



2023 PERFORMANCE MEASURES

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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



Telephone Service Levels (Customer Service Queue)

2023 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 2018 through February 2019. (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

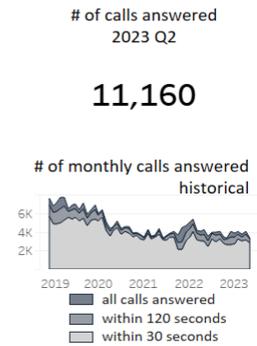
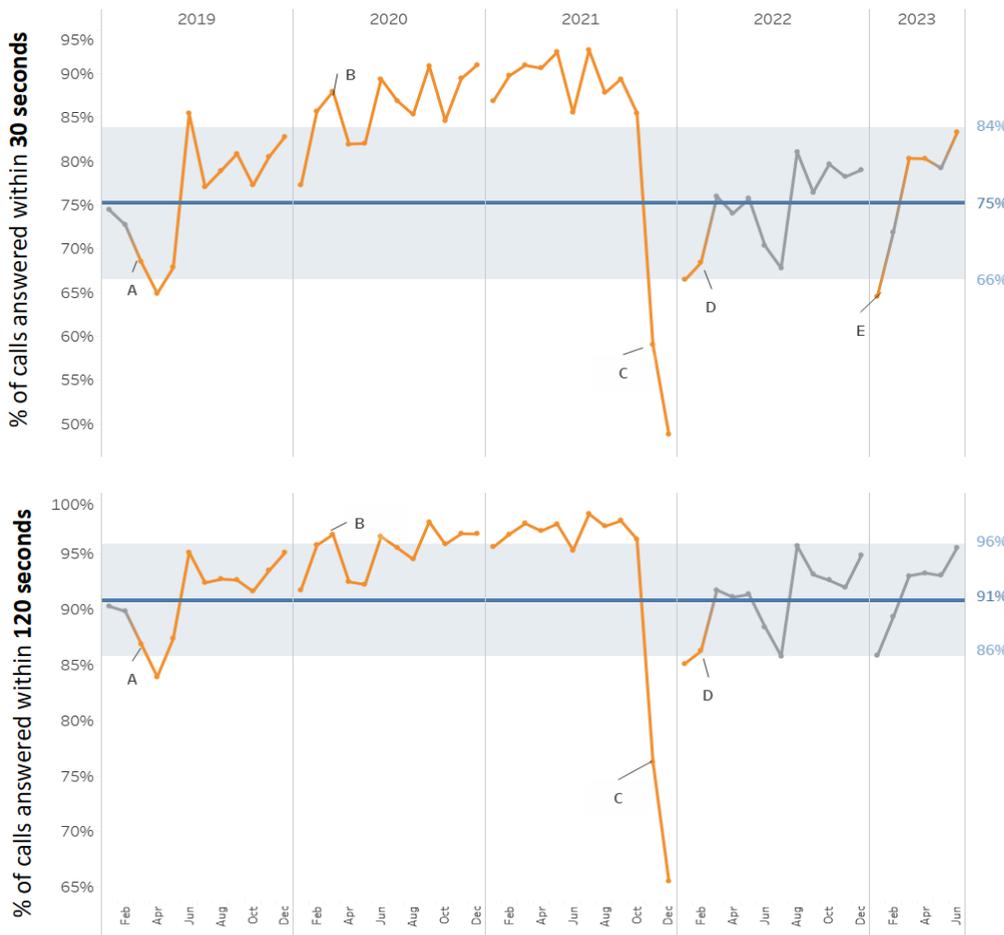
Performance Measure Objectives

The current objective is to carefully monitor the Customer Service queue and maintain telephone service levels within normal limits for at least six months. Returning to regular, ongoing credit processes after the pandemic and then modifying hours of operation and reducing the number of bill cycles reflects a new normal for the department. Managing the queue under these new circumstances will allow staff to evaluate performance expectations and then set further informed, appropriate performance objectives.

Quarterly Performance Summary

The 30 second measure showed a favorable short run signal in Q2. This was likely a result of the scheduling changes implemented by CS management in Q1 in response to the outlier signal in January. It has led to better staff availability during peak volume times. The 120 second measure was within normal limits throughout the quarter. The outlook for the year is green.

	# of calls answered within:	
	30 sec.	120 sec.
April	3,013	3,501
May	3,198	3,756
June	2,806	3,220
Quarter	9,017	10,477



- Points of Interest**
- A:** high bills due to very cold weather which generated more phone calls
 - B:** beginning of COVID-19 policies - no disconnects generated fewer phone calls
 - C:** resumed disconnects and began offering Long Term Payment Arrangements, which increased calls
 - D:** end of Customer Assistance Program and Long Term Payment Arrangement opportunities
 - E:** higher daily call volumes due to high bills, bill cycle reduction, and CS schedule change



Performance Measure Title
Electronic Payments

2023 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 July 2022 through January 2023. (For more information on XmR charts, see Appendix A.)

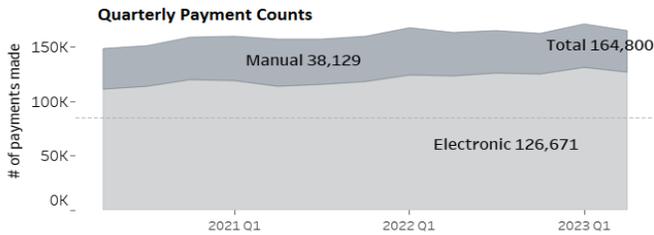
Performance Rating	
● Green	performance within limits, no unfavorable signal
▲ Yellow	showing an unfavorable signal, no action needed to correct
◆ Red	showing unfavorable signal, action needed to correct

Performance Measure Objectives

The current objective is to 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.

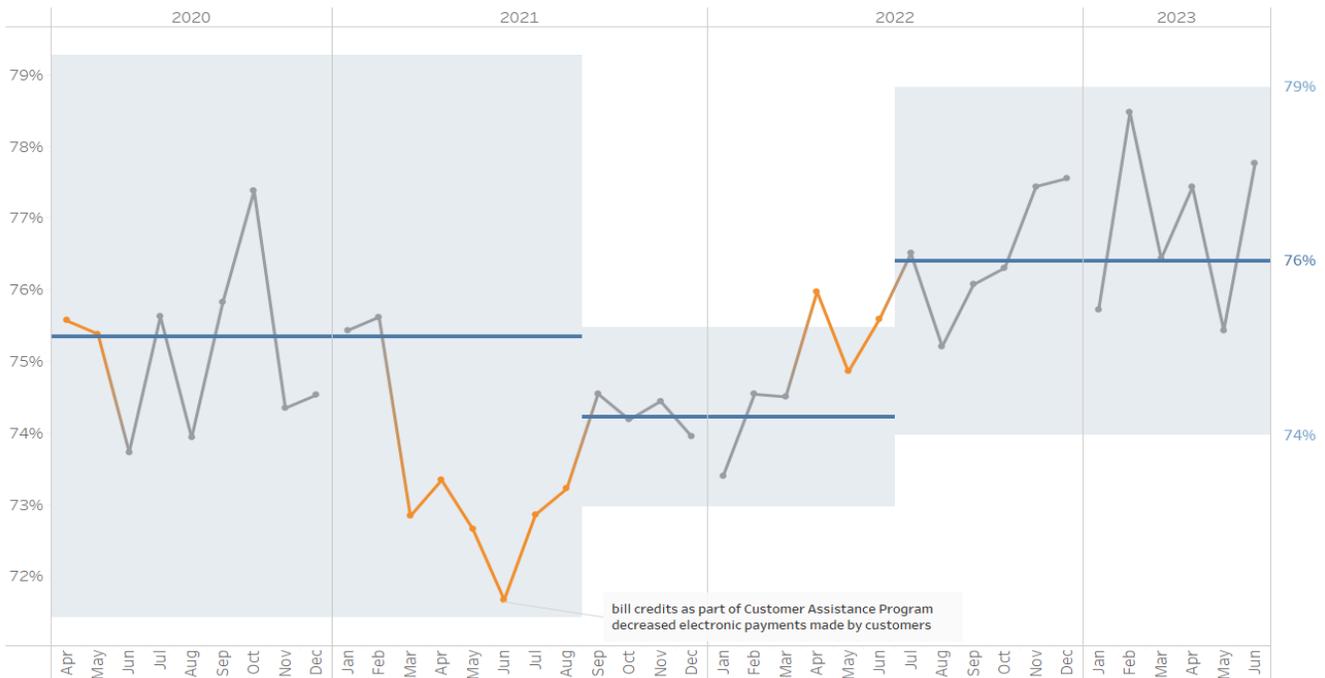
Quarterly Performance Summary

Customer utilization of electronic payments was within the normal limits for all of Q2. The central line is set at 76% of customer payments made electronically, with normal performance expected within ± 2.4% of that. Ongoing adoption of AutoPay, Pay Now, and SmartHub App is expected to continue driving an upward trend in performance, so the outlook for the year is positive.



