

MEETING AGENDA - MAY 25, 2021

COMMUNITY ROOM 4000 EAST RIVER ROAD NE ROCHESTER, MN 55906

4:00 PM

This meeting will be conducted pursuant to Minnesota Statutes Section 13D.021 and members may appear electronically. Public access is closed to comply with state health guidance during the pandemic. When calling in by phone, join the meeting via the Microsoft Teams dial-in number listed below. Please remember to mute your phone until it is your turn to speak; press *6 to mute and unmute your phone.

The meeting will be live-streamed at the following web addresses: <u>YouTube</u> and <u>Teams</u>

In addition, a recording will be available after the meeting on the City's website.

Dial-In Number: 347-352-4853. Conference ID: 102 738 21#.

Call to Order

- 1. Recognition: Jon Lenn
- 2. Safety Moment
- 3. Consent Agenda
 - 1. Public Utility Board Regular Meeting Apr 27, 2021 4:00 PM
 - 2. Review of Accounts Payable
 - 3. Annual Cayenta Maintenance

Resolution: Annual Cayenta Maintenance

NEW BUSINESS

Open Comment Period

(This agenda section is for the purpose of allowing citizens to address the Utility Board. Comments are limited to 4 minutes, total comment period limited to 15 minutes. Any speakers not having the opportunity to be heard will be the first to present at the next Board meeting.)

4. Public Comments Received via Email

4. Consideration Of Bids

1. Marion Road Substation Site Grading, Excavation and Fence

Resolution: Marion Road Substation Site Grading, Excavation and Fence

5. Regular Agenda

Regular Meeting		Tuesday, May 25, 2021	4:00 PM
	1.	Election of Officers	
	2.	Billing, Credit and Collections Policy	
		Resolution: Billing, Credit and Collections Policy	
	3.	RPU Transition to Normal Operations	
		Resolution: RPU Transition to Normal Operations	
6.	Infor	rmational	
	1.	AMI Business Case	
7.	Boar	rd Liaison Reports	
	1.	RPU Index of Board Policies	
8.	Gen	eral Managers Report	
9.	Divis	sion Reports & Metrics	
	1.	Division Report and Metrics - May 2021	
10.	Othe	er Business	
11.	Adjo	burn	
	Tł	he agenda and board packet for Utility Board meetings are available	on-line at

<u>www.rpu.org</u> and <u>http://rochestercitymn.iqm2.com/Citizens/Default.aspx</u>



COMMUNITY ROOM 4000 EAST RIVER ROAD NE ROCHESTER, MN 55906

4:00 PM

This meeting will be conducted pursuant to Minnesota Statutes Section 13D.021 and members may appear electronically. Public access is closed to comply with state health guidance during the pandemic. When calling in by phone, join the meeting via the Microsoft Teams dial-in number listed below. Please remember to mute your phone until it is your turn to speak; press *6 to mute and unmute your phone.

The meeting will be live-streamed at the following web addresses: Youtube and Teams.

In addition, a recording will be available after the meeting on the City's website.

Dial-In Number: 347-352-4853. Conference ID: 102 738 21#.

Call to Order

Attendee Name	Title	Status	Arrived
Brett Gorden	Board Member	Present	
Patrick Keane	Board Member	Present	
Tim Haskin	Board Member	Present	
Melissa Graner Johnson	Board Vice President	Present	
Brian Morgan	Board President	Present	

1. Approval of Agenda

1. **Motion to:** approve the agenda as presented

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Tim Haskin, Board Member
SECONDER:	Patrick Keane, Board Member
AYES:	Gorden, Keane, Haskin, Johnson, Morgan

NEW BUSINESS

Open Comment Period

(This agenda section is for the purpose of allowing citizens to address the Utility Board. Comments are limited to 4 minutes, total comment period limited to 15 minutes. Any speakers not having the opportunity to be heard will be the first to present at the next Board meeting.)

2. Safety Moment

Board Member Tim Haskin spoke regarding home lawn care safety.

3. Consent Agenda

Regular Meeting

Tuesday, April 27, 2021

4:00 PM

3.1

- 1. Public Utility Board Regular Meeting Mar 30, 2021 4:00 PM
- 2. Review of Accounts Payable
- Digger Derrick, Utility Body and Installation (V694)
 Resolution: Digger Derrick, Utility Body and Installation (V694)
- 4. 2021 Manhole Rebuild Project

Resolution: 2021 Manhole Rebuild Project

5. Motion to: approve the consent agenda as presented

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve a contract agreement with Altec Industries, Inc., in the amount of \$237,278 plus applicable tax, for the purchase of Digger Derrick, Utility Body and Installation (V694).

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 27th day of April, 2021.

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve a contract agreement with Mastec North America, Inc., in the amount not to exceed \$270,000 for the 2021 Manhole Rebuild Project, and authorize the Mayor and the City Clerk to execute the agreement.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 27th day of April, 2021.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Melissa Graner Johnson, Board Vice President
SECONDER:	Patrick Keane, Board Member
AYES:	Gorden, Keane, Haskin, Johnson, Morgan

4. Audit Presentation

1. Audit Presentation - 2020 Annual Audit Results

Controller Julie Ackerman stated that the audit of RPU's year-end 2020 financial statements was conducted completely virtually by the Baker Tilly Virchow Krause team. Aaron Worthman of Baker Tilly presented the results of the December 31, 2020 financial audit. One week of preliminary field work was conducted in the fall of 2020, and a second week of field work was completed in February 2021. Key business process areas of the audit included cash and investments, assets under construction/plant in service/inventory, unbilled revenues/accounts receivable/revenue recognition, test of controls over payroll, disbursements and IT, deferred charges (service territory payments), debt service, analytical review of statement of net position and statement of revenues, expenses and changes in net position, sensitive estimates and allowance for funds used during construction. Mr. Worthman said no difficulties were encountered in performing the audit, there were no disagreements with management and no significant audit issues or findings.

Board Member Patrick Keane asked if as a public utility, RPU was audited regarding rates, or was it strictly a financial audit? Mr. Worthman stated the audit did not include operations, only financial statements. Mr. Keane also asked if specific journal entries and transactions are sampled during the audit. The team performs tests of controls through samples of payroll, disbursements and

3.1

invoices as well as the approvals, and substantive testing of cash and investments down to the transaction level, said Mr. Worthman.

Mr. Keane made a motion to accept the 2020 financial audit report and place it on file. This was seconded by Board Member Tim Haskin. Motion passed.

5. Regular Agenda

1. Well #16 Conversion Project

Environmental and Regulatory Affairs Coordinator Todd Osweiler presented a request to convert municipal well #16, a multi-aquifer well drilled in 1958 and unused for approximately 15-20 years, into a monitoring well. In this process, four small wells will be placed in the well to enable the collection of groundwater and water quality data from deeper aquifers, making the well the first of its kind in the state of Minnesota. This will assess the feasibility of each aquifer to be used as a potential future water source. Well #16, which connects with four other aquifers below the Jordan aquifer, Rochester's main water supply, is unique due to its depth, enabling it to provide this monitoring opportunity.

RPU has partnered with Olmsted County on this project and will receive a \$165,000 grant from the Minnesota Board of Soil and Water Resources that will pay for well sealing costs and for education and community outreach. A web page highlighting the benefits of the project will be provided by RPU and Olmsted County. Traut Companies, which began the project last year by removing sand and cleaning out the well, provided a proposal for the second phase of the project in the amount of \$238,387.25. RPU staff is also seeking approval of a \$25,000 contingency fund for the project to cover project changes and potential material price increases. Work will include installation of the monitoring wells and sealing between each of the four aquifers which are currently interconnected.

Board Member Patrick Keane asked if this kind of testing fits into the utility mission. The testing aligns with RPU's mission under water sustainability, said Mr. Osweiler. This process will allow for assessment of the deeper aquifers that the City of Rochester may have to drill into one day and will provide excellent information about the aquifers below; it will also help with RPU's groundwater model used to site new wells and ensure that natural resources will not be impacted as the city grows.

Resolution: Well #16 Conversion Project

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve a contract agreement with Traut Companies in an amount not to exceed \$263,387 for Well #16 Conversion Project, and authorize the RPU Project Manager to perform the acts to execute the project.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 27th day of April, 2021.

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Melissa Graner Johnson, Board Vice President
SECONDER:	Patrick Keane, Board Member
AYES:	Gorden, Keane, Haskin, Johnson, Morgan

2. Eminent Domain Stipulation and Settlement Agreement - 1325 Marion Road SE

Manager of Geographic Information Services Ryan Moore stated that RPU staff has been in the process of acquiring property for the construction of the Marion Road Substation. Negotiations to acquire two parcels of property at 1325 Marion Road SE owned by Mr. Arnold Cane began back in June 2019. A best and final offer of \$570,000 was offered in September 2019 and rejected by Mr. Cane. Staff was then authorized by the board to pursue eminent domain of that property.

In February 2020, a hearing was held to do a quick take of the property in order to take possession in April 2020. A court date for the quick take was scheduled for April 13-15, however on April 12, a settlement agreement of \$680,000 was reached using appraisals gathered by the City, RPU and by Mr. Cane. Mr. Cane has already received \$475,000, and \$205,000 is the net remaining balance. The City of Rochester City Attorney's office and the legal team from Kennedy & Graven are still working on the final language of the agreement. The board was asked to approve the Stipulation and Settlement Agreement to Mr. Cane in the amount of \$205.000

President Morgan asked if it's common to receive an offer on the last day before an eminent domain hearing goes to court. City of Rochester Attorney Michael Spindler-Krage said it is not unusual.

Vice President Johnson noted an attempted conveyance to an LLC involved in the property and asked if staff is confident the LLC has been addressed thoroughly. The City is confident in this area of the agreement, Mr. Spindler-Krage said.

Resolution: Eminent Domain Stipulation and Settlement Agreement

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve the Stipulation and Settlement Agreement between City of Rochester and Arnold Cane in the amount of \$205,000, and authorize the Mayor and the City Clerk to execute the agreement following final approval by the City Attorney and General Manager.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 27th day of April, 2021.

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Patrick Keane, Board Member
SECONDER:	Melissa Graner Johnson, Board Vice President
AYES:	Gorden, Keane, Haskin, Johnson, Morgan

6. Informational

1. 2020 Electric Engineering & Operations Report Presentation

Randy Anderton presented the 2020 Electric Engineering & Operations Report to the board. Data from the report shows that RPU increased by 1,252 new electric customers in 2020, compared to 1,047 in 2019. The total number of electric customers reported in 2020 is 57,634. The RPU system serves 827.62 total circuit miles of distribution, with 63.9% of the electric system underground. The peak system demand reached in 2020 was 265.2 MW. The all-time system peak demand was set in 2011 at 292 MW. This is driven by hot weather, said Mr. Anderton.

The peak demand for 2020 was 265.3 MW, while the minimum demand was 84 MW. Mr. Anderton stated the lowest level of load has decreased in recent years (low load occurs in the middle of the night). RPU's system reliability indices show

3.1

complete electrical reliability measured at 99.9928%. Mr. Anderton shared a heat map of RPU's distribution system showing the areas experiencing the most outages. Those areas having outages lasting over 120 minutes typically involve tree issues and overhead lines, said Mr. Anderton.

Board Member Brett Gorden asked if there are any areas of concern shown on the heat map. RPU tracks the cause of every outage by feeder, and the feeders with outages vary from year to year, but the highest causes are trees and squirrels, said Mr. Anderton.

President Morgan asked if the low side of demand will continue to drop, and what month does it typically occur in? It typically occurs in shoulder months when there is no heating or cooling (spring and fall), said Mr. Anderton.

President Morgan asked if there has been any change in load or operations during the pandemic. Director of Corporate Services Peter Hogan said the financial trend is a downturn in usage by commercial customers and an uptick in residential and small general service customers. Usage by medium general service and large general service industrial customers decreased due to shut downs caused by the pandemic.

2. RPU Renewable Energy Objective

Manager of Portfolio Optimization Dirk Bierbaum presented information on RPU's Renewable Energy Objective, part of Minnesota Statute 216B.1691.

RPU has, for the sixth year in a row, retired enough renewable energy certificates to cover 100% of load when the utility is above CROD (Contract Rate of Delivery), or load served over that supplied by SMMPA (Southern Minnesota Municipal Power Agency). Mr. Bierbaum noted that 2,544 certificates were retired from hydroelectric sources and 39 certificates were retired from solar photovoltaic sources in 2020.

President Morgan asked about the source of the CROD. The hydroelectric energy is generated from RPU's Lake Zumbro Dam hydroelectric facility and solar electric is generated from the solar installation at the Westside Energy Station, said Mr. Bierbaum.

7. Board Liaison Reports

1. RPU Index of Board Policies

General Manager Mark Kotschevar said staff is working to revise the board's Billing, Credit and Collections policy and will bring this to the May meeting for review.

8. General Managers Report

The City of Rochester recently approved an economic package for Crenlo, which was looking at potentially leaving the community. General Manager Mark Kotschevar said that the City of Rochester, Rochester Area Economic Development Authority (RAEDI) and SMMPA created a package to help Crenlo remain in Rochester. The SMMPA board previously approved a rate tariff with a load retention component for its members and RPU is passing along that credit to the applicable organizations that meet the requirements, of which Crenlo is the first applicant. In the package, SMMPA will give RPU a 40% discount on the wholesale power rate for the energy used by Crenlo for the first year, which drops to 20% the second year, with a declining percentage over the next five years on the wholesale rate. As a result, Crenlo will see a reduction in their energy costs through RPU from SMMPA. Currently, Crenlo is anticipating

4:00 PM

Regular Meeting

3.1

expansion of their Valleyhigh Drive location. Mr. Kotschevar thanked RPU's marketing team for their work on this energy credit.

Election of officers for the RPU Board will be held in May.

Manager of Marketing and Energy Services Patty Hanson stated that RPU's 2021 Arbor Day celebration began with the annual poster contest for Rochester elementary school students, with 784 entries received. Award winners will receive a framed poster and a goodie bag. Each winning class will receive a Burr Oak tree seedling. The overall winner was a fifth grader and her class will receive a large tree planted on her behalf at Washington Elementary on April 30. Also on April 30, RPU will do a free drive-thru tree giveaway at Three Links-Silver Lake Park, handing out 800 Burr Oak tree seedlings. The Arbor Day live event is cancelled again this year due to COVID-19.

RPU's Neighbors Chipping In donation program was launched on April 5. There are currently six customers signed up for the roundup option and four customers signed up for a \$13.50 monthly donation, said Ms. Hanson. RPU will continue social media advertising for the program to get the word out. Vice President Johnson asked if there is an online form to submit. Staff is looking at potentially adding the option to the RPU app in the future. However right now there is a fillable PDF form for customers to fill out on the RPU website. A signature or authorization from the customer is needed for participation in the program. President Morgan said he hopes there will be more participants in the future.

9. Division Reports & Metrics

10. Other Business

President Morgan stated he is interested in stepping down as RPU board president to allow other board members the opportunity to serve. Election of board officers will occur in May.

General Manager Mark Kotschevar said the City of Rochester has revised its travel policy to allow fully-vaccinated staff to attend conferences and training, therefore any fully-vaccinated board members interested in attending the 2021 National APPA Conference in June are free to attend the in-person event.

President Morgan noted the City Council is beginning a hybrid format of in-person and virtual attendance for its May meeting and asked if the RPU board would also like to begin a hybrid approach. Vice President Johnson said she had no preference either way. Board Member Patrick Keane stated that while in-person attendance is probably the goal, all-virtual is better than hybrid for meeting structure, and being a board of five members it may make more sense to wait. The City has established meeting guidelines of 15 persons or less, with masking required if not everyone is fully-vaccinated, and masking waived if all are fully-vaccinated. Hybrid logistics can be difficult to work through, said Mr. Keane. President Morgan asked that board members decide on an attendance plan for the June meeting in May.

11. Adjourn

The agenda and board packet for Utility Board meetings are available on-line at <u>www.rpu.org</u> and <u>http://rochestercitymn.iqm2.com/Citizens/Default.aspx</u>

Submitted by:

Tuesday, April 27, 2021

4:00 PM

3.1

Secretary

Approved by the Board

Board President

Date

FOR BOARD ACTION Agenda Item # (ID # 13349) Meeting Date: 5/25/2021 **SUBJECT:** Review of Accounts Payable **PREPARED BY:** Colleen Keuten **ITEM DESCRIPTION:** UTILITY BOARD ACTION REQUESTED:

ROCHESTER PUBLIC UTILITIES A/P Board Listing By Dollar Range For 04/13/2021 To 05/10/2021 **Consolidated & Summarized Below 1,000**

Greater than 50,000 :

1	<u>Greater than 50,000 :</u>		
2			
3	SOUTHERN MN MUNICIPAL POWER A	April SMMPA Bill	6,298,433.38
4	CONSTELLATION NEWENERGY-GAS D	February Gas - SLP	1,218,763.43
5	MN DEPT OF REVENUE	March Sales and Use Tax	569,359.70
6	CONSTELLATION NEWENERGY-GAS D	March Gas SLP	231,209.27
7	STUART C IRBY CO INC	26400FT-Wire, AL, 15kV, 750 Str, 1/C, 22	172,761.60
8	TRAUT COMPANIES	Construction of Well #42	170,987.25
9	EXCELLENCE OPTO, INC. (EOI)	950EA-Luminaire, Residential, LED, PC, 1	114,578.01
10	OSI - OPEN SYSTEMS INTERNATIO	OSI SCADA System Ugrade	109,849.91
11	ASPLUNDH TREE EXPERT LLC (P)	Hourly Tree Trimming	82,450.84
12	WESCO DISTRIBUTION INC	1991EA-Mast Arm, Residential LED, Extension	74,709.92
13	A & A ELECT & UNDERGROUND CON	2017-2022 Directional Boring	69,727.00
14	STUART C IRBY CO INC	27500FT-Wire, AL, 15kV, 1/0 Solid, 1/C,Jacketed	62,782.50
15	PAYMENTUS CORPORATION	March Credit/Debit/ACH Processing Fees	58,189.29
16		-	
17		Price Range Total:	9,233,802.10
18			
19	5.000 to 50.000 :		
20	<u></u>		
21	CONSTELLATION NEWENERGY-GAS D	March Gas Cascade Creek	44.689.94
22	CONSTELLATION NEWENERGY-GAS D	March Gas Westside Energy	38,383.56
23	CENTRAL MINNESOTA MUNICIPAL P	April Capacity	37.400.00
24	BARON USA LLC	Oil De-Gasification Rental	31.089.94
25	USIC HOLDINGS INC	April Locating Services	29,198,98
26	KANTOLA CONSULTING	Caventa. Time of Use & SEW Project Meetings	27.495.00
27	DOXIM UTILITEC LLC	April Bill Print/Mail Services/Postage	26.097.51
28	WESCO DISTRIBUTION INC	60EA-Elbow, 15ky, 600A, 350-750 CU/AL	24.418.80
29	BLUESPIRE dba	2020-23 RPU Plugged In Contract	22.815.00
30	STUART C IRBY CO INC	8100FT-Wire, AL, 15kV, 4/0 Str, 1/C, Jkt	19,966.50
31	PEOPLES ENERGY COOPERATIVE (P	April Territory Compensation	17,700.02
32	US BANK - VOYAGER	April Fuel	16,842.97
33	STUART C IRBY CO INC	, 1EA-Switch, PM, Air, 3ph, 4-600SW, PSE	16,115.00
34	XYLO TECHNOLOGIES INC	2021 IT Helpdesk Support	15,488.00
35	OLMSTED COUNTY PUBLIC WORKS	CIP-Lighting (C&I)-Incentives/Rebates	14,811.00
36	VISION COMPANIES LLC (P)	Employee Development	13,162.50
37	GDS ASSOCIATES INC	2021 NERC Compliance Assistance	11,830.00
38	SHI INTERNATIONAL CORP (P)	Malwarebytes Endpoint Detection/Response	11,551.05
39	CENTURYLINK (P)	21 Monthly Telecommunications	11,176.28
40	ETHOSENERGY POWER PLANT SERVI	Borescrope Inspection	11,000.00
41	FRANKLIN ENERGY SERVICES LLC	April DSM / CIP Services	10,454.17
42	WELLS FARGO BANK ACCT ANALYSI	April Banking Services	10,213.00
43	MN POLLUTION CONTROL AGENCY	2021 SLP Annual Emmissions Fee	10,129.10
44	WIESER PRECAST STEPS INC (P)	2EA-Vault, Pulling, Straight-thru	9,766.00
45	MEP ASSOCIATES LLC	Service Center HVAC Upgrade	9,508.50
46	BURNS & MCDONNELL INC (P)	Rate Design and Consulting	9,172.35
47	WSB & ASSOCIATES	Well #42 Design	8,986.75
48	MAYO FOUNDATION	CIP-Custom (C&I)-Incentives/Rebates	8,749.35
49	KENNEDY & GRAVEN CHARTERED	Legal Fees for Marion Rd Substation	8,483.50
50	PHARMACEUTICAL SPECIALTIES	CIP-Lighting (C&I)-Incentives/Rebates	8,157.08
51	GDS ASSOCIATES INC	Filing at FERC	7,847.50

ROCHESTER PUBLIC UTILITIES A/P Board Listing By Dollar Range For 04/13/2021 To 05/10/2021 Consolidated & Summarized Below 1,000

