



March 28, 2019

TO ALL UTILITY COMMISSION MEMBERS:

GERRY WARNER
BOB MULLEN
DAN CASEY
PAT BECKER
MIKE KASTENS

This is to inform you that there will be a Utility Commission Meeting on **Wednesday, April 3, 2019 at 8:00 a.m.** in the Administrator's office at the Civic Center.

AGENDA

1. Call to order
2. Adoption of agenda
3. Approval of previous commission meeting minutes (March 6, 2019)
4. Approval of bills and disbursements – March 2019
5. Public Comment
6. Water & Sewer Rate Study
7. 4Q18 Financial Report
8. Meter Data Management & Advanced Metering
9. Water Department Pickup Truck Quotes
10. Electric Department Pickup Truck Bid
11. Electric Reliability Report
12. Home and Business Energy Report
13. Staff Reports
14. Communications and miscellaneous correspondence
15. Adjourn

Mike Darrow
Utility Manager

A majority of the members of the New Richmond City Council may be present at the above meeting.

Pursuant to State ex rel. Badke v. Greendale Village Board, 173 Wis. 2d 553, 494 N.W. 2nd 408 (1993) such attendance may be considered a meeting of the City Council and must be noticed as such, although the Council will not take action at this meeting.

NEW RICHMOND UTILITY COMMISSION MINUTES
March 6, 2019

The regular meeting of the New Richmond Utility Commission was held on March 6, 2019 at 8:00 a.m. at the Civic Center.

Pat Becker called the meeting to order at 8:00 a.m.

Members Present: Bob Mullen, Mike Kastens, Gerry Warner, and Pat Becker. Dan Casey was present via telephone conference call.

A motion was made by Mike Kastens to approve the agenda, seconded by Gerry Warner, and carried.

A motion was made by Bob Mullen to approve the minutes of the January 9, 2019 meeting, seconded by Mike Kastens, and carried.

A motion was made by Gerry Warner to approve January and February 2019 bills and disbursements, seconded by Mike Kastens, and carried.

Public Comment:

None

Investment Advisor Services:

Rae Ann Ailts gave background information on why a new advisor was being sought. Pat Becker and Bob Mullen were involved with applicant interviews. Dana Investments was perceived to be the best choice. Matt Slowinski from Dana Investment Advisors was on teleconference during the utility commission meeting. The high trade fees were questioned by the Utility Commission. Matt explained the higher rates were due to the fact that it was an institutional account. Additionally, a custodial agent is required to facilitate sale or purchases of security. Previously Morgan Stanley provided custodial services for the City as well. Staff recommended Charles Schwab to serve as the custodian. Gerry Warner moved to approve Dana Investments Advisors to serve as Utilities Investment advisor, seconded by Bob Mullen, motion carried. Bob Mullen moved to approve establishing an account with Charles Schwab to serve as custodian for investments, managed by Dana Investment Advisors, seconded by Mike Kastens, and carried.

Water and Sewer Rate Study:

Eric Granum from Trilogy, the City's water and wastewater rate consultant, presented preliminary rate study findings and analysis.

- History of when the last rates occurred
- Objectives for 2019
- Financial Elevation criteria
- Steps in the rate study
- Financial Status of the Utility
- Future Capital Expenditures
- Financial Status of the Utility – key findings
- Next steps – executive summary to be reviewed by Utility Commission

WPPI Shared Meter Technician:

Weston Arndt gave background information on the Shared Meter Technician Service, offered to WPPI members. WPPI members primarily utilize the program for the thermal imaging service and for testing of commercial and industrial meters. Members subscribe to the desired percentage of a meter technician in 2.5% FTE segments under a five-year contract. Over the past three years, the electric department has averaged about \$9,400 in annual meter testing expenses paid to Chapman

Metering. This has historically provided about two-week's worth of meter testing services. Thus, an apples-to-apples comparison of charges per week would be: Chapman Metering \$4700, and WPPI Shared Meter Tech \$2,625. Gerry Warner moved to recommend entering into a 5-year agreement with WPPI Energy for a 2.5% FTE participation in the Shared Meter Tech Service, seconded by Bob Mullen, and carried.

Electric Operations Intern:

The American Public Power Administration (APPA) offers its members scholarship, internship, and research grants through its Demonstration of Energy & Efficiency Developments (DEED) program. They offer two application periods, with due dates in October and February. The internship grants offer \$4,000 to fully-fund or to supplement a position, with no requirement for matching funds. APPA's goal for the internship is to provide a student valuable experience working with a public power utility, help attract new talent, and enhance our profile in the community. Bob Mullen moved to approve the posting for a limited term Electric Operations Intern position in an amount not to exceed \$6,000, seconded by Gerry Warner, and carried.

Internet Access Pilot:

We held internal meetings on the possible development of a pilot program to assist in improving Wi-Fi and broadband throughout the City. Over the next several months, we will be presenting ideas to various committees starting with the Utility Commission on the development of a proactive approach to internet service throughout the City of New Richmond. We will keep the Commission updated.

Water Department Pickup Truck Bid:

One of the vehicles in the Water Department's fleet is a 2008 Ford F-250 that has been slated for replacement due to its age and condition. As such, \$35,000 was budgeted in the 2019 Capital Budget for acquisition of a new pickup truck. Staff is proposing to solicit quotes for a new vehicle from the three local dealerships, and is requesting authorization from the Utility Commission to proceed. Gerry Warner moved to authorize staff to solicit bids for a ¾-ton to 1-ton pickup truck with standard cab and 8-foot bed, seconded by Mike Kastens, and carried.

Biosolids Facility Department of Transportation Permit Issues:

Steve Skinner stated in early 2019, one of the trucks hauling biosolids and centrate to and from the West Central Wisconsin Biosolids Facility (WCWBF), of which the City is a founding member, was pulled over by the State Patrol. The State Patrol made the determination that the permit under which the WCWBF was hauling overweight loads was not valid. As a result, the WCWBF has been forced to haul 6,000 gallon loads instead of 8,000 gallon loads, which has a substantial effect on the cost to transport biosolids for the communities served. A memo was presented depicting multiple avenues the facility is pursuing to allow overweight loads to once again be permitted. Gerry Warner moved to approve the resolution as presented to support legislative action to expressly allow the DOT to issue permits allowing trucks to transport biosolids on State highways in excess of statutory height and weight limits, and authorizing City representatives to assist in the efforts to bring about that legislative action, seconded by Mike Kastens, and carried. This resolution will be brought to the City Council on March 11, 2019.

Department Reports

Jeremiah Wendt, Director of Public Works:

Jeremiah introduced Josh Buhr, who is the newest member of the Water Department. February has been the snowiest month on record, and snow removal continues to keep staff busy. Jeremiah explained each storm is a three day event, which begins by clearing the streets. The following morning the crew comes in to make sure everything is clear for the morning commute, and midnight after that, snow is hauled out. Staff also makes sure access is available to wells, hydrants, and towers.

Steve Skinner, Lead Wastewater Treatment Plant Operator:

Steve Skinner stated there was an ammonia spike at the WWTP, and staff is trying to locate the source. With the high ammonia reading the WWTP fails to meet permit limits. The ski trails are recurrently open at the golf course. Minor on-going repairs have taken place. Staff continues to work on the WWTP Facility Plan.

Bob Meyer, Water Superintendent:

Removing snow from multiple hydrants. First hydrant hit this year was located behind the street shop, and was hit by the grader. Water disconnects took place yesterday. Thawing of water services has taken place on Williamsburg Ave and E 2nd Street. Bob Meyer and Steve Skinner attended the Emergency Response and Preparedness Seminar in Plover, WI. DNR required installation of pre-lube meters to register water going back into the well. Working on completing the PSC report. Bob Meyer and Dave Pufall will be attending a water conference in Lacrosse, WI the end of March.

Weston Arndt, Electric Superintendent:

- With the snow levels, we've had multiple street light poles hit, some from vehicular accidents, others from plowing. We've also had a sectionalizer and pedestal damaged. We've placed over 100 temporary stakes where cabinets are buried in snow. Will install marker antennas in the spring/summer.
- Performed Substation Inspections in February. – Replacing an arrester today at Highview.
- Knowles Substation Maintenance – Planned for spring/early summer.
- Tree Trimming – Tree Trimming about 2/3 complete.
- Mapping Updates are complete – Working with Kyle to purchase tablets with cloud based GIS software to utilize the technology in the field.
- MEUW – On site safety training scheduled for March 25.
- Working on specs and quotes for several items: – Digger Derrick which is in the 2020 CIP and a new ¾ ton pickup to replace Truck 36.
- We will plan to present on advanced metering infrastructure at the next meeting.

Stacie Running, ESR:

Stacie Running had the following updates:

- Focus on Energy
 - Incentives paid January-February, 2019 = \$5,712
 - 164 customers helped
 - 2 commercial/industrial
 - 157 residential
 - 5 school & government
 - Estimated contribution < \$40,000/year
- WPPI/New Richmond Utilities
 - Home & Business Energy Reports to be sent this month
 - Thank a Lineworker Coloring Contest for ages 4-12
 - March 18 through April 12
 - RFP for Energy Efficiency for our large power customers
 - Program Start Date – March 1
 - Applications Due – April 26
 - Awards Announcement – May 24

Joel Enders, Management Analyst:

Joel Enders is currently working on audit items.

Rae Ann Ailts, Finance Director:

February and March are training months for staff. Leigh Alexander and Diane Thielke are at WPPI for training on customer deposits. Susan Affeldt and Debbie Powers will be attending a collections seminar the end of March. Audit will be conducted the week of March 18, 2019.

Mike Darrow, Utility Manager:

Mike thanked the members for attending Roberts Rules of order training. Next year, New Richmond Utilities will be turning 130 years old. This year marks the 120th anniversary of the cyclone in New Richmond. A number of items are in the planning stages for each of these celebrations. The Library Board and City Council had a joint meeting, with more to follow.

There being no further business, Bob Mullen motioned to adjourn, seconded by Mike Kastens, and carried. The meeting adjourned at 9:25 a.m.

Pat Becker, President

Gerry Warner, Secretary

New Richmond Utilities

MARCH 2019

Check Register

Check #	Date	Amount	Vendor	Description
002343	3/1/2019	60,414.44	CITY OF NEW RICHMOND	PAYROLL 3-1-19
002344	3/6/2019	15,263.21	US BANK CORPORATE PAYMENT SYS	UTILITY OFFICE FEB PCARD INV
002345	3/13/2019	792.85	SPEEDWAY	FEBRUARY FUEL
002346	3/14/2019	17,604.00	LOCAL GOVERNMENT INVESTMENT PC	FEB19 WATER IMPACT & SAC COL
002347	3/19/2019	12,229.57	WI DEPT OF REVENUE	FEB19 SALES TAX
002348	3/14/2019	6,968.75	CITY OF NEW RICHMOND	MONTHLY BILL
002349	3/14/2019	5,000.00	CITY OF NEW RICHMOND	RENT
002350	3/14/2019	5,964.70	CITY OF NEW RICHMOND	INSURANCE
002351	3/14/2019	25,413.16	CITY OF NEW RICHMOND	STORM WATER UTILITY
002352	3/14/2019	17,971.44	CITY OF NEW RICHMOND - RECYCLING	RECYCLING
002353	3/14/2019	195.00	COMMERCIAL TESTING LABORATORY	COLIFORM BACT
002354	3/19/2019	0.00	VOID DIANE THIELKE	INCORRECT ROUTING INFORMATION
002355	3/14/2019	12.45	GREG HERMANSEN	TESTING PLOVER G HERMANSEN
002356	3/14/2019	622.00	HYDRODESIGNS	CROSS CONNECT INSPECT & REPORT
002357	3/14/2019	4,285.68	INFOSEND, INC	FEB BILLING & POSTAGE
002358	3/14/2019	275.00	MUNICIPAL ELECTRIC UTIL OF WI	W ARNDT SUPERINTENDENTS CONF
002359	3/14/2019	5,520.54	NEW RICHMOND UTILITIES	FEB CTCOC COLLECTIONS
002360	3/14/2019	26.00	WISCONSIN STATE LAB OF HYGIENE	FLUORIDE
002361	3/15/2019	61,512.96	CITY OF NEW RICHMOND	PAYROLL 3-15-19
002362	3/19/2019	88,420.00	LOCAL GOVERNMENT INVESTMENT PC	MAR19 LGIP# 7,9,11 INVESTMENT
002363	3/19/2019	51,125.00	LOCAL GOVERNMENT INVESTMENT PC	LGIP#5,8,10 MAR19 INVESTMENTS
002364	3/19/2019	280.68	DIANE THIELKE	REIMBURSE WPPI TRAINING
002365	3/28/2019	588,359.05	WISCONSIN PUBLIC POWER INC	FEB PURCHASED POWERS
002366	3/22/2019	106.25	CITY OF NEW RICHMOND	BENEFIT EXTRAS MO FSA, HRA, AD
002367	3/22/2019	666.96	CITY OF NEW RICHMOND	EMPLOYER HSA CONTRIBUTION
002368	3/22/2019	21,333.17	CITY OF NEW RICHMOND	HEALTH INSURANCE
002369	3/22/2019	41.94	CITY OF NEW RICHMOND	LIFE INSURANCE
002370	3/22/2019	424.73	CITY OF NEW RICHMOND	LONG TERM DISABILITY INS
002371	3/22/2019	358.64	CITY OF NEW RICHMOND	SHORT TERM DISABILITY INS
002372	3/22/2019	45,675.00	CITY OF NEW RICHMOND	TAX EQUIVALENT
002373	3/22/2019	80.00	DIGGERS HOTLINE, INC.	TICKETS JAN
002374	3/27/2019	357.50	CITY OF NEW RICHMOND	MISSED BENEFIT EXTRA PAYMENT
002375	3/29/2019	59,387.45	CITY OF NEW RICHMOND	PAYROLL 3-29-19
036162	3/5/2019	4,714.57	AM CONSERVATION GROUP, INC.	CUSTOM KITS NR UTILITIES
036163	3/5/2019	3,736.92	MCCABE CONSTRUCTION, INC.	RETAINAGE
036164	3/5/2019	890.90	MUNICIPAL ENVIRONMENTAL GROUP	WTR DIVISION 2019 MEMBER CHG
036165	3/5/2019	1,549.41	SHORT ELLIOTT HENDRICKSON INC	JANUARY 2019 SERVICES
036166	3/5/2019	400.00	WISCONSIN RURAL WATER ASSN	ANN CONF ROBERT MEYER
036167	3/5/2019	3,259.20	ALDI INC	REFUND OF EMBEDDED COSTS
036168	3/5/2019	1,691.20	BORDER FOODS	REFUND OF EMBEDDED COSTS
036169	3/5/2019	409.00	ESR	REFUND OF EMBEDDED COSTS
036170	3/5/2019	409.00	R3 SONS	REFUND OF EMBEDDED COSTS
036171	3/8/2019	210.91	BALDWIN TELCOMM	FEB PHONE BILL
036172	3/8/2019	196.57	VERIZON WIRELESS	FEB CELL PHONE
036173	3/14/2019	1,254.43	AMERIPRIDE LINEN & UNIFORM SERVI	FEB WWTP UNIFORM SVC
036174	3/14/2019	1,653.00	BAKER TILLY VIRCHOW KRAUSE LLP	FINANCIAL STATEMENT AUDIT
036175	3/14/2019	130.00	CLEAR CHOICE BUSINESS SOLUTIONS	BUSINESS CARDS
036176	3/14/2019	11,310.57	CORE & MAIN LP	IPERL METERS
036177	3/14/2019	1,581.25	DERRICK HOMES	PLUGGED LATERAL ST ANDREWS