Payment Channels	# of payments this quarter	% of total	% of Total Change since 2020
Manual	38,129	23%	▼ 2%
Auto Pay Self Serve	48,769	30%	▲ 5%
SmartHub App Self Serve	21,207	13%	▲ 3%
Pay Now Self Serve	19,283	12%	▲ 2%
SmartHub Web Self Serve	18,836	11%	▼ 1%
IVR Self Serve	9,026	5%	▼ 2%
Bank Website	8,962	5%	▼ 3%
Kiosk Self Serve	588	0%	▼ 2%

% of payments made electronically





2023 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

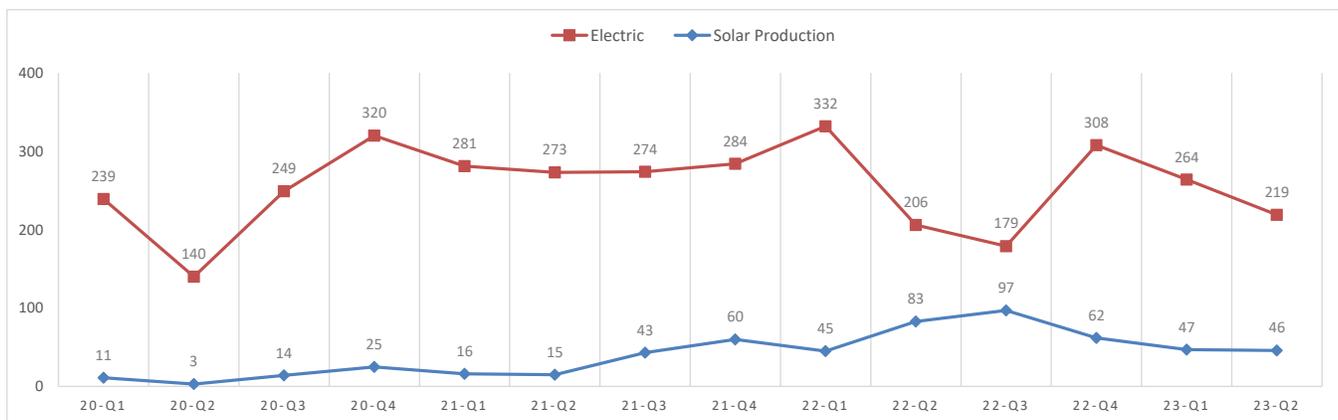
The goal is to energize new services within an average of 7 days after customer criteria has been met, then have the Service Order transitioned from Operations to Customer Service and have new accounts set up in CIS within an average of one week (5 days).

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

In Days	Q1		Q2		Q3		Q4	
	Goal	Actual	Goal	Actual	Goal	Actual	Goal	Actual
Connection (Chart)	7	2.3	7	2.0	7		7	
CIS System	5	1.9	5	1.3	5		5	
Total new services count		311		265				

Quarterly Performance Summary

During the second quarter of 2023 it took on average 2.0 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 1.3 days, meeting the criteria of 5 days or less. There were a total of 265 new services energized (219 electric, 46 solar production) in the second quarter of 2023. We are green for the quarter and green for the Outlook.



	2020	2021	2022	2023
Electric	948	1112	1025	483
Solar Production	53	134	287	93
Total Services	1001	1246	1312	576

Responsible Manager: Evan Edwards
 Data Providers: Brenda Webb

Report Date: 7/12/2023



Performance Measure Title
Rate Comparisons

2023 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 and 30 days is used for comparison purposes.

How Performance Measure is Computed

Gather current rates from 17 utilities throughout the Northwest and graph Benton PUD in relation to these utilities. Utilities selected for comparisons must purchase 60% or more of their power from BPA.

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	< \$125	\$115
Q2	< \$125	\$115
Q3		
Q4		

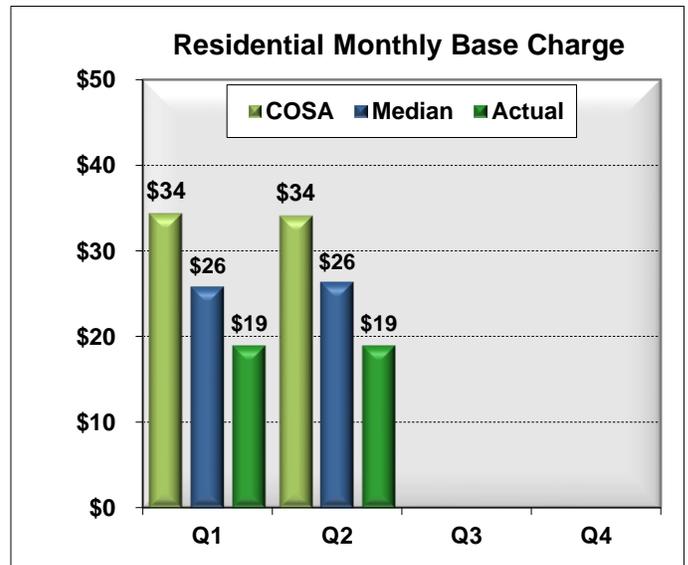
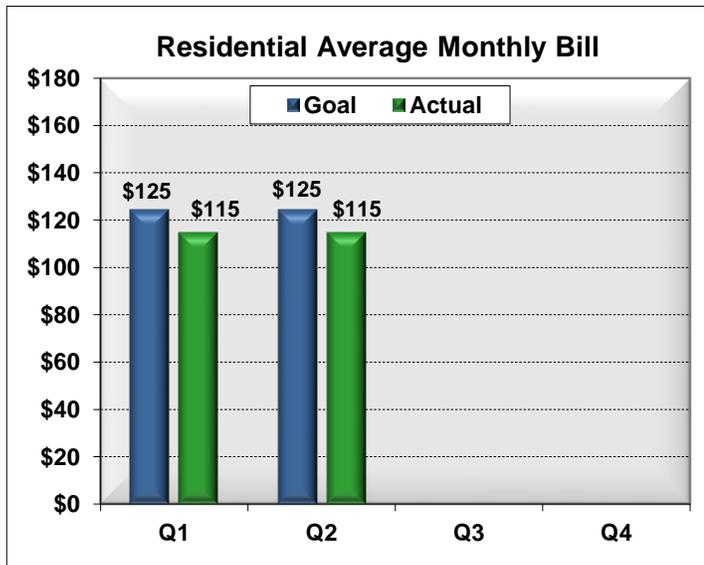
	Residential Monthly Base Charge Comparison		
	COSA	Median	Actual
Q1	\$34	\$26	\$19
Q2	\$34	\$26	\$19
Q3			
Q4			

	BPUD Avg Yearly Residential Rate Increase Compared to CPI-U*	
	BPUD Avg Yearly % Increase	CPI-U* Avg Yearly % Increase
5 Year	0.5%	3.9%
10 Year	1.4%	2.6%
15 Year	1.9%	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 Q2 2023 the District's Residential rates were below the median of comparable utilities for the average monthly bill so a green rating was assigned. In Q2, four of the benchmark utilities had a Residential rate increase; Inland Power & Light (base monthly charge increased by 1.8%), Mason PUD #3 (monthly energy charge increased by 4%), Snohomish PUD (an average of 2.1% increase) and Tillamook Utility District (an average of 3.6% increase). In Q1, one of the benchmark utilities had a Residential rate increase; Eugene Water & Electric (an average of 3.7% increase).



