well below the APPA West median of \$743.



Responsible Manager: Kent Zirker

Data Provider: Janelle Herrington

Report Date: 7/30/2025



2025 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

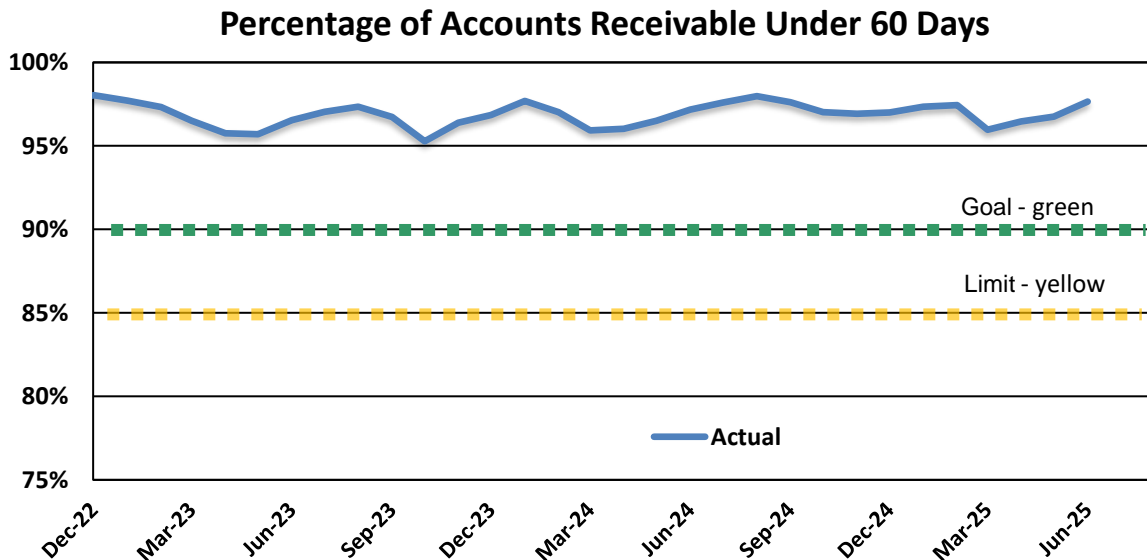
The goal is to increase the percentage of accounts receivable under 60 days to a level of 90% or more of the total accounts receivable. A green rating will be achieved if the actual results are at 90% or higher; a yellow rating will be assigned if the actual results are between 85% to 90%; a red rating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

		Actual	
Q1	90%	Q1	96%
Q2	90%	Q2	98%
Q3	90%	Q3	
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 96%, 97%, and 98% respectively during Q2. The quarter and outlook are rated green.



Responsible Manager: Annette Cobb

Data Provider: Kent Zirker

Report Date: 7/25/2025



2025 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: $(N/EH) \times 200,000$ 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)

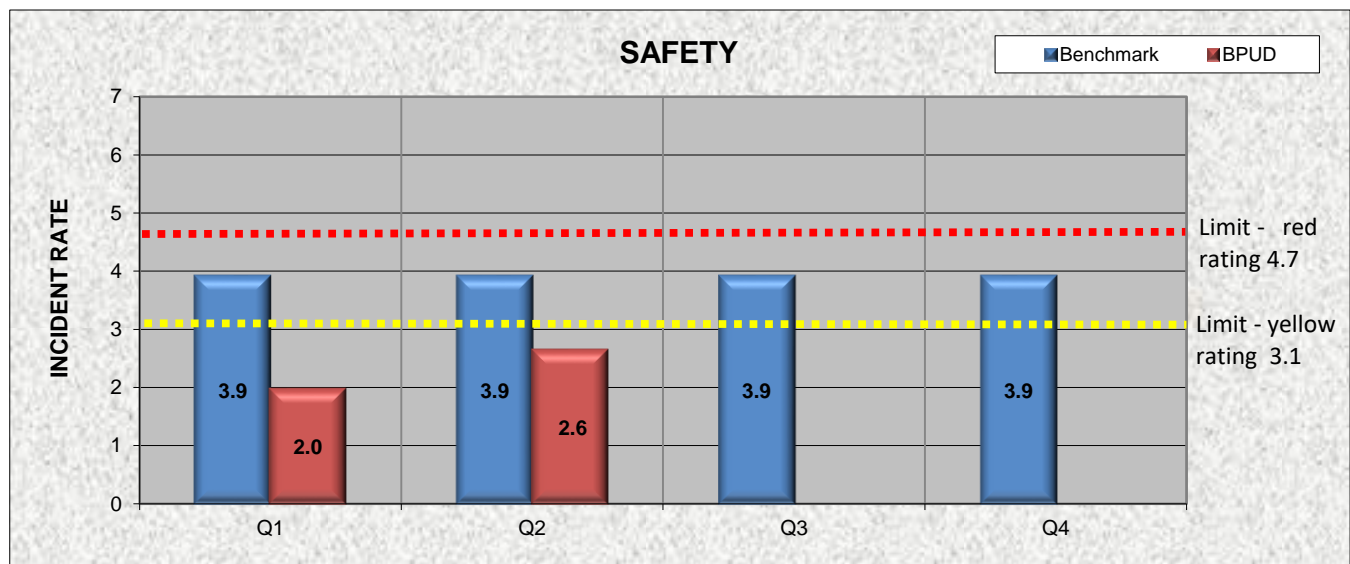
The benchmark is to be less than the Total Recordable Cases as published annually by the Bureau of Labor Statistics. This figure changes annually as a result of OSHA 300 log reports. This measure will be rated green if BPUD calculated reportable incidents are below 80% of the benchmark, yellow if they 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	3.9	2.0
Q2	3.9	2.6
Q3	3.9	
Q4	3.9	