036178	3/14/2019	801.60	DUANE W NIELSEN COMPANY	CALIBRATE EFFLUENT OCM
036179	3/14/2019	313.97	FRONTIER COMMUNICATIONS	FEB PHONE BILL
036180	3/14/2019	965.00	FUSION METAL PRODUCTS INC	COAT SPOOL STANDS, WELD POLE
036181	3/14/2019	450.00	GIRARD'S BUSINESS SOLUTIONS	SCANNER SERVICE CONTRACT
036182	3/14/2019	911.62	JERRY'S TRUCK & TRAILER REPAIR	OIL CHANGE AND FILTER
036183	3/14/2019	940.50	KWIK TRIP	FEB FUEL BILL
036184	3/14/2019	2,635.28	METERING & TECHNOLOGY SOLUTION	100W ERT, ENCODER
036185	3/14/2019	53.02	TRENCHERS PLUS, INC.	TORO PARTS TOOTH
036186	3/14/2019	1,650.00	TRILOGY CONSULTING, LLC	2018 UTILITY RATE STUDY
036187	3/14/2019	2,085.43	TRI STATE PUMP & CONTROL INC.	HYDRORANGER 200
036188	3/14/2019	35,384.14	WEST CENTRAL WIS BIOSOLIDS FAC	BIOSOLIDS
036189	3/14/2019	247.33	ZEP SALES & SERVICE	ZEP FORMULA 50 20GL
036190	3/19/2019	0.00	DIANE THIELKE	REIMBURSE WPPi TRAINING
036191	3/21/2019	15.15	NEW RICHMOND UTILITIES	PETTY CASH-UC MTG REFRESHMENTS
036192	3/22/2019	362.87	BARRY D BRATHOL	CR REF ACCT# 1098500-22
036193	3/22/2019	109.39	DEER PATH	CR REF ACCT# 645500-40
036194	3/22/2019	74.11	ELECTRICAL TESTING LABORATORY	PR GLOVES TESTED
036195	3/22/2019	2,792.41	ENERGIS HOLDINGS, LLC	ANNUAL BATTERY TESTING
036196	3/22/2019	453.80	FLEX-O-SWEEP CO	WALL TUBE, CHANNEL, STEEL
036197	3/22/2019	10,746.00	FRESCO INC	POLES, ARMS
036198	3/22/2019	31.33	HAROLD BISHOP	CR REF ACCT# 1124600-20
036199	3/22/2019	7,984.26	STUART C IRBY CO	TELESCOPE CLAMP STICK, ELBOW
036200	3/22/2019	44.56	JEFFERY & DIANE GARRETT	CR REF ACCT# 1033100-21
036201	3/22/2019	39.24	KYLE R HAMMERS	CR REF ACCT# 1630100-23
036202	3/22/2019	100.00	MY RECEPTIONIST, INC	ANSWER SVC MAR 6 - APR 2
036203	3/22/2019	62.67	RACHEL L HENKE	CR REF ACCT# 1614400-22
036204	3/22/2019	11.33	RON & KIM JONES	CR REF ACCT# 1607700-21
036205	3/22/2019	161.00	TANYA J DEAN	CR REF ACCT# 1503600-21
036206	3/22/2019	31,515.66	WEST CENTRAL WIS BIOSOLIDS FAC	BIOSOLIDS
036207	3/22/2019	50.00	DNR	TESTING JOSH BUHR-SEWER
036208	3/22/2019	2,506.44	XCEL ENERGY	FEB GAS BILL
036209	3/25/2019	123.00	HOPKINS ELECTRIC	544 WILLIAMSBURG REPAIR
036210	3/27/2019	100.40	GRAINGER	RESERVOIR, OIL FUSE
036211	3/27/2019	696.84	MISSISSIPPI WELDERS SUPPLY CO IN	GLOVES

Total \$ 1,234,503.40

Total Checks & Wires



TO: Utilities Commission

FROM: Rae Ann Ailts, Finance Director

DATE: April 3, 2019

RE: Water and Sewer Rate Study Update

Background

At the March Commission meeting, Trilogy, the Utility’s water and sewer rate consultant, presented preliminary rate study findings and analysis. Next steps in the process were also discussed at the March meeting and included review of the executive summary over the next 30 days and preparation of a communication plan to disseminate information to the public.

The last conventional water rate case brought before the PSC was in August of 2007, with simplified rate increases occurring in 2013 and 2014. Changes in sewer rates were last increased in 2012. A number of operational, regulatory and capital needs have changed over this period. It is important that as we continue the review and analysis of the data we communicate the “why” to our ratepayers. The proposed communication plan, highlighted below, will provide greater transparency and education to our ratepayers as well as provide feedback to the commission from our ratepayers.

Staff will provide an overview of the proposed communication plan and timeline for the water and sewer rate study during the meeting.

April 2019

- Individual meetings with largest ratepayers
- Letter mailed to all ratepayers for open house
- Website page launched

May 2019

- Open house held for all ratepayers

June 2019

- Community engagement feedback presented to Commission
- Presentation by Trilogy regarding proposed rate structure

Recommendation

Staff recommends approval to proceed with the proposed communication plan as outlined above.



156 EAST FIRST STREET
NEW RICHMOND, WI 54017
715-246-4268
WWW.NEWRICHMONDWI.GOV

MEMORANDUM

TO: Utility Commission
FROM: Joel Enders, Management Analyst
DATE: March 27, 2019
SUBJECT: Fourth Quarter 2018 Financial Results

BACKGROUND

Staff will review and present analysis of the attached fourth quarter 2018 financial results at the upcoming Utility Commission meeting.

RECOMMENDATIONS

Discussion item only – no action is being requested at this time.

ATTACHMENTS

1. 4Q18 Financial Report



QUARTERLY FINANCIAL DASHBOARD

Fourth Quarter 2018

	2018			VARIANCE		2017	
	Actuals through 4th Quarter	Budget through 4th Quarter	Adopted Annual Budget	Over (Under) through 4th Quarter	Percent of Budget through 4th Quarter	Actuals through 4th Quarter	Budget through 4th Quarter
Operating Revenue	9,833,270	9,987,029	9,987,029	(153,759)	98%	9,942,946	9,696,144
Operating Expenses	9,415,358	9,821,561	9,821,561	(406,203)	96%	9,481,416	9,400,880
Change in Net Position	490,015	24,087	24,087	465,928	2034%	477,780	1,132
REPORTING METRICS							
Number of Customers	4,585	4,692	4,811				
kWh Sold	92,281,822	93,203,732	98,958,184				
Daily Operating Cost	23,824	24,274	24,020				
Operating Income (Loss)	420,136	461,531	417,913				
SUMMARY							
Revenues ended 2018 approximately 1.5% below budget, but were more than offset by expenses that ended 4.1% below budget. Purchased power costs were \$423K (5.3%) less than anticipated, while local operating expenses were \$69K (3.7%) higher than expected.							

	2018			VARIANCE		2017	
	Actuals through 4th Quarter	Budget through 4th Quarter	Adopted Annual Budget	Over (Under) through 4th Quarter	Percent of Budget through 4th Quarter	Actuals through 4th Quarter	Budget through 4th Quarter
Operating Revenue	1,557,980	1,556,872	1,556,872	1,108	100%	1,531,955	1,467,205
Operating Expenses	1,244,130	1,375,206	1,375,206	(131,076)	90%	1,288,169	1,256,568
Change in Net Position	219,190	(91,489)	(91,489)	310,679	-240%	299,727	(135,810)
REPORTING METRICS							
Number of Customers	4,211	4,336	4,541				
Gallons Sold (thousands)	327,082	320,111	323,145				
Daily Operating Cost	2,335	2,619	2,463				
Operating Income (Loss)	399,301	243,788	313,849				
SUMMARY							
Revenues ended 2018 on budget while expenses ended 9.5% under budget. Higher than budgeted operating income and capital contributions resulted in a favorable change in net position of \$219K for the year.							

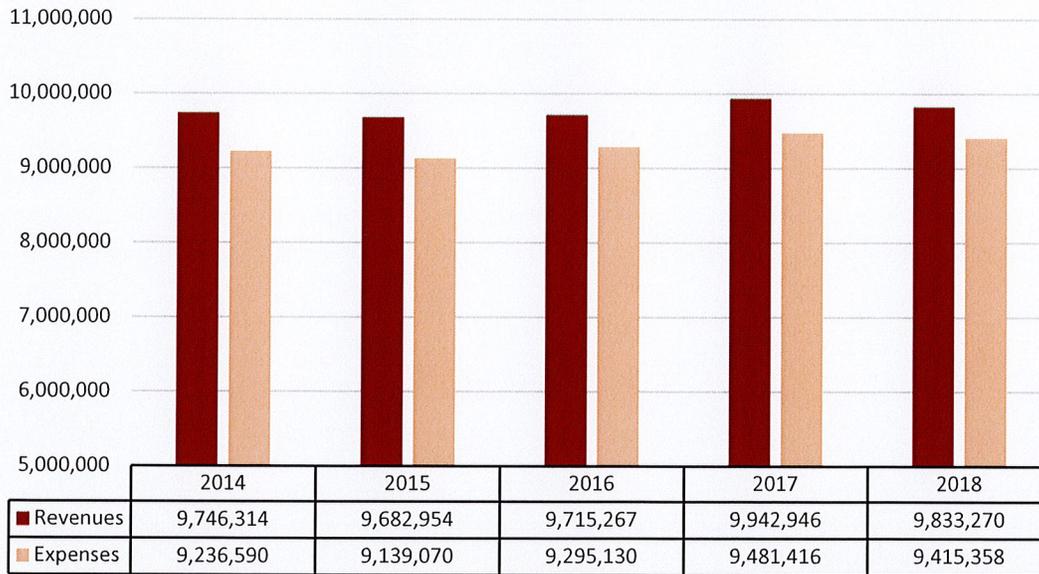
	2018			VARIANCE		2017	
	Actuals through 4th Quarter	Budget through 4th Quarter	Adopted Annual Budget	Over (Under) through 4th Quarter	Percent of Budget through 4th Quarter	Actuals through 4th Quarter	Budget through 4th Quarter
Operating Revenue	1,531,956	1,494,804	1,494,804	37,152	102%	1,469,697	1,480,000
Operating Expenses	1,842,473	1,806,474	1,806,474	35,999	102%	1,821,645	1,705,862
Change in Net Position	(48,160)	(236,812)	(236,812)	188,652	20%	146,613	(178,840)
REPORTING METRICS							
Number of Customers	3,550	3,636	3,773				
Gallons Treated (thousands)	189,521	192,250	199,990				
Daily Operating Cost	3,609	3,467	3,498				
Operating Income (Loss)	(417,999)	(351,950)	(310,517)				
SUMMARY							
Revenues ended 2018 approximately 2.4% greater than budgeted, while expenses ended 1.9% over budget. Operating losses were slightly lower than anticipated, and ending net position was favorable to budget due to capital contributions.							



Electric Utility Financial Report

Fourth Quarter 2018

Electric 5-Year Actuals through 4th Quarter



OPERATING REVENUES

Actuals vs. Budget

Revenues through December 31, 2018 total \$9.83M, which is approximately 1.5 percent (\$153K) under budget. Revenues through same period 2017 were approximately \$9.94M, or \$246K above budget. Fourth-quarter only revenues were \$262K below budget.

Revenue Trend

2018 YTD revenue is approximately .05 percent (\$49.1K) higher than the 5-year average. Kilowatt-hours sold increased by approximately 6 percent compared to YTD 2017, while total customers increased by 119 compared to this time last year.

Analysis

Revenues ended the year 1.5 percent short of budget due to below average first and second quarter performances, lower than expected industrial sales, and a budget target that was \$114K higher than previous year. Industrial sales of \$146K were significantly less than 2017 revenues of \$243K due to a reclassification of St. Croix Press from Industrial to Large Power customer. Commercial revenues also underperformed vs. budget, but were close to the 5-year average. Residential sales ended \$109K (2.8 percent) less than budgeted, but were actually higher than the 5-year average.

OPERATING EXPENSES

Actuals vs. Budget

Expenses through December 31, 2018 total \$9.41M, which is approximately 4.1 percent (\$406K) under budget, due mainly to lower than forecasted purchased power costs. Local operating expenses were approximately 1 percent (\$17.5K) over budget. Notable variances include:

- Professional Services – When the Utility switched to contracted IT services in January 2018, related expenses began to be coded to the 923 account, where they had previously been coded to the 920 account. The 2018 budget did not anticipate this coding change when it was developed in 2017, so the 923 account had a negative variance in 2018, whereas the 920 account had a positive variance.
- Overhead/Underground Line Maintenance – Variance in this account is related to the ongoing pole testing, replacement and maintenance initiative. Includes replacement poles, parts, ancillary equipment, and in-house labor.
- Vehicle repairs and maintenance, including:
 - Repairs of controls, hydraulics on Truck 38
 - Replacement of exhaust manifold on Truck 31
 - In general, staff spent a relatively higher amount of time performing vehicle maintenance and repairs in 2018 compared to 2017.
- Locating activities – The continuing and relatively brisk pace of development activity pushed locating expenses over budget for the third straight year.
- Shop Maintenance – Increased expenses in 2018 are due unanticipated maintenance needs and changes to the shop to accommodate growth, including garage and access door repairs, shop drain issues, the fabrication and placement of storage racking and layout/configuration changes to improve efficiency and inventory tracking.
- Depreciation – Growth and expansion of plant, particularly over the last three years, has increased depreciation costs much faster than the historical average. Staff has increased the budgeted amount for depreciation each year over the last four years, but actual numbers have continued to exceed forecasts.

Expenses Trend

YTD expenses of \$9.41M are approximately 1 percent (\$66K) less than same period 2017 expenses but 1.1 percent higher than the five-year average (\$9.3M). Expenses have been relatively stable over the last 5-year period, displaying a slow upward trend over the last two years.