Responsible Manager: Keith Mercer

Data Provider: Katie Grandgeorge

Report Date: 7/24/2023



2023 Status			
Q1	Q2	Q3	Q4
●	●		
Outlook:			●

Performance Measure Title

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

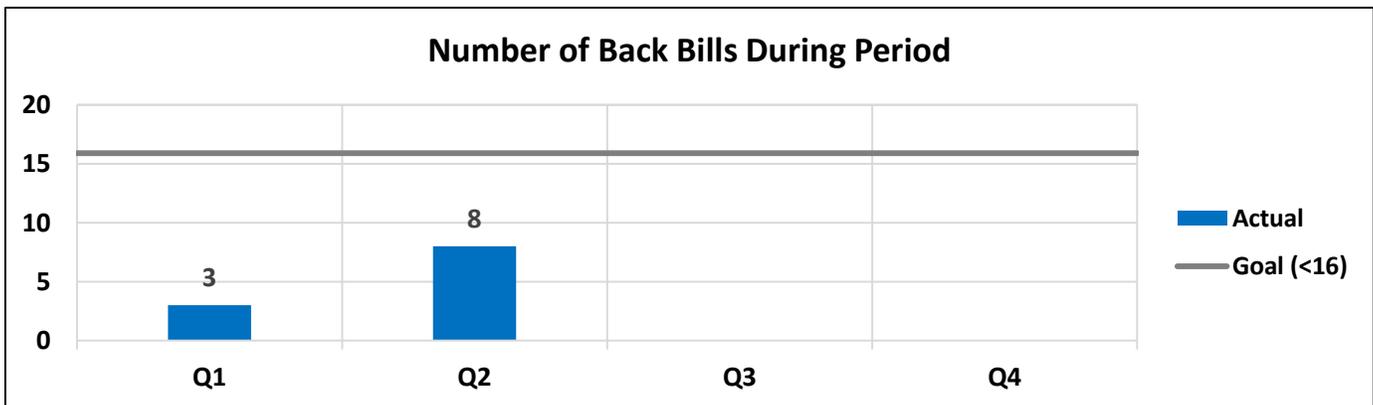
Fewer than 16 back bills each quarter.

	Number of Bills Issued	Number of Back Bills	
		Goal	Actual
Q1	143,106	<16	3
Q2	143,929	<16	8
Q3		<16	
Q4		<16	

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

Quarterly Performance Summary

There was a total of 8 avoidable back billings during Q2. They were all related to a specific step in the service order process that was not being completed correctly on manual disconnects and reconnects. Operations and Customer Service staff worked together to identify the problem and additional training was provided. The 8 customers impacted were overbilled a total of \$1,075.86. The additional training and the understanding of the service order process when entering manual meter reads should mitigate any future back bills of this nature.



Responsible Manager: Annette Cobb

Data Provider: Annette Cobb

Report Date: 7/26/2023



2023 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 2313 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.

	District Target	Actual
Q1	108 to 132	130
Q2	108 to 132	121
Q3	108 to 132	
Q4	108 to 132	

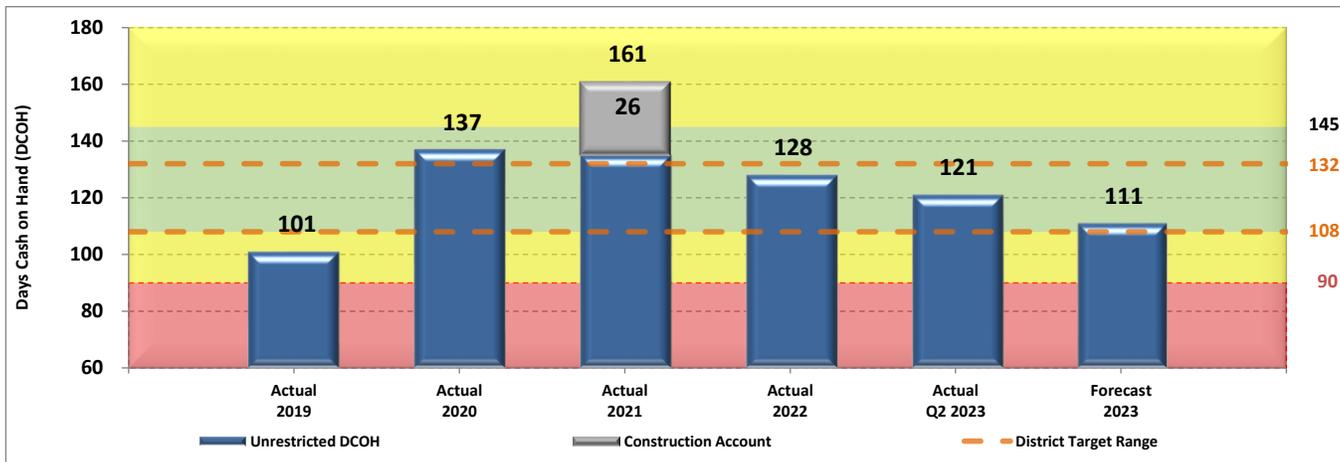
	Minimum	Budget	Actual
Q1	\$31.06M	\$54.74M	\$45.01M
Q2	\$31.06M	\$53.57M	\$44.85M
Q3			
Q4			

Designated Reserves - Year-end Forecast*	
Description	DCOH
Minimum Operating Reserves	90
Power Market Volatility	16
Special Capital	0
Customer Deposits	5
Undesignated Reserves	0
Current 2023 Year-end Forecast	111
Construction Account	0
Total Year-End Forecast	111

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

Quarterly Performance Summary

The District had 121 total Days Cash on Hand (DCOH) at the end of Q2 indicating a green rating. The District's unrestricted reserves decreased \$0.16M in Q2. This was caused by an increase in power purchases due to above average power prices and lower than average Slice generation. However, there was an increase in retail sales in Q2 due to the increased loads caused by warmer temperatures that will help offset some but not all of the increase in power purchases. The semi annual bond interest payments were paid in Q2 (\$1.18M) as well.



Responsible Manager: Keith Mercer

Data Provider: Katie Grandgeorge

Report Date: 7/21/2023



2023 Status			
Q1	Q2	Q3	Q4
Outlook			

Performance Measure Title

O&M / Net Capital

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

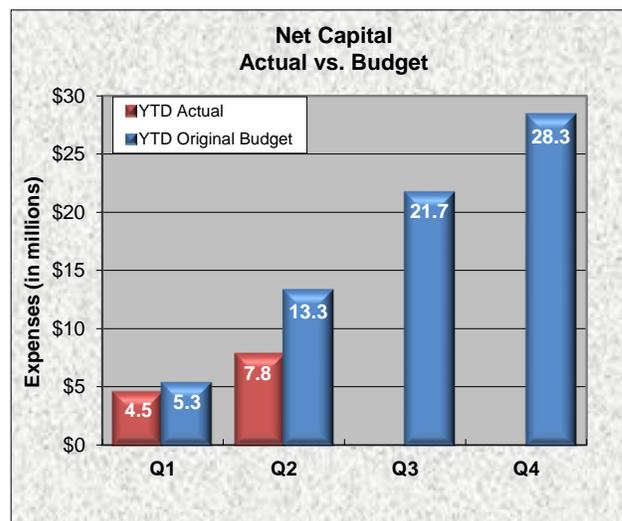
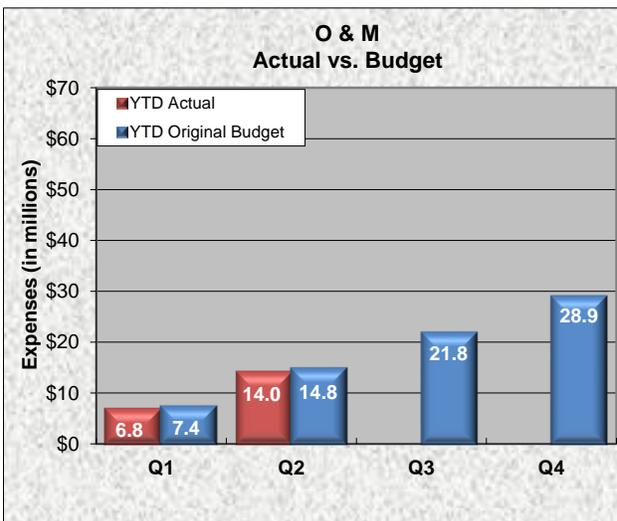
Meet the year-to-date budget projections.

in millions	O & M			Net Capital		
	YTD Original Budget	YTD Actual	% of Total Budget*	YTD Original Budget	YTD Actual	% of Total Budget*
Q1	\$7.365	\$6.845	24%	\$5.322	\$4.499	16%
Q2	\$14.823	\$14.034	48%	\$13.321	\$7.767	27%
Q3	\$21.849			\$21.673		
Q4	\$28.950			\$28.342		

* % 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 \$14.0 million through the second quarter are 5.3% or \$0.8 million under the the original budget. A large portion of the variance to budget is under-runs in payroll & benefits, maintenance, and general administration expenses. Net capital expenditures of \$7.8 million through the second quarter are 41.7% or \$5.5 million under the original net capital budget. The variance is primarily related to timing of costs related to transmission and capacity and reliability. These measures were rated green for the quarter and outlook.