Quarterly Performance Summary

There were four incidents reported on the OSHA 300 form in the last 12 months (July 1, 2024 - June 30, 2025):

- ~ 04.10.25: Maintenance worker was waiting on coworker and felt a tingle on arm. Brushed arm and realized it was a wasp that stung worker – No lost time
- ~ 02.13.25: Journeyman Lineman was stripping wire and cut thumb with knife. – No lost time
- ~ 12.17.24: Journeyman Lineman cut right hand while skinning jacketed wire - no lost time
- ~ 09.24.24: Mechanic strained right elbow pulling copper wire - no lost time



Responsible Manager: Steve Hunter

Data Provider: Gabrielle Purdom

Report Date: 7/8/2025



Performance Measure Title

2025 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 attendance 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%
--------------------	------------------------	------------------

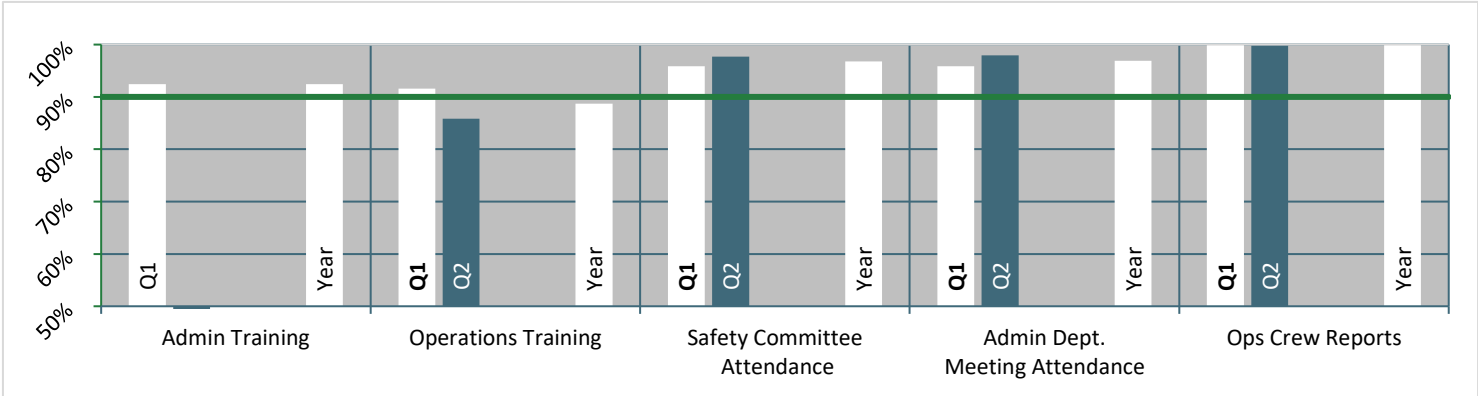
Goal

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	92%	92%	92%	96%	96%	100%	97%	95%
Q2	N/A	86%	86%	98%	98%	100%	99%	92%
Q3								
Q4								
Year	92%	89%	89%	97%	97%	100%	98%	93%

Quarterly Performance Summary

The outlook for the quarter and overall year is green. In the second quarter, the Administrative and Operations groups averaged 92% across the safety training and participation goals set for both groups. There was no Admin biannual safety training during the quarter. 86% of Operations participated in crew/shop trainings and covered Portable Fire Extinguishers/Gas Island Safety; Heat Stress/Pole Top & Bucket Rescue/Wildfire Smoke Mitigation; and PPE. The safety committees averaged 98% attendance overall. 98% of Admin staff reviewed monthly safety information. 100% of Crew Reports were returned.



Responsible Manager: Karen Dunlap

Data Provider: Kristen Demory

Report Date: 7/14/2025



2025 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. Projected final year end savings that are 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
	0.019	0.013	0.019	0.018	0.019	0.027	0.021	0.016
Residential	0.063	0.038	0.063	0.063	0.063	0.055	0.058	0.040
Commercial	0.085	0.080	0.085	0.000	0.085	0.094	0.075	0.006
Industrial	0.023	0.013	0.023	0.000	0.023	0.013	0.008	0.000
Agricultural	0.000	0.000	0.000	0.004	0.000	0.000	0.036	0.000
U.S.E.								