Electric 4th Quarter Actuals to Budget - 5 Year Comparison

Year	2014	2015	2016	2017	2018
Operating Revenues	9,746,314	9,682,954	9,715,267	9,942,946	9,833,270
Operating Expenses	9,236,590	9,139,070	9,295,130	9,481,416	9,415,358
Budgeted Revenues	9,760,124	9,888,500	9,966,000	9,696,144	9,987,029
Budgeted Expenses	9,557,841	9,640,119	9,644,900	9,400,880	9,821,561
Revenues Over (Under) Budget	(13,810)	(205,546)	(250,733)	246,802	(153,759)
Expenses Over (Under) Budget	(321,251)	(501,049)	(349,770)	80,536	(406,203)
Operating Income (Loss)	509,724	543,884	420,137	461,530	417,912

Analysis

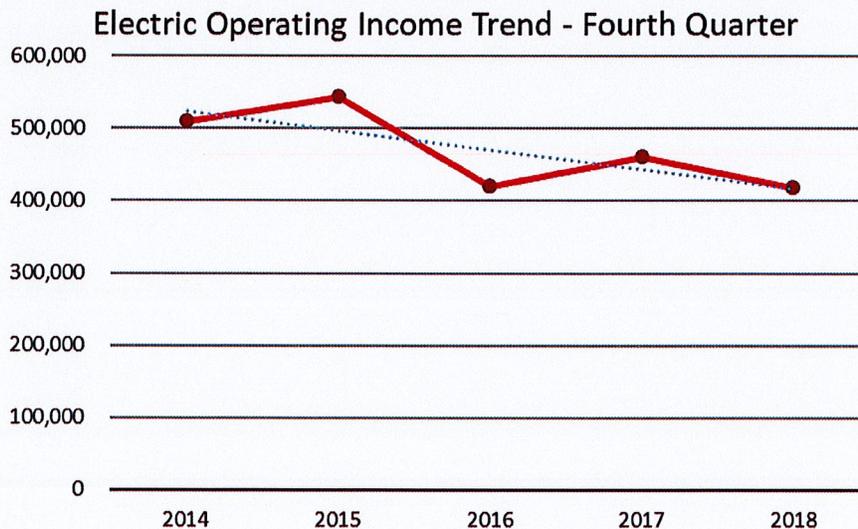
Expenses ended \$406K under budget primarily because of relatively low purchased power costs, particularly in the fourth quarter. Excluding purchased power costs, YTD operating and maintenance expenses were approximately 1 percent (\$17.5K) over budget, while 4Q-only expenses were \$64K under budget. Generally, expenses slow in fourth quarter after peaking in late second or early third quarter. Expense categories that are over budget reflect growth-related pressures (increased locating, higher depreciation, more wear-and-tear on vehicles, etc.) or aging infrastructure near the end of its useful life such as wood utility poles.

NET POSITION & OPERATING INCOME

YTD operating income was \$417.9K or approximately \$252K greater than budgeted, due primarily to lower than expected purchased power costs. However, YTD operating income is below the five-year same period average of \$470.6K.

Electric 4th Quarter YTD Operating Income (Loss) - 5 Year Comparison

Year	2014	2015	2016	2017	2018
Operating Income (Loss)	509,724	543,885	420,136	461,531	417,913



Change in net position through 2018 was +\$490K, which is \$465.9K more than the budgeted net position of \$24K. Note that contributed capital infrastructure of \$325K significantly affected net position.

CAPITAL IMPROVEMENT PROJECTS

At December 31, 2018 there were no active capital improvement projects.



ELECTRIC DEPARTMENT

Budget & Actual
For the Twelve Months Ending 12/31/2018

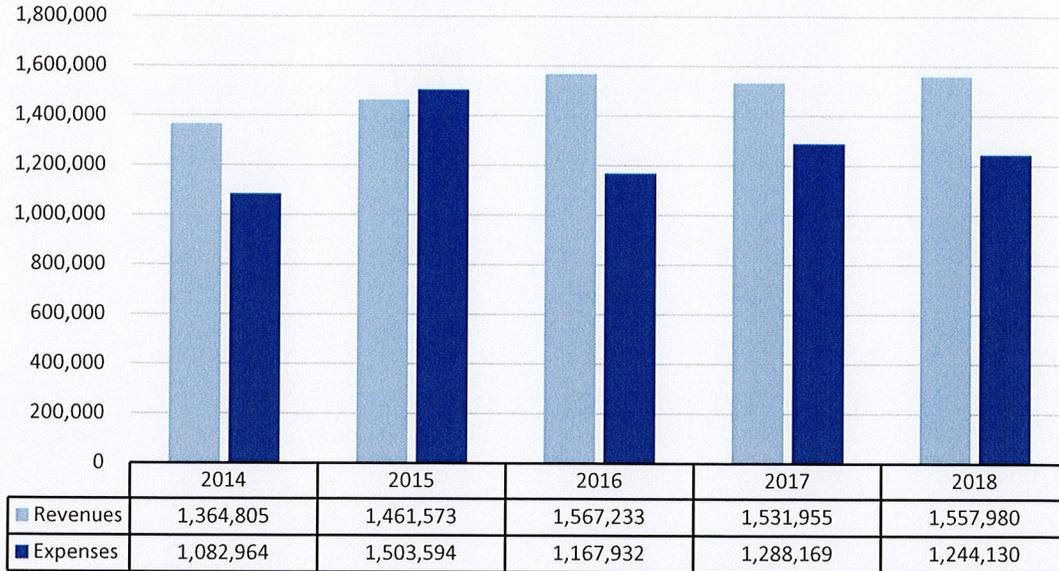
	Quarter 2017 Actual	Quarter 2018 Actual	Quarter 2018 Budget	Quarter 2018 Variance Actual-Budget	December 2017 Actual YTD	December 2018 Actual YTD	December 2018 Budget YTD	Variance YTD Actual-Budget	2018 Budget
OPERATING REVENUES									
Metered Sales (Res, Small, Large, Indust)	\$2,482,982	\$2,217,345	\$2,488,349	(\$271,004)	\$9,893,611	\$9,783,522	\$9,953,397	(\$169,874)	\$9,953,397
Miscellaneous Revenue	18,926	16,742	8,408	8,335	49,335	49,748	33,632	16,116	33,632
Total Operating Revenue	2,501,908	2,234,087	2,496,757	(262,669)	9,942,946	9,833,270	9,987,029	(153,758)	9,987,029
OPERATING EXPENSES									
Wholesale Purchased Power									
WPP1	1,806,445	1,626,221	1,997,406	(371,185)	7,677,126	7,565,875	7,989,623	(423,748)	7,989,623
Local Operating Expenses									
Substation Expenses	29,701	361	10,249	(9,888)	58,521	41,933	40,995	938	40,995
Locating Expenses	8,226	9,811	7,165	2,646	40,602	43,192	28,660	14,532	28,660
Overhead Line Maintenance	9,917	21,891	26,487	(4,597)	102,058	128,028	105,950	22,078	105,950
Transformer Maintenance	7,165	2,459	2,446	12	18,974	14,355	9,785	4,570	9,785
Street Lights & Signals Maintenance	640	(4,580)	6,691	(11,271)	6,675	(816)	26,765	(27,581)	26,765
Meter Maintenance	1,443	1,575	7,150	(5,575)	24,582	15,971	28,600	(12,629)	28,600
Meter Reading	1,549	1,597	1,412	184	6,105	6,314	5,648	666	5,648
Miscellaneous Distribution Expenses	5,540	9,924	8,624	1,301	27,369	39,632	34,495	5,137	34,495
Supplies	3,835	3,679	4,675	(996)	17,431	18,700	18,700	0	18,700
Shop Expenses	5,362	3,838	3,835	3	16,235	24,122	15,340	8,782	15,340
Miscellaneous Expenses	3,146	4,249	9,225	(4,976)	34,754	37,412	36,900	512	36,900
Rent	3,000	3,000	3,000	0	12,000	12,000	12,000	0	12,000
Utilities	2,114	2,444	1,500	944	6,010	7,171	6,000	1,171	6,000
Vehicle Repairs & Maintenance	1,121	(1,415)	9,415	(10,830)	20,027	44,566	37,660	6,906	37,660
Vehicle Fuel	2,443	3,427	3,612	(186)	8,780	11,966	14,450	(2,484)	14,450
General & Administrative Wages	63,732	86,936	91,547	(4,611)	281,206	354,010	366,190	(12,180)	366,190
Slate & Payroll Taxes	22,383	26,852	18,500	8,352	67,382	81,641	74,000	7,641	74,000
Employee Benefits	167,940	25,204	76,475	(51,271)	377,310	243,077	305,900	(62,823)	305,900
Professional Services	2,271	8,511	8,000	511	23,279	43,021	32,000	11,021	32,000
Telephone/Cell	167	185	225	(40)	668	732	900	(168)	900
Insurance	3,717	(176)	4,000	(4,176)	14,020	10,654	16,000	(5,346)	16,000
Safety & Training	4,938	4,585	7,375	(2,790)	20,711	24,993	29,500	(4,507)	29,500
Depreciation	187,130	179,178	146,375	32,803	621,380	648,078	585,500	62,578	585,500
Subtotal Local Operating Expenses	537,480	537,480	457,983	(64,448)	1,849,483	1,849,483	1,831,938	17,545	1,831,938
Total Operating Expenses	2,343,925	2,019,756	2,455,389	(435,633)	9,481,416	9,415,358	9,821,561	(406,203)	9,821,561
OPERATING INCOME (LOSS)									
	157,984	214,331	41,368	172,964	461,531	417,913	165,468	252,445	165,468
Non-Operating Revenues (Expenses)									
Investment Income	4,185	15,338	3,750	11,588	13,523	36,336	15,000	21,336	15,000
Interest Expense	549	(15,501)	(8,083)	(7,419)	(33,900)	(31,574)	(32,330)	756	(32,330)
Non-Utility Expenses	(599)	(1,462)	(2,000)	538	(4,959)	(2,935)	(8,000)	5,065	(8,000)
Total Non-Operating Revenues (Expenses)	4,136	(1,625)	(6,333)	4,707	(25,335)	1,827	(25,330)	27,157	(25,330)
Contributions & Transfers									
Capital Contributions	241,718	214,527	37,500	177,027	303,415	325,153	150,000	175,153	150,000
Transfers Out (Tax Equivalent)	(69,817)	(58,497)	(66,513)	8,016	(261,832)	(254,877)	(266,051)	11,174	(266,051)
Total Contributions & Transfers	171,901	156,029	(29,013)	185,042	41,583	70,276	(116,051)	186,327	(116,051)
CHANGE IN NET POSITION	334,021	368,735	6,022	362,713	477,780	490,015	24,087	465,929	24,087



Water Utility Financial Report

Fourth Quarter 2018

Water 5-Year Actuals through 4th Quarter



OPERATING REVENUES

Actuals vs. Budget

Revenues through December 31, 2018 total \$1.55M, which is less than 1 percent (\$1.1K) above budget. Fourth quarter only revenues were 14.5 percent (\$56.6K) above budget.

Revenue Trend

YTD operating revenues are \$26K higher than same period 2017, and approximately \$61K higher than the five-year average. 2018 gallons sold increased by approximately 1 percent, or 3.03 million gallons, compared to 2017. Customers at the end of 2018 was 4,541, an increase of 205 since same time last year. YTD revenue has increased by an average of \$48.2K per year over the past five-year period, although revenues did decline by 2 percent (\$35K) in 2017.

Analysis

Revenues performed over budget in the third and fourth quarters, offsetting seasonally slow first and second quarter sales to end the year on target. Residential sales ended 1 percent under budget, while industrial sales ended 80.7 percent (\$69K) above budget, driven by Lakeside Foods usage. 2018 irrigation sales ended at \$111.7K, which was \$54K short of the budgeted amount, but approximately \$20K higher than 2016 and 2017 irrigation sales.

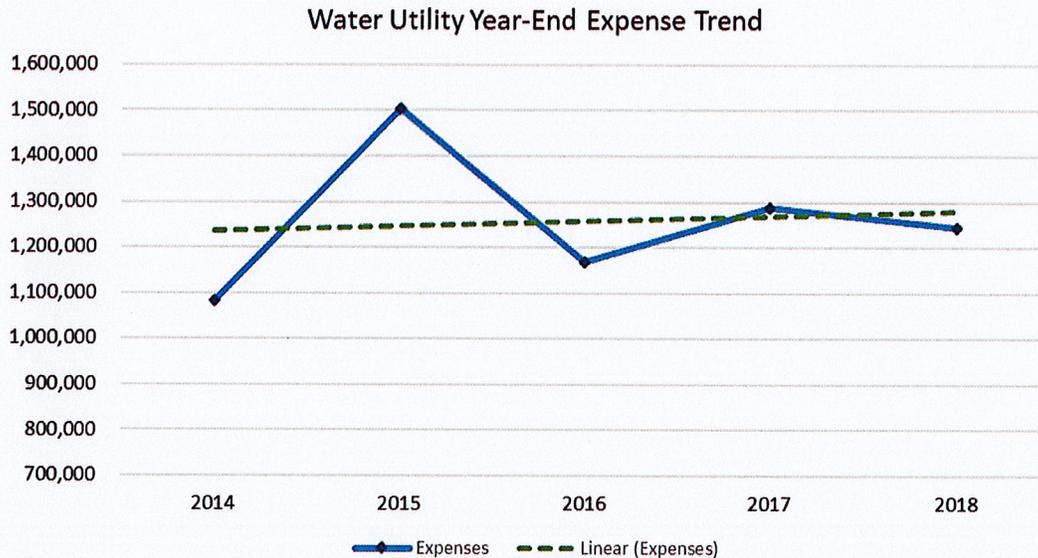
OPERATING EXPENSES

Actuals vs. Budget

Expenses through December 31, 2018 total \$1.24M, which is approximately 9.5 percent (\$131K) below budget. Fourth quarter only expenses were 15.7 percent (\$53.9K) under budget, and \$136.8K less than 4Q17 expenses.

Expenses Trend

YTD expenses are less than 3.4 percent (\$44K) less than same period 2017 expenses, and approximately 1 percent (\$13K) lower than the five-year average. Annual expenses have remained fairly consistent over the last five-year period with the exception of 2015, when unanticipated water tower costs spiked expenses \$420K above prior year. The trend line shown below suggests a slow increase over time when expenses are averaged out:



Analysis

Operating costs declined slightly versus prior year because there were no major maintenance activities scheduled and few unanticipated maintenance or repair costs. Growth in water system plant over the last several years continues to increase depreciation costs. Professional services were over budget due to a change in account coding for IT related activities. Note that a recent change in accounting standards for health insurance liability reduced ending expenses by \$45K.