50		CT2 Heat Trace Renair	7 651 03
52		2021 IT Help Desk Consultant	7,001.00
55		CIP Lighting (C&I) Incentives/Pebates	6 847 00
54		Pight Trop Pight Place Trop Planting	6 600 00
55		Medical Services	6 503 00
50		2021 Socurity Sorvices	6,093.00
57		2021 Security Services	6 4 4 9 2 .0 5
58		660CAL Corus 8500 Agus Mag Desenhete	0,440.04
59		CID Least Dumps (C21) Incentives/Debetes	6,103.00
60	RALET COMPORT STSTEMS	CIP-Heat Pumps (Car)-incentives/Repates	6,103.00
61		200EA-Air Flow Spoller 4/0 10 336	6,025.61
62		30EA-Gra Sleeve, 1pn Trans., 37 x 43 x 1	5,985.00
63		ZUEA-EIDOW, Steel, 36.0 R, 5.00	5,920.15
64	SORENSEN & SORENSEN PAINTING	Zumbro River Sub Floor Repaint	5,800.00
65	MN POLLUTION CONTROL AGENCY	2021 Cascade Creek Emmissions Fee	5,778.30
66	VERIZON WIRELESS	2021 Cell & IPad Monthly Service	5,401.66
67	STUART C IRBY CO INC	1EA-Trans, PM, 3ph, 75kVA, 13.8/8, 208	5,385.00
68	ROCHESTER PROPERTY OWNER, LLC	CIP-Lighting (C&I)-Incentives/Rebates	5,268.13
69	HALLBERG ENGINEERING INC	HVAC Upgrade Commissioning	5,210.00
70	NETWORK PERCEPTION INC	SCADA Firewall CIP Analysis	5,206.25
71			
72			
73		Price Range Total:	658,519.97
74			
75	<u>1,000 to 5,000 :</u>		
76			
77	SHI INTERNATIONAL CORP (P)	2021-2022 KACE Systems Mgmt	4,929.24
78	BADGER METER INC (P)	3EA-Meter, Bare E-Series 3" Ultra , 17"L	4,753.50
79	MINNESOTA ENERGY RESOURCES CO	March Gas-Westside Energy	4,670.03
80	WIESER PRECAST STEPS INC (P)	1EA-Vault, Pulling, 8' x 6' x 6'	4,585.00
81	ALTERNATIVE TECHNOLOGIES INC	Oil Test Samples	4,355.00
82	E SOURCE COMPANIES LLC	Prof Serv-Assist RPU-Implem AMI Solutions	4,320.00
83	INNOVATIVE OFFICE SOLUTIONS L	1EA-Printer, LaserJet, HP E85055DN	4,273.84
84	BARR ENGINEERING COMPANY (P)	Ground Water Consulting Services	4,205.86
85	KATS EXCAVATING LLC	Service Assured - Water Service Repair	4,000.00
86	MINNESOTA ENERGY RESOURCES CO	March Gas-SLP	3.946.55
87	N HARRIS COMPUTER CORP	Roundup(Chipping In).Consult Serv (Move to Prod)	3.802.50
88	CORE & MAIN LP (P)	8EA-Coupling 10" Alpha Fing 1-Bolt Restr	3.725.60
89	ELEVATE MARKETING SOLUTIONS L	April Advertising	3.573.00
90	CONSOLIDATED COMMUNICATIONS d	2018-21 Network and Co-location Services	3,520,96
91	ARCHKEY TECHNOLOGIES dba	Cable Relocation (TC6)	3,332.00
92	MAYO CLINIC	CIP-Lighting (C&I)-Incentives/Rebates	3,238,47
93	GLOBAL RENTAL COMPANY INC	Truck Rental-Altec AT41M Aerial Device	3,206,25
94	MISSISSIPPI WEI DERS SUPPI Y CO	1FA-MIG welder	3,199.00
95		Replace Faulty I derard Service Wire/Relocate	3 152 81
96	STUART CIRBY COINC	12FA-Switch Air 2 Arm 1ph 600A NI B	3 120 00
97		15EA-Filter Mini-pleat $20 \times 20 \times 4$ AH	3 103 65
98	FIRST CLASS PLUMBING & HEATIN	Annual Backflow Testing & Repair	2 949 28
90 QQ	PARK TOWERS APARTMENTS	CIP-I ighting (C&I)-Incentives/Rebates	2,373.20
100	BARR ENGINEERING COMPANY (P)	Hydro Inspection	2,020.00
100	HAWKINS INC	28EA-Chlorine Gas	2,710.00
100		Install 1_6" Valve in Bridge Pining	2,0-3.00
102			2,000.11

ROCHESTER PUBLIC UTILITIES A/P Board Listing By Dollar Range For 04/13/2021 To 05/10/2021

103	HAWKINS INC	6699LB-Hydrofluosilicic Acid	2,545.62
104	ENERSYS INC	IBM Battery Replacements	2,434.18
105	IHEART MEDIA dba	Feb-April Ads-KMFX/KRCG/KFAN	2,400.00
106	KNXR - FM	April 2021 Radio ads	2,400.00
107	BORDER STATES ELECTRIC SUPPLY	6EA-Arrester, 10KV Station, Poly, Std Mo	2,228.47
108	JENNINGS, STROUSS & SALMON PL	Legal Fees	2,181.00
109	GFL SOLID WASTE MIDWEST LLC	2021 Waste removal SC	2,144.09
110	SAFETY KLEEN SYSTEMS INC	HazMat Bldg Liquid Disposal	2,142.84
111	ELITE CARD PAYMENT CENTER	Calibration of Test Equipment - WES	2,072.00
112	OPEN ACCESS TECHNOLOGY	2021 NERC Web Compliance Software	2,068.76
113	DESMET CODY	CIP-AirSrc Heat Pumps-Incentives/Rebates	2,055.00
114	ONLINE INFORMATION SERVICES I	April 2021 Utility Exchange Report	2,016.82
115	GDS ASSOCIATES INC	MISO Attachment O Consulting Service	2,010.00
116	BENCHMARK ELECTRONICS INC	CIP-Lighting (C&I)-Incentives/Rebates	1,984.00
117	N HARRIS COMPUTER CORP	RPU Logo	1,950.00
118	DLT SOLUTIONS, LLC (P)	Civil 3D 2021 - 3-Year Subscription	1,901.64
119	RPU CUSTOMER	Customer refunds 5708	1,812.38
120	MIDCONTINENT ISO INC	April MISO Fees	1,803.88
121	ITRON INC	IMA Driveby Endpoints Subscription 4/1-8/31/21	1,790.16
122	RESCO	4EA-Crossarm, Custom	1,786.00
123	NALCO COMPANY LLC	1DRM-Chemical Polymer, NALCO 22300.15	1,754.63
124	SOMA CONSTRUCTION INC	Fill for 2021 Watermain Breaks	1,708.31
125	K & M GLASS INC	Duct Work SCADA Server Room	1,704.00
126	MN POLLUTION CONTROL AGENCY	2021 WES Annual Emmissions Fee	1,665.67
127	STATE CHEMICAL SOLUTIONS	1DRM-Degreaser, 68A	1,619.80
128	OSMOSE UTILITIES SERVICES INC	O-Calc Maintenance	1,584.00
129	VERIZON CONNECT NWF INC	April GPS Fleet Tracking	1,570.43
130	BADGER METER INC (P)	25EA-Badger M25HRE CFReg Wired Itron	1,555.50
131	OLMSTED COUNTY	CIP-Lighting (C&I)-Incentives/Rebates	1,548.00
132	BADGER METER INC (P)	1EA-Meter, Bare E-Series 3" Ultra , 12"L	1,547.68
133	WESCO DISTRIBUTION INC	18EA-Term, Skirted 15kv, 500-750 MCM, C.	1,544.40
134	STUART C IRBY CO INC	8EA-Crossarm, Deadend, 8'	1,528.00
135	RESCO	2EA-X-Brace	1,525.00
136	GARCIA GRAPHICS INC	Annual Report Revisions	1,500.00
137	DAVIES PRINTING COMPANY INC	25PKG-Paper, RPU Letterhead (Cust. Service)	1,469.53
138	CORE & MAIN LP (P)	100SET-Bronze Swivel Connection, .750, 3	1,448.00
139	MINNESOTA ENERGY RESOURCES CO	Natural gas - SC 03/20/2021 - 04/20/2021	1,436.19
140	PREMIER ELECTRICAL CORP dba	Repar/Install - Community Room Outlets	1,363.00
141	WIESER PRECAST STEPS INC (P)	1EA-Grd Sleeve, Switch Basement, PME	1,355.00
142	PHARMACEUTICAL SPECIALTIES	CIP-Custom (C&I)-Incentives/Rebates	1,333.01
143	ALLIED VALVE INC	1EA-Transmitter, Pressure, Rosemount 305	1,305.00
144	HI LINE UTILITY SUPPLY CO (P)	5ROL-Pull Tape, Printed, .750" x 3000'	1,294.15
145	CITY OF ROCHESTER	Workers Comp Admin Fees 03/2021	1,282.00
146	NARDINI FIRE EQUIPMENT CO INC	GT2 Fire Protection Inspection	1,268.08
147	FIRST SUPPLY (P)	4EA-Valve, Lugged Butterfly, 8.0	1,265.56
148	J & W INSTRUMENTS INC (P)	2EA-Rock Solid Chlorine Gas Sensor	1,250.00
149	MCGRANN SHEA CARNIVAL STRAUGH	Legal Services	1,239.50
150	BOLION AND MENK (P)	I MOB CCM Telecom Modifications	1,225.00
151	AI&T	Long Distance	1,211.74
152	NALCO COMPANY LLC	1EA-Trasar 2 pen fluorometer	1,205.00
153	NALCO COMPANY LLC	1EA-Trasar 3 pen fluorometer	1,205.00

ROCHESTER PUBLIC UTILITIES A/P Board Listing By Dollar Range For 04/13/2021 To 05/10/2021

154	KAAL TVIIC	April Advertising	1 200 00
155	NATIONWIDE DI WATER SOLUTIONS	4FA-DI Vessels Mixed Bed CC	1 200 00
156	BORDER STATES ELECTRIC SUPPLY	WES Lighting Project	1,192,39
157	ROCHESTER ARMORED CAR CO INC	2021 Pick Up Services	1,187,25
158	GENERAL REPAIR SERVICE	1FA-Pump, Booster	1,180.00
159	WIESER PRECAST STEPS INC (P)	1EA-Grd Sleeve, Primary Metering, Artech	1,175.00
160	MINNESOTA ENERGY RESOURCES CO	March Gas-Cascade Creek	1.153.83
161	PARAGON DEVELOPMENT SYSTEMS I	HPE SimpliVity 325 Gen10 Support	1.148.50
162	BOB'S CONSTRUCTION	CIP-Lighting (C&I)-Incentives/Rebates	1.134.50
163	WESCO DISTRIBUTION INC	4EA-Adapter. Dead Leg	1.122.08
164	AMAZON.COM	1EA-Pump, Submersible	1,120.00
165	CORE & MAIN LP (P)	2EA-WB67 Hvdrant Ext., K562, 6.0	1.107.70
166	CARLSON WHOLESALE INC	CIP-Lighting (C&I)-Incentives/Rebates	1.082.69
167	OPEN ACCESS TECHNOLOGY	NERC Compliance Tracking	1.078.57
168	GENERAL REPAIR SERVICE	1EA-Pump. Centrifugal	1.065.00
169	CORE & MAIN LP (P)	100EA-Riser, 1.00 Slip Type Riser (65-A)	1.020.00
170	TANI DIVISION BD SCHIFFLER IN	WES Insulation	1,017.45
171	SOLARWINDS INC	2021 Database Performance Analyzer	1.015.16
172			,
173		Price Range Total:	201,191.31
174		C C	
175	0 to 1.000 :		
176	<u></u>		
177	Customer Refunds (CIS)	Summarized transactions: 93	11.435.67
178	EXPRESS SERVICES INC	Summarized transactions: 15	11,156,10
179	REBATES	Summarized transactions: 39	9.838.22
180	TEREX UTILITIES INC	Summarized transactions: 17	9,194,91
181	ELITE CARD PAYMENT CENTER	Summarized transactions: 34	5.073.41
182	CORE & MAIN LP (P)	Summarized transactions: 18	4.950.71
183	U S A SAFETY SUPPLY	Summarized transactions: 26	4.544.74
184	BORDER STATES ELECTRIC SUPPLY	Summarized transactions: 21	4.261.42
185	STUART C IRBY CO INC	Summarized transactions: 21	4,153.63
186	CITY LAUNDERING COMPANY	Summarized transactions: 29	3,967.35
187	WESCO DISTRIBUTION INC	Summarized transactions: 18	2,354.60
188	CHS ROCHESTER	Summarized transactions: 6	2,194.39
189	WERNER ELECTRIC SUPPLY	Summarized transactions: 23	2,188.76
190	ZIEGLER INC	Summarized transactions: 10	2,072.21
191	CITY OF ROCHESTER	Summarized transactions: 8	1,979.86
192	BOB THE BUG MAN LLC	Summarized transactions: 3	1,853.22
193	FIRST CLASS PLUMBING & HEATIN	Summarized transactions: 6	1,668.73
194	VIKING ELECTRIC SUPPLY INC	Summarized transactions: 12	1,579.52
195	MCMASTER CARR SUPPLY COMPANY	Summarized transactions: 24	1,495.63
196	RESCO	Summarized transactions: 10	1,414.24
197	LAWSON PRODUCTS INC (P)	Summarized transactions: 7	1,346.35
198	GRAYBAR ELECTRIC COMPANY INC	Summarized transactions: 2	1,312.51
199	L & L PROCESS SOLUTIONS	Summarized transactions: 4	1,301.86
200	PW POWER SYSTEMS INC	Summarized transactions: 14	1,245.39
201	LANGUAGE LINE SERVICES INC	Summarized transactions: 2	1,202.95
202	MENARDS ROCHESTER NORTH	Summarized transactions: 14	1,181.42
203	MINNESOTA ENERGY RESOURCES CO	Summarized transactions: 4	1,135.52
204	TMS JOHNSON INC	Summarized transactions: 2	1,122.19

205	NORTHERN / BLUETARP FINANCIAL	Summarized transactions: 6	1,107.22
206	ADVANCE AUTO PARTS	Summarized transactions: 34	1,097.36
207	RONCO ENGINEERING SALES INC	Summarized transactions: 8	1,039.74
208	FASTENAL COMPANY	Summarized transactions: 20	1,027.75
209	ON SITE SANITATION INC	Summarized transactions: 2	972.70
210	FIRST SUPPLY (P)	Summarized transactions: 7	921.29
211	THE ENERGY AUTHORITY INC	Summarized transactions: 2	920.21
212	NEXT DOOR	Summarized transactions: 1	890.27
213	POSITRON INC (P)	Summarized transactions: 2	882.60
214	GRAINGER INC	Summarized transactions: 11	854.90
215	FEDEX FREIGHT INC	Summarized transactions: 1	845.06
216	METRO SALES INC	Summarized transactions: 2	832.47
217	CENTURYLINK	Summarized transactions: 2	820.60
218	CORPORATE WEB SERVICES INC	Summarized transactions: 1	808.50
219	POLLARDWATER dba	Summarized transactions: 5	799.06
220	MIRATECH GROUP LLC	Summarized transactions: 2	796.19
221	ASPLUNDH TREE EXPERT LLC (P)	Summarized transactions: 7	785.23
222	CITY OF ROCHESTER	Summarized transactions: 1	779.78
223	ALTEC INDUSTRIES INC	Summarized transactions: 2	773.60
224	HAWKINS INC	Summarized transactions: 7	770.81
225	CITY LAUNDERING COMPANY	Summarized transactions: 5	732.05
226	USA BI UF BOOK DBA	Summarized transactions: 7	715.91
227	GOODIN COMPANY	Summarized transactions: 9	708.16
228	GEL SOLID WASTE MIDWEST LLC	Summarized transactions: 2	706.31
229	MN SOCIETY OF CERTIFIED PUBLI	Summarized transactions: 1	699.00
230	CENTURYLINK (P)	Summarized transactions: 3	694.58
231	AMAZON COM	Summarized transactions: 9	694 44
232	CORE & MAIN LP (P)	Summarized transactions: 3	692 31
233	NETWORK SERVICES COMPANY	Summarized transactions: 5	685 94
234	SUMMIT FIRE PROTECTION INC	Summarized transactions: 2	680.00
235	CRESCENT ELECTRIC SUPPLY CO	Summarized transactions: 14	676.65
236	SCHUMACHER ELEVATOR COMPANY	Summarized transactions: 1	655 64
237	BARR ENGINEERING COMPANY (P)	Summarized transactions: 1	601.00
238		Summarized transactions: 4	600.78
200		Summarized transactions: 4	596 58
200	MISSISSIPPI WEI DERS SUPPI Y CO	Summarized transactions: 6	591 48
240		Summarized transactions: 1	590.00
241	ARJAY AUTOMATION INC	Summarized transactions: 2	585.23
242	RONCO ENGINEERING SALES INC	Summarized transactions: 6	578 98
240	ANCOM COMMUNICATIONS INC	Summarized transactions: 3	577 39
244	REINDERS INC. (P)	Summarized transactions: 1	575.24
240		Summarized transactions: 3	552 72
240		Summarized transactions: 3	551 55
247		Summarized transactions: 5	547.49
240	TOTAL SAFETY SUPPLIES AND SO	Summarized transactions: 3	520.26
243	STATE CHEMICAL SOLUTIONS	Summarized transactions: 1	500 76
250		Summarized transactions: 1	109.70 AQ8.85
201		Summarized transactions: 9	490.00
202 252		Summarized transactions: 1	490.97 AQ7 AG
200		Summarized transactions: 7	407.43
204		Summarized transactions: 1	401.14
200	REGIONAL CONCRETE CUTTING INC	Summanzeu transautions. 1	400.94

ROCHESTER PUBLIC UTILITIES A/P Board Listing By Dollar Range For 04/13/2021 To 05/10/2021 Consolidated & Summarized Below 1,000

256	DAVIES PRINTING COMPANY INC	Summarized transactions: 1	475.59
257	JOHNSON HARDWARE CO LLC	Summarized transactions: 3	475.00
258	GARCIA GRAPHICS INC	Summarized transactions: 6	467.25
259	WARNING LITES OF MN INC (P)	Summarized transactions: 1	457.21
260	HARMONY ENTERPRISES INC	Summarized transactions: 4	452.93
261	ROCH AREA BUILDERS INC	Summarized transactions: 1	450.00
262	TRI-STATE PUMP & CONTROL INC	Summarized transactions: 3	444.15
263	SMITH ENGINEERING INC	Summarized transactions: 3	432.61
264	OSMOSE UTILITIES SERVICES INC	Summarized transactions: 2	428.18
265	FLUITEK CORP	Summarized transactions: 3	415.34
266	JOHNSON PRINTING CO INC	Summarized transactions: 2	407.96
267	HAWKINS INC	Summarized transactions: 2	390.31
268	MIDWEST MECHANICAL SOLUTIONS	Summarized transactions: 2	383.51
269	NALCO COMPANY LLC	Summarized transactions: 4	370.36
270	BOWMANS SAFE & LOCK SHOP LTD	Summarized transactions: 7	364.67
271	CDW GOVERNMENT INC	Summarized transactions: 2	355.53
272	ROCH WELDING INC	Summarized transactions: 1	352.69
273	McGRANN SHEA CARNIVAL STRAUGH	Summarized transactions: 1	351.50
274	JOHNSON PRINTING CO INC	Summarized transactions: 3	346.34
275	PUGLEASA COMPANY INC	Summarized transactions: 3	340.15
276	FASTSIGNS	Summarized transactions: 1	331.13
277	FASTENAL COMPANY	Summarized transactions: 3	322.04
278	NETWORK PERCEPTION INC	Summarized transactions: 1	320.63
279	SAFELITE FULFILLMENT INC	Summarized transactions: 2	313.75
280	ARNOLDS SUPPLY & KLEENIT CO (Summarized transactions: 9	309.32
281	WATER SYSTEMS COMPANY	Summarized transactions: 6	308.25
282	WARNING LITES OF MN INC (P)	Summarized transactions: 1	306.20
283	MRO SYSTEMS LLC	Summarized transactions: 2	287.94
284	HIGH FOREST BOBCAT SERVICE LL	Summarized transactions: 2	279.07
285	VANCO SERVICES LLC	Summarized transactions: 1	266.04
286	PARAGON DEVELOPMENT SYSTEMS I	Summarized transactions: 1	266.00
287	DAKOTA SUPPLY GROUP	Summarized transactions: 11	254.31
288	T E C INDUSTRIAL INC	Summarized transactions: 1	252.65
289	MCNEILUS STEEL INC	Summarized transactions: 1	250.90
290	K & S HEATING & AIR COND INC	Summarized transactions: 2	242.20
291	TOKAY SOFTWARE dba	Summarized transactions: 1	238.33
292	BADGER PAINTING	Summarized transactions: 1	236.19
293	HALO BRANDED SOLUTIONS	Summarized transactions: 2	234.78
294	ESSENTRA COMPONENTS dba	Summarized transactions: 2	231.26
295	INNOVATIVE OFFICE SOLUTIONS L	Summarized transactions: 13	223.08
296	ULINE	Summarized transactions: 4	219.49
297	DELMAR COMPANY	Summarized transactions: 3	218.38
298	GENERAL REPAIR SERVICE	Summarized transactions: 3	217.56
299	ENVIRONMENTAL SYSTEMS RESEARC	Summarized transactions: 1	213.75
300	J HARLEN CO INC	Summarized transactions: 2	211.07
301	ENERSYS INC	Summarized transactions: 2	203.59
302	FEDEX SHIPPING	Summarized transactions: 12	201.93
303	KEACH TODD	Summarized transactions: 2	196.64
304	FRONTIER	Summarized transactions: 1	193.21
305	BOLTON AND MENK (P)	Summarized transactions: 1	175.00
306	ZEP SALES & SERVICE	Summarized transactions: 3	174.46