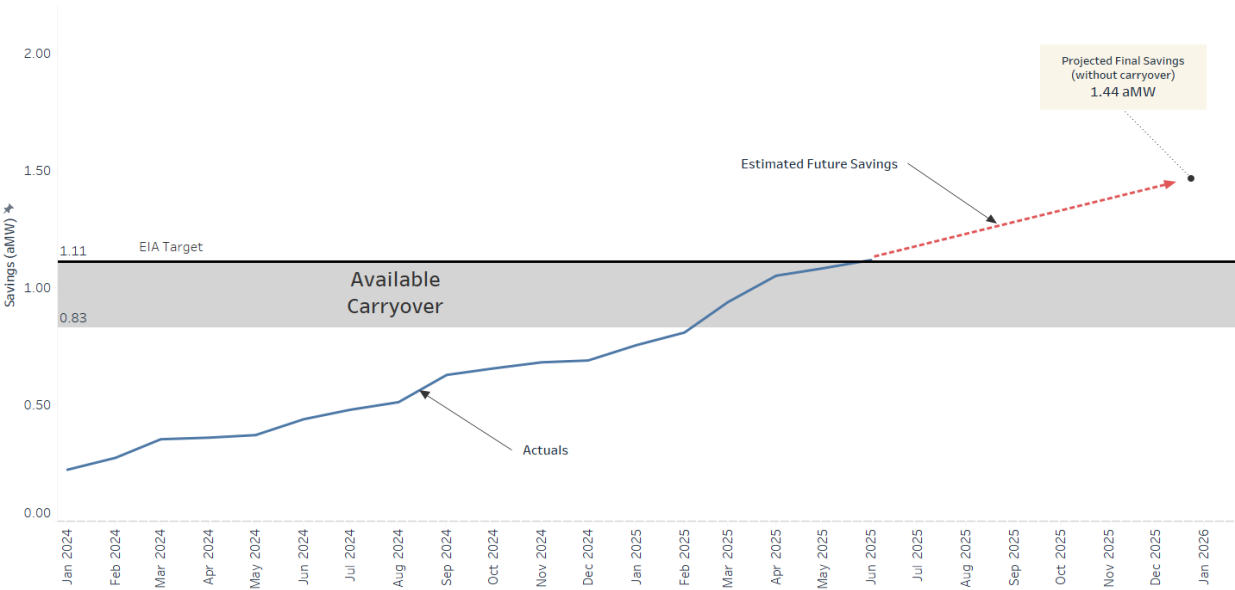
2025	Q1		Q2		Q3		Q4	
	Proj	Actual	Proj	Actual	Proj	Actual	Proj	Actual
	0.018	0.016	0.018	0.028	0.005		0.005	
Residential	0.029	0.057	0.029	0.075	0.015		0.015	
Commercial	0.072	0.055	0.078	0.076	0.067		0.067	
Industrial	0.007	0.020	0.000	0.000	0.000		0.000	
Agricultural	0.017	0.101	0.000	0.000	0.000		0.000	
U.S.E.								

Total	
Proj	Actual
0.010	0.119
0.031	0.328
0.134	0.311
0.000	0.047
0.000	0.105
NEEA*	
0.359	

Total aMW	1.442
-----------	-------

*NEEA savings for 2024 is known. 2025 is a 50% estimate.

Quarterly Performance Summary
Several sectors remained active in Q2 with commercial and industrial projects comprising almost 90% of the total quarterly savings. Standard residential jobs exceeded \$200,000 in rebates, while low income jobs managed just over \$25,000. 2024 NEEA savings were reported by BPA at 10% higher than their forecast which resulted in an increase in the projected final savings of more than 0.11 aMW. Previously, NEEA allocated District savings for the biennium were estimated at half of the BPA forecast. 2025 NEEA savings are still being shown based on a 50% estimate.



Responsible Manager: Chris Johnson

Data Provider: Terry Mapes

Report Date: 7/15/2025



Performance Measure Title

Broadband Network Reliability Report

All Green	=	
Any Yellow	=	
Any Red	=	

2025 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			Distribution Network			Cellular Carriers			Dark Fiber		
	Goal	Actual		Goal	Actual		Goal	Actual		Goal	Actual
Q1	99.999%	100.000%	Q1	99.9%	99.9999981%	Q1	99.99%	99.999913%	Q1	99.99%	100.00%
Q2	99.999%	100.000%	Q2	99.9%	99.9999951%	Q2	99.99%	99.999898%	Q2	99.99%	100.00%
Q3	99.999%		Q3	99.9%		Q3	99.99%		Q3	99.99%	
Q4	99.999%		Q4	99.9%		Q4	99.99%		Q4	99.99%	

Quarterly Performance Summary

The Performance Measure is rated green for the Quarter. On May 3rd, a third-party provider was installing equipment at the Apel Colocation facility and caused an electrical circuit breaker to trip causing a communication outage that affected 27 sites for a total 66 minutes. The Network Operation Center (NOC) escalated the outage response to the provider's on-site engineers who restored the breaker to operational status. It was discovered that Benton PUD equipment was on the same breaker as other colocation customers, during this outage Benton PUD equipment was moved to a dedicated breaker assigned just to Benton PUD to prevent further outages.



Responsible Manager:

Chris Folta

Data Provider:

Adrian Mata

Report Date:

7/15/2025



2025 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.

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

SAIDI - System average interruption duration index

Indicates the total duration of interruption for the average customer during a predefined period of time.

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

CAIDI - Customer average interruption duration index

Indicates the average time required to restore service.