Water 4th Quarter Actuals to Budget - 5 Year Comparison

Year	2014	2015	2016	2017	2018
Operating Revenues	1,364,805	1,461,573	1,567,233	1,531,955	1,557,980
Operating Expenses	1,082,964	1,503,594	1,167,932	1,288,169	1,244,130
Budgeted Revenues	1,348,601	1,391,507	1,415,832	1,467,205	1,556,872
Budgeted Expenses	1,099,096	1,152,441	1,212,100	1,256,568	1,375,206
Revenues Over (Under) Budget	16,204	70,066	151,401	64,750	1,108
Expenses Over (Under) Budget	(16,132)	351,153	(44,168)	31,601	(131,076)
Operating Income (Loss)	281,841	(42,021)	399,301	243,786	313,850

NET POSITION & OPERATING INCOME

YTD operating income was strong compared to prior year, ending 28.7 percent (\$70K) above 2017 operating income. Fourth quarter-only operating income was also relatively strong compared to prior year, ending \$110.6K more than budgeted.

Water 4th Quarter YTD Operating Income (Loss) - 5 Year Comparison

Year	2014	2015	2016	2017	2018
Operating Income (Loss)	281,840	(42,019)	399,301	243,788	313,849

Change in net position is \$219K through fourth quarter, which is \$310K more than the budgeted net position of -\$91.4K. Tax equivalent transfers of \$207.6K were more than offset by contributed capital infrastructure of \$207K. If capital contributions are excluded, ending net position is reduced to \$11.4K.

CAPITAL IMPROVEMENT PROJECTS

At December 31, 2018 there were two active projects accounting for \$6,120 related to commercial cellular equipment upgrades on south and north water towers.



WATER DEPARTMENT

Budget & Actual
For the Twelve Months Ending 12/31/2018

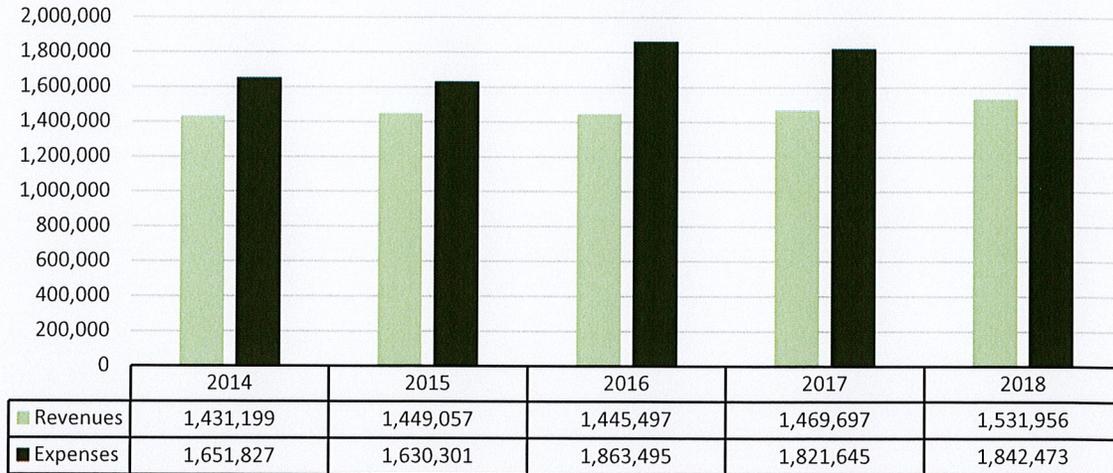
	Quarter 2017		Quarter 2018		Quarter 2018		December 2017		December 2018		December 2018		2018	
	Actual	Actual	Actual	Budget	Budget	Variance	Actual YTD	Actual YTD	Budget YTD	Budget YTD	Actual-Budget	Variance YTD	Budget	Budget
OPERATING REVENUES														
Metered Sales (Res. Small, Large, Indust)	\$404,619	\$387,359	\$387,359	\$353,846	\$333,513	\$33,513	\$1,402,514	\$1,435,081	\$1,415,395	\$1,415,395	\$19,685	\$1,415,395	\$1,415,395	\$1,415,395
Miscellaneous Revenue	65,462	58,530	58,530	35,370	23,160	23,160	129,441	122,899	141,477	141,477	(18,578)	141,477	141,477	141,477
Total Operating Revenue	470,081	445,889	445,889	389,216	356,673	56,673	1,531,955	1,557,980	1,556,872	1,107	1,107	1,556,872	1,556,872	1,556,872
OPERATING EXPENSES														
Building/Grounds Maintenance	722	370	370	1,251	(881)	(881)	1,366	2,566	5,001	5,001	(2,435)	5,001	5,001	5,001
Well Maintenance & Power Consumption	62,438	24,926	24,926	29,427	(4,501)	(4,501)	125,737	101,112	117,703	117,703	(16,590)	117,703	117,703	117,703
Tower Maintenance	4,874	2,139	2,139	7,170	(5,031)	(5,031)	6,158	3,983	28,679	28,679	(24,695)	28,679	28,679	28,679
Water Main Maintenance	22,518	18,544	18,544	13,956	4,588	4,588	51,097	40,971	55,828	55,828	(14,856)	55,828	55,828	55,828
Water Service Maintenance	13,524	13,195	13,195	12,396	799	799	51,387	42,859	49,583	49,583	(6,724)	49,583	49,583	49,583
Meter Maintenance	2,866	6,768	6,768	13,170	(6,402)	(6,402)	26,858	36,047	52,684	52,684	(16,637)	52,684	52,684	52,684
Hydrant Maintenance	1,274	3,227	3,227	3,774	(547)	(547)	6,175	7,713	15,095	15,095	(7,382)	15,095	15,095	15,095
Water Testing	4,583	4,667	4,667	7,017	(2,350)	(2,350)	26,286	21,762	28,071	28,071	(6,309)	28,071	28,071	28,071
Treatment Chemicals	4,319	4,928	4,928	4,500	428	428	17,565	17,910	18,000	18,000	(90)	18,000	18,000	18,000
Meter Reading Expenses	1,162	1,197	1,197	1,209	(12)	(12)	39,000	4,707	4,839	4,839	(133)	4,839	4,839	4,839
Rent	9,750	9,750	9,750	9,750	0	0	39,000	39,000	39,000	39,000	0	39,000	39,000	39,000
Utilities	1,618	1,679	1,679	1,500	179	179	5,129	5,192	6,000	6,000	(808)	6,000	6,000	6,000
Supplies	3,491	4,835	4,835	4,488	347	347	15,111	17,072	17,934	17,934	(862)	17,934	17,934	17,934
Miscellaneous Expenses	11,225	1,602	1,602	4,257	(2,655)	(2,655)	19,199	10,377	17,009	17,009	(6,633)	17,009	17,009	17,009
Shop Maintenance	1,304	1,750	1,750	1,965	(215)	(215)	4,482	3,596	7,853	7,853	(4,257)	7,853	7,853	7,853
Vehicle Repairs & Maintenance	3,010	1,591	1,591	1,326	265	265	7,204	4,609	5,301	5,301	(692)	5,301	5,301	5,301
Vehicle Fuel	1,822	2,092	2,092	2,080	12	12	7,371	7,871	8,307	8,307	(436)	8,307	8,307	8,307
Safety & Training	4,494	9,498	9,498	5,655	3,843	3,843	21,396	24,124	22,619	22,619	1,505	22,619	22,619	22,619
General & Administrative Wages	52,884	56,430	56,430	68,613	(12,183)	(12,183)	223,965	246,844	274,454	274,454	(27,611)	274,454	274,454	274,454
Employee Benefits	114,096	15,616	15,616	48,297	(32,681)	(32,681)	239,024	163,988	193,183	193,183	(29,194)	193,183	193,183	193,183
Professional Services	1,873	28,908	28,908	9,849	19,059	19,059	16,543	52,502	39,399	39,399	13,103	39,399	39,399	39,399
Contract Services	403	836	836	1,326	(490)	(490)	3,358	8,683	5,301	5,301	3,381	5,301	5,301	5,301
Telephone/Cell	518	379	379	600	(221)	(221)	2,180	1,974	2,400	2,400	(426)	2,400	2,400	2,400
Insurance	3,708	4,652	4,652	3,549	1,103	1,103	13,805	15,316	14,199	14,199	1,118	14,199	14,199	14,199
Payroll & PSC Taxes	(848)	(3,205)	(3,205)	7,916	(11,121)	(11,121)	21,083	18,104	31,665	31,665	(13,561)	31,665	31,665	31,665
Depreciation (CIAC)	99,011	73,448	73,448	78,774	(5,326)	(5,326)	332,111	345,248	315,099	315,099	30,150	315,099	315,099	315,099
Total Operating Expenses	426,649	289,822	289,822	343,815	(53,991)	(53,991)	1,288,169	1,244,130	1,375,206	1,375,206	(131,074)	1,375,206	1,375,206	1,375,206
OPERATING INCOME (LOSS)	43,433	156,065	156,065	45,401	110,664	110,664	243,788	313,849	181,668	181,668	132,181	181,668	181,668	181,668
Non-Operating Revenues (Expenses)														
Investment Income	7,902	17,532	17,532	6,249	11,283	11,283	28,604	56,051	24,999	24,999	31,052	24,999	24,999	24,999
Interest Expense (GAAP)	(26,776)	(19,224)	(19,224)	(16,660)	(2,564)	(2,564)	(63,269)	(65,210)	(66,639)	(66,639)	1,429	(66,639)	(66,639)	(66,639)
Non-Utility Expense	0	0	0	(330)	330	330	0	0	(1,323)	(1,323)	1,323	(1,323)	(1,323)	(1,323)
Total Non-Operating Revenues (Expenses)	(18,874)	(1,692)	(1,692)	(10,741)	9,049	9,049	(34,665)	(9,160)	(42,964)	(42,964)	33,804	(42,964)	(42,964)	(42,964)
Contributions & Transfers														
Capital Contributions	306,673	95,048	95,048	17,499	77,549	77,549	386,035	207,692	69,999	69,999	137,693	69,999	69,999	69,999
Transfers Out (Tax Equivalent)	(79,387)	(71,611)	(71,611)	(75,048)	3,437	3,437	(295,431)	(293,191)	(300,192)	(300,192)	7,001	(300,192)	(300,192)	(300,192)
Total Contributions & Transfers	227,286	23,437	23,437	(57,549)	80,986	80,986	90,604	(85,500)	(230,193)	(230,193)	144,694	(230,193)	(230,193)	(230,193)
CHANGE IN NET POSITION (GAAP)	251,845	177,809	177,809	(22,889)	200,698	200,698	299,727	219,190	(91,489)	(91,489)	310,678	(91,489)	(91,489)	(91,489)



Sewer Utility Financial Report

Fourth Quarter 2018

Sewer 5-Year Actuals through 4th Quarter



OPERATING REVENUES

Actuals vs. Budget

Revenues through December 31, 2018 total \$1.53M, which is approximately 2.4 percent (\$37.1K) more than budgeted. Revenues through same period 2017 were under 1 percent (10.3K) less than the budgeted amount.

Revenue Trend

YTD revenues are 4.2 percent (\$62.2K) higher than same period 2017 revenues, and \$66.4K higher than the five-year average. YTD revenues have increased at an average of 1.5 percent / \$25K over the last five years, although expenses have increased at a faster rate.

Analysis

2018 residential and commercial sales recorded modest gains compared to prior years, reflecting continued residential customer growth and elevated commercial usage.

OPERATING EXPENSES

Actuals vs. Budget

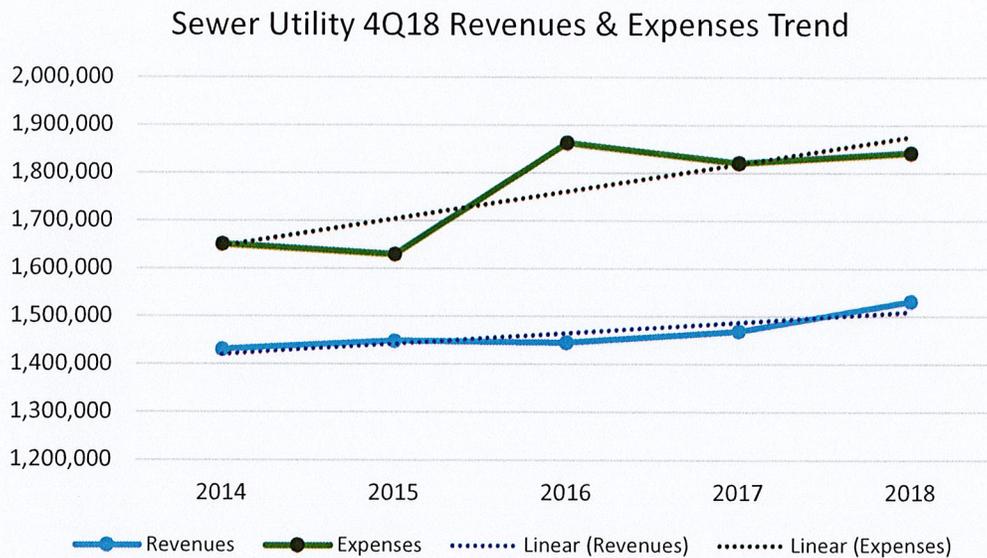
Expenses through December 31, 2018 total \$1.84M, which is approximately 1.9 percent (\$35.9K) over budget. Notable YTD variances include:

- Sewer backup reimbursements
- Collection system maintenance – Cost drivers for this account include root control activities and unanticipated manhole reconstruction costs related to the 125th ST project.
- Depreciation – Growth and expansion of plant, particularly over the last three years, has increased depreciation costs faster than the historical average.

- Lift stations – Roof replacements on three lift stations affected by the 2017 hailstorm were completed in 2018, but insurance monies were received in 2017, creating a revenue variance in 2017 and an expenditure variance in 2018. In addition, several lift station component parts needed repair or replacement, including a VFD, mixer, and two lift station grinders.

Expenses Trend

YTD expenses are \$20.8K greater than same period 2017 expenses, and \$80.5K higher than the five-year average. Excluding non-recurring/extraordinary costs (roof replacements and sewer backup reimbursements), YTD expenses are \$10.6K under budget and 1.4 percent (\$25.8K) less than same period 2017 expenses.



Analysis

2018 operating expenses ended slightly over budget, due primarily to one-time costs including hail damage repairs and sewer backup reimbursements. Biosolid hauling and removal costs ended the year slightly under budget. An end-of-year change in accounting calculations for health insurance liability also reduced total costs. Expense patterns continue to reflect increasing customer demand, biosolid processing and treatment costs, and system maintenance.