PAGE 6

ROCHESTER PUBLIC UTILITIES A/P Board Listing By Dollar Range For 04/13/2021 To 05/10/2021 Consolidated & Summarized Below 1,000

307	MCMASTER CARR SUPPLY COMPANY	Summarized transactions: 4	169.79
308	ANDERSON LANA	Summarized transactions: 1	169.00
309	VERIFIED CREDENTIALS INC	Summarized transactions: 1	168.00
310	ADVANCED DISPOSAL	Summarized transactions: 1	161.66
311	SCHUMACHER EXCAVATING INC.	Summarized transactions: 1	160.00
312	PAYMENTUS CORPORATION	Summarized transactions: 1	158.26
313	GOODIN COMPANY	Summarized transactions: 3	156.23
314	OLSEN CHAIN & CABLE CO INC	Summarized transactions: 3	150.90
315	PROPERTY RECORDS OLMSTED COUN	Summarized transactions: 1	150.00
316	MN DEPT OF HEALTH	Summarized transactions: 1	150.00
317	SOMA CONSTRUCTION INC	Summarized transactions: 1	149.63
318	REINDERS INC	Summarized transactions: 1	149.52
319	ADVANCE AUTO PARTS	Summarized transactions: 4	146.62
320	BADGER METER INC (P)	Summarized transactions: 6	145.69
321	AG ELECTRICAL SPECIALISTS	Summarized transactions: 2	144.96
322	BATTERIES PLUS	Summarized transactions: 2	137.44
323	NESCO LLC	Summarized transactions: 1	122.40
324	KULLOT TRAILER PARTS & SERVIC	Summarized transactions: 4	120.22
325	CARNEY & ASSOCIATES INC	Summarized transactions: 1	120.00
326	MOTOROLA INC	Summarized transactions: 1	117.56
327	NARDINI FIRE EQUIPMENT CO INC	Summarized transactions: 1	112.00
328	CRYSTEEL TRUCK EQUIPMENT INC	Summarized transactions: 2	111.15
329	MENARDS ROCHESTER SOUTH	Summarized transactions: 4	108.01
330	HI LINE UTILITY SUPPLY CO (P)	Summarized transactions: 1	107.38
331	TANI DIVISION BD SCHIFFLER IN	Summarized transactions: 2	103.81
332	IMAGEBRIDGE DESIGN	Summarized transactions: 1	90.00
333	NORTHERN / BLUETARP FINANCIAL	Summarized transactions: 4	88.00
334	SLEEPY EYE TELEPHONE CO	Summarized transactions: 1	84.76
335	FIRST SUPPLY (P)	Summarized transactions: 2	83.17
336	KAMAN INDUSTRIAL TECHNOLOGIES	Summarized transactions: 2	78.81
337	J & W INSTRUMENTS INC (P)	Summarized transactions: 2	72.18
338	FEDEX SHIPPING	Summarized transactions: 3	69.13
339	WIESER PRECAST STEPS INC (P)	Summarized transactions: 1	63.75
340	FLEISCHAKER SVEN	Summarized transactions: 1	60.00
341	SHONES JACOB	Summarized transactions: 1	60.00
342	SHERWIN WILLIAMS CO	Summarized transactions: 1	52.51
343	REBATES	Summarized transactions: 2	50.00
344	GOODIN COMPANY (P)	Summarized transactions: 3	48.20
345	ALL SEASONS POWER & SPORT INC	Summarized transactions: 1	48.07
346	ALLIED ELECTRONICS INC	Summarized transactions: 3	46.47
347	FLEETPRIDE INC	Summarized transactions: 1	43.91
348	GREAT RIVER ENERGY	Summarized transactions: 1	42.30
349	FORUM COMMUNICATIONS COMPANY	Summarized transactions: 1	41.86
350		Summarized transactions: 1	37.50
351		Summarized transactions: 1	35.61
352	SOLID WASTE OLMSTED COUNTY	Summarized transactions: 1	31.80
353	DESSNER JAMES	Summarized transactions: 1	30.00
354		Summarized transactions: 1	30.00
355	CLAREY'S SAFETY EQUIPMENT dba	Summarized transactions: 1	26.00
356	CENTER FOR ENERGY AND ENVIRON		25.65
357	MIN POLLUTION CONTROL AGENCY	Summarized transactions: 1	25.00

3.2.a

Packet Pg. 17

ROCHESTER PUBLIC UTILITIES A/P Board Listing By Dollar Range For 04/13/2021 To 05/10/2021

358	MINNESOTA ENERGY RESOURCES CO	Summarized transactions: 1	23.23
359	MACQUEEN EQUIPMENT	Summarized transactions: 2	19.87
360	BREKKE MATTHEW	Summarized transactions: 1	19.00
361	ANDERSON NICK	Summarized transactions: 1	18.10
362	PAULS LOCK & KEY SHOP INC	Summarized transactions: 1	14.50
363	WERNER ELECTRIC SUPPLY	Summarized transactions: 3	11.21
364	NAPA AUTO PARTS dba	Summarized transactions: 2	2.93
365			
366		Price Range Total:	154,548.83
367			
368			
369		Grand Total:	10,248,062.21

FOR BOARD ACTION

Agenda Item # (ID # 13342)

Meeting Date: 5/25/2021

SUBJECT: Annual Cayenta Maintenance

PREPARED BY: Phil Teng

ITEM DESCRIPTION:

The annual maintenance fees for the Cayenta software, which is RPU's customer information and billing system, renews July 1, 2021. This cost of this annual renewal is \$183,860.74, plus applicable tax and allows us to receive updates and software support. Staff recommends approval.

This cost is within the amount approved in the 2021 budget.

UTILITY BOARD ACTION REQUESTED:

Approve the invoice payment to N. Harris Computer Corporation in the amount of \$183,860.74, plus applicable tax, for annual maintenance and support.



RESOLUTION

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve payment of the invoice to N. Harris Computer Corporation in the amount of \$183,860.74, plus applicable tax, for annual maintenance and support.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 25th day of May, 2021.

President

Secretary

FOR BOARD ACTION

Agenda Item # (ID # 13358)

Meeting Date: 5/25/2021

SUBJECT: Public Comments Received via Email

PREPARED BY: Christina Bailey

ITEM DESCRIPTION:

UTILITY BOARD ACTION REQUESTED:

-----Original Message-----From: Raymond <rschmitz22@charter.net> Sent: Monday, May 3, 2021 11:00 AM To: RPU Board <RPUBoard@RPU.ORG> Subject: Heat pumps

The tribune has a major article on heat pumps in commercial buildings! Included are references to pending legislation that would allow electric utilities to include them in their rebate packages!

Is RPU lobbying for these changes?

-----Original Message-----From: Raymond <rschmitz22@charter.net> Sent: Monday, May 10, 2021 10:29 AM To: RPU Board <RPUBoard@RPU.ORG>; Ivan Idso <ivanidso@gmail.com>; edward cohen <edward.cohen350@gmail.com>; Dave Reichert <dcreich@charter.net> Subject: [The Bismarck Tribune] Wind farm proposed near Bowman could include battery storage

https://bismarcktribune.com/news/state-and-regional/wind-farm-proposed-near-bowman-couldinclude-battery-storage/article_6416be92-fcbf-52e0-b588b584f8b0002e.html?utm_medium=social&utm_source=email&utm_campaign=user-share 4.a

FOR BOARD ACTION

Agenda Item # (ID # 13324)

Meeting Date: 5/25/2021

SUBJECT: Marion Road Substation Site Grading, Excavation and Fence

PREPARED BY: Andrew Bianco

ITEM DESCRIPTION:

Sealed bids were opened on May 10, 2021 for the Marion Road Site Grading Excavation and Fence project. Marion Road Substation is a new electrical utility facility intended to serve RPU electric customers in this region of our system. The resulting project frees up electric capacity at Willow Creek Substation to serve additional load growth in south Rochester. The new station will also serve electric load growth in downtown Rochester, including committed capacity to Mayo. The project work included in this bid will generally consist of grading, excavation, hauling and placing of soils all per specification and plans. The work also includes relocation of a section of 30" sanitary sewer determined to be in the way for build out of the substation equipment and foundations.

A breakdown of the bids is as follows:

C Contractor	Bid Amount
Carl Bolander & Sons, LLC	\$1,032,690.00
Elcor Construction, Inc.	\$1,288,432.00

In total, there were 5 general contractors that attended the pre-bid meeting and 9 contractors that downloaded or opened the solicitation documents posted on Public Purchase, but in the end only two bids were received. Carl Bolander & Sons submitted a responsive and responsible bid and staff has no concerns about their ability to perform successfully. The project is scheduled to begin June 1st, and the projected completion will be in the 2nd quarter of 2022. The 2021 Capital budget includes funds for this project. The low bid represents approximately 25% - 30% costs above the Engineer's estimate. Staff calls the Board's attention to this as further example of cost increases and demand present in the market. Rochester is seeing a higher volume of similar work, and many of these projects are also coming in with higher than expected costs. Further, there is a limited pool of qualified local contractors as evidenced by the short list of bidders. There are sufficient funds in the approved budget to cover this expenditure and staff recommends proceeding with this phase of the construction, but future major equipment bids may drive the need to re-evaluate the budget and/or project schedule.

UTILITY BOARD ACTION REQUESTED:

Approve a resolution to enter into a contract with Carl Bolander & Sons, LLC., in the amount of

FOR BOARD	ACTION
-----------	--------

Agenda Item # (ID # 13324)

Meeting Date: 5/25/2021

\$1,032,690.00, authorize the RPU Project Manager to perform the acts necessary to execute the project, and authorize the Mayor and City Clerk to execute the agreement.



CONTRACT

#2021-14 Marion Road Site Grading, Excavation, and Fence

THIS CONTRACT made this ______, by and between the City of Rochester, Minnesota, a Minnesota municipal corporation, acting through its Public Utility Board, hereinafter called "City", and Carl Bolander & Sons, LLC.., a Minnesota corporation, hereinafter called "Contractor".

WHEREAS, the City has solicited a proposal from the Contractor for the Marion Road Site Grading, Excavation, and Fence project as described in solicitation #2021-14.

WHEREAS, the City desires to engage the services of the Contractor according to the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the above premises and of the terms and conditions contained herein, the parties hereto agree as follows.

Article I. <u>Contract Documents</u>. The term 'Contract Documents' shall mean this Contract, Contractor's proposal, Contractor's Exhibits or City specification, any associated amendments and any other separate document mutually agreed to and executed by the Parties that may contain, without limitation, a specific description of the statement of work, pricing assumptions, source materials and the deliverables. The Parties agree that the Contract Documents shall be incorporated as part of this Contract.

Article II. <u>Scope of Services</u>. The Contractor shall furnish all resources (labor, materials, equipment and supervision) for the performance of the Work described in the Contract Documents.

Article III. <u>Payment</u>. The City agrees to pay the Contractor at the rate set forth in the proposal and/or subsequent change orders. The sum of this Contract shall not exceed \$1,032,690.00 for the services described herein, subject to the terms and conditions of payment described in the Contract Documents.

Article IV. <u>Term</u>. The term of this agreement shall commence on the date of this Contract and shall be completed by the approved schedules. RPU reserves the right to extend this Contract, through a written amendment, with agreement of Contractor.

Article V. <u>Disposition of Documents.</u> It is agreed that any reports, drawings, specifications, and other data compilations developed or created as a result of the services performed pursuant to this Contract shall be and remain the sole property of City.

Article VI. <u>Termination for Cause</u>. If either party breaches any provision of this Contract and if such breach is not cured within 10 days after receiving written notice from the other party specifying such breach in reasonable detail, the non-breaching party shall have the right to terminate this Contract by giving written notice thereof to the party in breach, which termination shall go into effect immediately on receipt.

21-33

Article VII. Jurisdiction and Venue. This contract, amendments and supplements thereto, shall be governed by the laws of the State of Minnesota. All actions brought under this agreement shall be brought exclusively in Minnesota State Courts of competent jurisdiction with venue in Olmsted County.

Article VIII. Nondiscrimination. The Contractor agrees to comply with the nondiscrimination provision set forth in Minnesota Statute 181.59. The Contractor's failure to comply with section 181.59 may result in cancellation or termination of the agreement, and all money due or to become due under the contract may be forfeited for a second or any subsequent violation of the terms or conditions of this contract.

Article IX. Concurrence. By executing this Agreement, the parties acknowledge that they: (1) enter into and execute this Agreement knowingly, voluntarily and freely of their own volition with such consultation with legal counsel as they deem appropriate; (2) have had an opportunity to consult an attorney before signing this Agreement; (3) have read this Agreement, understand all of its terms and appreciate the significance of those terms; and (4) have not relied upon any representation or statement not set forth herein.

IN WITNESS WHEREOF, the undersigned have caused this Agreement to be executed in their respective names the day and year first above written.

Carl Bolander & Sons, LLC.	CITY OF ROCHESTER
Ву	Ву
Todd Planting, Sr. Vice President	Kim Norton, Mayor
	Attest
	Kelly K. Geistler, City Clerk
	Approved as to Form
	Jason Loos, City Attorney
	ROCHESTER PUBLIC UTILITIES
	Mark Kotschevar, General Manager

4.1.a



RESOLUTION

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve a contract agreement with Carl Bolander & Sons, LLC., in the amount of \$1,032,690.00, authorize the RPU Project Manager to perform the acts necessary to execute the project, and authorize the Mayor and the City Clerk to execute the agreement for Marion Road Substation Site Grading, Excavation and Fence.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 25th day of May, 2021.

President

Secretary

FOR BOARD ACTION

Agenda Item # (ID # 13333)

Meeting Date: 5/25/2021

SUBJECT: Election of Officers

PREPARED BY: Mark Kotschevar

ITEM DESCRIPTION:

Under the Board Organization policy, the board has designated the first regular meeting in May for the election of officers. This includes the president, vice-president, and the appointment of the board secretary.

UTILITY BOARD ACTION REQUESTED:

Election of the president, vice-president, and appointment of the board secretary.

FOR BOARD ACTION

Agenda Item # (ID # 13341)

Meeting Date: 5/25/2021

SUBJECT: Billing, Credit and Collections Policy

PREPARED BY: Peter Hogan

ITEM DESCRIPTION:

Deposit Requirement

On December 17, 2019, the Billing, Credit and Collections Policy was updated to change the way customer deposits were calculated to use two times the prior year's "average" monthly billing instead of the highest two months billings for the prior year.

This change has worked well for residential customers, however; it increases the exposure to the Utility with commercial accounts, which have the potential to have significantly higher billings during peak demand periods. The general approach is to ensure that the Utility has the equivalent of two months' billings on deposit for customers that have no credit history or a history of late payments.

Management is recommending that deposit requirements for commercial customers, that require a deposit, be changed to include the two highest months' billings, while the residential deposit requirement remains unchanged.

Late Fees

The Board adopted a late payment fee on June 27, 2017. This policy included the charging of a 10% late fee on the current month's past due billing only, with a minimum charge of \$10 and no charge on balances less than \$20. The late fee was delayed until after the implementation of the Cayenta billing system, and has been further delayed by the current Board action in response to the peace time state of emergency.

A 10% late fee on the current month's billing can result in a punitive late fee and an inadequate recovery of costs related to a long term unpaid balance. For example, if a customer has a monthly bill of \$100,000, the late fee would be \$10,000. Management is recommending that the late fee policy be modified to reflect how banks and credit card companies charge fees based on the average balance outstanding during the billing period. Management is recommending charging 1.0% per month fee on the average outstanding balance each billing period, reducing the minimum charge to \$5 per month and continue the current policy of no charge on balances less than \$20.

A redline copy of the Billing, Credit and Collections Policy is attached, and includes additional wording changes in addition to the Deposit and Late Fee changes that are meant to clarify the current policy and practices without changing the policy materially.

UTILITY BOARD ACTION REQUESTED:

Staff recommends the Board approve the amended Billing, Credit and Collections Policy

ROCHESTER PUBLIC UTILITIES_BOARD POLICY STATEMENT

POLICY SUBJECT: Billing, Credit, and Collections

POLICY OBJECTIVE

To protect the rights of all our customers, the following policies have been established for the billing, credit and collection of reliable electric and water services provided by Rochester Public Utilities (RPU), as well as any billings on behalf of the City or any other City departments.

BILLING

Monthly bills are issued for the following utility services; electric, water, and/or any billings on behalf of the City or other City Departments. Each utility meter is read on or near the same day each month so that approximately 28-30 days of usage is recorded. Bills are created, on average, within four (4) working days of the meter being read. The date the bill is created is known as the Billing Date. Customers have the option of receiving their bill via the US Postal service or electronically.

All utility charges for the services RPU provides are calculated in accordance with the *Rate Schedule* approved by the RPU Board of Directors and Rochester City Council. All utility charges for the services Rochester Public Works provides are calculated in accordance with City Ordinances that have been approved by the Rochester City Council. Additional charges such as the Disconnection or Meter Tampering fees are included in the *Miscellaneous Fees Schedule*.

FINAL BILL

It is the Customer's responsibility to notify RPU <u>that service to an account address is ending that</u> <u>their service is ending</u> at least three business days prior to the date of final service. A forwarding address must be provided. On the first business day or after the date specified by the Customer (excluding weekends and holidays), a reading will be made and a final bill will be calculated.

MISCELLANEOUS BILL

A Miscellaneous billing may include charges for materials, vendor-provided services, RPU labor and equipment₇ and related overhead charges for service work, customer contributions in aid of capital construction, and/or the costs to repair damage to utility property. Miscellaneous charges will be added to a Customer's active utility account and<u>billed</u> will follow the same collection procedures as a monthly utility bill. An account will be created for those Customers without a utility account and will fall under the same collection procedures.

1

CREDIT AND COLLECTIONS

PAYMENT TERMS

All billing statements will have a Due Date for payment approximately three weeks after the Billing Date. RPU allocates standard payments over all unpaid charges, paying the oldest charges first, and then in order of service; Water, Electric, Waste Water, Storm Water, Service Assured and any other miscellaneous fees. Assistance payments from third parties will be applied per the agreement with the third-party assistance provider.

LATE PAYMENT FEE**

All billing statements are due and payable on or before the Due Date. Bills not paid by the Due Date are subject to a late payment fee equal to ten percent (10%) or \$101.0% of the average outstanding balance for the current billing period or \$5, whichever is greater, of the current month's billing amountaverage outstanding balance and. The late fee will-shall be added to the Customer's outstanding account balance. If the current month's billingaverage outstanding balance amount is \$20 or less, a late payment fee will not be added. In the event of a billing error, late payment fees will be removed from the account as determined by RPU staff.

PAYMENT OPTIONS

Budget Payment Plan

RPU offers a voluntary **Budget Payment Plan** as a convenience for qualifying Residential and Small General Service Customers. The Customer must have at least 12 months of utility bills at the service address and their account must be paid in full before signing up for this program. Upon annual reconciliation, credit balances or arrearage may be rolled over into the averaging amount for the upcoming year at the discretion of RPU staff.

If the Customer becomes delinquent on the *Budget Payment Plan*, the account will automatically be removed from the *Budget Payment Plan* and returned to a regular payment status.** Delinquencies may result in further collection action, if the account is not brought current. Customers that voluntarily remove themselves from their *Budget Payment Plan* will need 12 months of acceptable credit history to be eligible for return to go back onto the *Budget Payment Plan*.

The *Budget Payment Plan* is a pre-arranged payment schedule and therefore no other payment arrangements are available. Customers disconnected for non-payment are not eligible for the *Budget Payment Plan*. Customers <u>ean-may</u> become eligible to participate in the *Budget Payment Plan* program again after achieving an acceptable credit history as defined below.

Automatic Bill Payments

RPU will accept *Automatic Bill Payments* made directly from withdrawals from a Customer's checking or savings account or from a credit/debit card. These payments are withdrawn on the bill Due Date. The customer must fill out an *Authorization for Automatic PaymentBilling Options* form supplied by RPU Customer Relations Care staff advisors or online at www.rpu.org. The Customer will receive their monthly utility billing statement showing the payment amount to

be withdrawn. The Customer may contact RPU's Customer <u>Relations-Care staff advisors</u> before the amount is withdrawn, if they do not agree with the billing or have questions.

If a Customer's payment is returned for insufficient funds or declined two times within 12 consecutive months, the Customer may be removed from the *Automatic Bill Payments* program. All conditions in the *RETURNED PAYMENTS* section will apply.

Payments on Disputed Amounts

Payments for disputed bills must be sent to or made at the RPU Service Center at 4000 East River Rd NE, Rochester, MN 55906. Payments received through the standard PO Box address that appears on the remittance stub may be returned to the Customer if payments and account balances per the remittance stub(s) do not match.