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

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 minutes, 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 occurred 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 July 2024 to June 2025.

	MEDs Included	MEDs Excluded	Goal	Rating
SAIFI	0.26	0.26	0.5	
SAIDI	28.0	28	60	
CAIDI	106.0	106.0	120	

Over the 12-month time period from July 2024 to June 2025, **SAIFI of 0.26** interruptions is less than the goal of 0.5, resulting in a green rating. **SAIDI of 28** minutes is less than the goal of 60, resulting in a green rating. **CAIDI of 106.0** minutes is less than the goal of 120, resulting in a green rating.

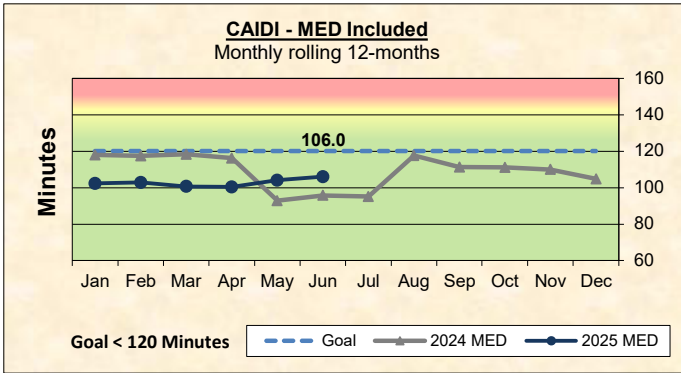
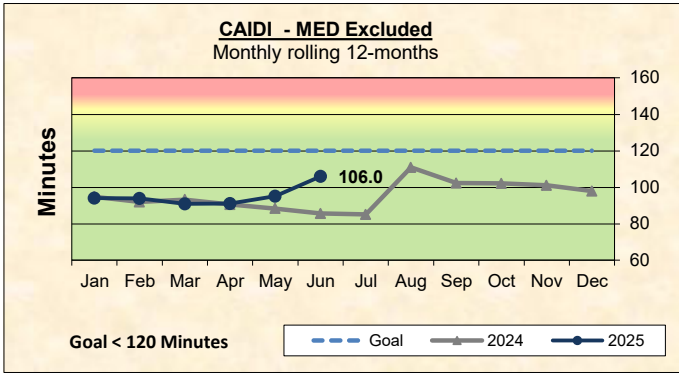
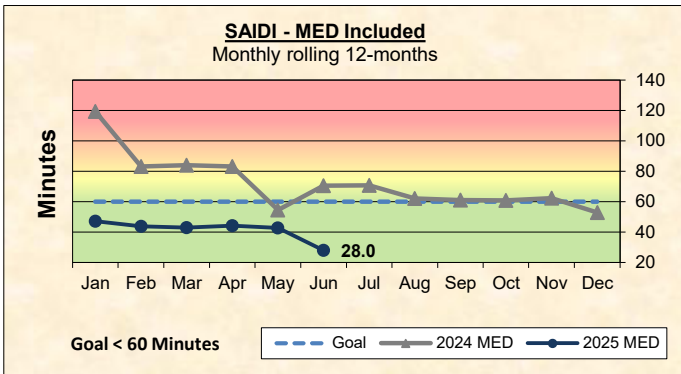
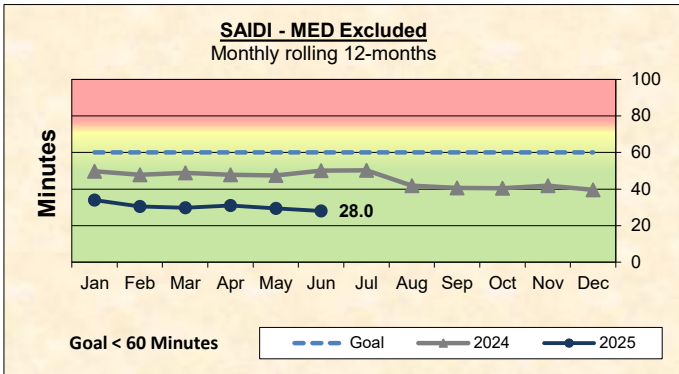
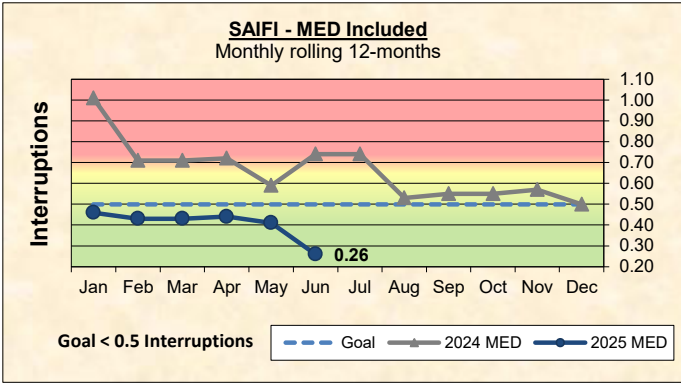
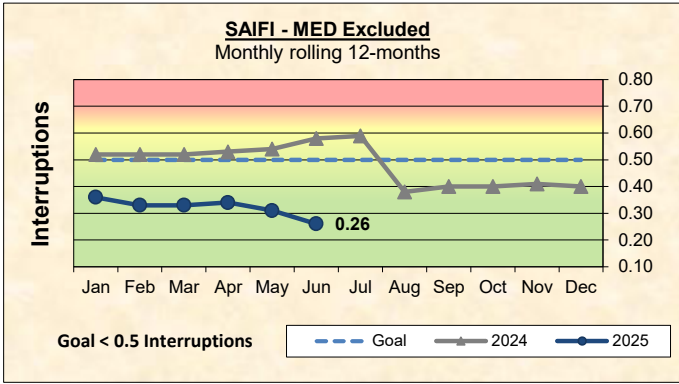
For the non-MED data, SAIFI decreased for the current quarter, meaning the average customer experiences an outage about every 46 months for general outages. SAIDI decreased slightly and had been trending slightly down for the last 4 quarters. The increase in CAIDI is due to SAIFI decreasing faster than SAIDI. Q4 is being given a green rating.