Responsible Manager: Kent Zirker
 Data Provider: Janelle Herrington

Report Date: 7/25/2023



2023 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 2023 benchmark of \$493 per customer. The 2023 benchmark was developed from the 2023 budget of \$489 per customer incremented by \$200,000 or \$4 per customer to allow for variations in the level of internal labor charged to capital projects v. expense. A rating of green will be assigned if the O&M costs per customer are less than 2% above the benchmark; a rating of yellow will be assigned if the O&M costs per customer are more than 2% but less than 3% above the benchmark; a rating of red will be assigned if the O&M costs per customer are more than 3% above the benchmark.

Goal

Maintain or decrease the O&M costs per customer as compared to the 2022 target of \$493 per customer.

O & M	
	2023
	Benchmark
	Actual
Q1	\$493
Q2	\$493
Q3	\$493
Q4	\$493

Information Only	Stated Year Dollars	2022 ⁽¹⁾ Dollars
Benton PUD - CY 2021 Actual*	\$424	\$450
Benton PUD - CY 2022 Actual*	\$443	\$456
Benton PUD - CY 2023 Budget*	\$477	\$477
APPA - 2020 West median ⁽²⁾	\$639	\$678
APPA - 2021 West median ⁽²⁾	\$597	\$615

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

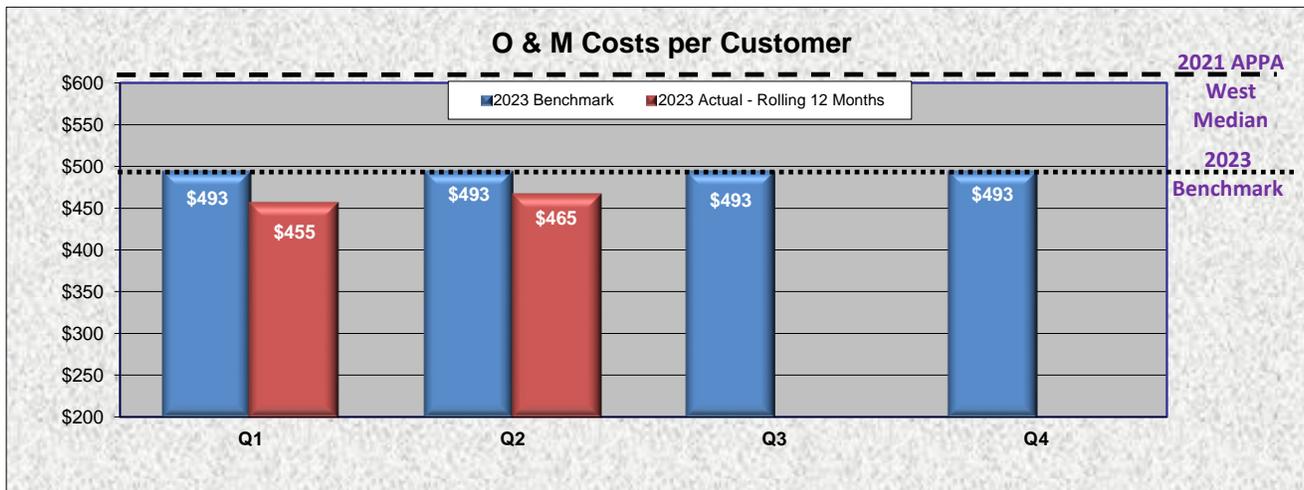
(1) Escalated at 3% per year

(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 \$465, which is 6% below the benchmark amount. The benchmark amount is calculated on the original budget. A large portion of the variance to budget is under-runs in payroll & benefits of \$402k, outside services of \$178k, and general administration expenses (Customer Service, maintenance, and general expenses) of \$134k. The District continues to be well below the APPA West median of \$615.





2023 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

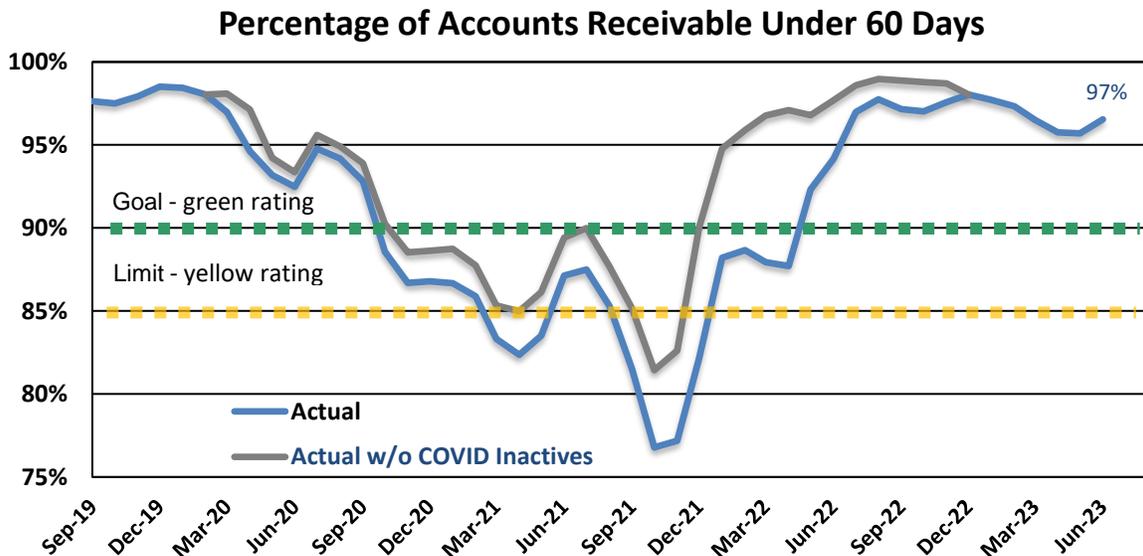
The goal is to increase the percentage of accounts receivable under 60 days to a level of 90% or more of the total accounts receivable. A green rating will be achieved if the actual results are at 90% or higher; a yellow rating will be assigned if the actual results are between 85% to 90%; a red rating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

		Actual	
Q1	90%	Q1	97%
Q2	90%	Q2	97%
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%, 96%, and 97% respectively during Q2. The outlook for the year is green.



Responsible Manager: Annette Cobb

Data Provider: Kent Zirker

Report Date: 7/24/2023



2023 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	5.1	1.4
Q2	5.1	2.0
Q3	5.1	
Q4	5.1	

Quarterly Performance Summary

- There were three incidents reported on the OSHA 300 form in the last 12 months (July 1, 2022 - June 30, 2023):
- ~ 04.13.23: Apprentice Lineman suffered a fractured ankle while jogging doing job site clean up - 46 days lost time
 - ~ 04.06.23: Lineman - Foreman suffered right shoulder sprain/strain while getting down on the ground on hands and knees to inspect the bottom of the company truck - 5 days lost time
 - ~ 12.15.22: Lineman - suffered sprain to ankle when slipping on ice while getting out of a company vehicle



Responsible Manager: Steve Hunter

Data Provider: Diane Schlekewey

Report Date: 7/18/2023



2023 Status			
Q1	Q2	Q3	Q4
●	●		
Outlook:			●

Performance Measure Title

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 80-89.99% , and a red rating is less than 80% average attendance.

Performance Rating:

Green: ● AVG ≥ 90%	Yellow: ▲ AVG = 80-89%	Red: ◆ AVG < 80%
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Goal

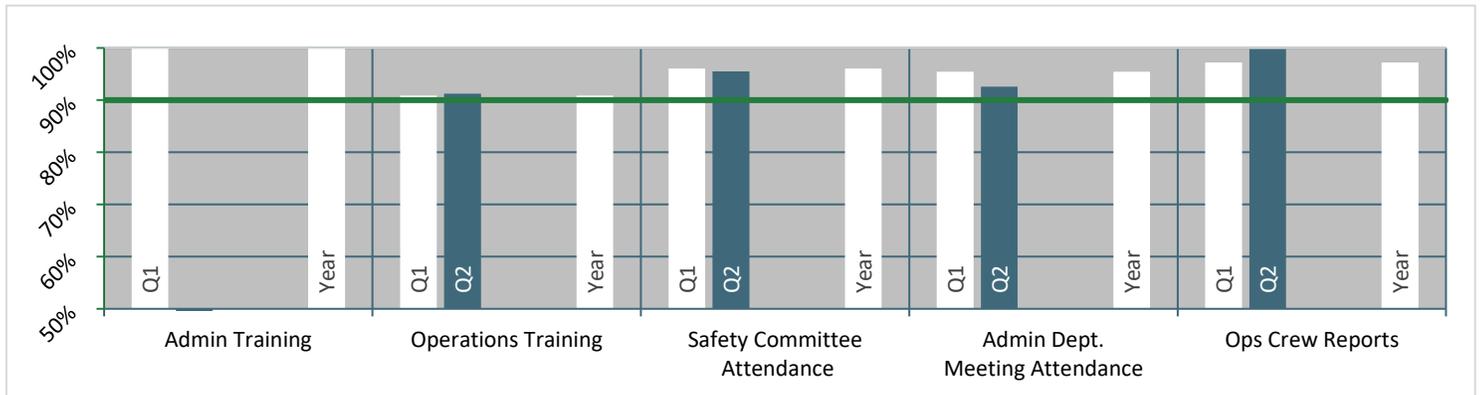
Achieve minimum 90% or greater average attendance and participation at safety-related trainings and meetings.