DEPOSITS

All Residential and Commercial Customers are required to pay a Deposit when initiating a new electric and/or water service(s) account<u>or adding a new service to their existing account</u>. The Deposit requirement for Customers will only be waived, if;

- 1) the Customer's credit rating meets the established criteria verified by a third party or;
- 2) the Customer has an existing account with an acceptable credit history as defined below, or;
- 3) the Commercial Customer provides a guarantee. A non-revocable letter of credit can be provided if it is for 36 months and equal to the deposit amount.

The customer must provide and authorize the use of their full and legitimate identity information, including a Social Security Number for an individual, proprietorship, or partnership; or a Federal Employer Identification Number for all persons or entities applying for or guaranteeing payment, to facilitate a credit check. If the customer is unable or unwilling to provide this information, a deposit in accordance with this deposit policy will be required.

The Deposit for Residential Customers will be calculated using the average of the previous 12 month's billing times two at the service address. *** If the service has been vacant, usage from previous years may be used to calculate the Deposit amount. If a prior history is not available for the service address, a Deposit will be based on use of a like type of Customer.

The Deposit for Commercial Customers will be calculated using the two highest month's bills from the previous 12 months at the service address if this is representative of the anticipated future use. If the service has been vacant, usage from previous years may be used to calculate the Deposit amount. If a prior history is not available for the service address, a Deposit will be based on use of a like type of Customer.

The Deposit payment is due before the service connection date. $\frac{3+3}{2}$ Refusal or failure by a Customer to satisfy the Deposit requirement(s) will result in discontinuance of service until such time as the Deposit has been paid. When payment is received for the Deposit, a communication will be delivered to the Customer specifying the conditions of when the Deposit will be refunded.

Deposit requirements for previous or existing Customers;

- if a Customer has a previous balance written off as uncollectible and requests new service, the uncollected amount and the Deposit is due <u>on or before the service is</u> <u>connected</u>connection date.
- 2) if a previous Customer, <u>with no service currently</u>, requests new service and they have two or more no more than one delinquent payments from their previous service within the most recent 24** months of account history for a Residential Customer or the most recent 36** months of account history for a Commercial Customer, a Deposit is due <u>on or</u> before the service is <u>connected</u> connection date.
- 3) if a person is transferring service from one <u>place-service address</u> to another and a Deposit is required because of past payment history, the Deposit payment is due <u>on or</u> before the service connection date.
- 3)4) an existing Customer disconnected for non-payment may have a Deposit or Deposit upgrade required to be paid prior to the service reconnection.

ACCEPTABLE CREDIT HISTORY

An acceptable credit history is defined as meeting all of the requirements defined below within the past $24 \pm \infty$ months of account history for a Residential account and within the past $36 \pm \infty$ months of account history for all other accounts:

- No non-pay disconnections
- No more than 1 delinquent notices
- No more than 1 late payments
- No returned checks or declined electronic payments because of insufficient funds or closed accounts
- No delinquent outstanding balance(s) from a prior account
- No bankruptcies within 7 years
- No uncollectible balances outstanding
- No unpaid miscellaneous billings

BANKRUPTCY

Customers who file for bankruptcy will be subject to the bankruptcy law, in effect, at the time of their filing. Customers filing for bankruptcy will be required to provide a Deposit in order to continue service.

INTEREST

Interest on the Deposit will be applied to the Customer's account as a credit on their monthly billing statement at least once each calendar year. The interest rate is calculated and published as provided in Minnesota Statutes, Section 325E.02.

TRANSFERS

Deposits are non-transferable from one applicant to another and are only payable to the original applicant.

REFUNDS

5.2.a

Residential Deposits will be applied as a credit to the Customer's account at the end of 24** consecutive months, if an acceptable credit history has been established.

Commercial Deposits will be applied as a credit to the Customer's account at the end of $36^{\pm\pm}$ consecutive months, if an acceptable credit history has been established.

For Customers without an active service, the Deposit and interest will be applied to their final bill. Remaining credit balances will be refunded within 45 days after the termination of service.

RETURNED PAYMENTS

Payments by check or ACH that are returned for non-sufficient funds (NSF), account closed or credit/debits that are declined, may result in the Customer's account becoming delinquent. The Customer's account will be assessed a return fee, as established by the *Miscellaneous Fees Schedule*, and *Late Payment Fee*, if applicable.

The account will immediately be subject to the *Disconnection Procedure*. If the Customer has already been notified of a pending disconnection and their payment is returned by their bank, service will be disconnected without further notice.

A Customer with more than two (2) of any combination of the following: NSF or account closed checks, declined ACH payments, or declined credit/debit card payments; within a twelve (12) month period, will be required to make future payments in cash, money order, cashier's check, wire transfer or credit card until achieving an acceptable credit history as defined above.

OVERPAYMENT & UNDERPAYMENT

In the event a Customer overpays their utility bill, and is not delinquent, the overpaid amount will remain on the account and be applied to the next bill. Overpayments caused by payments made via check or ACH may be subject to a waiting period before a refund is issued to ensure funds clear the Customer's bank.

For overpayments and underpayments as a result of a billing error, refer to *Adjustment of Electric and Water Bills Policy*. *Adjustment of Utility Services Billed*.

Partial payments, although accepted, will not prevent disconnection of utility service(s) unless other payment arrangements are made with RPU staff.

DELINQUENT ACCOUNTS AND DISCONNECTION OF SERVICE

PAST DUE ACCOUNTS

Unpaid accounts shall be considered past due on the first calendar day following the Due Date.

COLLECTION OF PAST DUE ACCOUNTS

When all administrative efforts at collecting a past due account have been exhausted, alternative collection methods may be used, including but not limited to legal action, utilizing collection agencies, and/or submitting a claim to the Local, State or Federal Revenue Recapture Programs.

RPU also reserves the right to assess delinquent electric, water, and/or any billings on behalf of the City or other City Department charges incurred by the property owner, against the property, with Olmsted County through approved legal process for assessment, according to all state and local laws.

DISCONNECTION OF SERVICE

RPU shall attempt to collect delinquent accounts promptly. Where satisfactory arrangements for payment have not been made, and after notification requirements have been complied with, utility services will be disconnected.

Emergency Situations

Where it is necessary that the utility service be temporarily disconnected or connected to protect health, life or property, RPU will, at its discretion, take such action without charge or notice to the Customer.

COLD WEATHER RULE

From October 15 to April 15, RPU acknowledges and complies with the State of Minnesota Cold Weather Rule for Municipal Utilities under Minnesota Statutes, Section 216B.097.

DECEASED CUSTOMER

Upon death of a Customer, the service will be removed from that person's name as quickly as possible. As soon as the death of a Customer is known, RPU will send the family a letter giving them a thirty (30)sixty (60) day notice that the name needs to be changed on the account. In the event that service is not transferred within thirty (30)sixty (60) days, RPU reserves the right to discontinue service and apply the Deposit (if applicable) to all outstanding balances owed to RPU in the name of the deceased individual's account.

DISPUTES AND APPEAL

DISPUTED PROCESS

The Customer may dispute a bill that they feel is in error by calling or writing to RPU. We will investigate all disputes. We will not disconnect a service for non-payment of a disputed bill provided: (1) the Customer notifies us before the bill is delinquent and (2) the Customer pays all other undisputed charges when due.

APPEAL PROCESS

When a Customer is dissatisfied with action taken on his or her dispute, he or she has the right to appeal. A detailed written notice of the issue must be received by RPU within 30 days of the initial dispute. The appeal will be reviewed by RPU management to decide whether or not RPU policies and procedures have been administered properly on the Customer's behalf. Management will respond to the Customer with their findings and any further course of action, if needed.

METER TAMPERING

TAMPERING/THEFT

RPU follows Minnesota Statutes, Sections 325E.026 and 609.52 with regards to the unauthorized use of Utility meters and theft of service.

All connections to RPU's service equipment shall be made by RPU or RPU authorized personnel only. Unauthorized connections to or tampering with any RPU meter, associated equipment or meter seals, or indications or evidence thereof subjects the Customer to immediate discontinuance of service, prosecution under the laws of Minnesota, adjustment of prior bills for services rendered, and reimbursement to RPU for all legal and other expenses incurred on the account. Prior to service reconnection, Customer will be required to have an inspection of the meter completed at their own expense.

** Effective when the new Customer and Billing system implementation is complete.

EFFECTIVE DATE OF POLICY:	July 24, 1990
DATE OF POLICY REVISION:	December 17, 2019
	May 25, 2021

POLICY APPROVAL:

Board President

Date

7


RESOLUTION

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve the amended Billing, Credit and Collections Policy.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 25th day of May, 2021.

President

Secretary

Attachment: Billing Credit and Collections Policy 2021 05 25 (13345 : Resolution: Billing, Credit and Collections Policy)

5.a

ROCHESTER PUBLIC UTILITIES BOARD POLICY STATEMENT

POLICY SUBJECT: Billing, Credit, and Collections

POLICY OBJECTIVE

To protect the rights of all our customers, the following policies have been established for the billing, credit and collection of reliable electric and water services provided by Rochester Public Utilities (RPU), as well as any billings on behalf of the City or any other City departments.

BILLING

Monthly bills are issued for the following utility services; electric, water, and/or any billings on behalf of the City or other City Departments. Each utility meter is read on or near the same day each month so that approximately 28-30 days of usage is recorded. Bills are created, on average, within four (4) working days of the meter being read. The date the bill is created is known as the Billing Date. Customers have the option of receiving their bill via the US Postal service or electronically.

All utility charges for the services RPU provides are calculated in accordance with the *Rate Schedule* approved by the RPU Board of Directors and Rochester City Council. All utility charges for the services Rochester Public Works provides are calculated in accordance with City Ordinances that have been approved by the Rochester City Council. Additional charges such as the Disconnection or Meter Tampering fees are included in the *Miscellaneous Fees Schedule*.

FINAL BILL

It is the Customer's responsibility to notify RPU that service to an account address is ending at least three business days prior to the date of final service. A forwarding address must be provided. On the first business day or after the date specified by the Customer (excluding weekends and holidays), a reading will be made and a final bill will be calculated.

MISCELLANEOUS BILL

A Miscellaneous billing may include charges for materials, vendor-provided services, RPU labor and equipment and related overhead charges for service work, customer contributions in aid of capital construction, and/or the costs to repair damage to utility property. Miscellaneous charges billed will follow the same collection procedures as a monthly utility bill. An account will be created for those Customers without a utility account and will fall under the same collection procedures.

5.a

CREDIT AND COLLECTIONS

PAYMENT TERMS

All billing statements will have a Due Date for payment approximately three weeks after the Billing Date. RPU allocates standard payments over all unpaid charges, paying the oldest charges first, and then in order of service; Water, Electric, Waste Water, Storm Water, Service Assured and any other miscellaneous fees. Assistance payments from third parties will be applied per the agreement with the third-party assistance provider.

LATE PAYMENT FEE

All billing statements are due and payable on or before the Due Date. Bills not paid by the Due Date are subject to a late payment fee equal to 1.0% of the average outstanding balance for the current billing period or \$5, whichever is greater. The late fee will be added to the Customer's outstanding account balance. If the average outstanding balance amount is \$20 or less, a late payment fee will not be added. In the event of a billing error, late payment fees will be removed from the account as determined by RPU staff.

PAYMENT OPTIONS

Budget Payment Plan

RPU offers a voluntary *Budget Payment Plan* as a convenience for qualifying Residential and Small General Service Customers. The Customer must have at least 12 months of utility bills at the service address and their account must be paid in full before signing up for this program. Upon annual reconciliation, credit balances or arrearage may be rolled over into the averaging amount for the upcoming year.

If the Customer becomes delinquent on the *Budget Payment Plan*, the account will be removed from the *Budget Payment Plan* and returned to a regular payment status. Delinquencies may result in further collection action, if the account is not brought current. Customers that voluntarily remove themselves from their *Budget Payment Plan* will need 12 months of acceptable credit history to be eligible to go back on the *Budget Payment Plan*.

The *Budget Payment Plan* is a pre-arranged payment schedule and therefore no other payment arrangements are available. Customers disconnected for non-payment are not eligible for the *Budget Payment Plan*. Customers may become eligible to participate in the *Budget Payment Plan* program again after achieving an acceptable credit history as defined below.

Automatic Bill Payments

RPU will accept *Automatic Bill Payments* made directly from a Customer's checking or savings account or from a credit/debit card. These payments are withdrawn on the bill Due Date. The customer must fill out a *Billing Options* form supplied by RPU Customer Care advisors or online at www.rpu.org. The Customer will receive their monthly utility billing statement showing the payment amount to be withdrawn. The Customer may contact RPU's Customer Care advisors before the amount is withdrawn, if they do not agree with the billing or have questions.

If a Customer's payment is returned for insufficient funds or declined two times within 12 consecutive months, the Customer may be removed from the *Automatic Bill Payments* program. All conditions in the *RETURNED PAYMENTS* section will apply.

Payments on Disputed Amounts

Payments for disputed bills must be sent to or made at the RPU Service Center at 4000 East River Rd NE, Rochester, MN 55906. Payments received through the standard PO Box address that appears on the remittance stub may be returned to the Customer if payments and account balances per the remittance stub(s) do not match.

DEPOSITS

All Residential and Commercial Customers are required to pay a Deposit when initiating a new electric and/or water service(s) account or adding a new service to their existing account. The Deposit requirement for Customers will only be waived, if;

- 1) the Customer's credit rating meets the established criteria verified by a third party or;
- 2) the Customer has an existing account with an acceptable credit history as defined below, or;
- 3) the Commercial Customer provides a guarantee. A non-revocable letter of credit can be provided if it is for 36 months and equal to the deposit amount.

The customer must provide and authorize the use of their full and legitimate identity information, including a Social Security Number for an individual, proprietorship, or partnership; or a Federal Employer Identification Number for all persons or entities applying for or guaranteeing payment, to facilitate a credit check. If the customer is unable or unwilling to provide this information, a deposit in accordance with this deposit policy will be required.

The Deposit for Residential Customers will be calculated using the average of the previous 12 month's billing times two at the service address. If the service has been vacant, usage from previous years may be used to calculate the Deposit amount. If a prior history is not available for the service address, a Deposit will be based on use of a like type of Customer.

The Deposit for Commercial Customers will be calculated using the two highest month's bills from the previous 12 months at the service address if this is representative of the anticipated future use. If the service has been vacant, usage from previous years may be used to calculate the Deposit amount. If a prior history is not available for the service address, a Deposit will be based on use of a like type of Customer.

The Deposit payment is due before the service connection date. Refusal or failure by a Customer to satisfy the Deposit requirement(s) will result in discontinuance of service until such time as the Deposit has been paid. When payment is received for the Deposit, a communication will be delivered to the Customer specifying the conditions of when the Deposit will be refunded.

Deposit requirements for previous or existing Customers;

1) if a Customer has a previous balance written off as uncollectible and requests new service, the uncollected amount and the Deposit is due on or before the service connection date.

- 2) if a previous Customer, with no service currently, requests new service and they have more than one delinquent payment from their previous service within the most recent 24 months of account history for a Residential Customer or the most recent 36 months of account history for a Commercial Customer, a Deposit is due on or before the service connection date.
- 3) if a person is transferring service from one service address to another and a Deposit is required because of past payment history, the Deposit payment is due on or before the service connection date.
- 4) an existing Customer disconnected for non-payment may have a Deposit or Deposit upgrade required to be paid prior to the service reconnection.

ACCEPTABLE CREDIT HISTORY

An acceptable credit history is defined as meeting all of the requirements defined below within the past 24 months of account history for a Residential account and within the past 36 months of account history for all other accounts:

- No non-pay disconnections
- No more than 1 delinquent notices
- No more than 1 late payments
- No returned checks or declined electronic payments because of insufficient funds or closed accounts
- No delinquent outstanding balance(s) from a prior account
- No bankruptcies within 7 years
- No uncollectible balances outstanding
- No unpaid miscellaneous billings

BANKRUPTCY

Customers who file for bankruptcy will be subject to the bankruptcy law, in effect, at the time of their filing. Customers filing for bankruptcy will be required to provide a Deposit in order to continue service.

INTEREST

Interest on the Deposit will be applied to the Customer's account as a credit on their monthly billing statement at least once each calendar year. The interest rate is calculated and published as provided in Minnesota Statutes, Section 325E.02.

TRANSFERS

Deposits are non-transferable from one applicant to another and are only payable to the original applicant.

REFUNDS

Residential Deposits will be applied as a credit to the Customer's account at the end of 24 consecutive months, if an acceptable credit history has been established.

Commercial Deposits will be applied as a credit to the Customer's account at the end of 36 consecutive months, if an acceptable credit history has been established.

For Customers without an active service, the Deposit and interest will be applied to their final bill. Remaining credit balances will be refunded within 45 days after the termination of service.

RETURNED PAYMENTS

Payments by check or ACH that are returned for non-sufficient funds (NSF), account closed or credit/debits that are declined, may result in the Customer's account becoming delinquent. The Customer's account will be assessed a return fee, as established by the *Miscellaneous Fees Schedule*, and *Late Payment Fee*, if applicable.

The account will immediately be subject to the *Disconnection Procedure*. If the Customer has already been notified of a pending disconnection and their payment is returned by their bank, service will be disconnected without further notice.

A Customer with more than two (2) of any combination of the following: NSF or account closed checks, declined ACH payments, or declined credit/debit card payments; within a twelve (12) month period, will be required to make future payments in cash, money order, cashier's check, wire transfer or credit card until achieving an acceptable credit history as defined above.

OVERPAYMENT & UNDERPAYMENT

In the event a Customer overpays their utility bill, and is not delinquent, the overpaid amount will remain on the account and be applied to the next bill. Overpayments caused by payments made via check or ACH may be subject to a waiting period before a refund is issued to ensure funds clear the Customer's bank.

For overpayments and underpayments as a result of a billing error, refer to *Adjustment of Utility Services Billed*.

Partial payments, although accepted, will not prevent disconnection of utility service(s) unless other payment arrangements are made with RPU staff.

DELINQUENT ACCOUNTS AND DISCONNECTION OF SERVICE

PAST DUE ACCOUNTS

Unpaid accounts shall be considered past due on the first calendar day following the Due Date.

COLLECTION OF PAST DUE ACCOUNTS

When all administrative efforts at collecting a past due account have been exhausted, alternative collection methods may be used, including but not limited to legal action, utilizing collection agencies, and/or submitting a claim to the Local, State or Federal Revenue Recapture Programs.

RPU also reserves the right to assess delinquent electric, water, and/or any billings on behalf of the City or other City Department charges incurred by the property owner, against the property,

with Olmsted County through approved legal process for assessment, according to all state and local laws.

DISCONNECTION OF SERVICE

RPU shall attempt to collect delinquent accounts promptly. Where satisfactory arrangements for payment have not been made, and after notification requirements have been complied with, utility services will be disconnected.

Emergency Situations

Where it is necessary that the utility service be temporarily disconnected or connected to protect health, life or property, RPU will, at its discretion, take such action without charge or notice to the Customer.

COLD WEATHER RULE

From October 15 to April 15, RPU acknowledges and complies with the State of Minnesota Cold Weather Rule for Municipal Utilities under Minnesota Statutes, Section 216B.097.

DECEASED CUSTOMER

Upon death of a Customer, the service will be removed from that person's name as quickly as possible. As soon as the death of a Customer is known, RPU will send the family a letter giving them a sixty (60) day notice that the name needs to be changed on the account. In the event that service is not transferred within sixty (60) days, RPU reserves the right to discontinue service and apply the Deposit (if applicable) to all outstanding balances owed to RPU in the name of the deceased individual's account.

DISPUTES AND APPEAL

DISPUTED PROCESS

The Customer may dispute a bill that they feel is in error by calling or writing to RPU. We will investigate all disputes. We will not disconnect a service for non-payment of a disputed bill provided: (1) the Customer notifies us before the bill is delinquent and (2) the Customer pays all other undisputed charges when due.

APPEAL PROCESS

When a Customer is dissatisfied with action taken on his or her dispute, he or she has the right to appeal. A detailed written notice of the issue must be received by RPU within 30 days of the initial dispute. The appeal will be reviewed by RPU management to decide whether or not RPU policies and procedures have been administered properly on the Customer's behalf. Management will respond to the Customer with their findings and any further course of action, if needed.

METER TAMPERING

TAMPERING/THEFT

RPU follows Minnesota Statutes, Sections 325E.026 and 609.52 with regards to the unauthorized use of Utility meters and theft of service.

All connections to RPU's service equipment shall be made by RPU or RPU authorized personnel only. Unauthorized connections to or tampering with any RPU meter, associated equipment or meter seals, or indications or evidence thereof subjects the Customer to immediate discontinuance of service, prosecution under the laws of Minnesota, adjustment of prior bills for services rendered, and reimbursement to RPU for all legal and other expenses incurred on the account. Prior to service reconnection, Customer will be required to have an inspection of the meter completed at their own expense.

EFFECTIVE DATE OF POLICY:

DATE OF POLICY REVISION:

POLICY APPROVAL:

Board President

July 24, 1990

December 17, 2019 May 25, 2021

Date

5.a

FOR BOARD ACTION

Agenda Item # (ID # 13346)

Meeting Date: 5/25/2021

SUBJECT: RPU Transition to Normal Operations

PREPARED BY: Peter Hogan

ITEM DESCRIPTION:

On March 24, 2020, the RPU Board suspended all residential and commercial electric and water shut-offs for the duration of the peacetime state of emergency declared on March 13, 2020 by Governor Walz. As summarized during the February 23, 2021 Board meeting, RPU has proactively reached out to customers with past due balance or who had qualified for assistance in the past to inform them of the assistance that is available.