With MED data included, SAIFI decreased to **0.26**, SAIDI decreased to **28.0**, and CAIDI decreased to **106.0**. The last MED event was in June 2024 and has now fallen off the data which results in MED data aligning with Non-MED data.

A SAIFI of 0.26 means every single one of our customers could have expected an outage within the last 46 months. In reality we had a subset of our customers who experienced multiple outages in the last 12 months. With MED's included our customers experienced an average restoration time of 1 hour and 46 minutes.

Responsible Manager: Evan Edwards
Data Provider: Dax Berven

Report Date: 7/21/2025



Responsible Manager: Evan Edwards
Data Provider: Dax Berven

Report Date: 7/21/2025



2025 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	2024-Q2	2024-Q3	2024-Q4	2025-Q1	2025-Q2
Outage Count	514	480	502	480	494
Customers Out	31,861	21,784	23,223	18,943	15,618
Customer Minutes Out	2,754,394	2,306,008	2,245,781	1,690,366	1,596,195

Rolling 12 Months Reported Quarterly (MED)					
Outage Statistics	2024-Q2	2024-Q3	2024-Q4	2025-Q1	2025-Q2
Outage Count	531	497	518	496	494
Customers Out	41,348	31,271	29,032	24,752	15,618
Customer Minutes Out	3,838,290	3,389,904	3,017,302	2,461,887	1,596,195

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

MED Data Summary:

There have not been any MED events within the last 12 months

Rolling 12 Months Reported Quarterly (No MED)					
Outages by Cause	2024-Q2	2024-Q3	2024-Q4	2025-Q1	2025-Q2
Equipment	267	270	264	269	264
Animals	82	75	89	98	106
Weather	21	14	18	10	10
Foreign Interference	112	97	103	79	91
Vegetation	20	14	17	14	13
Undetermined	12	10	11	10	10
Total	514	480	502	480	494

Rolling 12 Months Reported Quarterly (MED)					
Outage Statistics	2024-Q2	2024-Q3	2024-Q4	2025-Q1	2025-Q2
Equipment	273	276	269	274	264
Animals	82	75	89	98	106
Weather	21	14	18	10	10
Foreign Interference	123	108	114	90	91
Vegetation	20	14	17	14	13
Undetermined	12	10	11	10	10
Total	531	497	518	496	494

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

With MED data included all outage types remained flat.

Rolling 12 Months Reported Quarterly (No MED)					
Outages by Region	2024-Q2	2024-Q3	2024-Q4	2025-Q1	2025-Q2
East Kennewick	206	184	175	167	172
West Kennewick	160	160	161	155	152
Benton City & Prosser	125	117	140	130	133
River & Hanford	23	19	26	28	37
Total	514	480	502	480	494

Rolling 12 Months Reported Quarterly (MED)					
Outages by Region	2024-Q2	2024-Q3	2024-Q4	2025-Q1	2025-Q2
East Kennewick	207	185	175	167	172
West Kennewick	160	160	161	155	152
Benton City & Prosser	129	121	144	134	133
River & Hanford	35	31	38	40	37
Total	531	497	518	496	494