	Training Attendance			Participation				Goals
	Admin Training	Ops Training	AVG	Committee Attendance	Admin Dept Attendance	Ops Crew Reports	AVG	Overall AVG
Q1	100.0%	90.9%	95.4%	96.1%	95.4%	97.2%	96.2%	96%
Q2	N/A	91.2%	91.2%	95.5%	92.6%	100.0%	96.0%	94%
Q3								
Q4								
Year	100.0%	91.1%	93.3%	95.8%	94.0%	98.6%	96.1%	95%

Quarterly Performance Summary

In the second quarter, the Administrative and Operations groups averaged 94% across the safety training and participation goals set for both groups. The outlook for the year is green.

For the quarter, 91% of Operations participated in crew/shop trainings and covered Wildfire Smoke Mitigation; Heat Stress; and Fire Extinguishers/Gas Island Safety. 100% of Crew Reports were returned. No Admin safety training was scheduled this quarter. 93% of Admin staff reviewed monthly safety information. The Safety Committees averaged 96% attendance overall.



Responsible Manager: Karen Dunlap

Data Provider: Kristen Demory

Report Date: 7/17/2023



2023 Status			
Q1	Q2	Q3	Q4
Outlook			

Performance Measure Title

Conservation Plan 2022-2023 Biennial Actuals/Target

Definition

The District will monitor quarterly conservation and compliance with the Energy Independence Act (EIA) target of 1.52 aMW which was established through the Conservation Potential Assessment and presented to the Commission on October 26, 2021.

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 savings are not received until April-May for the previous year, an estimate of 75% is 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 2022-23 conservation biennial target. Green Outlook rating is the "Savings Projection" meeting or exceeding the EIA target. Yellow rating is below the EIA target but above the Carryover target. Red rating is below the Carryover target.

2022
Residential
Commercial
Industrial
Agricultural
U.S.E.

Q1		Q2		Q3		Q4	
Proj	Actual	Proj	Actual	Proj	Actual	Proj	Actual
0.034	0.023	0.034	0.021	0.034	0.034	0.034	0.043
0.046	0.006	0.046	0.036	0.046	0.038	0.046	0.009
0.000	0.000	0.099	0.012	0.307	0.165	0.002	(0.022)
0.024	0.000	0.024	0.000	0.024	0.002	0.024	0.000
0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.017

2023
Residential
Commercial
Industrial
Agricultural
U.S.E.

Q1		Q2		Q3		Q4	
Proj	Actual	Proj	Actual	Proj	Actual	Proj	Actual
0.034	0.025	0.039	0.040	0.014	0.014	0.014	
0.031	0.078	0.011	0.112	0.034		0.034	
0.020	0.173	0.046	0.032	0.086		0.000	
0.004	0.253	0.002	0.000	0.000		0.000	
0.028	0.000	0.003	0.000	0.011		0.000	

Total	
Proj	Actual
0.027	0.19
0.068	0.28
0.086	0.36
0.000	0.26
0.011	0.02
NEEA*	
0.250	

NEEA*

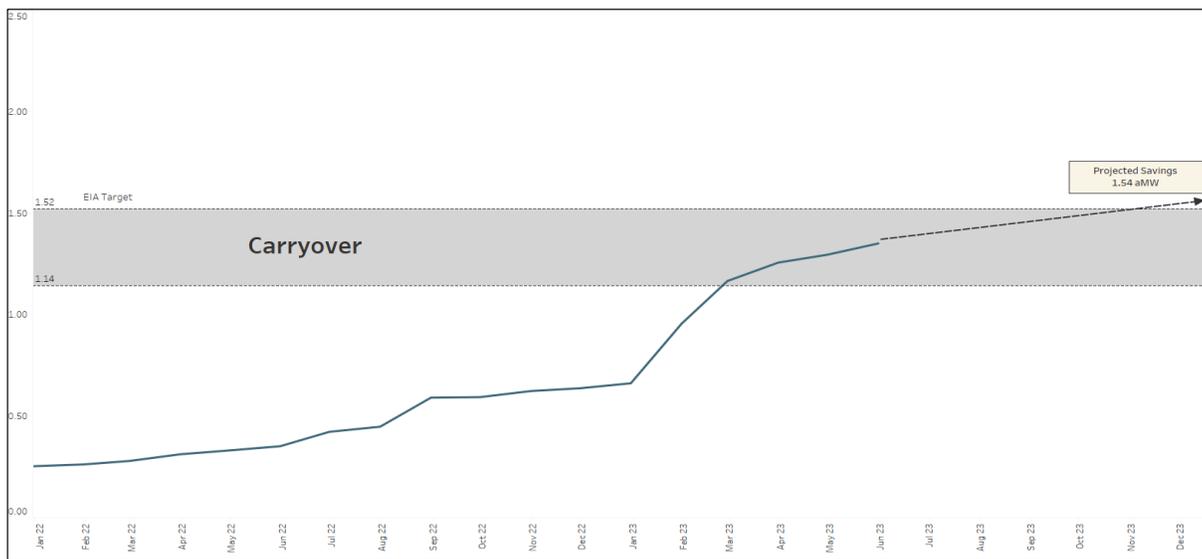
*Based on 2022 actuals and 75% of NEEA provided estimate for 2023

Total aMW

1.54

Quarterly Performance Summary

NEEA actuals for 2022 and updated estimates for 2023 were released in Q2 and both were more than 80% lower than originally forecasted. However, due to the low current target of 1.52 aMW the District has already met its EIA requirements with the use of carryover savings from the past. The Commercial sector recorded its highest quarter savings of the biennium with help from large projects at Trios Health and the Toyota Center. Residential remained strong with its second highest quarterly savings of the biennium, which included the first 25 projects from the Housing Authority completed in June. The Industrial sector completed a large project with Greenbriar Rail Services. The new projected biennial savings is slightly above the EIA target at 1.54 aMW excluding carryover.



Responsible Manager: Chris Johnson

Data Provider: Terry Mapes

Report Date: 7/12/2023



Performance Measure Title

Broadband Network Reliability Report

All Green =	■
Any Yellow =	■
Any Red =	■

2023 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.