Outreach efforts are ongoing and will continue as the Utility transitions to normal operations, including disconnecting customers' service for non payment if they have not entered into and maintain an acceptable payment arrangement. The general approach is that a customer will need to be paying for their current billings while working to repay past due balance for a period of up to 12 months. Customers entering into a payment arrangement before August 2, 2021 will not be subject to disconnection, provided they maintain the payments under the agreed upon payment arrangement.

While some Municipal Utilities have already resumed disconnections for non-payment, management is recommending that RPU adopt August 2, 2021 as the effective date for the resumption of normal operations. This is based on a recent order by the Minnesota Public Utilities Commission authorization for regulated utilities to resume disconnections for non-payment of services.

Following the Board's approval, RPU will communicate with all customers with past due balances to encourage them to bring their accounts current, or enter into and follow through on an acceptable payment arrangement.

Staff will walk through the attached Transition Plan with the Board. RPU will continue to work closely with aid agencies and helping our customer to apply for assistance they may be eligible for. Management is recommending that the Late Payment Fee reinstatement be delayed until April 15, 2022, which coincides with the end of the cold weather protection period next year and gives customers ample time to get assistance.

UTILITY BOARD ACTION REQUESTED:

Request Board approval of a resolution to return to normal operations on August 2, 2021 as directed by the Billing, Credit and Collections Policy with a deferral of the reinstatement of a late fee until April 15, 2022.

RPU Plan for Transition to Normal Service Conditions

Background

In March of 2020, RPU followed the guidance of the city and closed its offices and lobby. On March 24, 2020 the RPU Board suspended all residential and commercial electric and water utility shut-offs for the duration of the peacetime state of emergency declared on March 13, 2020 by Governor Walz. The Cold Weather Rule then ended on April 15th, however in accordance with the Board direction, no disconnects were done. This remains as of the date of this memo as no additional board action has been taken. The purpose of this memo is to provide a set of recommendations to the Rochester Public Utilities board to resume a move toward normal utility operations in accordance with pre-pandemic policy.

Customer communication steps taken to date

RPU has made a concerted effort to partner with local organizations and adjust its communication with customers over the past year of the duration of the Governor's Emergency orders.

- Mailed outreach letters to Residential and Commercial customers with past due balances (starting in May) including resources available and suggestions to call RPU to set up a payment plan. Informed customers that disconnections were suspended.
- 2. Provided information on the RPU Website with resources to call and links to assistance available at local, county, state and federal levels
- 3. Social media updates with resources available
- 4. Customer Care advisors called over 5,000 Residential and Commercial customers with past due balances to inform them of utility assistance resources available at the beginning of the pandemic.
- 5. Created more flexible terms within payment arrangement plans
- Provided utility assistance to both Residential and Commercial accounts through application of CARES funding received from the City of Rochester. In 2020, about \$873K was applied to accounts, in total.
- 7. Partnered with other local agencies to raise awareness about additional programs such as County CARES funding and assistance through RAEDI.
- 8. Created a Neighbors Chipping In program, where customers could round up bills that would create a fund that would provide assistance to customers with past due balances.
- 9. Released deposits for customers with past due balances as a means for paying current bills due.
- 10. Reopened the lobby in June 2020 with limited staffing in order to support customers who pay cash.
- 11. Customer Care advisors have begun to contact 1,585 renters and 1,603 landlords with past due balances to inform them of utility assistance available, specifically the RentHelpMN program.

12. Once the Minnesota Housing program launches for homeowners with mortgages – a similar outbound calling campaign will begin, as well.

Challenges

Due to these concerted efforts, more customers received access to help. Commercial customers got assistance with paying their balances and avoiding falling behind so that they could focus on reopening as more parts of the community and economy opened up. Our past due accounts receivable are better than they would have been as a result. Overall, more residential customers were connected to immediate and needed assistance. However there are customers that are falling further and further behind. Continuing the suspension of disconnects will put our customers in an even worse situation because they will reach a point where the assistance will not be able to help them, as the balances continue to increase with each monthly billing cycle.

Recommendations

As part of our transition to more normal utility service conditions, RPU will:

- Resume disconnections on August 2nd, 2021. This follows a recommendation from the Minnesota Public Utilities Commission which approved the resumption of disconnections on August 2, 2021 for investor owned Utilities.
- 2. Immediately begin to notify customers that disconnects will resume. Customers with past due balances will be sent a letter with urgent messages directing them to the RPU web site for resource listings.
- 3. Implement a third phase of outbound calling throughout summer of 2021 to reach all customers with past due balances or those who have received assistance in the past directing them to resources as well as urging customers to a payment agreement before the resumption of disconnections.
- 4. Continue to update information on the RPU website about resources to help pay bills and encourage customers to contact RPU to make payment arrangements. A dedicated page on RPU's web site lists available resources and is regularly updated as additional resources are made available.
- 5. Ensure all communication to customers will include the date, August 2, 2021, and note that disconnects will commence, so that customers are provided an advance notice.
- 6. Include a bill message on all customer bills with the date that RPU will begin disconnects.
- 7. Resume collections on August 2, 2021.

All customers with past due balances will be sent the regular advance notice mailings once the board approves this transition plan. Due to the anticipated call volumes once disconnection notices are sent, RPU will analyze the number of letters mailed and will adjust the timing of the letters to manage resources and provide optimal service. Similarly, the physical disconnections for customers with past due balances that have not made a payment agreement, will begin on August 2, 2021. This timing will help ensure that RPU is able to maintain our standards for promptly answering the normal flow of phone inquiries and reconnections, while making payment arrangements for the growing number of consumers in arrears since the suspension of disconnections.

RPU's disconnection process will acknowledge customers with past due balances who have received a guarantee of funds from third party resources (for example, Energy Assistance Program). RPU will work with those customers to ensure that their accounts reflect such payment assistance.

This timeline provides time for outreach to customers and provides adequate noting of pending disconnection while providing time to negotiate payment agreements and avoid service disconnections well before August 2, 2021. It is essential to give sufficient time to get customers on track and also prepared for normal service conditions.

Payment agreement terms and late fees

RPU makes payment arrangements based on individual customer circumstances and modifies those plans if customer circumstances change. Terms will be negotiated that work for the customer to resolve past due amounts in a reasonable time frame. This will especially help low-income residential customers manage their balances and offer additional time to catch up their accounts or assist them while they apply for assistance since payment agreements will take into account income levels. While it is anticipated that most payment agreements will be made over a 3 - 12 month period, it is important to note that some plans may be longer than 12 months, depending on the circumstances. No additional service deposit will be charged as a consideration to reconnect or continue service to a customer who has entered and is reasonably on time under an accepted payment agreement.

RPU will waive late payment charges through April 15, 2022 provided the customer has entered into and maintained a payment agreement prior to disconnection.

Customers who do not establish a payment agreement, or break one during this transition would be subject to standard collections practices beginning August 2, 2021, under RPU's Board approved Billing, Credit and Collections policy. Under this policy, and in accordance with Minnesota Statute 216B.098 Subd. 3, payment agreements must consider a customer's financial circumstances and any extenuating circumstances of the household.

Conclusion

The pandemic has impacted our customers and RPU financially. The suspension of disconnections and the economic impact of the pandemic on some of our customers over the past year have caused past due customer balances to increase by \$1,446,318 since February 29, 2020. With this in mind, the goal of this plan is to transition customers to paying for their ongoing Utility service while working to catch-up on their past due balances over time.



RESOLUTION

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve a return to normal operations as authorized by the Billing Credit and Collections Policy on August 2, 2021, with the exception of the Late Payment Fee which will be deferred until April 15, 2022.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 25th day of May, 2021.

President

Secretary

FOR BOARD ACTION

Agenda Item # (ID # 13332)

Meeting Date: 5/25/2021

SUBJECT: AMI Business Case

PREPARED BY: Mark Kotschevar

ITEM DESCRIPTION:

For the past several months, RPU staff, along with E Source, a consulting firm that specializes in analyzing the costs and benefits of implementing Advanced Metering Infrastructure (AMI), have been preparing an Assessment and Business Case Report for implementing a water and electric AMI system. The assessment outlines the estimated costs, benefits, and risks to deploying an AMI system, along with recommendations on AMI technology, an implementation strategy, and necessary resources to support AMI. E Source and RPU staff will present the high level results of the assessment. Based on the results, staff will be seeking guidance from the board on next steps.

UTILITY BOARD ACTION REQUESTED:

Information only. No formal action requested.



DRAFT Advanced Metering Infrastructure Assessment and Business Case Report for Rochester Public Utilities

May 21, 2021

E Source || esource@esource.com || 1-800-ESOURCE

1

6.1.a

Contents

Executive Summary
Goals and Priorities8
Assessment Results9
Risk Analysis9
Business Case
Cost Benefit Results9
Use Case Development / Prioritization10
Next Steps and Roadmap10
Next Steps 10
Roadmap11
Introduction
Document Purpose
Utility Overview
Scope of Work
Current State Discovery Findings
Operations
Meter Reading and Field Services13
Device Management13
Customer Service
Billing14
Electric Operations
Water Operations
Business System Applications
System Integrations
CIS Compatibility Review
Project Drivers
Goals and Objectives
Business Case Analysis
Background
Scenarios

Characteristic Financial Metrics	28
Global Model Assumptions	29
High-Level Results	30
Benefits Assumptions and Estimates	35
Quantifiable Benefits	35
Non-Quantifiable (Soft) Benefits	41
Conclusions	42
Use Case Development/Prioritization	43
Process	43
Prioritization and Evaluation	43
Strategic Direction	45
AMI Program Roadmap	45
Milestone 1 – AMI System Procurement	48
Milestone 2 – Planning / Start POC	48
Milestone 3 – Start Full Deployment	51
Milestone 4 – Stabilize and Re-evaluate Use Cases	52
Milestone 5 – Full Deployment Complete	52
Milestone 6 – Continue Use Case Evaluation and Identify Opportunities	53
Long Term Planning	53
Staffing Plan	56
Governance	56
Project Team Roles	58
Program Roles	62
Risk Register	63
Risk of "As Is" Approach (Scenario 0)	65
Next Steps	67
Recommended Go/No-Go Decision	67
Procurement	67
Requirements Development	67
RFP Development	67
RFP Management	67
Response Evaluation & Selection	68

Vendor Contracting	68
Appendix 1: Detailed Business Case Analysis	
Scenario 0: Status Quo	
High-Level Cost-Benefit Analysis Results	70
Capital Expenses	72
Operational Expenses	72
Scenario 1: Unified Network	73
High-Level Cost-Benefit Analysis Results	73
Capital Expenses	75
Operational Expenses	76
Scenario 2a: Independent Electric and Water Networks	77
High-Level Cost-Benefit Analysis Results	77
Capital Expenses	79
Operational Expenses	
Scenario 2b: Independent Electric-Only Network	
High-Level Cost-Benefit Analysis Results	80
Capital Expenses	
Operational Expenses	
Scenario 3: Hybrid Migratory Network	
High-Level Cost-Benefit Analysis Results	
Capital Expenses	
Operational Expenses	
Appendix 2: Strategic Roadmap	
Appendix 3: Staffing Plan	
Appendix 4: Use Case Prioritization Workbook	
Appendix 5: Risk Register	

Figure 1 Payments by Type	15
Figure 2 Comparative Cash Flows	32
Figure 3 Scenario 0 Estimated Program Benefits by Year	37
Figure 4 Scenario 1 Estimated Program Benefits by Year	38
Figure 5 Scenario 2a Estimated Program Benefits by Year	38
Figure 6 Scenario 2b Estimated Program Benefits by Year	39
Figure 7 Scenario 3 Estimated Program Benefits by Year	39
Figure 8 AMI Program Roadmap	47

© 2021 E Source Companies LLC || Do not share this document outside of Rochester Public Utilities.

Figure 9 Reporting and Analytics Journey	56
Figure 10 Scenario 0 Base Case AMI Cash Flow	70
Figure 11 Scenario 0 Base Case Cost-Benefit Analysis	71
Figure 12 Scenario 0 Estimated Program Capital Outlay by Category	72
Figure 13 Scenario 0 Estimated Annual Program Operational Expense by Year	73
Figure 14 Scenario 1 Base Case AMI Cash Flow	74
Figure 15 Scenario 1 Base Case Cost-Benefit Analysis	74
Figure 16 Scenario 1 Estimated Program Capital Outlay by Category	76
Figure 17 Scenario 1 Estimated Annual Program Operational Expense by Year	76
Figure 18 Scenario 2a Base Case AMI Cash Flow	77
Figure 19 Scenario 2a Base Case Cost-Benefit Analysis	78
Figure 20 Scenario 2a Estimated Program Capital Outlay by Category	79
Figure 21 Scenario 2a Estimated Annual Program Operational Expense by Year	80
Figure 22 Scenario 2b Base Case AMI Cash Flow	81
Figure 23 Scenario 2b Base Case Cost-Benefit Analysis	81
Figure 24 Scenario 2b Estimated Program Capital Outlay by Category	83
Figure 25 Scenario 2b Estimated Annual Program Operational Expense by Year	84
Figure 26 Scenario 3 Base Case AMI Cash Flow	85
Figure 27 Scenario 3 Base Case Cost-Benefit Analysis	85
Figure 28 Scenario 3 Estimated Program Capital Outlay by Category	87
Figure 29 Scenario 3 Estimated Annual Program Operational Expense by Year	87

Table 1 Document History and Distribution	7
Table 2 Acronyms & Definitions	7
Table 3 Recent Peak Demand	. 16
Table 4 Goals and Objectives	. 21
Table 5 Cost-Benefit Overview	. 26
Table 6 Characteristic Financial Metrics	. 29
Table 7 Characteristic Financial Metrics Comparison	. 31
Table 8 Feasible Scenarios Pros and Cons	. 32
Table 9 Program Benefits Assumptions	. 35
Table 10 Quantifiable Benefits	. 40
Table 11 Intangible Benefits	. 41
Table 12 POC Success Criteria	. 49
Table 13 Use Cases that may be Implemented After POC is Complete	. 51
Table 14 Use Cases that may be Implemented with Limited AMI Functionality	. 52
Table 15 Use Cases to be Implemented During Full Deployment	. 53
Table 16 Executive Steering Committee Roles	. 57
Table 17 Project Team Roles – Procurement Phase	. 58
Table 18 Project Team Roles – Implementation Phase	. 60
Table 19 Program Roles	. 62
Table 20: Sample High-Priority Risks	. 64
Table 21 Cost-Benefit Overview	. 69
Table 22 Scenario 0 Base Case Financial Metrics	. 70
Table 23 Scenario 0 Sensitivity Matrix	. 71
Table 24 Scenario 0 Best- and Worst-Case	. 72

6.1.a

Advanced Metering Infrastructure Assessment and Business Case Report || Rochester Public Utilities

73
75
75
77
78
79
80
82

7

Recipient Name	Date	Recipient Organization	Distribution Method
Project Core Team	3/3/2021	Rochester Public Utilities	SharePoint
Project Core Team	3/8/2021	Rochester Public Utilities	SharePoint
Executive Team	3/11/2021	Rochester Public Utilities	SharePoint

Table 2 Acronyms & Definitions

Table 1 Document History and Distribution

Acronym	Definition	Acronym	Definition
AC	air conditioning	MDM	Meter Data Management
ACH	Automated Clearing House	MDMS	Meter Data Management System
AD	Active Directory	MIMO	Move-In/Move-Out
AMI	Advanced Metering Infrastructure	MISO	Midcontinent Independent System Operator
AMI/MDMS	Advanced Metering Infrastructure/Meter Data Management System	MG	million gallons
AMR	Automatic Meter Reading	MGD	million gallons per day
API	Application Programming Interface	MW	megawatt
AVL	Automatic Vehicle Location	MWM	Mobile Work Management
AWWA	American Water Works Association	NIST	National Institute of Standards and Technology
BI	Business Intelligence	NPV	Net Present Value
BW	Business Warehouse	OMS	Outage Management System
CapEx	Capital Expense	OpEx	Operational Expense
CCA	Customer Care Advisor	OSI	Open Systems International
CEP	Customer Engagement Portal	PDF	Portable Document Format
CIS	Customer Information System	PEV	plug-in electric vehicle
CROD	Contracted Rate of Delivery	PII	personally, identifiable information
CU	Cayenta Utilities	POC	Proof of Concept
DA	Day-Ahead	PRV	Pressure Reducing Valve
DSM	Demand-Side Management	QA	Quality Assurance
ERP	Enterprise Resource Planning	RF	radio frequency
ERT	Encoder Transmitter Receiver	RFP	Request for Proposals
ESRI	Environmental Systems Research Institute	ROI	Return on Investment
FAN	Field Area Network	RPU	Rochester Public Utilities
FCS	Field Collection System	RT	Real-Time
GIS	Geographic Information System	SaaS	Software as a Service
HAN	Home Area Network	SAP	Systems Applications Products
HDPE	high-density polyethylene	SCADA	supervisory control and data acquisition
HES	headend system	SEW	Smart Energy Water
IBM	International Business Machines	SME	Subject Matter Expert
loT	Internet of Things	SMMPA	Southern Minnesota Municipal Power Agency
IRR	Internal Rate of Return	SOW	Scope of Work
IT	Information Technology	TOU	Time-of-Use
IT/OT	Information Technology / Operational Technology	UCCX	Unified Contact Center Express
IVR	Integrated Voice Response	VEE	Validation, Estimation, Editing
KVAr	Kilovolt-Ampere Reactive	XML	eXtensible Markup Language
Lat/Long	Latitude / Longitude		

© 2021 E Source Companies LLC || Do not share this document outside of Rochester Public Utilities.

Executive Summary

This assessment presents the estimated costs, benefits, and risks to deploying an AMI system and provides recommendations on AMI technology, an implementation strategy, and resources to support AMI. A key focus of the effort includes the development of goals and priorities, the business case financial impacts, a strategic roadmap, staffing plan, use case development, and identification of risks. If the AMI program moves forward, this foundation will prepare RPU for the subsequent procurement phase.

Goals and Priorities

Each organization is unique in its strengths, weaknesses, and business needs. Understanding the business needs facilitates alignment of the purchased AMI system to meet those needs. RPU has a comprehensive Strategic Plan that identifies their strategic focus called the "Five R" Customer First areas: Relationship, Reputation, Rates, Reliability, and Responsibility. RPU aligned the goals of an AMI system to the Five Rs as follows:

Customer First Area	Goal
Relationships	Personalize customer engagement and outreach based on individual needs
Responsibility	Leverage, to the extent practical, the existing investments for infrastructure in place
Responsibility	Examination of forward years carrying costs, project implementation timelines, capital expenditures and Cost Benefit analysis as part of roadmap.
Rates	Utilize AMI data to support effective planning
Reliability	Improve operational efficiencies
Reliability	Selection and identification of specific field AMI hardware architecture at the end of the roadmap (i.e., key part of roadmap recommendation). Initial design recommendations of Field Area Network (FAN) and Collector technology as the best fit for RPU systems.
Reliability	Emphasis upon Proof of Concept (POC) implementation approach. This approach provides a risk management and scalable implementations working to assure Alpha and Beta testing phases prior to Full Deployment.
Reliability	Roadmap discussion of Business Enterprise and High-Level framework optionality, as it aligns with recommended AMI field architecture.
Reliability	Roadmap goal of identifying or attempting to quantify business risk due to technology obsolesce, expected years between technology refresh, and vendor stability.
Reliability	Improve operational efficiencies

From these goals, there were thirty-one (31) specific objectives identified for how an AMI system will support the accomplishment of the goals. These objectives can be found in Table 4 of the Project Drivers section of this report. All goals and objectives are enabled and attainable with an AMI system.

Rochester Public Utilities

Assessment Results

The assessment began with discovery and understanding of RPU's current state environment, which serves as the foundation for E Source's development of the business case, roadmap, risk register, and staffing recommendations for a successful AMI deployment.

From an operations perspective, the teams within RPU are well-informed and well-positioned for an AMI program implementation. Key findings of the current state assessment include:

- RPU is actively engaged in both energy audits and rebate programs across residential and commercial customer classes and is implementing a residential time-of-use (TOU) pilot
- The Information Technology / Operational Technology team at RPU has a strong understanding of the integrations and data flow of the various technology platforms deployed at RPU
- The Cayenta Utilities billing system can support integration with an AMI system, though integration efforts will be required during the AMI and MDMS implementation

Risk Analysis

An AMI deployment is a disruptive large-scale technology investment, and understanding the risks early in the project allows managing mitigation strategies. The project risks identified for RPU were "normal" AMI risks associated with an AMI project. Each risk was rated for probability and impact, and the relationship to the Customer First area was identified along with the AMI project phase of impact and mitigation strategies. The risk analysis can be found in Appendix 5.

Mitigation strategies will need to be managed and tracked during AMI program development and deployment to ensure they do not negatively impact the project cost, schedule, or capabilities.

Business Case

The RPU business case assumes the deployment of AMI, a Meter Data Management System (MDMS), a Customer Engagement Portal (CEP), and a mix of electric and water meters. E Source reviewed all model assumptions with RPU staff.