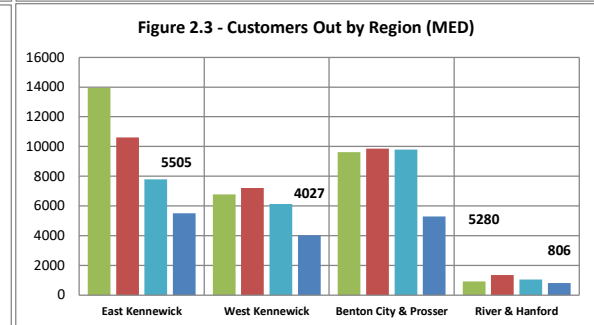
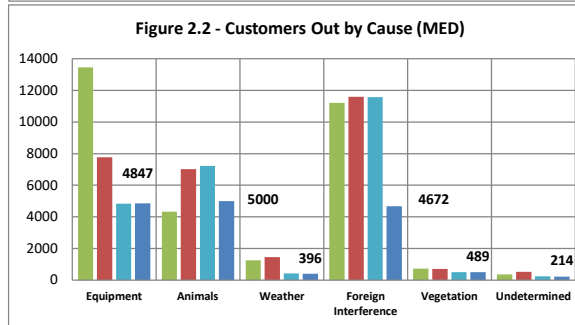
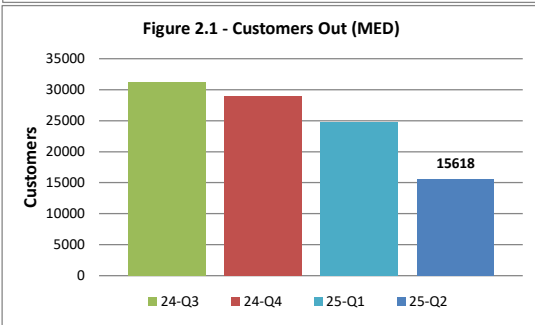
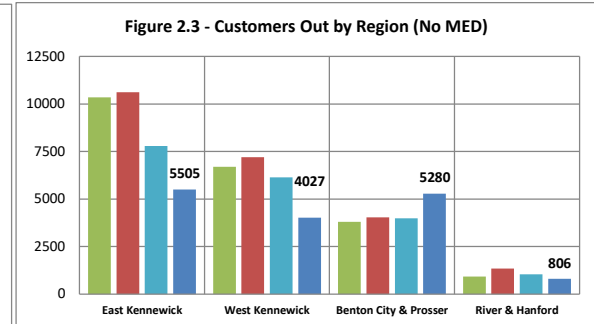
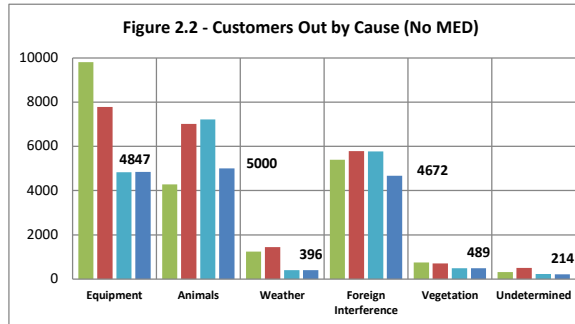
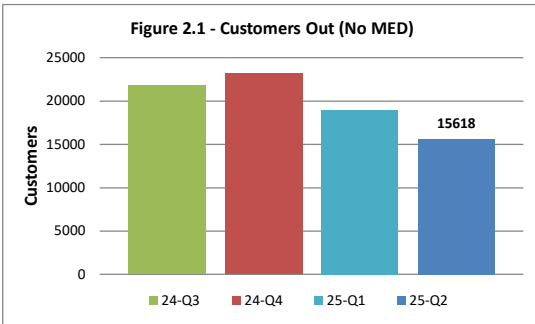
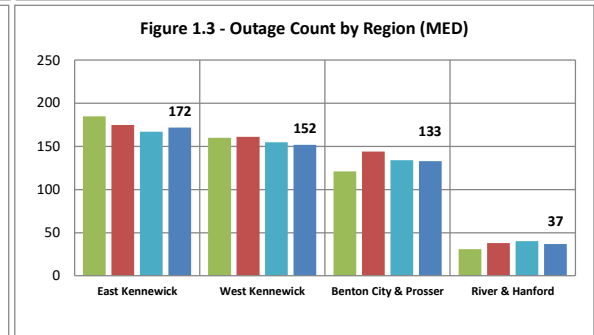
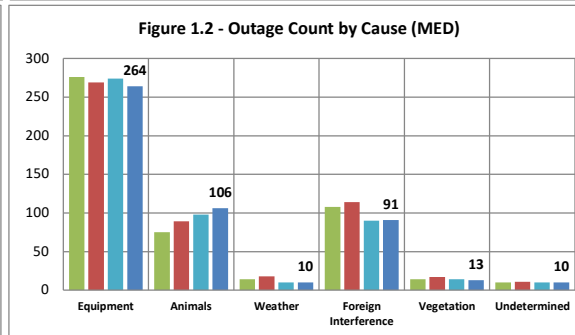
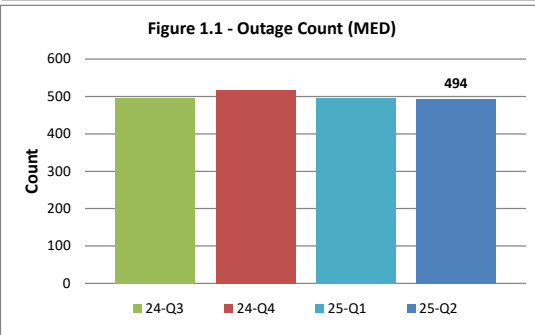
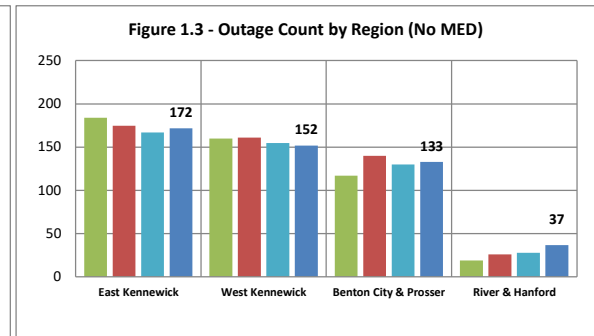
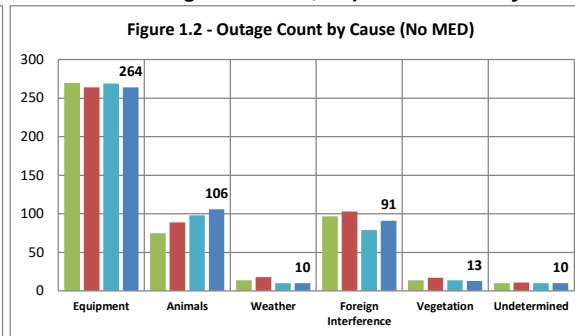
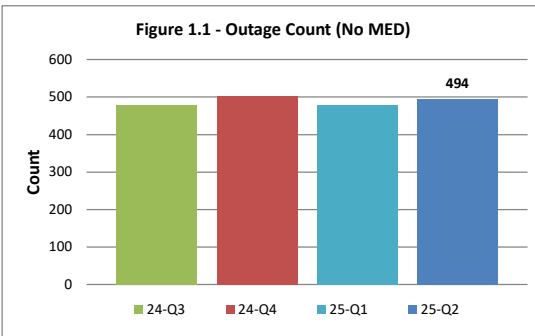
Region Summary: Across the non-MED data East Kennewick, Benton City & Prosser, and the River & Hanford areas saw a decrease in outage counts, West Kennewick saw an increase. East Kennewick, West Kennewick, and the River & Hanford areas saw a decrease in customers out, the Benton City & Prosser areas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