Sewer 4th Quarter Actuals to Budget - 5 Year Comparison

Year	2014	2015	2016	2017	2018
Operating Revenues	1,431,199	1,449,057	1,445,497	1,469,697	1,531,956
Operating Expenses	1,651,827	1,630,301	1,863,495	1,821,645	1,842,473
Budgeted Revenues	1,479,800	1,470,000	1,464,000	1,480,000	1,494,804
Budgeted Expenses	1,678,522	1,806,056	1,688,455	1,705,862	1,806,474
Revenues Over(Under) Budget	(48,601)	(20,943)	(18,503)	(10,303)	37,152
Expenses Over(Under) Budget	(26,695)	(175,755)	175,040	115,783	35,999
Operating Income (Loss)	(220,628)	(181,244)	(417,998)	(351,948)	(310,517)

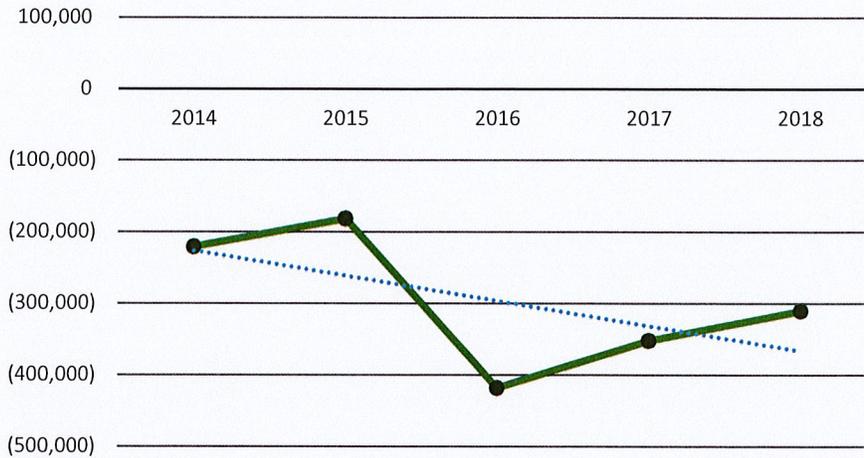
NET POSITION & OPERATING INCOME

The Sewer Utility had an operating loss of -\$310K through 4Q18, which was \$1.1K better than budgeted. The utility has averaged an annual \$296K operating loss over the last five-year period.

Sewer 4th Quarter YTD Operating Income (Loss) - 5 Year Comparison

Year	2014	2015	2016	2017	2018
Operating Income (Loss)	(220,630)	(181,246)	(417,999)	(351,950)	(310,517)

Sewer Operating Income Trend - Fourth Quarter



Change in net position is -\$48K through the fourth quarter, which is \$188K above the budgeted net position of -\$236K. Capital contributions (the value of infrastructure dedicated to the City by a developer) had a significant positive impact on net position. If capital contributions are excluded, ending net position is -\$260K.

CAPITAL IMPROVEMENT PROJECTS

Through December 31, there was one active project accounting for \$31,465, the WWTP facility design project.



SEWER DEPARTMENT

Budget & Actual
For the Twelve Months Ending 12/31/2018

	Quarter 2017		Quarter 2018		Quarter 2018		December 2017		December 2018		December 2018		2018	
	Actual	Actual	Budget	Budget	Actual	Variance	Actual	Actual	Actual	Variance	Budget	Actual	Budget	Budget
OPERATING REVENUES														
Metered Sales	\$374,632	\$378,970	\$369,660	\$9,310	\$1,458,285	\$1,507,744	\$1,478,640	\$29,104	\$1,478,640	\$29,104	\$1,478,640	\$1,478,640	\$1,478,640	\$1,478,640
Miscellaneous Revenue	3,509	4,774	4,041	733	11,412	24,212	16,164	8,048	16,164	8,048	16,164	16,164	16,164	
Total Operating Revenues	378,141	383,744	373,701	10,043	1,469,697	1,531,956	1,494,804	37,152	1,494,804	37,152	1,494,804	1,494,804	1,494,804	
OPERATING EXPENSES														
Lab Analysis & Tank Cleaning	10,111	11,291	10,626	665	45,856	43,860	42,504	1,356	42,504	1,356	42,504	42,504	42,504	
Utilities	22,965	20,981	23,751	(2,770)	89,411	85,758	95,004	(9,246)	95,004	(9,246)	95,004	95,004	95,004	
Biosolid Removal	78,999	82,054	80,658	1,396	319,751	318,734	322,632	(3,898)	322,632	(3,898)	322,632	322,632	322,632	
Phosphorus Removal Chemicals	19,377	20,733	17,001	3,732	67,520	73,141	68,004	5,137	68,004	5,137	68,004	68,004	68,004	
Rent	2,250	2,250	2,250	0	9,000	9,000	9,000	0	9,000	0	9,000	9,000	9,000	
Lab Supplies & Testing Services	7,783	5,179	8,044	(2,865)	29,996	24,846	32,200	(7,354)	32,200	(7,354)	32,200	32,200	32,200	
Vehicle Maintenance	878	70	169	(99)	945	182	700	(518)	700	(518)	700	700	700	
Vehicle Fuel	807	369	427	(58)	1,599	1,408	1,750	(342)	1,750	(342)	1,750	1,750	1,750	
Collection System Maintenance	5,808	19,604	5,805	13,799	16,999	48,699	23,265	25,434	23,265	25,434	23,265	23,265	23,265	
Lift Station Maintenance	19,220	23,829	19,659	4,170	81,032	102,134	78,636	23,498	78,636	23,498	78,636	78,636	78,636	
Treatment & Disposal Equipment Maintenance	5,196	14,879	9,255	5,624	48,577	36,611	37,020	(409)	37,020	(409)	37,020	37,020	37,020	
VWVTP Building & Equipment Maintenance	4,779	4,927	5,695	(768)	19,156	23,529	22,804	725	22,804	725	22,804	22,804	22,804	
Jet Truck Operation & Maintenance	749	1,026	1,716	(690)	3,609	4,504	6,864	(2,360)	6,864	(2,360)	6,864	6,864	6,864	
Meter Reading Expenses	1,162	1,197	801	396	4,578	4,735	3,204	1,531	3,204	1,531	3,204	3,204	3,204	
Safety & Training	2,155	4,618	3,252	1,366	10,107	13,901	13,008	893	13,008	893	13,008	13,008	13,008	
Administrative & General Expenses	47,494	50,997	58,110	(7,113)	200,641	214,860	232,521	(17,661)	232,521	(17,661)	232,521	232,521	232,521	
Employee Benefits	76,004	6,893	33,852	(26,959)	167,754	100,531	135,444	(34,913)	135,444	(34,913)	135,444	135,444	135,444	
Professional Services	28,394	10,764	10,998	(234)	40,554	35,343	43,992	(8,649)	43,992	(8,649)	43,992	43,992	43,992	
Insurance	3,800	4,236	5,691	(1,455)	19,394	48,196	22,800	25,396	22,800	25,396	22,800	22,800	22,800	
Miscellaneous Office Expenses	39,538	35,431	11,225	24,206	54,902	52,455	44,918	7,537	44,918	7,537	44,918	44,918	44,918	
Payroll Taxes	15,839	15,919	6,300	9,619	34,147	34,255	25,200	9,055	25,200	9,055	25,200	25,200	25,200	
Depreciation (CIAC)	150,926	160,791	136,251	24,540	556,117	565,791	545,004	20,787	545,004	20,787	545,004	545,004	545,004	
Total Operating Expenses	544,234	498,038	451,536	46,500	1,821,645	1,842,473	1,806,474	35,999	1,806,474	35,999	1,806,474	1,806,474	1,806,474	
OPERATING INCOME (LOSS)	(166,090)	(114,291)	(77,835)	(36,456)	(351,950)	(310,517)	(311,670)	1,153	(311,670)	1,153	(311,670)	(311,670)	(311,670)	
Non-Operating Revenues (Expenses)														
Investment Income	9,297	32,549	11,250	21,299	38,486	84,383	45,000	39,383	45,000	39,383	45,000	45,000	45,000	
Interest Expense	(14,038)	(8,766)	(5,674)	(3,093)	(39,539)	(33,884)	(35,146)	1,262	(35,146)	1,262	(35,146)	(35,146)	(35,146)	
Non-Utility Expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Non-Operating Revenues (Expenses)	(4,742)	23,782	5,577	18,206	(1,053)	50,499	9,854	40,645	9,854	40,645	9,854	9,854	9,854	
Contributions & Transfers														
Capital Contributions	420,086	90,776	16,251	74,525	499,616	211,858	65,004	146,854	65,004	146,854	65,004	65,004	65,004	
Transfers Out (Tax Equivalent)	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Contributions & Transfers	420,086	90,776	16,251	74,525	499,616	211,858	65,004	146,854	65,004	146,854	65,004	65,004	65,004	
CHANGE IN NET POSITION	249,254	267	(56,008)	56,275	146,613	(48,160)	(236,812)	188,652	(236,812)	188,652	(236,812)	(236,812)	(236,812)	

MEMORANDUM

TO: Utility Commission
CC: Weston Arndt, Electric Superintendent; Rae Ann Ailts, Finance Director
FROM: Stacie Running
DATE: March 27, 2019
SUBJECT: Meter Data Management & Large Power Advanced Metering

Background

In 2011, WPPI Energy first introduced the Meter Data Collection & Management program in order to develop and implement a comprehensive smart distribution grid plan that included a centralized WPPI Energy Meter Data Management System (MDMS). This allows members to implement advanced metering infrastructure (AMI) on a cost-effective basis. Implementing MDMS and AMI meets WPPI Energy, member and retail customer needs, including implementation of distribution efficiency measures, demand-response programs and innovative retail rates while that achieving significant cost savings through joint action.

Update

Implementation of the WPPI Energy MDMS and AMI programs will allow New Richmond Utilities to address opportunities exposed in the Retail Rate Benchmarking report reviewed at the January 9, 2019 Utility Commission meeting, while improving our systems, processes and ultimately the service we provide to electric utility customers in the City of New Richmond.

Proposed phase one of the MDMS and AMI implementation, in 2020, would involve twenty-four (24) large power customers in the City of New Richmond. Estimated costs are as follows:

- \$12,000 metering & infrastructure upgrades
 - 24 Advanced Meters
 - 8 Repeaters
 - 2 Gatekeepers
- \$2,500 Energy IP to NorthStar data integration
- \$5,100 annual service fees (\$425/month)



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MEMORANDUM

TO: Utility Commission
FROM: Jeremiah Wendt, Director of Public Works
DATE: March 28, 2019
SUBJECT: Water Department Pickup Truck Quotes

Background

As mentioned at the March Utility Commission meeting, staff has solicited quotes for a new pickup truck in the Water Department. The pickup in question was budgeted for in the Capital Budget for 2019.

Staff met with each of the three local dealerships, and solicited quotes which were due on Wednesday, March 27th. We received quotes from Johnson Ford and Bernard’s Northtown, which are summarized below. Neither of the dealerships had a gently used vehicle that met the specifications, so all quotes are for new vehicles.

Year		2019	2019
Make		Ford	Dodge
Model		F-250	Ram 2500
Price		\$28,161	\$34,119
Warranty	Years	3	3
	Miles	36,000	36,000
Powertrain Warranty	Years	5	5
	Miles	60,000	100,000
Delivery Time	Weeks	8 to 12	8 to 12
Spec Exceptions		Sliding Rear Window	Vinyl Flooring

The vehicles met most of the basic specifications that staff had assembled, with the exception of a sliding rear window in the Ford, and vinyl floor in the Dodge. The lowest price vehicle is the Ford F-250 at \$28,161, which meets the basic specifications. The price is slightly more than the budgeted amount of \$25,000, but in line with recent bids for other pickup trucks, and will be offset by the eventual sale of the existing vehicle.

The existing 2008 Ford F-250 that is being replaced will be auctioned by Staff rather than traded in to maximize the amount that can be recovered from liquidating this vehicle. The insurance for this vehicle has already been

paid through the end of 2019, so staff is recommending that the vehicle be auctioned this fall after it has served summer help for one more season (assuming no major expenses come up in the meantime).

Recommendation

Staff is recommending acceptance of the quote for the 2019 Ford F-250 at a price of \$28,161, and tentative disposal of the existing 2008 Ford F-250 by auction in the fall of 2019.



MEMORANDUM

TO: Utility Commission

FROM: Weston Arndt, Electric Superintendent

DATE: April 3, 2019

SUBJECT: Electric Department – Truck 36 Replacement Bid

Background

The current Truck #36 for the Electric Department is a 3/4 ton 2005 Dodge Ram 2500 regular cab equipped with a service body. Small spools of conductor can be transported in its bed as well. It is frequently used for trouble calls and construction jobs when a bucket or digger truck is not needed and also used in support of major jobs. This aging vehicle's most pressing issue is rust. Given its age we expect to see more frequent and costly maintenance and repairs.

A replacement for the truck was included in the 2018 Capital Improvement Plan. Due to further evaluation of vehicle need and the timing of CIP approval, we'd like to proceed with replacement in 2019. The only change in specifications sought in the replacement is to pursue at least an extended cab, to allow for additional conditioned storage. The existing truck would be traded or sold. Reserve funds would be used as the source to acquire the replacement truck. Staff is proposing to solicit quotes for a new vehicle from the three local dealerships, solicit quotes for the service body from regional vendors, and is requesting authorization from the Utility Commission to do that. The results will be presented at the May Utility Commission Meeting.

Recommendation

Staff is requesting authorization to solicit bids for a ¾-ton pickup truck with extended cab and for suitable service body to replace the existing Truck #36.



MEMORANDUM

TO: Utility Commission
FROM: Weston Arndt, Electric Superintendent
DATE: April 3, 2019
SUBJECT: Electric Reliability Benchmarking

Background

The American Public Power Association (APPA) offers online electric outage tracking software called eReliability Tracker and provides an Annual Report to assist utilities in their efforts to understand and analyze their electric system.

The indices used in the IEEE 1366 calculations include:

- ASAI - Average Service Availability Index: the percent of time that electric service was available for the year.
CAIDI - Customer Average Interruption Duration Index: the average customer outage duration.
SAIDI - System Average Interruption Duration Index: total customer minutes of outage divided by customers.
SAIFI - System Average Interruption Frequency Index: the average number of interruptions per customer.

Update

Comparing our local metrics for the past two years, we can see that despite a larger number of interruption events in 2018, the duration of the outages were generally shorter.

Table with 3 columns: IEEE Results, 2017, 2018. Rows include ASAI (percent), CAIDI (minutes), SAIDI (minutes), SAIFI (number of interruptions), and Event Count.