Cost Benefit Results

There were five distinct cost benefit scenarios calculated as follows:

- Scenario 0 Status Quo Metering System a status quo approach that maintains electric and water metering activities and data management processes. This scenario does not provide the additional benefits associated with AMI, such as providing detailed data to customers and the utilities.
- 2. Scenario 1 Unified Network deployment of a single network to accommodate both electric and water services, with all electric meters exchanged for new meters.
- 3. Scenario 2a Independent Electric and Water Networks deployment of wholly independent communication networks for electric and water services, with the

electric network leveraging RPU's current investment in Itron Bridge electric meters.

- Scenario 2b Electric-Only Network deployment of an electric-only network, with the electric network leveraging RPU's current investment in Itron Bridge electric meters.
- 5. Scenario 3 Hybrid Migratory Network deployment of a network solely for Itron Bridge meters, plus a unified network for all water and any non-Bridge electric meters; over time, Itron Bridge meters will be replaced, and new meters will be installed that are compatible with the unified network.

Shown below are the total capital expense, operational expense, benefits, and payback over a twenty-year period (aligned to the warranties standard within the AMI industry) for each of these scenarios based on program assumptions.

	Scenario 0	Scenario 1	Scenario 2a	Scenario 2b	Scenario 3
Total Project Lifespan Category	Status Quo Electric and Water Metering Systems	Unified Network	Independent Electric and Water Networks	Electric-Only Network	Hybrid Migratory Network
Total Capital Expense (Present Value)	\$12,891,000	\$22,180,000	\$20,714,000	\$8,770,000	\$22,991,000
Total Operational Expense (Present Value)	\$3,623,000	\$12,155,000	\$13,175,000	\$10,242,000	\$10,740,000
Total Benefits (Present Value)	\$8,210,000	\$38,896,000	\$38,679,000	\$19,631,000	\$38,681,000
Payback Period (Years)	No Payback within Lifespan	13	13	16	14

Use Case Development / Prioritization

Development of use cases is a way to identify value to RPU and their customers beyond using the AMI system for billing purposes. RPU identified and prioritized a total of 113 use cases in the categories of Customer Service, Distribution Grid Management, Distribution System Management, Market Operations and Meter Operations. For each use case, the required technology is identified and the phase in which RPU would like to implement it. Example use cases include Transformer Loading Analysis, Customer Outage Restoration, Tariff Design, Electric Vehicle Planning, High Water Bill Inquiries, and Water Service Leak Detection. Some use cases are complex and will require evaluation and adjustment during the AMI deployment. A full list of use cases for RPU are in Appendix 4.

Next Steps and Roadmap

Next Steps

1. Go/No-Go Decision – E Source encourages selection of the appropriate scenario for RPU based on a long-term vision and not a short-term capital expenditure.

11

- 2. Assess funding options short-term and long-term to support AMI implementation.
- 3. Obtain necessary approvals from governing body.
- 4. Designate Project Sponsor, Project Manager(s), and AMI Project Team Members

Roadmap

If the decision is made to proceed with an AMI Program, the Strategic Direction section of this assessment identifies near-term and long-term goals along with major milestones for the strategic deployment of an AMI system. This roadmap identifies the steps required and the relative time frame it will take to accomplish these milestones.

Introduction

Document Purpose

The purpose of this assessment report is to provide Rochester Public Utilities (RPU) with a technology and operational assessment and to assist in determining the feasibility of pursuing an advanced metering infrastructure (AMI) solution. This document also serves as a foundation to document program goals and strategic direction, and ultimately prepare RPU for AMI deployment.

E Source examined RPU's current business functions, meter hardware and equipment, systems and software, and staffing. This information was acquired via data requests and through a series of stakeholder meetings. This information was used to develop a business case, outlining the quantitative and qualitative benefits that can be realized with an AMI program, given the options available.

Utility Overview

Located in the seat of Olmsted county, Rochester is the third-largest city in the state of Minnesota. The city's mission includes the provision of a safe, attractive environment through the responsive, efficient, and cost-effective delivery of municipal services.

RPU, a division of the City of Rochester, is the largest municipal utility in the state of Minnesota. RPU employs over 200 full-time employees who serve over 57,000 electric customers and 41,000 water customers in its 38.85 square mile service area. The utility operates under the direction of a five-member, mayor-appointed Utility Board and under the Rochester City Council.

Scope of Work

E Source performed an assessment study to baseline RPU's operations and potential for an Advanced Metering Infrastructure/Meter Data Management System (AMI/MDMS) implementation. This Assessment Report and associated business case effectively provides RPU with the first go/no-go decision point on whether to proceed with the AMI/MDMS Project.

The assessment tasks performed per E Source's Scope of Work are as follows:

• Project Kick-off and Mobilization

Advanced Metering Infrastructure Assessment and Business Case Report || Rochester Public Utilities

- Technology Review/Education
- Project Goals, Objectives, and Use Case Development
- Current State of Operations
- CIS Compatibility Review
- Strategic Development
- Business Case Development
- Assessment Report
- Project Management and Services

Current State Discovery Findings

Operations

To inform the roadmap outlined in this report, E Source examined RPU's current utility business processes, meter hardware and equipment, systems and software, reporting capabilities, and resources. Information on current state operations was acquired via data requests and remote meetings.

Meter Reading and Field Services

RPU's meter population is organized into 63 routes and 20 billing cycles and all meters are read once per month. RPU provides electric and/or water service to 38.85 square miles of service area. The metered service areas mostly overlap and are within the City of Rochester. Both electric and water metered services are provide in limited amounts outside the City limits. Meter reading is performed according to a formal schedule, with an average of 2,500 electric and 1,500 water meters being read every business day per month. With few exceptions, electric and water meters are read at the same time by meter readers from the Electric Meter shop using a mobile collector. RPU makes extensive use of the Itron platform for collection, and very few meters are read manually. Typically, the valid, approved readings are billed the same day in a nightly batch job.

For all service-related work orders, RPU creates the service order in the Cayenta billing system, and the service order is completed with their mobile electronic application Cayenta Mobile Work Management (MWM).

RPU staff for electric meter reading and field services presently includes two Meter & Service Technicians for installation and maintenance, and two meter readers (Customer Relations Field Rep.). Installation and maintenance for water meters is accomplished by several Water Operators on an as needed basis rather than a dedicated work force.

Device Management

RPU's meter deployment is managed by a dedicated department (Device Management). Currently, RPU employs three device management technicians responsible for the management of technical meter data and device records for both Water and Electric departments, including logistics for new and existing customer locations and services, analysis and resolution of customer device and billing anomalies, meter reading and routes management, and resolution of technical device issues as well as direct customer and contractor interactions. processing meter installations, removals, investigating implausible meter readings, and generating service orders. Device Management works to identify, review, process, and resolve implausible/questionable meter readings from daily Cayenta reports and using mobile work order management software (Cayenta MWM) to plan and schedule work.

Customer Service

Currently, RPU employs ten customer care advisors (CCAs) responsible for fielding incoming phone calls, processing payments, processing customer move-ins and move-

14

outs, addressing billing inquiries, facilitating non-pay disconnects/reconnects, and generating service orders. It has been reported that the majority of customer calls are related to connecting/disconnecting service, payment arrangements, and electric/water usage questions related to bill amounts. Calls typically last 2.5-3 minutes. In addition to phone calls, RPU allows walk-in visits to the main office, which is visited by approximately 800-1,200 people per month.

Customers may also access account information online through the Smart Energy Water (SEW) customer engagement portal (CEP), allowing them to view bills, pay bills, view monthly usage over the past twelve months, report outages, configure customer notification preferences, and contact CCAs via an online form. SEW has a customer analytics module that RPU can use to track uptake statistics of its customers. This module tracks the total number of logins, requests, users, transactions, email notifications, text notifications, and integrated voice response (IVR) notifications, as well as how many accounts are enrolled to access portal.

To encourage energy conservation, RPU is actively engaged in both energy audits and rebate programs across residential and commercial customer classes. RPU is also implementing a residential time-of-use (TOU) pilot, with future plans for expansion. This pilot aligns to a demand-side management (DSM) study that was previously conducted in 2019.

Billing

Billing reads are populated within the system with an Itron MC3 by transferring reads to Itron's Field Collection System (FCS) and uploading from FCS to Cayenta in eXtensible Markup Language (XML) format. The Electric Meter Shop processes all re-read service orders generated by Device Management, using low and high thresholds of 0.25x and 2.5x the previous month's read, respectively. In general re-reads are not prevalent, with only a few required in any given month, which are typically conducted same day or next day.

All customers—both residential and commercial/industrial—are billed for electric, water, and wastewater on a combined monthly bill, which accounts for roughly 30 days of service. There are two employees supporting the Utility billing process. These employees are responsible for manually scheduling daily billing jobs, reconciling the billing jobs to Portable Document Format (PDF) bill prints, manually invoicing required customers, working error logs to ensure all accounts are billing, monitoring rate changes, and performing adjustments, as needed. Bill estimation is rare and generally only performed for stopped meters or multi-month missed reads, and these estimates are generated within Cayenta and checked for validity. After bills are verified, printing and mailing is outsourced to a third-party provider.

Customers have the option to mail in payments, but they can also pay their bills online through the customer portal, Smart Energy Water, via credit card or automated clearing house (ACH), either as a one-time payment or as an automatic monthly payment. A breakdown of payment types is shown in Figure 1.

© 2021 E Source Companies LLC || Do not share this document outside of Rochester Public Utilities.

Advanced Metering Infrastructure Assessment and Business Case Report || Rochester Public Utilities



Bills are produced daily, and each cycle is billed once per month, for between 61,500 to 63,000 accounts. Accounts are billed each night and mailed the next day, unless there are read exceptions, account issues, or the account is manually billed. From bill generation, a customer has 21 days to pay their bill before it is considered past due. Once an account is unpaid for 14 days, a delinguent notice is sent advising of a pending disconnect, for outstanding balances of \$150.01 or greater. Service disconnect orders are scheduled for 16 days later. Overall, delinquency is effective after 35 days from bill generation, and service disconnect will occur at 51 days after a meter is read; however, disconnects are not conducted on Fridays, weekends, holidays, or working days prior to holidays. Usually, only electric service is disconnected, unless the customer is water-only or if the electric portion is paid under Energy Assistance. Reconnects are performed ondemand, usually same-day or next-day following full payment. RPU also offers payment plans, set up and managed by the Collections Department, which consists of one (1) Lead Customer Collections Technician and one (1) Customer Collections Technician. In the past, RPU has filled a temporary position for six (6) months to support the full-time staff during the busy season (typically April-October).

Electric Operations

The City of Rochester, through RPU, has a contract with Southern Minnesota Municipal Power Agency (SMMPA) to provide all City electric needs up to the Contracted Rate of Delivery (CROD) of 216 MW. Above the CROD, RPU self-supplies power to customers. Typically, the CROD is only exceeded during summer months. To meet demand, RPU owns and operates several facilities. Cascade Creek Station has two combustion turbines powered by natural gas with liquid fuel backup; these turbines, GT1 and GT2, are capable of 28 megawatt (MW) and 49 MW generation, respectively. Westside Energy Station has five natural gas engines, each providing 9.3 MW for a total plant output of 46 MW. RPU

6.1.a

also has two hydroelectric units totaling 2.6 MW on Lake Zumbro, and two smaller diesel generators of 1.8 MW each. Excess generation from Cascade Creek and Westside Energy Station are bid into the Midcontinent Independent System Operator (MISO) Day-Ahead (DA) and Real-Time (RT) energy markets. The current contract with SMMPA expires in 2030, at which point RPU will be responsible for supplying power below CROD.

All-time system demand peaked in July 2011 at 292 MW. Peak for each of the last six years is detailed in Table 3. Peak reduction through load control and demand response is a part of RPU's current resource planning in preparation for 2030.

Table 3 Recent Pe	eak Demand	
	Year	Peak (MW)
	2020	265
	2019	284
	2018	277
	2017	266
	2016	276
	2015	262

Power is distributed through 301 miles overhead and 524 miles of underground line, with an average of 68.3 meters served per mile of line. Geographic Information System (GIS) is used extensively, and maps are used by System Operations to trace feeders and analyze connectivity to determine power outage locations, as well as for writing distribution switching steps. RPU operates a supervisory control and data acquisition (SCADA) system with 11 substations under its control. Though substation voltage can be regulated from the control center, RPU does not currently have the ability to control phase voltage on individual meters, nor does it operate any distribution automation.

Water Operations

RPU operates 31 active groundwater wells to source raw water, with a total production capacity of 37 million gallons per day (MGD). Water is stored at one of 14 elevated tower or 6 ground reservoirs; though RPU used to operate underground storage tanks, these stores are no longer used. In sum, distribution storage capacity is 16.95 million gallons (MG).

Water is delivered through 606.1 miles of water mains, comprised mainly of cast iron and ductile iron with a limited amount of high-density polyethylene (HDPE). Service lines to meters are primarily copper and polymer for smaller connections, while connection above 2-inches being predominantly cast and ductile iron.

The system is comprised of three main service level pressure zones that are further broken up by topographic features and comprise over 20 intermediate zones that are fed by Pressure Reducing Valves (PRV). 15 booster stations are used to deliver water, including several well houses with booster pumps at zone interfaces; pressure monitoring is conducted at all pump stations. The distribution system is metered at all wells and boosters, and meters are located in manholes where actuators drop water between zones.

6.1.a

RPU has instituted a formal leak detection program, with water accountability reviewed monthly, and all water breaks and leaks are repaired as soon as identified—typically within the same day. Additionally, hydrant flushing is practiced with main breaks.

Business System Applications

RPU manages information technology using in-house resources, and these resources are not shared with other entities.

With limited exception, the majority of these systems are deployed on-premises, rather than hosted. HPE servers are preferred, and these systems are not in any imminent danger of approaching peak capacity. RPU is open to utilizing hosted AMI, Meter Data Management System (MDMS), or customer portal platforms in the future, especially in consideration of the fact that many vendors in the marketplace only offer hosted- or Software as a Service- (SaaS)-based solutions.

Data tests and restores are conducted on a quarterly basis. RPU has technologies and processes in place to support and build best practices.

RPU has developed a formal security plan and conducts regular penetration testing on systems. Security controls are also in place to protect personally identifiable information (PII) both at rest and in transit.

System Integrations

As part of current state integrations discovery, it was observed that RPU performs a combination of manual and automated processes.

Some pain points that E Source identified in the current processes, which can be overcome through an AMI/MDMS implementation, are identified below:

- Meter Reading Process—With an AMI/MDMS implementation, reads will be sent everyday from the AMI headend system (HES), which will be passed to MDMS and validated using the validation, estimation, editing (VEE) process to identify read exceptions proactively before a bill is produced.
- **Transformer Load Balancing**—Complex manual calculations are being performed currently for transformer sizing (load balancing). To perform transformer load balancing, consumption data is currently downloaded from Cayenta, uploaded to GIS, aggregated, and then uploaded into another application. Certain MDM systems have additional modules to perform these calculations on the fly.
- Meter Events—Thefts and tampers are currently detected with high/low validation exceptions, which may result in false positives that could get detected from the high-low report. With the AMI meters, tamper events will be sent from AMI meters to an MDM system. Thefts and tampers can be identified proactively instead of once a month at the time of billing, and can be set in the system to avoid false positives as well. The number of truck rolls due to false positives will substantially decrease with an AMI system. These events can also be used to automate Service

Order creation in the MDMS for field investigation. To avoid false positives in an MDMS, a combination of tamper meter event and low consumption validation exception can be considered to create Service Orders for field investigation.

- Unexpected Consumption—Consumption on a meter that is turned off is detected in Cayenta using a high/low report. These reports are run once a month at the time of billing in Cayenta. These events can be identified proactively using AMI data and MDM system's Unexpected Consumption report.
- **Customer Leaks**—These events are currently based on high/low checks, and no process automation exists. Device Management calls the customer or sends a crew to investigate depending on the criticality of the customer leak. With AMI meters in place, these can be identified proactively using reports in an MDM system or using the meter events/alarms in an AMI system.

As RPU assesses the implementation of an AMI/MDMS solution comprised multiple software and hardware components, it is crucial to consider the implications of the implementation on current systems integrations and future systems planning and support. RPU should proactively engage all departments (Billing, Customer Service, Meter Shop, etc.) to establish priorities for the AMI/MDMS implementation. Cross-departmental resources will be needed to support the work required to integrate AMI/MDMS with the third-party systems, such as CIS and OMS. Resources from various teams will need to work with vendors to gather requirements, design the solution, perform current state business process analysis, build future state business process, and participate in testing the software procured.

As the AMI Project transitions into an AMI Program and business processes become more refined, updates to the software design, configuration, and integrations will likely be necessary. It is important to ensure these systems are maintained, either in-house and/or in partnership with vendors offering hosted solutions. Early and frequent engagement with third-party vendors will help ensure a successful project and long-term systems and integration health.

CIS Compatibility Review

Cayenta Utilities (CU) is the utility's billing system and is used to bill all metered accounts. Previously, RPU used SAP for billing and various Enterprise Resource Planning (ERP) functions including purchasing, reporting, work orders and financial accounting. RPU still uses those ERP functions within SAP. Currently, there are plans for system upgrades, however there are no plans to replace the CIS, and it is expected that Cayenta will fully support AMI processes and systems integration requirements. RPU has high confidence in the integrity of data within the CIS.

E Source reviewed the information compiled during discovery to assess whether Cayenta has the capability to support the data exchange and system integration required for an AMI implementation. In general, Cayenta can support the necessary interfaces for an AMI implementation. There will be some new integration points/interfaces for Cayenta, which

© 2021 E Source Companies LLC || Do not share this document outside of Rochester Public Utilities.

6.1.a

19

are identified below. In addition, E Source has also identified issues with certain current state business processes that require attention prior to deployment of an AMI system.

Key findings of the CIS Compatibility Review are outlined below:

- Cayenta can support daily uploads of billing data but will require new development/configuration to support a new meter read interface with an MDMS. The new interfaces between Cayenta and an MDM system would include: Billing Request (Cayenta to MDMS), Billing Response (MDMS to Cayenta) and Data Sync (Cayenta to MDMS).
- Cayenta can support synchronization of meter information with an advanced metering system (i.e., AMI HES/MDMS). A new interface needs to be built between the AMI HES and Cayenta CIS to keep the AMI HES updated with meter connection status. A provisioning file will usually be sent from Cayenta CIS to AMI HES for this purpose.
- Date and timestamp needs to be captured in Cayenta for both meter exchanges as well as Connect/Disconnect requests. Integrations with an MDM system in future state will require the date and time stamp for meter exchanges and connect/disconnect requests. RPU confirmed that date and time stamp is currently being captured for meter exchanges. The same will need to be done for Connect/Disconnect requests as well.
- RPU currently has excellent integrations between the SEW portal/IVR, Cayenta, and UCCX. When a customer calls to pay by phone for non-pay disconnect, the integrations help to validate the customer, accept payment, etc.
- RPU's OMS integrations with Cayenta and anicllary applications improve customer experience. When a customer calls to report an outage, the systems readily accept the outage information.
- The Information Technology/Operational Technology (IT/OT) team at RPU has a strong technical background and thorough understanding of the current integrations and data flow among the various systems. Continuing this approach in supporting their billing and metering systems will allow RPU to support future AMI/MDMS integrations.

Based on the information outlined above, the overall assessment is that RPU's current CIS system Cayenta and experienced IT/OT staff can sufficiently support implementation of an AMI/MDMS with proper resource planning.

Project Drivers

Goals and Objectives

In October 2020, E Source met with a wide range of utility stakeholders across the organization to solicit AMI project goals and objectives, relative to pain points in the utility operation. E Source presented key concepts and marketplace trends of AMI, how the functionality and the data might assist with their respective jobs and asked that stakeholders provide their ideas of what defines project success. This list was categorized into how each objective relates to one of the "Five R" Customer First areas RPU has identified in its Strategic Plan. Categories include:

- **Relationships**—foster a culture that enriches the lives of our customers.
- **Reputation**—deliver world-class service to our customers and be a trusted partner.
- Rates—maintain rates that provide value and long-term financial sustainability.
- **Reliability**—balancing system investments and prudent utility practices...without compromising the safety of our employees or the public.
- **Responsibility**—foster consistent culture of excellence...to our employees, customers, community, external partners, regulators, and the environment.

Goals represent high-level end-states or directives, and each goal can be accomplished by one or more objectives, which are measurable or verifiable targets to meet goals. To assist in goal attainment, objectives were prioritized on a 1-5 scale by RPU. In total, 31 objectives were generated, with 13 of these objectives ranked as top-priority and cutting across multiple Customer First domains.

Full details of goals and objectives are outlined in Table 4.

E Source recommends that RPU work to quantify and measure these objectives wherever possible, as the AMI project progresses toward deployment.