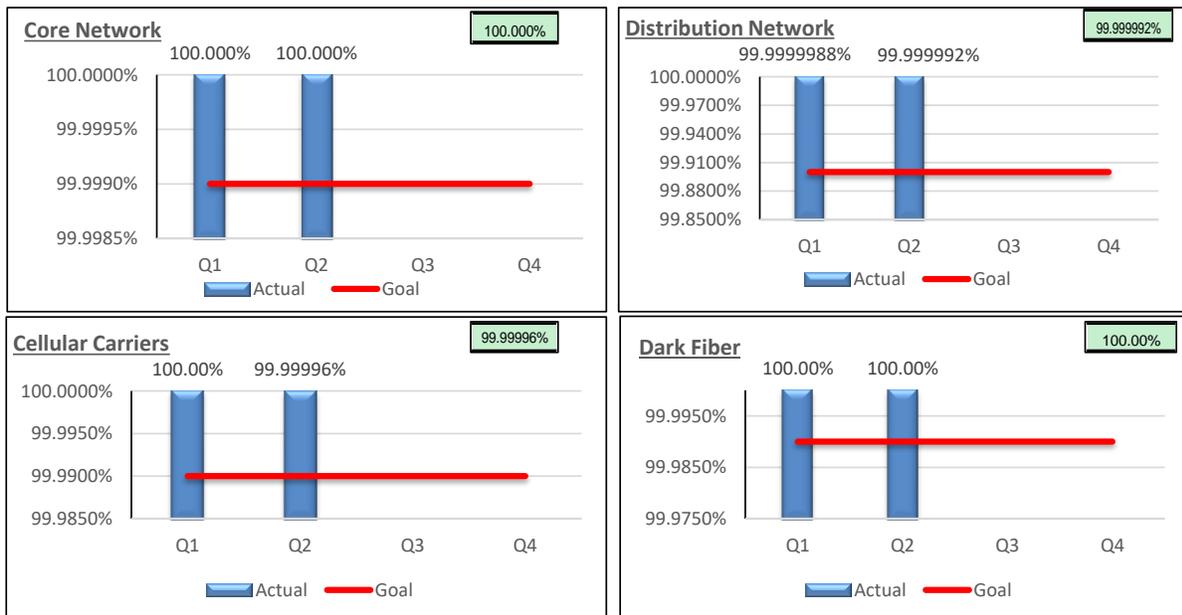
Performance Objectives

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%	99.9%	99.999988%	99.99%	100.00%	99.99%	100.00%
Q2	99.999%	100.000%	99.9%	99.999992%	99.99%	99.99996%	99.99%	100.00%
Q3	99.999%		99.9%		99.99%		99.99%	
Q4	99.999%		99.9%		99.99%		99.99%	

Quarterly Performance Summary

The Performance Measure is rated green for the Quarter 2 in 2023. On May 19th the customer premise device at Porter Kinney became unreachable. The NOC followed up with the customer on the outage with the customer reporting the issue was on their side. The NOC followed up with the customer twice daily until the customer arrived on site and corrected their issue. This did not restore services. An engineer was dispatched and replaced a failed optic fully restoring service on May 21st. This affected 1 site for 63 hours.



Responsible Manager: Chris Folta
Data Provider: Adrian Mata

Report Date: 7/24/2023



2023 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 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 2022 to June 2023.

	MEDs Included	MEDs Excluded	Goal	Rating
SAIFI	1.32	0.42	0.5	
SAIDI	174.5	50.8	60	
CAIDI	131.8	120.1	120	

Over the 12-month time period from July 2022 to June 2023, **SAIFI of 0.42** interruptions is less than the goal of 0.5, resulting in a green rating. **SAIDI of 50.8** minutes is less than the goal of 60, resulting in a green rating. **CAIDI of 120.1** minutes is greater than the goal of 120, but less than 120% of the goal, resulting in a green rating.

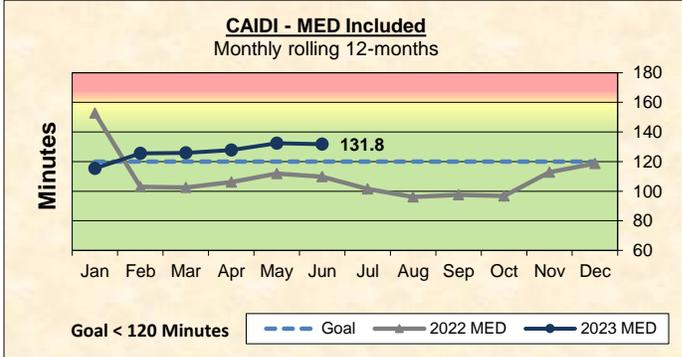
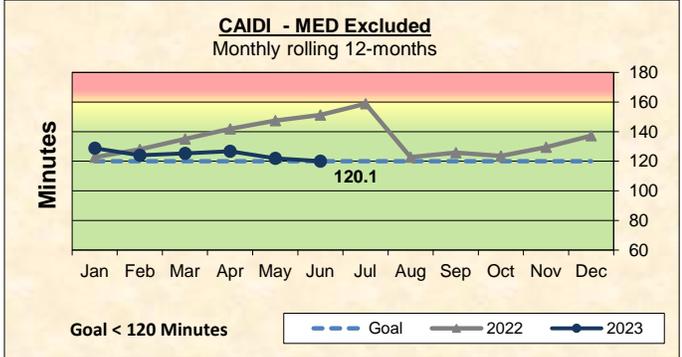
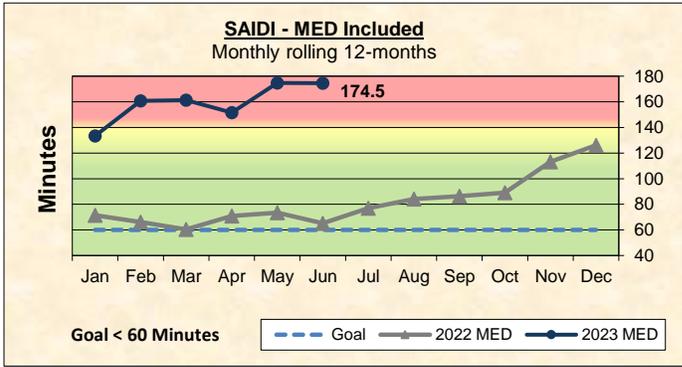
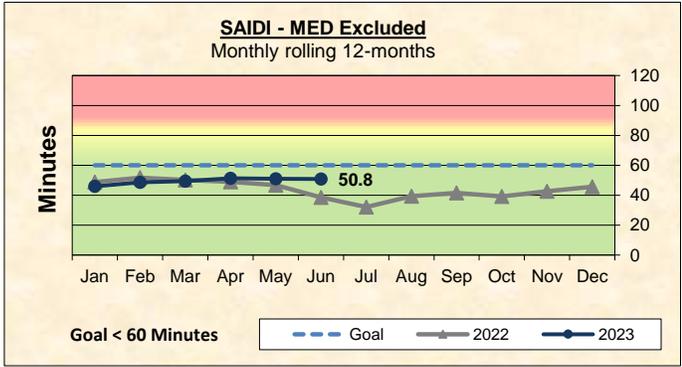
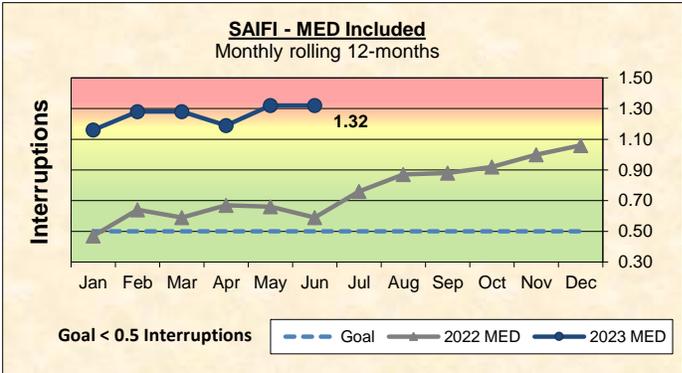
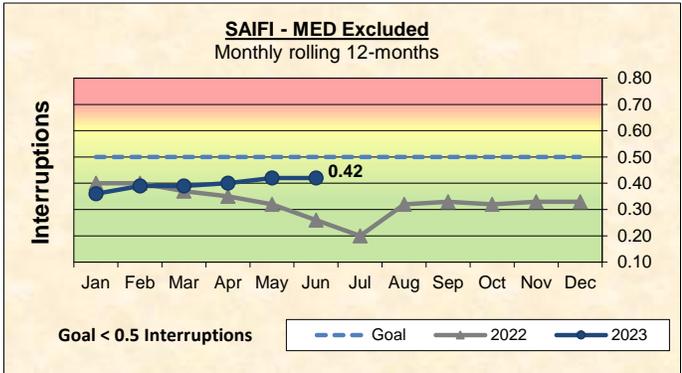
For the non-MED data, SAIFI slightly increased for the current quarter and overall continues to vary up and down around a roughly 0.40 average, meaning the average customer experiences an outage every 2.5 years for general outages. SAIDI increased to 50.8 minutes and has been on a slight upward trend since July 2022. Both SAIFI and SAIDI have been below their goals over the last 18 months, CAIDI has seen more variability over that internal but has been staying between 120 & 140 minutes since August 2022. Q2 is being given a green rating.

With MED data included, SAIFI increased to 1.32 and has been increasing since June 2022. SAIDI increased to 174.5 and has also been increasing since July 2022. CAIDI increased to 131.8 and has been increasing since Q4-2022.

A SAIFI of 1.32 means every single one of our customers could have expected an outage within the last 9 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 2 hours and 12 minutes.