Comparing our local metrics for 2018 to averages, utilities within our region, and utilities with a similar customer size show that we scored very well:

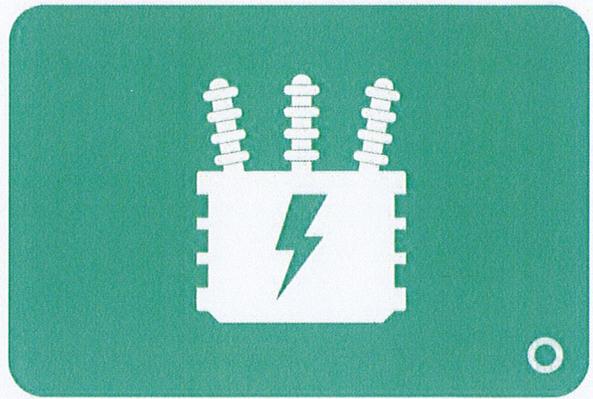
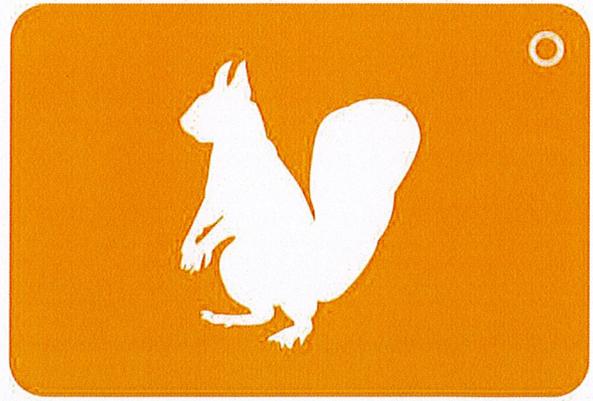
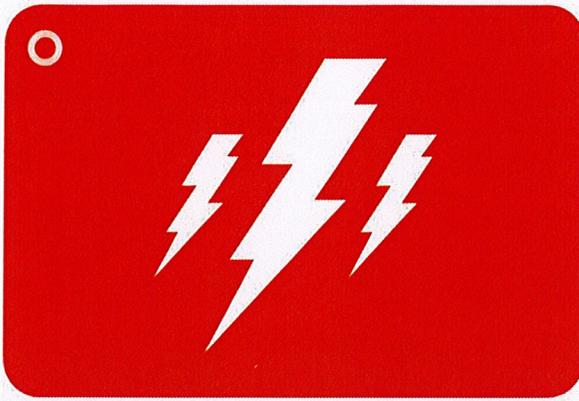
	All	No MEs
Your utility's SAIDI	99.377	99.377
Average eReliability Tracker SAIDI	202.449	69.0185
Average SAIDI for Utilities Within Your Region	126.5944	55.8033
Average SAIDI for Utilities Within Your Customer Size Class	118.5208	53.0249

Your utility's SAIFI	0.901
Average eReliability Tracker SAIFI	0.9541
Average SAIFI for Utilities Within Your Region	0.881
Average SAIFI for Utilities Within Your Customer Size Class	0.9186

Your utility's CAIDI	110.33
Average eReliability Tracker CAIDI	180.7475
Average CAIDI for Utilities Within Your Region	179.4855
Average CAIDI for Utilities Within Your Customer Size Class	123.9466

Your utility's ASAI (%)	99.981
Average eReliability Tracker ASAI	99.9615
Average ASAI for Utilities Within Your Region	99.9758
Average ASAI for Utilities Within Your Customer Size Class	99.9775

The preceding figures are highlights from the full report, which is attached to provide additional insight into the reliability metrics and benchmarking.



 ANNUAL
2018 BENCHMARKING
REPORT **eRELIABILITY** TRACKER

New Richmond City Utilities

Funded by a grant from the Demonstration of Energy & Efficiency Developments (DEED) Program, the eReliability Tracker Annual Report was created by the American Public Power Association (the Association) to assist utilities in their efforts to understand and analyze their electric system. This report focuses on distribution system reliability across the country and is customized to each utility. The data used to generate this report reflect activity in the eReliability Tracker from January 1, 2018 to December 31, 2018. Note that if you currently do not have a full year of data in the system, this analysis may not properly reflect your utility's statistics since it only includes data recorded as of February 18, 2019; therefore, any changes made after that date are not represented herein.

I. General Overview

Reliability reflects both historic and ongoing engineering investment decisions within a utility. Proper use of reliability metrics ensures that a utility is not only performing its intended function, but also is providing service in a consistent and effective manner. Even though the primary use of reliability statistics is for self-evaluation, utilities can use these statistics to compare with data from similar utilities. However, differences such as electrical network configuration, ambient environment, weather conditions, and number of customers served typically limit most utility-to-utility comparisons. Due to the diverse range of utilities that use the eReliability Tracker, this report endeavors to group utilities by size and region to improve comparative analyses while reducing differences.

Since this report contains overall data for all utilities that use the eReliability Tracker, it is important to consider the effect that a particularly large or small utility can have on the rest of the data. To ease the issues associated with comparability, reliability statistics are calculated for each utility with their respective customer weight taken into account prior to being aggregated with other utilities. This means that all utilities are equally weighted and all individual statistics are developed on a per customer basis.

The total number of active utilities for 2018 are 460. The aggregate statistics displayed in this report are calculated from 277 utilities that provided or verified their data and experienced more than two outages in 2018. Also, utilities that experienced no outages this year, or did not upload any data, will have None/Null values in their report for their utility-specific data and were not included in the aggregate analysis.

This report separates utilities into groups of equal numbers of utilities according to their number of customers served. As seen in Table 1, the customer size distribution of utilities that use the eReliability Tracker is split into five distinct customer size class groups of approximately 92 utilities per group.

Your utility belongs to customer size class **3** and region **2**.

Table 1
Customer size range per customer size class

Class 1	0 -1,337
Class 2	1,338 - 3,003
Class 3	3,004 - 6,679
Class 4	6,680 - 12,262
Class 5	12,263 - 650,000

Since the utilities considered in this report represent a wide variety of locations across the United States, each utility is also grouped with all others located in their corresponding American Public Power Association region. Figure 1 shows the number of utilities using the eReliability Tracker in each Association region and Figure 2 displays the Association's current United States map of regional divisions.

Figure 1
Number of eReliability Tracker utilities per Association region

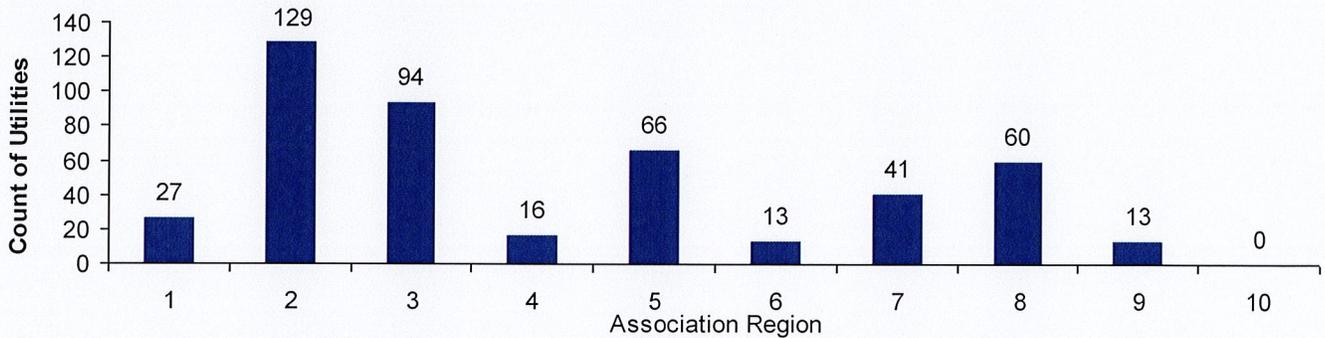
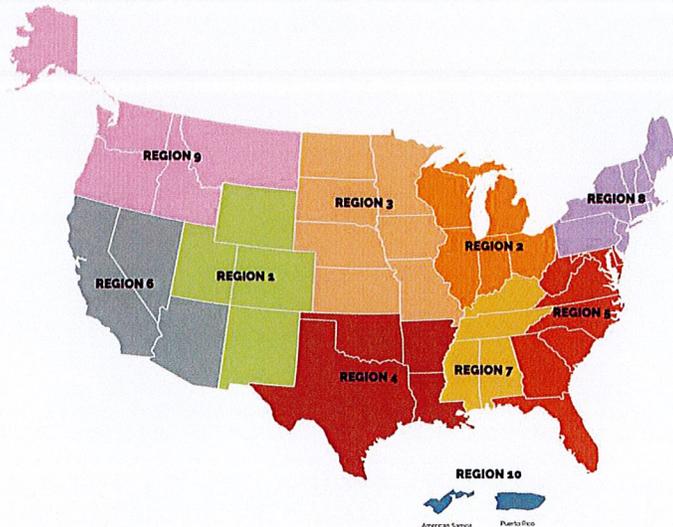


Figure 2
Association map of regions



II. IEEE Statistics

When using reliability metrics, a good place to start is with the industry standard metrics found in the IEEE 1366 guide. For each individual utility, the eReliability Tracker performs IEEE 1366 calculations for System Average Interruption Duration Index (SAIDI), System Average Interruption Frequency Index (SAIFI), Customer Average Interruption Duration Index (CAIDI), Momentary Average Interruption Frequency Index (MAIFI) and Average Service Availability Index (ASAI).

When collecting the necessary data for reliability indices, utilities often take differing approaches. Some utilities prefer to include information as detailed as circuit type or phases impacted, while others include only the minimum required. In all cases, the more details a utility provides, the more practical their analysis will be. As a basis for calculating these statistics in the eReliability Tracker, the following are required:

- Total number of customers served on the day of the outage
- Start and end date/time of the outage
- Number of customers that lost power

Due to the differences in how some utilities analyze major events (MEs) relative to their base statistics, it is important to note how they are calculated and used in this report. An example of a major event could be severe weather, such as a tornado or thunderstorm, which can lead to unusually long outages in comparison to your distribution system's typical outage. In the eReliability Tracker and in this report, the Association's major event threshold is used, which is a calculation based directly on outage events, rather than event days. The major event threshold allows a utility to remove outages that exceed the IEEE 2.5 beta threshold for events, which takes into account the utility's past outage history up to 10 years. In the eReliability Tracker, if a utility does not have at least 36 outage events prior to the year being analyzed, no threshold is calculated; therefore, the field below showing your utility's threshold will be blank and the calculations without MEs in the SAIDI section of this report will be the same as the calculations with MEs for your utility. More outage history will provide a better threshold for your utility.

Your utility's APPA major event threshold is 0 (minutes)¹

The tables in this section can be used by utilities to better understand the performance of their electric system relative to other utilities nationally and to those within their region or size class. In the SAIDI section, indices are calculated for all outages with and without major events; furthermore, the data are broken down to show calculations for scheduled and unscheduled outages. For each of the reliability indices, the second table breaks down the national data into quartile ranges, a minimum value, and a maximum value.

¹ If there is no major event threshold calculated for your utility, these fields are left blank and the calculations in this report including Major Events and excluding them will be the same. Your utility must have at least 36 outage events recorded in the eReliability Tracker in order to calculate a Major Event Threshold.

System Average Interruption Duration Index (SAIDI)

SAIDI is defined as the average interruption duration (in minutes) for customers served by the utility system during a specific time period.

Since SAIDI is a sustained interruption index, only outages lasting longer than five minutes are included in the calculations. SAIDI is calculated by dividing the sum of all customer interruption durations within the specified time frame by the average number of customers served during that period. For example, a utility with 100 customer minutes of outages and 100 customers would have a SAIDI of 1.

Note that in the tables below, scheduled and unscheduled calculations include major events. Also note that wherever major events are excluded, the exclusion is based on the APPA major event threshold.

Table 2

Average SAIDI for all utilities that use the eReliability Tracker (with and without MEs), belong to your region, and are grouped in your customer size class

	All	No MEs	Unscheduled	Scheduled
Your utility's SAIDI	99.377	99.377	99.377	0
Average eReliability Tracker SAIDI	202.449	69.0185	185.0572	17.463
Average SAIDI for Utilities Within Your Region	126.5944	55.8033	122.7189	3.8742
Average SAIDI for Utilities Within Your Customer Size Class	118.5208	53.0249	98.0571	20.4524

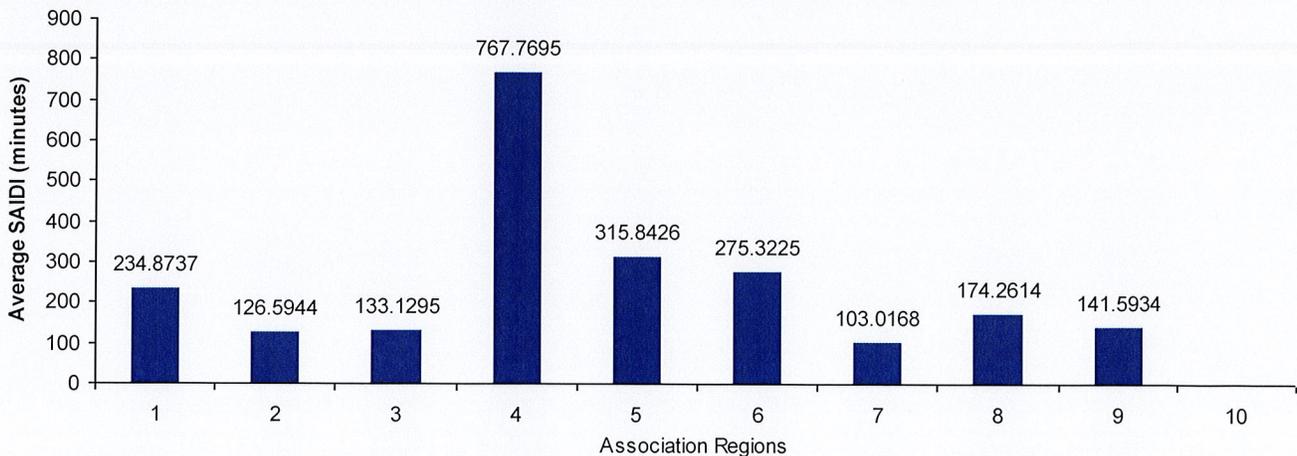
Table 3

Summary statistics of the SAIDI data compiled from the eReliability Tracker

	All	No MEs	Unscheduled	Scheduled
Minimum Value	0.283	0.283	0.186	0
First Quartile (25th percentile)	21.647	12.203	19.69	0
Median Quartile (50th percentile)	53.2225	27.084	52.313	0.134
Third Quartile (75th percentile)	141.0617	63.238	131.51	2.086
Maximum Value	8746.1	1843.61	8743.182	1580.062

Figure 3

Average SAIDI for all utilities that use the eReliability Tracker per region



System Average Interruption Frequency Index (SAIFI)

SAIFI is defined as the average number of instances a customer on the utility system will experience an interruption during a specific time period.