Table 4 Goals and Objectives			
Customer First Area	Goal	Objective	
Responsibility	Leverage, to the extent practical, the existing investments for infrastructure in place	Utilize existing electric meters, and relevant direct/indirect electric meter infrastructure where practical	
Responsibility	Leverage, to the extent practical, the existing investments for infrastructure in place	Utilize existing water meters, and relevant direct/indirect water meter infrastructure where practical	
Responsibility	Leverage, to the extent practical, the existing investments for infrastructure in place	Utilize existing software systems (Cayenta, SAP, SEW). The primary field AMI system hardware and architecture design is a primary goal, with existing back office ancillary systems slightly subordinate (all things being equal).	
Responsibility	Leverage, to the extent practical, the existing investments for infrastructure in place	Utilize existing communication infrastructure (fiber and physical assets)	
Rates	Utilize AMI data to support effective planning	Utilize AMI data to understand impact of new rate structures (e.g., time-of-day for water, plug-in electric vehicles (PEVs)). This is a high priority that the primary field AMI system hardware can capture data that can be aggregated in downstream systems to enable this analysis.	
Rates	Utilize AMI data to support effective planning	Support cost-of-service and other advanced rate development (e.g., TOU). This is a high priority that the primary field AMI system hardware can capture data that can be aggregated in downstream systems to enable this analysis.	
Reliability	Utilize AMI data to support effective planning	Utilize AMI data as input for hydraulic modeling, water demand and pattern analysis. This is a high priority that the primary field AMI system hardware can capture data that can be aggregated in downstream systems to enable this analysis.	
	And Objectives Customer First Area Responsibility Responsity Respont <th>And ObjectivesCustomer First AreaGoalResponsibilityLeverage, to the extent practical, the existing investments for infrastructure in placeResponsibilityLeverage, to the extent practical, the existing investments for infrastructure in placeResponsibilityLeverage, to the extent practical, the existing investments for infrastructure in placeResponsibilityLeverage, to the extent practical, the existing investments for infrastructure in placeResponsibilityLeverage, to the extent practical, the existing investments for infrastructure in placeResponsibilityLeverage, to the extent practical, the existing investments for infrastructure in placeRatesUtilize AMI data to support effective planningRatesUtilize AMI data to support effective planningReliabilityUtilize AMI data to support effective planning</th>	And ObjectivesCustomer First AreaGoalResponsibilityLeverage, to the extent practical, the existing investments for infrastructure in placeResponsibilityLeverage, to the extent practical, the existing investments for infrastructure in placeResponsibilityLeverage, to the extent practical, the existing investments for infrastructure in placeResponsibilityLeverage, to the extent practical, the existing investments for infrastructure in placeResponsibilityLeverage, to the extent practical, the existing investments for infrastructure in placeResponsibilityLeverage, to the extent practical, the existing investments for infrastructure in placeRatesUtilize AMI data to support effective planningRatesUtilize AMI data to support effective planningReliabilityUtilize AMI data to support effective planning	

Advanced Metering Infrastructure Assessment and Business Case Report || Rochester Public Utilities

Priority	Customer First Area	Goal	Objective
3 - Med	Reliability	Utilize AMI data to support effective planning	Identify users contributing to water hammer, transients, and service disruptions. This is a medium priority that the primary field AMI system hardware can capture the needed data.
3 - Med	Responsibility	Utilize AMI data to support effective planning	Enhanced distribution system data will be used to assess impact of and support operation of DSM programs (direct load control air conditioning (AC), direct load control Hot Water Heating, TOU). This is a medium priority that the primary field AMI system hardware can capture data that can be aggregated in downstream systems to enable this analysis.
3 - Med	Reliability	Utilize AMI data to support effective planning	Enhanced distribution system data will be used to assess impact of and support planning for vehicle electrification (PEVs). This is a medium priority that the primary field AMI system hardware can capture data that can be aggregated in downstream systems to enable this analysis.
3 - Med	Reputation	Utilize AMI data to support effective planning	Disaggregation of usage down to the appliance level within home. The evaluation of this technology is a desired topical investigation. This goes to the ability of field hardware enabled to capture the needed data. Is the technology reliably available?
3 - Med	Reliability	Utilize AMI data to support effective planning	Provide enhanced consumption inputs into load- growth forecast for: 1) next-day and 2) long-term (seasonal). This is a medium priority that the primary field AMI system hardware can capture the needed data.
3 - Med	Responsibility	Utilize AMI data to support effective planning	Utilize information to support water conservation and resource preservation. This is a medium priority that the primary field AMI system hardware can capture the needed data.

22

6.1.a
Advanced Metering Infrastructure Assessment and Business Case Report || Rochester Public Utilities

nan 30-day
nary field AMI d data.
omer-side ary field AMI can be nable this
ntly ater). This is a stem ration.
classes to n priority that an ta.
reading. This II system fficiently at
sist with ity that the capture data ystems to
r consumption ler portal. This Il system lggregated in ysis.

Advanced Metering Infrastructure Assessment and Business Case Report || Rochester Public Utilities

Priority	Customer First Area	Goal	Objective
3 - Med	Relationships	Personalize customer engagement and outreach based on individual needs	Support the customer population that is likely to remain print-dependent for communications. This is a high priority that the primary field AMI system hardware can capture data that can be aggregated in downstream systems to enable this analysis.
3 - Med	Relationships	Personalize customer engagement and outreach based on individual needs	Offer language options across customer engagement platform(s). This is a high priority that the primary field AMI system hardware can capture data that can be aggregated in downstream systems to enable this analysis. i.e., field hardware should not prompt language sensitivity.
5 - High	Relationships	Personalize customer engagement and outreach based on individual needs	Implement pre-pay solution for customers that require budget-based billing. It is a fundamental requirement that field hardware support pre-pay solutions, or at a minimum do not limit of hinder future implementation of such services.
<mark>5 - High</mark>	Responsibility	Personalize customer engagement and outreach based on individual needs	Provide customers with rate and consumption notifications to strengthen awareness of TOU and DSM programs. This is a high priority that the primary field AMI system hardware can capture data that can be aggregated in downstream systems to enable this analysis.
3 - Med	Reputation	Personalize customer engagement and outreach based on individual needs	Aggregated usage for customer outreach to be publicly accessible on website. This is a high priority that the primary field AMI system hardware can capture data that can be aggregated in downstream systems to enable this analysis.

Advanced Metering Infrastructure Assessment and Business Case Report || Rochester Public Utilities

Priority	Customer First Area	Goal	Objective
5 - High	Reliability	Selection and identification of specific field AMI hardware architecture at the end of the Road Map (i.e., key part of roadmap recommendation). Initial design recommendations of Field Area Network (FAN) and Collector technology as the best fit for RPU systems. Road Map Goal and business requirement.	Identify recommended AMI architecture in the roadmap with specific focus upon metering equipment and field area network specifics. Optimization and satisfaction may be required as more than one technical solution might meet RPU objectives, but they may represent different economic analysis.
5 - High	Reliability	Emphasis upon Proof of Concept (POC) implementation approach. This approach provides a risk management and scalable implementations working to assure Alpha Testing, Beta testing and Charlie implementation. Part of Road Map delivery.	Scale implementation and proof of concept.
5 - High	Reliability	Roadmap discussion of Business Enterprise and High-Level framework optionality, as it aligns with recommended AMI field architecture.	Examine MDMS and data warehousing in high level framework as part of Road Map.
5 - High	Responsibility	Examination of forward years carrying costs, project implementation timelines, capital expenditures and Cost Benefit analysis as part of Road Map.	Understand forward year carrying cost of the technology - vendor fees, licensing, etc.
5 - High	Reliability	Roadmap goal of identifying or attempting to quantify business risk due to technology obsolescence, expected years between technology refresh, and vendor stability.	Understand the dynamic technology environment associated with AMI and the changing deliverables and platforms in the AMI industry.
5 - High	Reliability	Improve operational efficiencies	Use meter notifications in real-time to assist with feeder voltage management. This is a high priority that the primary field AMI system hardware can capture data that can be aggregated in downstream systems to enable this analysis.

Business Case Analysis

The foundation of this assessment is the rigorous analysis of the business case toward the implementation of a comprehensive AMI solution. AMI is a transformational technology. Currently, a customer's meter is read once every month for the purpose of billing. In contrast, an AMI system provides a steady stream of 15-minute or hourly usage data delivered multiple times per day, as well as event-driven alerts and alarms, through a specialized communications network belonging to the utility. The singular purpose of billing becomes enhanced by the potential of solutions driven by data analytics.

Though AMI is a matured technology, E Source recommends that a utility justify the implementation of any technology system or infrastructure project based on the costbenefit, readiness, and goals of the utility. The alignment of these elements is key to a successful implementation. The objective of this business case is to arrive at a realistic and conservative financial result—not to underestimate project costs and not to overstate potential benefits. An overview of the financial metrics associated with a 20-year program lifespan is shown in Table 5, with Scenario 0 representing the current-state metering operations being conducted at RPU.

Table 5 Cost-Benefit Overview							
Total Project Lifespan	Scenario 0	Scenario 1	Scenario 2a	Scenario 2b	Scenario 3		
Category	Status Quo Electric and Water Metering Systems	Unified Network	Independent Electric and Water Networks	Electric-Only Network	Hybrid Migratory Network		
Total CapEx (Present Value)	\$12,891,000	\$22,180,000	\$20,714,000	\$8,770,000	\$22,991,000		
Total OpEx (Present Value)	\$3,623,000	\$12,155,000	\$13,175,000	\$10,242,000	\$10,740,000		
Total Benefits (Present Value)	\$8,210,000	\$38,896,000	\$38,679,000	\$19,631,000	\$38,681,000		

As illustrated in the table, estimated benefits outpace the total cost of ownership of an AMI system in each scenario, not only recouping capital and ongoing operational costs, but also providing for a significant return on investment (ROI) for the implementation. It is E Source's prevailing opinion that implementing an AMI system provides a significantly greater value proposition, as compared with continuing to invest monies in RPU's current metering system without realizing much relative gain on said investment (Scenario 0).

With respect to the benefits identified in this report, E Source recognizes the strong service commitment RPU has to its customers. In addition to those benefits that can be readily quantified as operational savings to the utility, a number of "soft" customer service-

6.1.a

oriented benefits can be realized that improves both customer satisfaction and the relationship RPU has with its customers.

AMI provides both customers and RPU alike near-real-time information about individual electricity and water usage. With this information, customers will be empowered to more effectively manage utility usage to suit their wants and needs, allowing choices that sustain and improve quality of life. Because of the amount of usage data RPU will have access to, CCAs will also be able to more readily and expediently address customer concerns and inquiries.

Additionally, customer service will be afforded tools to transform from reactive to proactive—alerting customers of potential leaks, planned service outages, or other events before they become problematic. Currently, customers are notified of abnormal consumption or other events when the meter is read once per month. With the deployment of this technology, customers can receive immediate alerts and customers can set up their own notifications.

Based on the results of the business case, along with the many "soft" benefits to be realized, the deployment of an AMI solution is a favorable project for RPU to undertake. When implemented and utilized strategically, this technology allows the utility to realize improved operations and planning, as well as greater service to its customers. The combination of projected hard benefits and soft benefits appears to provide superior levels of value to RPU and its customers, as compared to the current operations and services that are offered today.

Background

Scenarios

The project scope underlying this business case analysis includes: an AMI system with infrastructure and equipment to intake interval and billing meter reads and to provide a network and meter configuration management toolkit; an MDMS for validation of large volumes of meter register and interval data, basic data analysis, and data retention; a customer portal for presentment of data and to improve customer communications; installation services for meters and equipment; and the necessary professional services and integration of systems to these and other business-critical systems. As part of this effort, RPU plans to replace some meters entirely, while retrofitting other meters, and equipping all meters with AMI endpoints. Upon project completion, meter reading in RPU's service area will migrate to an automated, two-way method of communication.

As part of this business case, E Source investigated five (5) scenarios for consideration as RPU formalizes a strategy around AMI. These scenarios are described below:

- Scenario 0: Status Quo—an "as is" approach, wherein RPU continues its current operational norms and invests money into maintaining the current metering system.
- Scenario 1: Unified Network—the deployment of a single network to accommodate both electric and water services, with all electric meters exchanged for new meters.

27

6.1.a

- Scenario 2b: Independent Electric-Only Network—the deployment of an electric-only network, with the electric network leveraging RPU's current investment in Itron Bridge electric meters.
- Scenario 3: Hybrid Migratory Network—the deployment of a network solely for Itron Bridge meters, plus a unified network for all water and any non-Bridge electric meters; over time, Itron Bridge meters will be replaced, and new meters will be installed that are compatible with the unified network.

Methodology

As part of the cost-benefit analysis, E Source has developed a comprehensive financial model, which represents the deployment of AMI and related technologies and services. The primary components of this financial model include:

- **Capital Expense (CapEx)** e.g., AMI infrastructure, equipment, installation, professional services, etc. costs incurred during deployment
- **Operational Expense (OpEx)** e.g., annual fees related to software hosting and licensing incurred post-deployment; and maintenance of meters, transceivers, and data collectors
- Anticipated Benefits—mitigated future cost or recovered revenue; e.g., operational savings, revenue enhancement, reduction of water leaks, improved service for customers, improved asset utilization, etc. realized over the program lifespan

The combination of these three areas is used to project net annual cash flow.

E Source utilizes current vendor pricing when modeling the components of the estimated project capital and operational expenses. Pricing from proposals, bids, and contracts received by E Source on behalf of clients is aggregated into a comprehensive database, inclusive of hardware, software, installation, professional services, and other ancillary costs. Each of these categories is itemized so as to provide a high degree of accuracy. Whenever conflicting pricing is noted, E Source uses an upper estimate. This methodology ensures that RPU is provided with a conservative estimate for planning and budgeting.

E Source's approach when developing the cost-benefit analysis underpinning this business case is to review assumptions with respective utility staff experts to ensure that each one is adequately and accurately reflected in the financial model. E Source's underlying philosophy is not to underestimate the cost and not to overstate the potential benefits so as to ultimately arrive at a conservative result.

Characteristic Financial Metrics

Under the purview of the cost-benefit analysis conducted, the financial metrics under evaluation are detailed in Table 6.

Table 6 Characteristic Financial Metrics	
Financial Metric	Description
Net Present Value (NPV)	The cumulative benefits minus the costs of a project (both OpEx and CapEx), accounting for the time-value of money. It can be thought of similarly to a profit and loss statement where the present value tells you the magnitude. This metric is presented in dollars.
Internal Rate of Return (IRR)	The percentage rate by which the net benefits must be discounted until the point in time that they equal the initial costs. IRR is closely related to NPV. This metric is presented as a percentage.
Total CapEx per Account	Total upfront cost for project implementation divided by the number of meters involved in the project. This metric is presented in dollars.
Total CapEx (Present Value)	Total upfront cost for project implementation, accounting for inflation. This metric is presented in dollars.
Total OpEx (Present Value)	Cumulative annual operational expenses across the project lifespan, accounting for inflation. This metric is presented in dollars.
Total Benefits (Present Value)	Cumulative annual benefits across the project lifespan, accounting for inflation. This metric is presented in dollars.
Return on Investment (ROI)	Calculated by looking at total profit (revenue minus cost) divided by the total investment over a specified period. This metric is presented as a percentage.
Payback Period	The length of time it takes for the investment to show a positive return. This metric is presented in years.

Global Model Assumptions

E Source submitted a series of data requests to RPU related to the utility's operational costs and current business functions. A data collection workbook was developed, and, through a series of iterative requests, the workbook was populated to inform the assumptions used in the financial model. The workbook is comprised of the following areas of inquiry:

- **Base Assumptions**—general RPU demographics and financial assumptions used to inform the project growth projections.
- **Benefits Assumptions**—all internal expense and revenue categories related to water and electric, and other ancillary operations at RPU used to inform the service-related benefits of the project.

RPU also provided E Source with details underlying its meter population, helping to define the meter replacement schedule that is built into the model's capital expense assumptions.

The following base assumptions are reflected in the business case herein, irrespective of scenario:

- The components and implementation options to this approach include: utilityowned and utility-managed AMI network; hosted/SaaS AMI headend software; hosted/SaaS MDMS; and accompanying integrations.
- The lifespan of the project is aligned to the industry-standard lifespan of an endpoint, at 20 years (10 year full warranty; remaining lifespan prorated).
- An 18-month POC will be initiated (inclusive of planning and selection of a small area of the service territory to conduct meter upgrades) before full deployment of an AMI system across the service territory.

- RPU is exempt from paying sales tax on equipment, except for a tax assessed on services provided to the electric utility.
- A ten-year cut-off is used to determine whether a water meter is replaced or retrofit with an AMI endpoint.
- All new residential electric meters will be equipped with a remote disconnect mechanism.
- RPU will perform electric meter installation / configuration with a contracted installation services provider.
- Specific electric and water costs and benefits are directly allocated to that respective service; otherwise, costs and benefits are allocated based on the overall percentage revenue each service provides.
- The CapEx estimate includes a 10% contingency on top of capital expenses.
- A discount rate of 3.0% is assessed to calculate NPV.
- The following systems will need to be integrated with the AMI/MDMS systems: CIS, GIS, OMS, and customer portal.
- Implementation of the AMI network, meters, and endpoints, from POC to total system functionality, is estimated to span approximately 36 months.

High-Level Results

This section outlines a comparison of the financial metrics between scenarios outlines. For ease of reference, a comparison of characteristic financial metrics is outlined in Table 7. Detailed analysis results for each scenario are found in Appendix 1.

Table 7 Characteristic Financial Metrics Comparison							
Financial Metric	Scenario 0	Scenario 1	Scenario 2a	Scenario 2b	Scenario 3		
	Status Quo Electric and Water Metering Systems	Unified Network	Independent Electric and Water Networks	Electric-Only Network	Hybrid Migratory Network		
NPV	\$(8,304,000)	\$4,561,000	\$4,790,000	\$618,000	\$4,950,000		
IRR	-15.4%	6%	6%	4%	6%		
CapEx per Account	\$125	\$216	\$202	\$152	\$224		
Total CapEx (Present Value)	\$12,891,000	\$22,180,000	\$20,714,000	\$8,770,000	\$22,991,000		
Total OpEx (Present Value)	\$3,623,000	\$12,155,000	\$13,175,000	\$10,242,000	\$10,740,000		
Total Benefits (Present Value)	\$8,210,000	\$38,896,000	\$38,679,000	\$19,631,000	\$38,681,000		
Return on Investment (ROI)	-43.4%	29%	29%	16%	33%		
Payback Period (Years)	No Payback within Lifespan	13	13	16	14		

For reference, an AMI system, for a combined utility the size of RPU, typically has a payback period of 12-15 years, depending on efficiency and staffing of the utility. The results are in line with this industry standard. An illustration of cumulative cash flows for each scenario is given in Figure 2, with payback periods marked where the cumulative cash flow crosses \$0.

6.1.a

Figure 2 Comparative Cash Flows



All AMI-based scenarios present a payback period at or under the standard 20-year warranty of an AMI endpoint, which is a highly favorable result. The ability to realize savings within the warranty period means that, should another technology supplant AMI in the intermediate future, RPU will be able to pivot before the useful life of an endpoint has been reached, precluding the need to absorb additional sunk costs or invest additional capital in the AMI system prior to achieving breakeven investment.

A comparison of pros and cons for each of the AMI scenarios is presented in Table 8.

Table 8 Feasible Scenarios Pros	and Cons	
Scenario	Pros	Cons
Scenario 1 – Unified Network	 Provides the highest ROI Provides equity of service to all customers Will be the simplest architecture in terms of implementation, mitigating risk of cost and schedule overruns 	 Requires early retirement of Itron Bridge meters May lock the utility into Itron, if a buyback rebate is pursued for Bridge meters

Scenario	Pros	Cons
Scenario 2a – Independent Electric and Water Networks	 Provides the shortest payback period (nominally) 	 Highest operational cost, due to the need to support two networks and headend systems Substantially more
		complex than Scenario1 without providing much additional benefit
Scenario 2b – Electric- Only Network	 Lowest capital and operational costs amongst all AMI options Enables leveraging of 	 May lock the utility into Itron, if a buyback is pursued for Bridge meters
	Enables leveraging of existing electric meter assets	Water operations continues as normal
	 Provides equity of service to all electric customers 	Benefits realized by electric come at the expense of water operations, who would have to bear the full burden for meter reading and other associated processes that were previously shared between services
		 Does not provide any feasible path for water AMI
		• Provides the lowest overall benefit to the utility, as a whole

•	4	
44	4	

6.1.a

Scenario	Pros	Cons
Scenario 3 – Hybrid Migratory Network	 Enables leveraging of existing electric meter assets Does not lock the utility into any particular AMI vendor 	 Requires highest capital outlay amongst any AMI solution, due to need to erect two wholly- separate networks, with seperate integrations
	 Provides the greatest cumulative cash flows overall 	 Substantially complexifies operations, including the meter-to- cash process
		• Migrations from an Itron Bridge network to a unified network must be carefully planned so that Bridge meters do not lose network conectivity during migration, which may not be feasible architecturally
		Could raise concerns about inequity of service for those customers with Itron Bridge meters

Amongst all the scenarios, E Source strongly recommends against RPU continuing its status quo metering operations. E Source's prevailing opinion is that the metering system at RPU should be upgraded and that continuance of the current Automatic Meter Reading (AMR) program (Scenario 0) is neither advisable nor tenable in the current technology environment. Continuing to sink costs into the AMR program will yield negative valuation on the utility's metering function as a whole and will inhibit the organization from fulfilling the customer and operational goals stated within this report.

Replacing AMR with a refreshed AMR system is not commonly done today and is generally not recommended for several reasons:

• The majority of costs associated with an AMR installation or AMI installation is the cost of installing meters, registers, endpoints and lids; these costs are relatively similar.