Responsible Manager: Evan Edwards
 Data Provider: Dax Berven

Report Date: 7/17/2023



Responsible Manager: Evan Edwards
 Data Provider: Dax Berven

Report Date: 7/17/2023



2023 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)						Rolling 12 Months Reported Quarterly (MED)					
Outage Statistics	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	Outage Statistics	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2
Outage Count	525	514	577	566	548	Outage Count	533	523	633	662	653
Customers Out	16,293	20,972	20,095	23,625	24,234	Customers Out	32,940	49,612	58,508	71,024	73,714
Customer Minutes Out	2,470,297	2,643,273	2,884,470	3,103,081	2,856,466	Customer Minutes Out	3,605,163	5,237,331	7,472,071	9,472,586	10,207,986

Non-MED Data Summary: For the non-MED data, outage counts have decreased over the previous 12 month window. Customers out has shown an increase and continues to be up and down over the last 5 quarters but is generally increasing. Customer minutes out decreased in the past 12 month window and has generally been increasing over the last 5 quarters.

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

- July 29th, 2022 - BPA Angus-Franklin transmission line operation (PPNL 115kV substation breaker failure)
- October 21st, 2022 - Angus Bay 1 Outage
- November 4th, 2022 - Area Wind Event
- December 22nd, 2022 - Kennebec Bay 1 Outage
- January 7th, 2023 - Ely Bay 1 Outage
- February 20th, 2023 - BPA Franklin-Badger #2 H-Frame failure
- May 13th, 2023 - BPA Franklin-Badger #2 - Single Phasing at Kennebec Substation

These events dramatically increase the outage counts, triple the customers out, and nearly quadruple the customer minutes out.

Outages by Cause	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	Outage Statistics	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2
Equipment	258	254	264	263	261	Equipment	259	255	282	305	312
Animals	78	70	67	68	70	Animals	78	71	71	76	79
Weather	16	20	36	31	30	Weather	20	24	47	46	41
Foreign Interference	98	90	91	90	86	Foreign Interference	100	95	100	98	93
Vegetation	41	43	73	72	63	Vegetation	41	43	89	94	85
Undetermined	34	37	46	42	38	Undetermined	35	35	44	43	43
Total	525	514	577	566	548	Total	533	523	633	662	653

Cause Summary: For the non-MED data outages caused by vegetation decreased. Outages caused by equipment, weather, foreign interference, and undetermined events decreased slightly. Animal caused outages increased slightly.

With MED data included all outages types increased.

Outages by Region	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2	Outages by Region	2022-Q2	2022-Q3	2022-Q4	2023-Q1	2023-Q2
East Kennebec	200	194	208	205	191	East Kennebec	200	194	223	252	247
West Kennebec	179	168	175	162	166	West Kennebec	180	170	197	191	198
Benton City & Prosser	115	117	152	156	149	Benton City & Prosser	122	124	170	175	164
River & Hanford	31	35	42	43	42	River & Hanford	31	35	43	44	44
Total	525	514	577	566	548	Total	533	523	633	662	653

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

When MED data is included the impact is seen across the system with East Kennebec, West Kennebec, and the Benton City & Prosser areas being the most noticeable.

Responsible Manager: Evan Edwards
Data Provider: Dax Berven

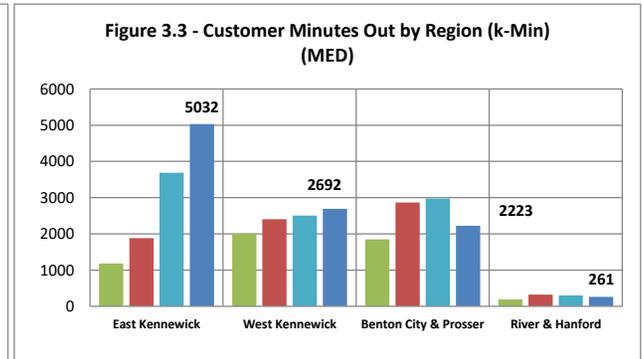
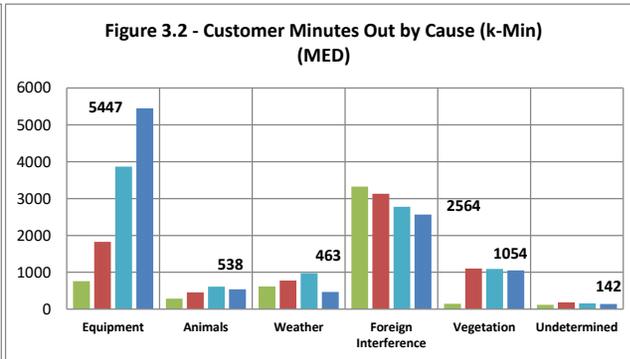
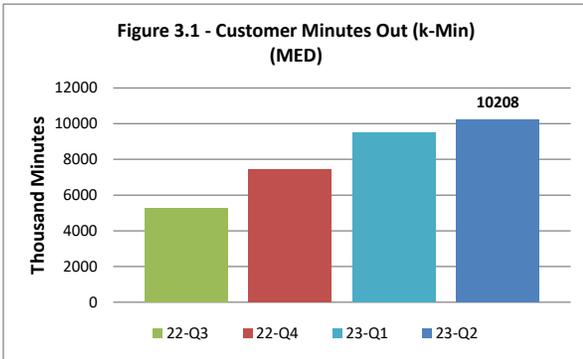
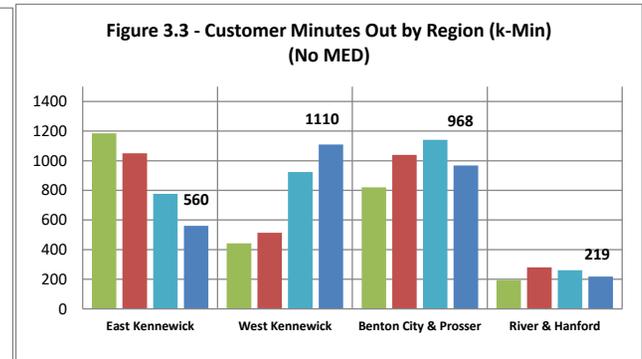
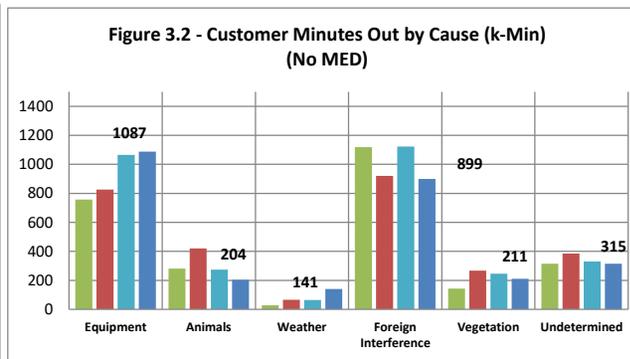
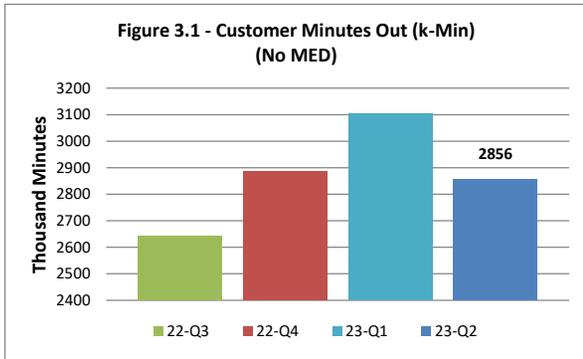
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Outage Data

Rolling 12-Months, Reported Quarterly



Outage Data Rolling 12-Months, Reported Quarterly



Feeder 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.

SAIDI - System average interruption duration index

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

CAIDI - Customer average interruption duration index

Indicates the average time required to restore service.

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

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

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

Interruption - Loss of Customer electrical service lasting longer than five minutes, excluding planned outages and customer problems.

Major Event Day (MED) - 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 experienced stresses beyond that normally expected.

Feeder Reliability

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 feeder level SAIFI, SAIDI, and CAIDI values across a 24 month window. Due to the various physical differences between the feeders (number of customers, difficulty of patrol, initial time elapsed to arrive on site, etc.) the SAIFI, SAIDI, and CAIDI values for each feeder are subjectively ranked. The SAIFI, SAIDI, and CAIDI rankings are then averaged to determine the final quarterly ranking for each feeders.

The District has historically utilized a 24 month window for feeder level reliability calculations to identify consistently poor performing feeders. These results are used to identify which feeders would most benefit from capital projects to improve reliability. Examples of possible system improvements are sectionalizing efforts to decrease the average size of an outage, the installation of fault indicators to decrease the average patrol time, addition of wildlife or other equipment guarding to prevent outages, or the replacment of aging equipment that is showing a negative performance trend.