Since SAIFI is a sustained interruption index, only outages lasting longer than five minutes are included in the calculations. SAIFI is calculated by dividing the total number of customer interruptions by the average number of customers served during that time period. For example, a utility with 150 customer interruptions and 200 customers would have a SAIFI of 0.75 interruptions per customer.

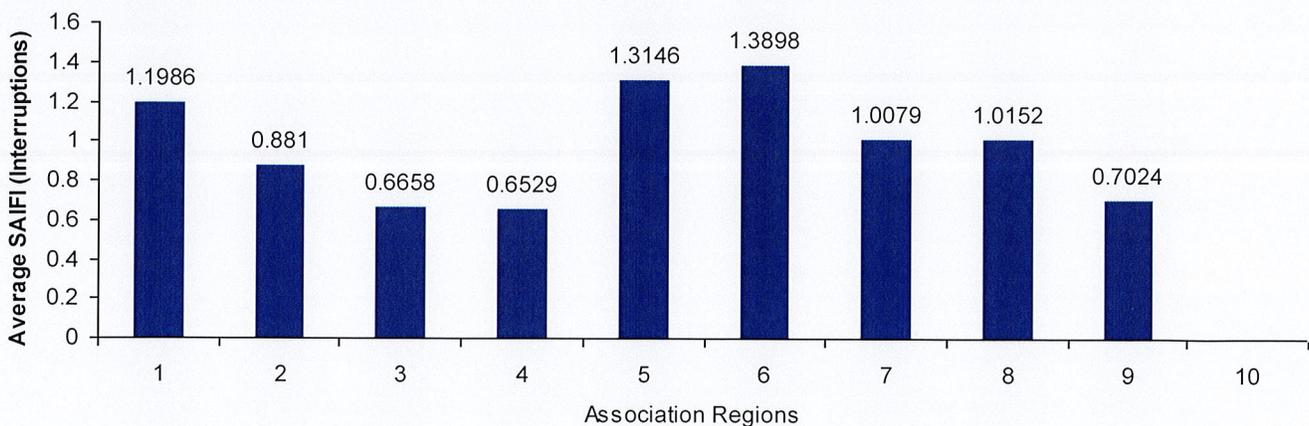
Table 4
Average SAIFI for all utilities that use the eReliability Tracker, belong to your region, and are grouped in your customer size class

Your utility's SAIFI	0.901
Average eReliability Tracker SAIFI	0.9541
Average SAIFI for Utilities Within Your Region	0.881
Average SAIFI for Utilities Within Your Customer Size Class	0.9186

Table 5
Summary statistics of the SAIFI data compiled from the eReliability Tracker

Minimum Value	0.0071
First Quartile (25th percentile)	0.284
Median Quartile (50th percentile)	0.667
Third Quartile (75th percentile)	1.223
Maximum Value	7.535

Figure 4
Average SAIFI for all utilities that use the eReliability Tracker per region



Customer Average Interruption Duration Index (CAIDI)

CAIDI is defined as the average duration (in minutes) of an interruption experienced by customers during a specific time frame.

Since CAIDI is a sustained interruption index, only outages lasting longer than five minutes are included in the calculations. It is calculated by dividing the sum of all customer interruption durations during that time period by the number of customers that experienced one or more interruptions during that time period. This metric reflects the average customer experience (minutes of duration) during an outage.

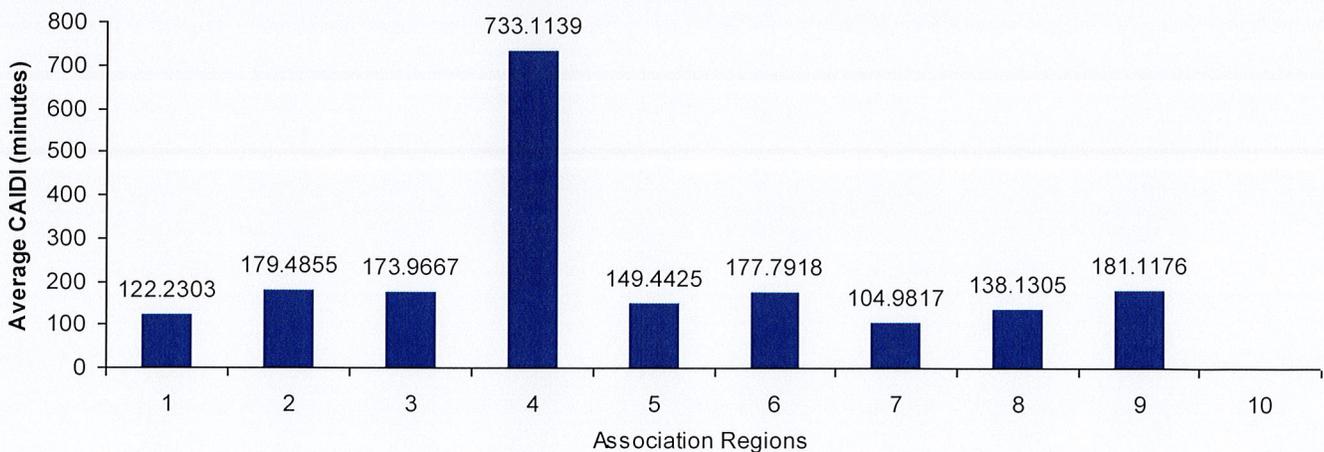
Table 6
Average CAIDI for all utilities that use the eReliability Tracker, belong to your region, and are grouped in your customer size class

Your utility's CAIDI	110.33
Average eReliability Tracker CAIDI	180.7475
Average CAIDI for Utilities Within Your Region	179.4855
Average CAIDI for Utilities Within Your Customer Size Class	123.9466

Table 7
Summary statistics of the CAIDI data compiled from the eReliability Tracker

Minimum Value	10.413
First Quartile (25th percentile)	60.692
Median Quartile (50th percentile)	86.822
Third Quartile (75th percentile)	137.545
Maximum Value	7981.064

Figure 5
Average CAIDI for all utilities that use the eReliability Tracker per region



Momentary Average Interruption Frequency Index (MAIFI)

MAIFI is defined as the average number of times a customer on the utility system will experience a momentary interruption.

In this report, an outage with a duration of less than five minutes is classified as momentary. The index is calculated by dividing the total number of momentary customer interruptions by the total number of customers served by the utility. Momentary outages can be more difficult to track and many smaller utilities may not have the technology to do so; therefore, some utilities may have a MAIFI of zero.

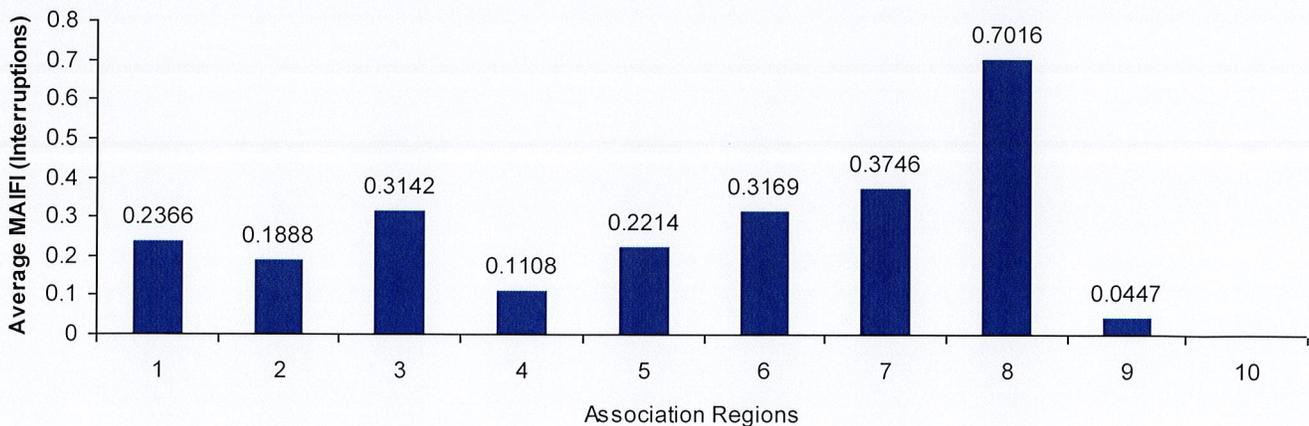
Table 8
Average MAIFI for all utilities that use the eReliability Tracker, belong to your region, and are grouped in your customer size class

Your utility's MAIFI	0
Average eReliability Tracker MAIFI	0.2938
Average MAIFI for Utilities Within Your Region	0.1888
Average MAIFI for Utilities Within Your Customer Size Class	0.2628

Table 9
Summary statistics of the MAIFI data compiled from the eReliability Tracker

Minimum Value	0
First Quartile (25th percentile)	0
Median Quartile (50th percentile)	0
Third Quartile (75th percentile)	0.143
Maximum Value	7.687

Figure 6
Average MAIFI for all utilities that use the eReliability Tracker per region



Average Service Availability Index (ASAI)

ASAI is defined as a measure of the average availability of the sub-transmission and distribution systems that serve customers.

This load-based index represents the percentage availability of electric service to customers within the time period analyzed. It is calculated by dividing the total hours service is available to customers by the total hours that service is demanded by the customers. For example, an ASAI of 99.99% means that electric service was available for 99.99% of the time during the given time period.

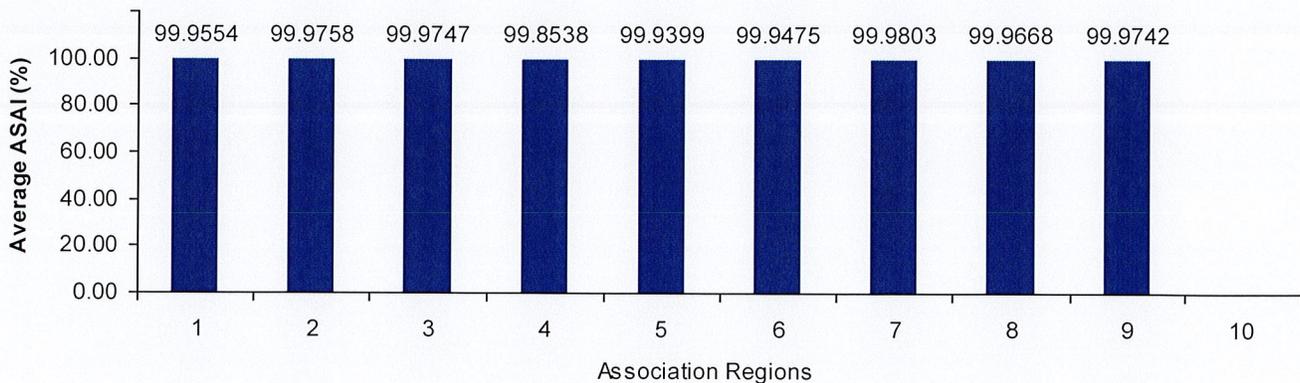
Table 10
Average ASAI for all utilities that use the eReliability Tracker, belong to your region, and are grouped in your customer size class

Your utility's ASAI (%)	99.981
Average eReliability Tracker ASAI	99.9615
Average ASAI for Utilities Within Your Region	99.9758
Average ASAI for Utilities Within Your Customer Size Class	99.9775

Table 11
Summary statistics of the ASAI data compiled from the eReliability Tracker

Minimum Value	98.3359
First Quartile (25th percentile)	99.9731
Median Quartile (50th percentile)	99.9899
Third Quartile (75th percentile)	99.9961
Maximum Value	99.9999

Figure 7
Average ASAI for all utilities that use the eReliability Tracker per region



2018 Energy Information Administration (EIA) Form 861 Data

Form EIA-861 collects information on the status of electric power industry participants involved in the generation, transmission, distribution, and sale of electric energy in the United States, its territories, and Puerto Rico.

EIA surveys electric power utilities annually through EIA Form 861 to collect electric industry data and subsequently make that data available to the public. In 2014, EIA began publishing reliability statistics in their survey from utility participants; therefore, the Association included EIA reliability statistics in this report for informational purposes. Please note that the following data includes investor-owned, rural cooperative, and public power utilities that were large enough to be required to fill out the full EIA 861, not the EIA 861-S form (for smaller entities). In addition, since the collection and release of EIA form data lags by more than a year, the data provided here is based on 2017 data only. Therefore, it is suggested that the aggregate statistics contained herein be used only as an informational tool for further comparison of reliability statistics.

In the table, if an entity calculates SAIDI, SAIFI, and determines major event days in accordance with the IEEE 1366-2003 or IEEE 1366-2012 standard, they are included under the "IEEE Method" columns. If the entity calculates these values via another method, they are included under the "Other Method" columns.

For more general information on reliability metrics you can see the Association's website at <http://publicpower.org/reliability>. Although EIA collected other reliability-related data, the tables below only include SAIDI and SAIFI data. The full set of data can be downloaded at this link: <http://www.eia.gov/electricity/data/eia861/>

Table 12
Summary statistics of the SAIDI data collected in 2017 and published in 2018 by EIA

	IEEE Method		Other Method	
	All	No MEDs	All	No MEDs
Average	377.6190	134.5683	383.0213	132.7504
Minimum Value	0.2750	0.0000	0.3000	0.0000
First Quartile (25th percentile)	83.2050	55.4410	41.5000	27.5873
Median Quartile (50th percentile)	169.6020	94.9580	102.2580	78.0145
Third Quartile (75th percentile)	321.0500	161.9000	247.5543	150.7025
Maximum Value	16472.0710	2796.1870	17182.0000	2796.1870

Table 13
Summary statistics of the SAIFI data collected in 2017 and published in 2018 by EIA

	IEEE Method		Other Method	
	All	No MEDs	All	No MEDs
Average	1.7178	1.3091	1.4603	1.0628
Minimum Value	0.0030	0.0000	0.0040	0.0000
First Quartile (25th percentile)	0.9000	0.6900	0.5770	0.3940
Median Quartile (50th percentile)	1.3700	1.0870	1.0090	0.8370
Third Quartile (75th percentile)	2.0010	1.5200	1.8930	1.4545
Maximum Value	83.2050	55.4410	12.8000	9.0480

Analysis of Miles of Line and Interruptions

Benchmarking metrics were created to help utilities explore the relationship between outages, overhead/underground line exposure, and customer density. More specifically, by using interruptions per overhead/underground mile of line and customers per mile utilities can benchmark reliability against system characteristics along with the customer normalized metrics included in the rest of the report. These system topography-related metrics can be helpful in understanding, for example, utility reliability against weather and animal-related outages relative to similarly dense and exposed utilities.