There is no MED impact as no MEDs were experienced within the last 12 months.

Responsible Manager: Evan Edwards
Data Provider: Dax Berven

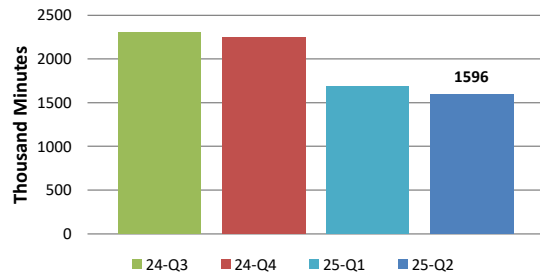
Report Date: 7/21/2025

Outage Data Rolling 12-Months, Reported Quarterly

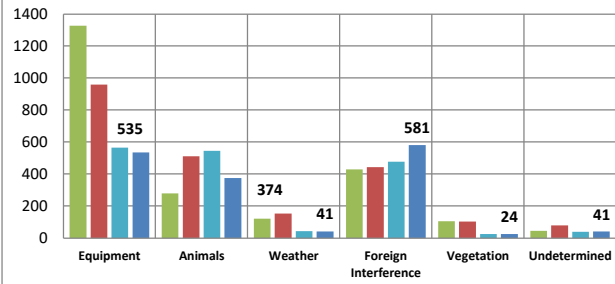


Outage Data Rolling 12-Months, Reported Quarterly

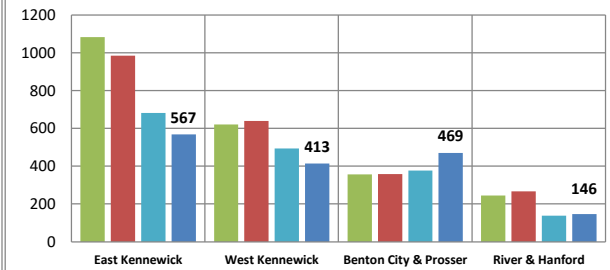
**Figure 3.1 - Customer Minutes Out (k-Min)
(No MED)**



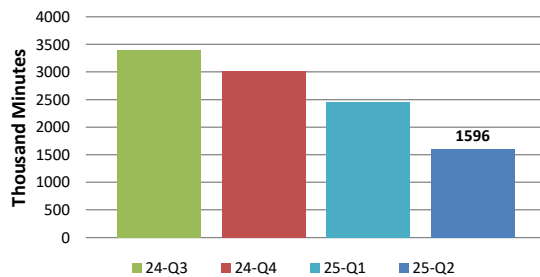
**Figure 3.2 - Customer Minutes Out by Cause (k-Min)
(No MED)**



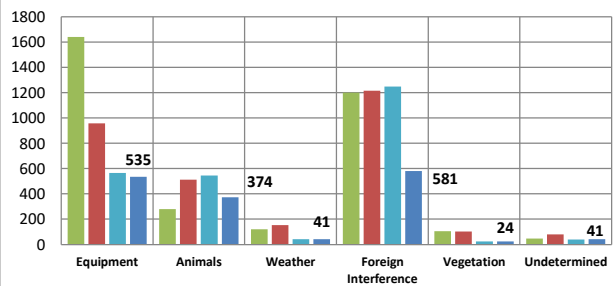
**Figure 3.3 - Customer Minutes Out by Region (k-Min)
(No MED)**



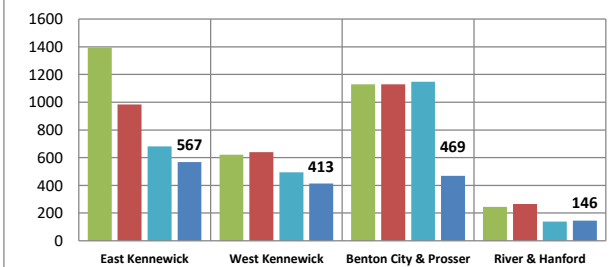
**Figure 3.1 - Customer Minutes Out (k-Min)
(MED)**

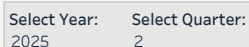


**Figure 3.2 - Customer Minutes Out by Cause (k-Min)
(MED)**



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





Year Status			
Q1 ✓	Q2 ✓	Q3	Q4
Outlook ✓			

2 Yellow or 1 Red =

2 Red =

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.