Rankings that exclude MEDs are used for project identification purposes and actionable information in line with the goals of this report. Rankings that include MEDs are provided for reference as those values reflect the day to day customer experience. Color coding is used on non-MED results to identify feeders that have consistently appeared in the previous (4) quarters analysis.

	No MEDs						
	Q3-2022	Q4-2022	Q1-2023	Q2-2023	SAIFI	SAIDI	CAIDI
1st	ZEH-3	ZEH-3	ZEH-3	ZEH-3	1.55	451.95	290.98
2nd	PSR-2	PSR-2	PSR-2	PSR-2	3.07	571.47	186.42
3rd	ORV-2	VTA-6	VTA-6	VTA-6	0.97	282.08	289.70
4th	PSR-1	ORV-2	ORV-2	KEN-8	2.42	398.02	164.75
5th	GUM-1	PSR-1	PSR-1	PSR-1	0.49	187.07	379.33
6th	HED-1	GUM-1	GUM-1	ORV-2	1.38	273.52	198.87
7th	HED-4	KEN-8	SSR-1	ORV-3	2.37	372.15	157.01
8th	VTA-5	SSR-1	KEN-8	GUM-1	0.99	196.18	198.66
9th	LES-2	PSR-3	ORV-3	KEN-6	0.21	150.53	704.07
10th	ANG-8	LES-2	PSR-3	RVF-3	1.21	183.40	151.79

	With MEDs						
	Q3-2022	Q4-2022	Q1-2023	Q2-2023	SAIFI	SAIDI	CAIDI
1st	ZEH-3	PSR-6	RVF-3	RVF-2	12.67	2496.27	197.07
2nd	PSR-3	RVF-3	RVF-2	RVF-3	2.95	748.91	254.14
3rd	ELY-6	ZEH-3	ELY-6	KEN-6	2.33	599.43	257.65
4th	ORV-2	RVF-2	PSR-2	KEN-8	4.94	884.69	179.00
5th	KEN-6	KEN-6	PSR-6	PSR-2	3.09	575.77	186.42
6th	GUM-1	GUM-1	ELY-1	ZEH-3	1.91	535.42	279.88
7th	PSR-1	PSR-2	ZEH-3	ELY-1	2.27	521.88	230.19
8th	PSR-3	GUM-1	GUM-4	ELY-6	2.31	516.12	223.78
9th	PSR-4	ORV-2	ORV-2	KEN-1	3.02	548.89	181.59
10th	LES-2	VTA-6	VTA-6	PSR-6	1.73	491.23	283.49

Results

ZEH-3: In addition to the (2) overhead primary failures in the southern portion of the feeder, (1) extended single customer outage occurred which influenced the results due to the low number of customers on the feeder affecting the calculation.

PSR-2: Foreign Interference and OH primary failures continue to be a consistent outage cause for this feeder.

VTA-6: There was a single large outage that de-energized 97% of customers for nearly 5 hours. VTA-6 has a very small amount of customers and limited switching capability so this outage strongly influences the results of the calculations. Evaluating additional switching paths for this feeder would likely help reduce future outage times.

KEN-8: The feeder has had several foreign interference and underground primary failure outages. Neither presents as a trend at this time.

PSR-1: The feeder has a small number of customers which make the calculations more volatile. However the feeder experienced an extended outage affecting approximately half the customers due to a structure fire resulting in a high CAIDI value. No outage trending present.

ORV-2: Feeder had a large outage with a extended patrol period for what was ultimately determined to be a "line-slap" lockout. The District has moved to 8 second reclosing to help mitigate line-slap events and is working towards upgrading SCADA fault data to more quickly identify line-slap incidents. The Feeder had several extended smaller (18-63 customers) outages driving up the SAIFI & SAIDI values that were caused by primary underground cable failures. Unsure if the Crew had difficulty identifying the initial fault location as affected areas had 200A loop switching options but still high minutes.

ORV-3: The feeder has had several weather driven outages, usually small, with one weather driven feeder lockout. Foreign interference is beginning to show a trend on this feeder.

GUM-1: The feeder has had a number of foreign interference and vegetation driven outages.

KEN-6: The feeder moved up due to SSR-1 and PSR-3 dropping off the list and does not present any trending currently.

RVF-3: The feeder moved up due to SSR-1 and PSR-3 dropping off the list. Feeder does show a history of animal and vegetation driven outages.

Data Provider: Dax Berven

Report Date: 4/21/2023



Select Year: 2023 Select Quarter: 2

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

This performance measure is rated green for the quarter with a green outlook. Users did experience 40 minutes of downtime on the AMI system; however this is within the tolerable range for 99.90% uptime.

Enterprise Reliability

5 Year Trends

24x7 Applications Uptime % 2023 Q2

5 Year Trends	Green Rating > 99.99% 0-13 mins				Yellow Rating 99.96%-99.98% 14-25 mins				Red Rating <=99.95% >26 mins				Current Quarter		
	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24				
	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4				
Apps Team Datab..															100.00%
GIS (MapWise)															100.00%
HPRM															100.00%
iVue															100.00%
SCADA															100.00%

Cloud Applications Uptime % 2023 Q2

5 Year Trends	Green Rating > 99.90% 0-131 mins				Yellow Rating 99.85%-99.89% 132-199 mins				Red Rating <=99.84% >199 mins				Current Quarter		
	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24					
	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4					
AMI															99.97%
Cloud Applications															100.00%



Select Year: 2023
 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 Enterprise Infrastructure performance measure was rated green for the quarter. Users did experience 35 minutes of downtime on 6/14/2023 when all zero-client machines were unable to establish a connection utilizing the newly minted certificate. Once we reverted the certificate and bypassed a checksum on the zero-clients, users were able to login. This outage was within the acceptable range for a given quarter. The outlook is Green

Infrastructure Reliability

5 Year Trends

24x7 with 99.99 % Uptime 2023 Q2

5 Year Trends	Green Rating >99.99% 0-13 mins				Yellow Rating 99.96%-99.98% 14-25 mins				Red Rating <=99.95% >26 mins				Current Quarter				
	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24					
Exchange	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100.00%
Kennewick to Pro..	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	100.00%
SAN	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100.00%
VDI	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	▲	99.97%

24x7 with 99.95% Uptime % 2023 Q2

5 Year Trends	Green Rating >99.95% 0-65 mins				Yellow Rating 99.90%-99.95% 65-129 mins				Red Rating <=99.90% >130 mins				Current Quarter				
	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24					
Phones	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100.00%

24x7 with 99.90% Uptime % 2023 Q2

5 Year Trends	Green Rating >99.90% 0-131 mins				Yellow Rating 99.85%-99.89% 132-199 mins				Red Rating <=99.84% >199 mins				Current Quarter				
	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24	19-20-21-22-23-24					
Network	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	99.92%
NoaNet Service	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100.00%
TEA-SCADA Network	✓	✓	✗	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	99.91%



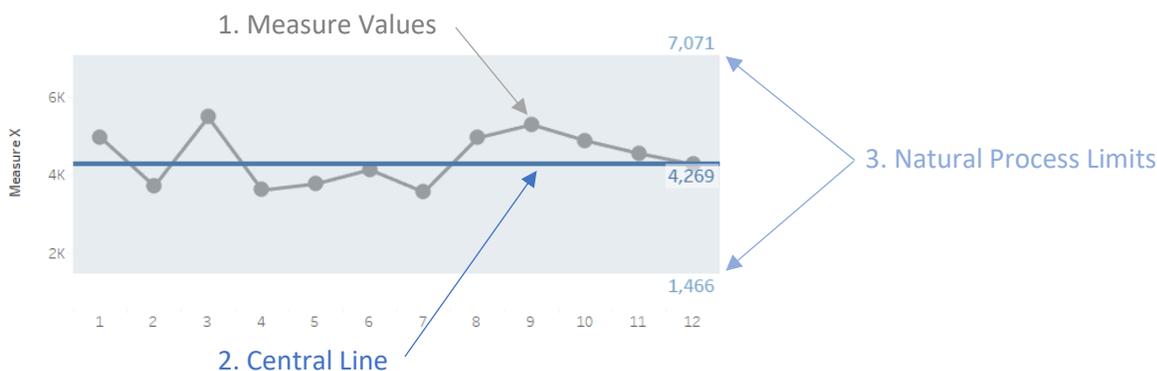
Appendix A

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](#)