Your utility's overhead miles of line as reported by Platts: 39.1

Table 14
Analysis of overhead miles of line and interruptions

	Interruptions per Mile	Customers per Mile	Minutes per Mile
Your Utility	0.9974	124.0409	90.7672
Average for eReliability Tracker Utilities	0.984	100.745	186
Average for Utilities Within Your Region	0.8348	91.1915	144.5711

Your utility's underground miles of line as reported by Platts: 0

Table 15
Analysis of underground miles of line and interruptions

	Interruptions per Mile	Customers per Mile	Minutes per Mile
Your Utility			
Average for eReliability Tracker Utilities	8.6341	613.4802	1340
Average for Utilities Within Your Region	5.8789	494.6568	1377.6204

III. Outage Causes

Equipment failure, extreme weather events, wildlife and vegetation are some of the most common causes of electric system outages. However, certain factors, such as regional weather and animal/vegetation patterns, can make a different set of causes more prevalent to a specific group of utilities. The following sections of this report include graphs depicting common causes of outages for your individual utility, all utilities in your region, and all utilities using the eReliability Tracker. The charts containing aggregate information are customer-weighted to account for differences in utility size for a better analytical comparison.

For example, a particularly large utility may have a large number of outages compared to a small utility; in order to avoid skewing the data towards large utilities, the number of cause occurrences is divided by customer size to account for the differences. In the figures below, the data represent the number of occurrences for each group of 1000 customers. For instance, a customer-weighted occurrence rate of "1" means 1 outage of that outage cause per 1000 customers on average in 2018.

Note that the sustained outage cause analysis is more comprehensive than the momentary outage cause analysis due to a bigger and more robust sample size for sustained outages. Regardless, tracking both sustained and momentary outages helps utilities understand and reduce outages. To successfully use the outage information tracked by your utility, it is imperative to classify and record outages in detail. The more information provided per outage, the more conclusive and practical your analyses will be.

Sustained Outage Causes

In general, sustained outages are the most commonly tracked outage type. In many analyses of sustained outages, utilities tend to exclude scheduled outages, partial power, customer-related problems, and qualifying major events from their reliability indices calculations. While this is a valid method for reporting, these outages should be included for internal review to make utility-level decisions. In this section, we evaluate common causes of sustained outages for your utility, corresponding region, and for all utilities that use the eReliability Tracker. It is important to note that in this report, sustained outages are classified as outages that last longer than five minutes, as defined by IEEE 1366.

Figure 8
Top five customer-weighted occurrence rates for common causes of sustained outages for all utilities that use the eReliability Tracker Service²

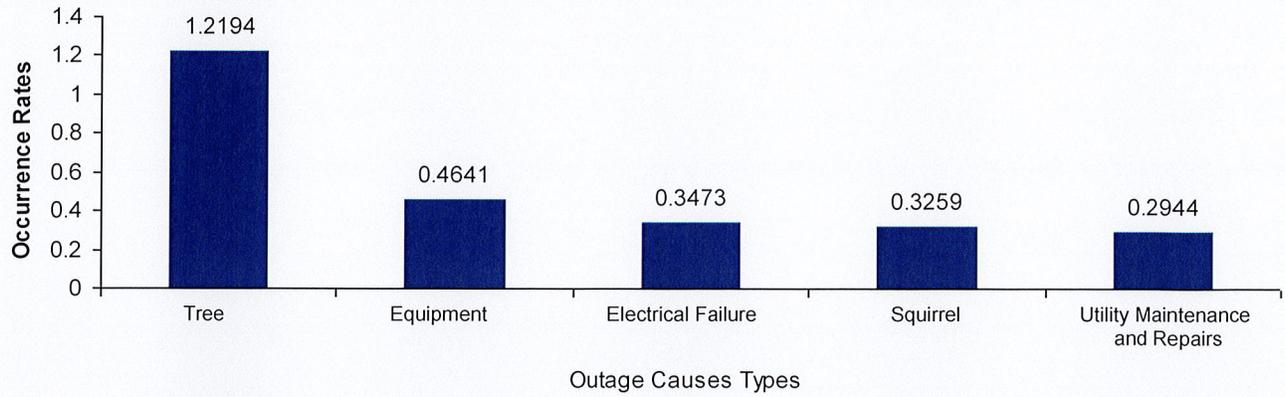


Figure 9
Top five customer-weighted causes of sustained outages for your utility²

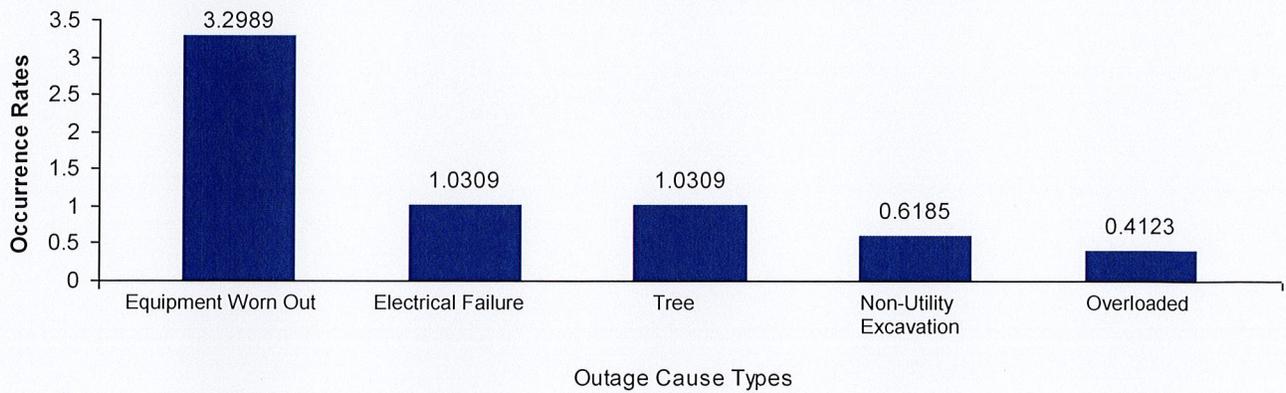
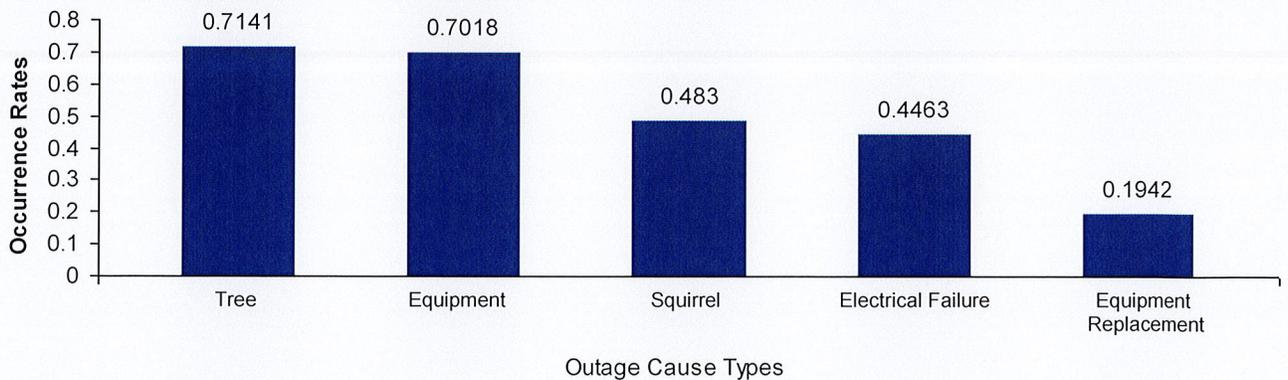


Figure 10
Top five customer-weighted occurrence rates for sustained outage causes in your region²



² For each utility, the number of occurrences for each cause is divided by that utility's customer size (in 1000s) to create an occurrence rate that can be compared across different utility sizes.

Momentary Outage Causes

The ability to track momentary outages can be difficult or unavailable on some systems, but due to the hazard they pose for electronic equipment, it is important to track and analyze momentary causes. In this section, we evaluate common causes of momentary outages for your utility, region and customer size class as well as common causes for all utilities that use the eReliability Tracker. Please note that only outages lasting less than five minutes are classified as momentary, as defined by IEEE 1366.

Figure 11
Top five customer-weighted occurrence rates for common causes of momentary outages for all utilities that use the eReliability Tracker Service²

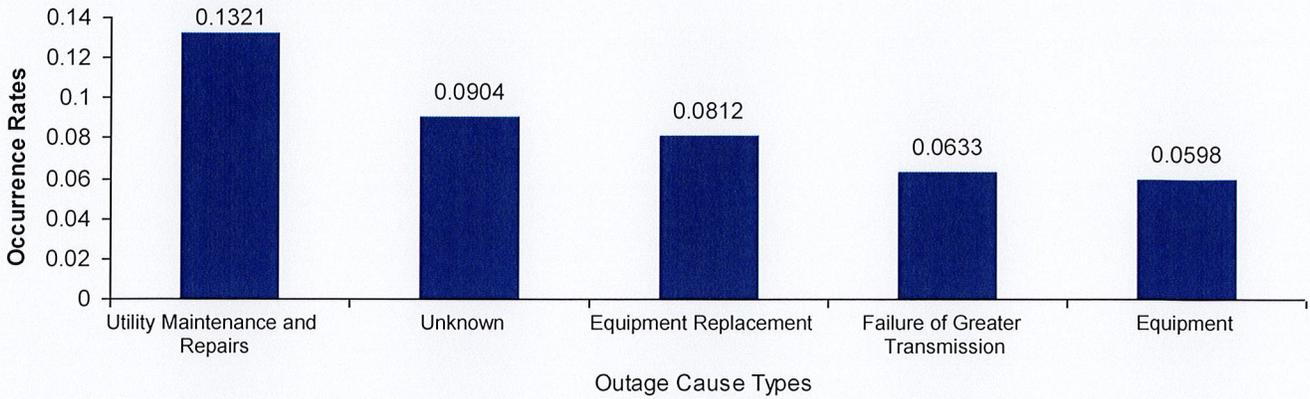
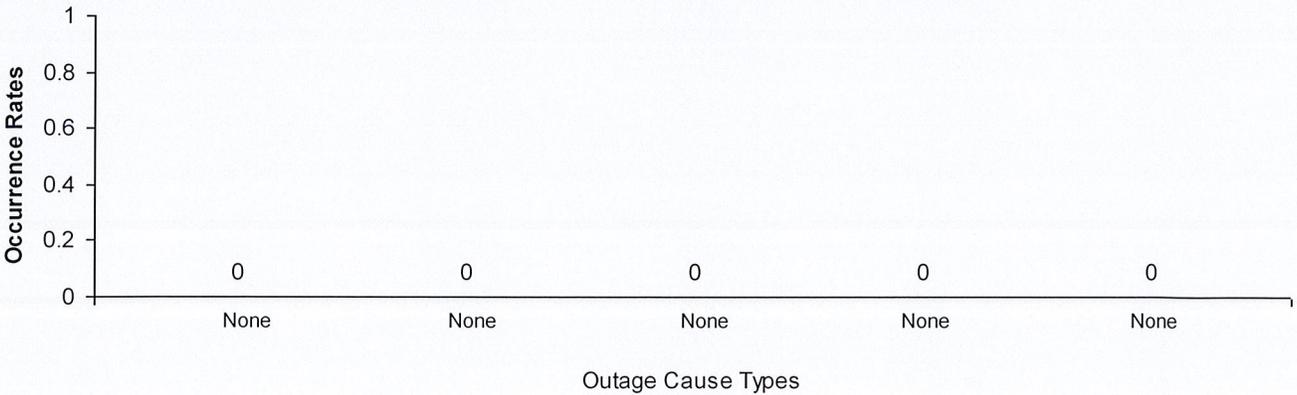
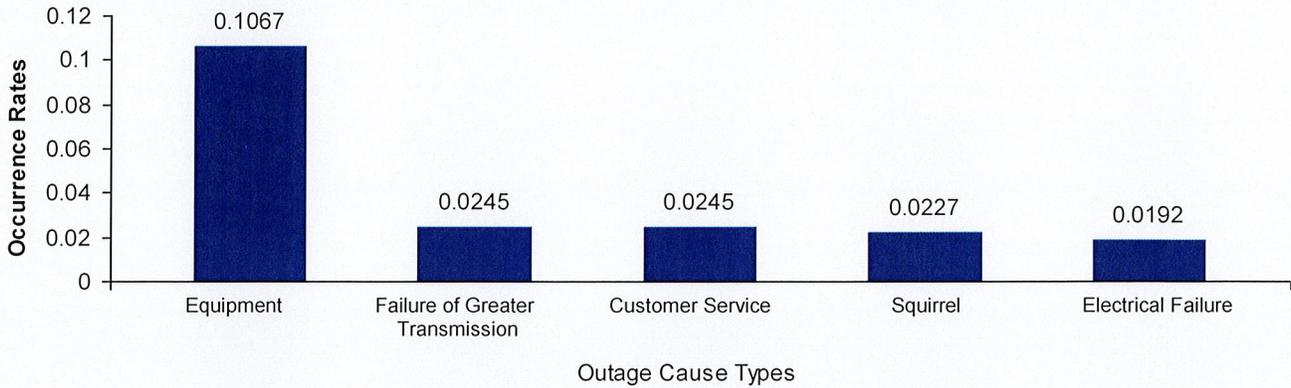


Figure 12
Top five customer-weighted causes of momentary outages for your utility^{2,3}



³ If your utility has less than eight momentary outages recorded in the eReliability Tracker, this graph will be blank.

Figure 13
Top five customer-weighted occurrence rates for momentary outage causes in your region²



Thank you for using the eReliability Tracker, and we hope this report is useful to your utility in analyzing your system. If you have any questions regarding the material provided in this report, please contact:

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MEMORANDUM

TO: Utility Commission

CC: Mike Darrow, City Administrator and Utility Manager; Rae Ann Ailts, Finance Director; Weston Arndt, Electric Superintendent;

FROM: Stacie Running

DATE: March 28, 2019

SUBJECT: **Home and Business Energy Report**

New Richmond Utilities, in partnership with WPPI Energy, recently distributed home and business energy reports to customers in in the City of New Richmond. These reports are provided as a way to help customers understand how they use electricity and water in their home and business, and provides information and suggestions on how they can save on energy costs.

The home and business energy reports were distributed to customers the week of March 18 and soon after we discovered the charts displayed on the home energy reports, which were intended to illustrate how customer usage compared to similar homes, transposed the customer and similar home data. We further realized that New Richmond Electric Utility home and business customers, who participate in community solar or time of day billing, might have received reports containing incorrect electric usage figures.

Upon realization of the errors, we immediately began working with WPPI Energy to formulate a solution, which includes issuing corrected reports to New Richmond Utility customers. We continue to work with WPPI Energy on a solution and intend to have a resolution and timeline by the end of day on Thursday, March 28, 2019. We expect to provide an update to the Utility Commission during the Utility Commission meeting on Wednesday, April 3, 2019.