How Performance Measure is Computed

Goal

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

This performance measure is rated green for the quarter with a green outlook. There was reportable downtime on the AMI system when services needed to be restarted; however the downtime was less than 30 minutes and within the allowable range for a green rating.

5 Year Trends

[illegible]

	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	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	25-Q1	25-Q2	25-Q3	25-Q4	Current Quarter
AMI	✓	✓	✓	✗	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	99.97%
Cloud Applications	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	⚠	✓	✓	✓	✗	✓	✓	✓	✓	✓	100.00%



Select Year: 2025
Select Quarter: 2

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 2025 Q2																								
					Green Rating					Yellow Rating					Red Rating									
					> 99.99%					99.96%-99.98%					<=99.95%									
					0-13 mins					14-25 mins					>26 mins									
5 Year Trends	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	25-Q1	25-Q2	25-Q3	25-Q4	Current Quarter			
Exchange	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	100.00%			
Kennewick to Pro..	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	100.00%			
SAN	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100.00%			
VDI	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100.00%			

24x7 with 99.95% Uptime % 2025 Q2																								
					Green Rating					Yellow Rating					Red Rating									
					> 99.95%					99.90%-99.95%					<=99.90%									
					0-65 mins					65-129 mins					>130 mins									
5 Year Trends	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	25-Q1	25-Q2	25-Q3	25-Q4	Current Quarter			
Phones	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	100.00%			

24x7 with 99.90% Uptime % 2025 Q2																								
					Green Rating					Yellow Rating					Red Rating									
					> 99.90%					99.85%-99.89%					<=99.84%									
					0-131 mins					132-199 mins					>199 mins									
5 Year Trends	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	25-Q1	25-Q2	25-Q3	25-Q4	Current Quarter			
Network	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100.00%			
NoaNet Service	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100.00%			
TEA-SCADA Network	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100.00%			

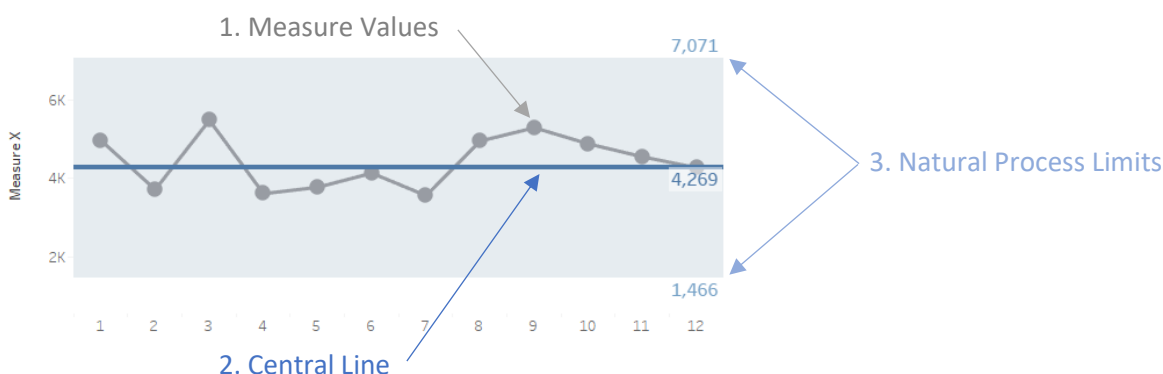
Appendix A

Using XmR Charts for Performance Measurement

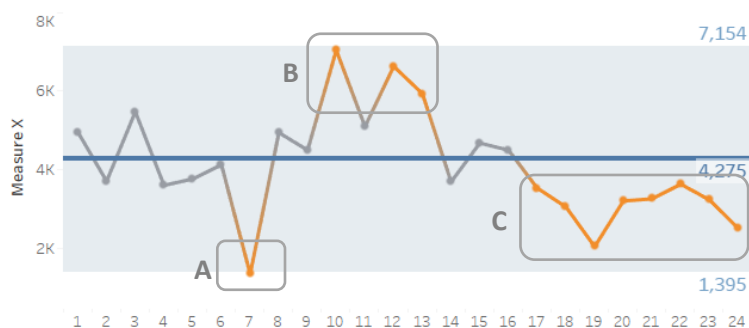
Introduction - This reference was created to support the District's performance measures that utilize XmR charts (a.k.a. process behavior charts). The District's use of XmR charts is intended to be consistent with the recommendations of Stacey Barr, author of the Measure Up Blog.¹ The basic features 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](#)