- The installation of AMI network infrastructure is generally about only 7-12% of the overall project costs.
- AMR systems lack any of customer and utility benefits that an AMI system provides, making the utility bear additional cost for no marginal benefit gains over current operations.
- Customer expectations and regulatory requirements lean towards having more customer consumption information that cannot be provided by an AMR system.
- Utility efficiencies can be gained from the additional infomation that an AMI system provides.

In particular, the "cost of maintaining *status quo*" means that the utility will continue to incur annual costs for meter replacement and refreshing hardware/software of its current metering program. These costs can be otherwise offset by additional benefits brought forth by in a new metering system. They must be fully borne when maintaining status quo operations as it is not expected that much additional benefit would be ascribed to status quo operations in Scenario 0 versus implementation of AMI in Scenarios 1-3.

Benefits Assumptions and Estimates

This section describes the benefits we would ascribe to Scenarios 1-3 presented. Some benefits also apply to Scenario 0 and have been noted where this is the case, though these benefits will accrue at a slower rate due to the slower rate of meter replacements versus the complete capitalization of the replacements within several years for the AMI-based scenarios.

Quantifiable Benefits

Table 9 summarizes benefits, key assumptions underlying the benefits calculations, and steady-state annual values. Benefits are categorized based on whether the resulting savings are staffing-related (i.e., with efficiency gains that do not directly translate into recouped revenues or averted costs) or hard dollar (with actual financial savings realized).

Table 9 Program Benefits Assumptions					
Benefit	Assumption(s)	Туре	Annual Electric Value	Annual Water Value ¹	
Meter Reading, Re-Reading, and Move-In/Move-Out (MIMO) Reading Reduction	98.5% Reduction in Meter Reading	Staffing	\$149,000	\$116,000	
Customer Call Reduction	20% Reduction in Customer Calls	Staffing	\$6,000	\$12,000	

¹ Water benefits are not assessed in Scenario 2b.

Non-Pay Disconnect Reduction ²	Elimination for Customers with Remote Disconnect Meters	Staffing	\$29,000	\$0
Customer-Generated Service Order Reduction	25% Reduction in Service Orders Originating from Customer Inquiry	Staffing	\$35,000	\$7,000
Bad Debt Reduction ³	10% Reduction for Customers with Remote Disconnect Meters	Hard Dollar	\$22,000	\$5,000
Billing Exception Handling Expense Reduction	50% Reduction in CIS Exceptions	Staffing	\$28,000	\$22,000
Outage Labor Reduction/Management	5% Reduction Overall	Staffing	\$19,000	\$0
Theft Identification	0.25% Impact on Consumptions	Hard Dollar	\$134,000	\$14,000
Revenue Capture from Improved Meter Accuracy ⁴	95% Improvement on Inaccuracies from Older Meters	Hard Dollar	\$155,000	\$225,000
Conservation Savings & Avoided Cost	0.50% Impact on Electric, and 3% Impact on Water	Hard Dollar	\$135,000	\$24,000
Annual Meter Replacement Budget Offset	Based on Scenario 0 Meter Capitalization Projections	Hard Dollar	Varies (See Scenario 0 Capital Outlay)	Varies (See Scenario 0 Capital Outlay)
Distribution System Loss Reduction	5% Improvement on Losses	Hard Dollar	\$135,000	\$3,000
ERT Replacement Hardware Offset	Aversion Based on 25-Year Hardware Lifecycle for Current Assets	Hard Dollar	\$0	Varies (See Scenario 0 Capital Outlay)
Encoder Receiver Transmitter (ERT) Replacement Labor Offset	Aversion Based on 25-Year Hardware Lifecycle for Current Assets	Hard Dollar	\$0	Varies (See Scenario 0 Capital Outlay)
Oversized Transformer Aversion	10% Cost Premium for Oversized Transformers	Hard Dollar	\$24,000	\$0

Note that some benefits start and drop-off at different points in the project lifespan, and not all benefits are constant within the cost-benefit project lifespan projection due to inflationary effects or assumptions made with respect to timeline and implementation.

² This benefit varies slightly between scenarios due to differences in assumptions made regarding the extent and type of remote disconnect meters implemented, the extent to which Itron Bridge meters are utilized, and the overall timeline.

³ See above footnote.

⁴ See above footnote.



Benefit outlays (unadjusted for inflation) for each scenario are provided in Figure 3, Figure





Figure 3 Scenario 0 Estimated Program Benefits by Year



1ear 9 vear 20

Year 11 Year 22 vear 23 year 14

40350

vear 16

Water Reallocation

403127

rearts

year 19

year 20

rear 28

Figure 5 Scenario 2a Estimated Program Benefits by Year

L test 3 test a

Lear

reat

rears 1ear6



Electric Hard Dollar Electric Reallocation Water Hard Dollar

year 1

6.1.a

Figure 6 Scenario 2b Estimated Program Benefits by Year



Figure 7 Scenario 3 Estimated Program Benefits by Year



Additional descriptions of the benefits represented are provided in Table 10.

	4.0	
lable	10	Quantifiable Benefits

Benefit	Benefit Description
Meter Reading, Re-Reading, and MIMO Reading Reduction	Elimination of manual meter reading expenses, including staff time and vehicle gas/maintenance costs, for billing.
Customer Call Reduction	Reduction in customer call volume and expedited resolution time due to additional consumption data and usage availability to support customer service.
Non-Pay Disconnect Reduction	Reduction of disconnect expenses, including staff time, for billing.
Customer-Generated Service Order Reduction	Reduction of many field activities and expenses in creating work orders and rolling a truck on behalf of customer inquiry or leak checks.
Bad Debt Reduction	Reduction write-offs, as a result of remote disconnect metering.
Billing Exception Handling Expense Reduction	Reduction in time to perform follow-up and investigations in billing exceptions due to validation, estimation, and editing routines available in the MDMS.
Outage Labor Reduction/Management	Improved response time to outages due to interval data made available by the systems.
Theft Identification	A savings as a result of unaccounted-for losses that can be recovered via theft detection routines.
Revenue Capture from Improved Meter Accuracy	Improved revenue capture because of replacing worn, inaccurate meters that under-read.
Conservation Savings & Avoided Cost	A savings can be accounted for not purchasing or producing product, due to empowered customers using interval data to monitor and manage usage.
Annual Meter Replacement Budget Offset	Offset value of monies to be spent on replacement meters due to the large-scale meter changeout conducted as part of the AMI deployment.
Distribution System Loss Reduction	Data analytics routines will allow the utility to better identify and reduce system losses.
ERT Replacement Hardware Offset	Mitigated hardware costs from not replacing current metering system.
ERT Replacement Labor Offset	Mitigated labor costs from not replacing current metering system.
Oversized Transformer Aversion	Identify oversized transformers and correct future purchases to better size for actual loads.

Non-Quantifiable (Soft) Benefits

In addition to those benefits that can be quantified and are included in the cost-benefit analysis, numerous intangible/soft benefits will be realized. While many of these benefits are not easily measurable and have not been included in the cost-benefit analysis, they are certainly real and achievable with the successful deployment of an AMI system. Successful deployments of AMI/MDMS systems frequently act as enablers to creative solutions for operational or analytical problems. By leveraging the AMI system and interval read data for other value-added activities beyond typical meter reading, many of these intangible benefits have a large, direct, and positive impact on the customer experience and operational efficiencies. A summary of intangible benefits is provided in Table 11.

able 11 Intangible Benefits			
Benefit	Description		
Improved Customer Experience and Customer Call Quality	Using interval consumption data and on-demand readings, customers can more effectively manage their usage, and CCAs can more readily troubleshoot problems for customers.		
Improved Emergency Protocol	The frequency and volume of AMI data will allow RPU to respond more swiftly and efficiently to emergencies than it can do currently, especially when paired with the analytic capabilities of an MDM system. Additionally, expediated customer messaging will allow for improved notification of customers during emergencies.		
Targeted Messaging	 Ability to conduct customer outreach using a portal or other messaging protocol. Targeting individual customer groups by geography, class, or usage, public outreach can be used to augment several different programs within the utility. Examples of types of customer messaging include: News alerts, such as when new capital improvement projects are underway, billing changes, or new programs Conservation messaging General utility activities 		
Improved Reliability & Conservation	The AMI system will enable RPU to model the overall system to facilitate proactive management and improve reliability and conservation.		
Improved System Planning Capabilities	Information that can be produced and analyzed from an AMI system can facilitate the improved management and monitoring of system performance, leading to better informed capital investment decisions. System engineering and maintenance programs can be supported with better, more frequent access to the more granular data that will be provided by the AMI system.		
Meter Diagnostics to Monitor Device Aging	Using routines for identifying slowing meters or failing batteries, RPU can improve the accuracy and precision of its meter replacement program, thereby reducing unnecessary meter replacements and service interruptions to customers.		
Risk Mitigation and Reliability Assurance	Mitigates risk of revenue loss as a result of a catastrophic failure of meters through identification of systemic failures for any meter batches installed by improving response time. Better preparedness for handling these failures, should they occur, will also prevent unscheduled, emergency labor costs. In addition to protecting revenue, risk mitigation directly improves perception of system reliability to customers.		
Improved Budgeting	Use of granular interval data from meters can allow for improved analysis of demand and pricing sensitivity, such as for budget-based rates.		

Benefit	Description		
Timely and Accurate Meter Reading	Coordination across a variety of staff within RPU. AMI reads will alleviate the strain on staff to deliver timely and accurate meter reads and bills.		
Meter Rightsizing	Data and alarms produced by an AMI system will provide RPU with the ability to detect if a meter is oversized or undersized.		
Improved Safety	With the introduction of AMI, RPU will have the ability to remotely read meters, initiate on-demand meter reads, and remotely disconnect/reconnect customers. These actions will dramatically reduce exposure to risky conditions on the road and at customer premises, due to weather conditions, unfriendly pets, physically hard to access meters, and theft.		
Use of Network	A utility-owned network will provide new communications infrastructure to RPU that may be leveraged for other devices, such as any existing flow sensors or pressure sensors, or new Internet of Things (IoT) devices.		
Environmental Sustainability	Greater operational efficiencies and fewer field visits will allow for better utilization of natural resources and a reduction in environmental impacts as a result of less wasted water and fuel.		
Compliance with Future Legislative Requirements	With the introduction of AMI, RPU will better prepare itself to address all legislative and/or Minnesota state requirements regarding conservation or other resource-related issues.		
Brand Perception	 Customer perception improvement as a result of: Faster customer inquiry response times More informed customer service Averted high bills Averted leaks/breaks Expediated outage response Improved public messaging Higher perception of billing accuracy Higher perception of staying current with technological improvements 		
Carbon Footprint Reduction	Reduction of vehicle contributions to carbon footprint and greenhouse emissions.		

Conclusions

With the combination of AMI benefits identified, RPU will be positioned to greatly enhance levels of service both to internal stakeholders and external customers relative to the current operations and services that are offered today. In particular, the intangible benefits identified will allow RPU to provide significantly greater customer service, and address the goals and objectives set forth herein.

Though no major project should be undertaken solely on the basis of financial gain, the benefits from adopting AMI are significant. It is E Source's conclusion that RPU is well-positioned to implement AMI with minimal financial risk to the organization overall.

Use Case Development/Prioritization

E Source worked with RPU to identify how RPU intends to use AMI data to satisfy their short- and long-term goals and objectives in the form of use cases. E Source worked with RPU to refine the identified use cases to meet RPU's unique environment and organization, and well as identified the system requirements to support each use case. E Source used the prioritized use cases to shape RPU's Strategic Planning.

When RPU moves ahead with an AMI implementation, the utility will need to have a plan for the strategic direction of the implementation. RPU is aware that implementing AMI is far more than merely a meter upgrade, and as such is planning for the long-reaching impacts and new abilities that the related hardware and software will provide. This section provides an understanding of how those plans are constructed.

The AMI Program Roadmap goes into detail to show the steps the project will take over the next multiple years. This allows RPU to plan for specific details and to be ready at the correct time as actions occur. The AMI Program Roadmap covers multiple milestones through the length of the implementation project and on into the future for long-term planning and future use cases. The Staffing Plan illustrates changes that the utility may experience, both in staff skillsets and in staffing numbers. By preparing to make relevant changes at the relevant time, RPU will consistently ensure that the utility is best prepared for what comes next. Finally, the risk register will be used to capture and analyze potential risks throughout the project. By preparing for risks, RPU will be best prepared to maximize the chances of the AMI implementation occurring smoothly.

AMI Program Roadmap including a timeline for implementation and evaluation. The use cases can be used to inform the procurement process, as well.

Process

Using an iterative approach, E Source worked with RPU to identify a comprehensive listing of use cases that would support RPU goals and objectives and bring value to RPU. A workbook (Excel spreadsheet) was developed to easily sort between electric or water and further sort use cases related to Meter Operations, Customer Service, Grid Operations, etc. RPU identified use case priorities of implementation by year of AMI deployment, and E Source identified the required technology to support each use case. The use cases were then reviewed and discussed to allow adjustments and understand the level of effort required for some use cases. The specific use cases are shown in Appendix 4.

Prioritization and Evaluation

Many use cases can be implemented using AMI, MDMS, and CEP applications, depending on the vendor platforms that are procured, while other use cases require integrations with core RPU systems, such as SCADA. Still other use cases require add-on software or technologies, such as remote disconnect water meters, pressure sensors, Home Area Network (HAN), OMS, or forecasting applications. More complex use cases will require a database and custom analytic solutions to accomplish them.

RPU should consider that some use cases can be accomplished using the analytic tools provided in an AMI or MDMS, but the solutions provided may not provide satisfactory results. These use cases have been identified in the Strategic Roadmap for future evaluation of their ability to provide an effective solution to meet RPU needs. During the evaluation period, RPU may consider moving to an analytical solution for those use cases that are not providing satisfactory results. An analytic solution will generally be a custom-built application, so a cost benefit analysis may be required before moving forward with a more sophisticated analytic solution.

6.1.a

Strategic Direction

When RPU moves ahead with an AMI implementation, the utility will need to have a plan for the strategic direction of the implementation. RPU is aware that implementing AMI is far more than merely a meter upgrade, and as such is planning for the long-reaching impacts and new abilities that the related hardware and software will provide. This section provides an understanding of how those plans are constructed.

The AMI Program Roadmap goes into detail to show the steps the project will take over the next multiple years. This allows RPU to plan for specific details and to be ready at the correct time as actions occur. The AMI Program Roadmap covers multiple milestones through the length of the implementation project and on into the future for long-term planning and future use cases. The Staffing Plan illustrates changes that the utility may experience, both in staff skillsets and in staffing numbers. By preparing to make relevant changes at the relevant time, RPU will consistently ensure that the utility is best prepared for what comes next. Finally, the risk register will be used to capture and analyze potential risks throughout the project. By preparing for risks, RPU will be best prepared to maximize the chances of the AMI implementation occurring smoothly.

AMI Program Roadmap

The program roadmap depicted in Figure 8 serves as a high-level illustration of the relative timeframes and scope of each milestone. Each milestone contains a number of drivers, goals, and objectives and are detailed separately in the narrative. Year 1 of the roadmap is when the AMI deployment starts.

The ultimate goals of an AMI program at RPU are to:

- Successfully bill customers based on AMI meter readings
- Turn meter data into actionable information that improves customer service and operational efficiencies

Overall, the near-term and long-term goals of the AMI Program is to accomplish:

- Near-term (1-to-3 years after starting AMI deployment)
 - Install an AMI solution that will carry RPU well into the future
 - Stabilize the meter to cash operations
 - Improve customer service and operational efficiencies through implementation of RPU identified use cases
- Long-term (4-to-10 years after starting AMI deployment)
 - Maintain the integrity of the AMI system (data quality)
 - Refine successful, value add use cases
 - Identify and implement new use case opportunites that bring value to RPU and their customers

The roadmap identifies a clear path and timeline for successfully billing customers based on AMI meter readings. It also identifies the relative timeline for attainment of goals and implementation of use cases identified by RPU. The goals and use cases are identified numerically in the roadmap below. The numbers correspond to the goals and use cases provided in the Appendix 4.

More complex use cases - those that may require more robust capability - are identified in the roadmap and the relative timeframe when they should be evaluated.

The roadmap identifies the relative timeframe for each key milestone, listed below.

- Milestone 1. AMI System Procurement
- Milestone 2. Planning / Start POC
- Milestone 3. Start Full Deployment
- Milestone 4. Stabilize and Re-evaluate Use Cases
- Milestone 5. Full Deployment Complete
- Milestone 6. Continue Use Case Evaluation and Identify Opportunities

6.1.a





© 2021 E Source Companies LLC || Do not share this document outside of Rochester Public Utilities.

Milestone 1 – AMI System Procurement

Milestone 1 represents the beginning of the procurement process. This milestone begins after RPU makes the determination to move forward with an AMI project and the meters and ancillary software/systems the utility want to procure; ancillary software may include an MDMS, CEP, data warehouse, analytics software, or other systems. RPU should make this decision based on the evaluation of the assessment and business case performed by E Source and after obtaining the required project and funding approvals.

Requirements Development and RFP Development

The procurement process starts with development of a requirements document that details the specific AMI system requirements needed to meet the goals and objectives of RPU. E Source will develop the requirements document based on the results of the assessment, business case, use cases identified, and additional input from RPU. The requirements will be laid out in a fashion to facilitate comparison between vendor proposals. The requirements will be inserted into a Request for Proposals (RFP) in the format specified by RPU.

Proposals

E Source will assist in the proposal review by providing an analysis of each vendor's ability to meet the requirements and provide administrative assistance as RPU selects vendors for shortlisting. Shortlisted vendors will then provide an overview of their proposed solution along with demonstrations of their system and answer questions. E Source will facilitate discussions with RPU to cover final vendor(s) selection.

Contract Negotiations

Contract negotiations begin immediately with the selected vendor(s). During negotiations, a contract along with a detailed Scope of Work (SOW) will be developed along with best and final pricing from the vendor(s).

Milestone 2 – Planning / Start POC

The implementation of an AMI system involves several coordinated dimensions. Astute implementation planning can mean the difference between a successful, well-accepted project and a poorly performing system. Implementation planning includes but is not limited to developing a deployment schedule, creating project control systems, designing IT systems interfaces, enhancing field to office communications and redeploying staff.

The underlying philosophy of a Proof of Concept (POC) is to minimize risk to RPU and commit as little project funding as possible while reaching basic system functionality as early as possible in the project. This approach allows RPU to work with the vendor(s) to identify and address issues; to test the necessary interfaces with other systems; and to design, develop, and test the future state business processes prior to full deployment. Table 12 outlines key POC success criteria.

© 2021 E Source Companies LLC || Do not share this document outside of Rochester Public Utilities.

Table 12 POC Success Crite	ria
Success Criteria	Proof of Concept Success Criteria
Establish Business Needs for an AMI System	Set goals and objectives for the AMI system that meet the needs across the organization. Test the AMI system's capability to meet RPU business requirements.
Key Utility Staff Education and Training	At the outset of an AMI effort, identify key utility staff for education and training across all aspects of the program (including hardware and software).
Meter Technology Functionality	Establish the POC so that all meter variations are tested to minimize meter compatibility issues in the field upon full deployment.
AMI System Functionality	Perform radio frequency (RF) surveys for the service area and determine optimum collector locations to provide desired system redundancy. Evaluate, select, and install collector sites based on criteria for antenna height, power availability, backhaul requirements, and accessibility. Identify RF challenged locations and develop a plan for full coverage. Test AMI functionality for the most difficult areas.
AMI Software Functionality	Establish thresholds for alarm criteria and validate proper meter readings are being recorded in the data base. Test all AMI software maintenance alarms.
AMI Work Processes	Identify and estimate work process resource requirements and evaluate actual resource requirements against the POC. Test AMI-related work processes for normal operations and exceptions processing and assess staff ability to resolve all foreseeable issues.
Integration Functionality	Test AMI data transfer to the CIS. Verify proper data transmission; test billing flags; and identify work process resolutions for data or related issues. Generate bills for all meter / cycles / routes in the POC and resolve issues.
Customer Outreach / Communications	Develop specific communication and customer outreach goals and programs. Identify expected trouble areas/customers and test the communications plan. Develop action plans to address customer concerns.

Based on E Source's experience in deploying AMI technology, it is recommended that the POC be split into an Alpha and Beta phase; each phase is described in more detail below.

Alpha Phase

The intent of the Alpha Phase is to establish and test basic connectivity in a cross section of the meter population in a controlled environment. The goal, at a minimum, is to ensure connectivity between the meter, the collector(s), the AMI Headend, and the MDMS. An important part of the Alpha phase is to test that each meter configuration is correct: meter register and interval reads are received in the head end system at the proper resolution; other meter attributes are correct (such as voltage or Kilovolt-Ampere Reactive (KVAr)); and alarms and events are sent and received correctly (backflow, tamper, outage, etc.). E Source recommends the use of dedicated meter test benches for water and electric if available during Alpha. If not, a limited amount of metering hardware can be deployed in the field during this phase if it is easily accessible for troubleshooting purposes.

At this time, the vendor(s) will work with RPU to gather the necessary software and configuration requirements for the meters, endpoints, AMI headend, and MDMS software. Systems integration requirements will also be captured. Interfaces that need to be in place for Alpha will proceed through design / develop / test. Beta interface design and development will proceed once Alpha is complete.

Business process design activities can start in the early phases of Alpha. E Source suggests that RPU map out the current state processes and overlap the mapping of future state business processes with the AMI and MDMS requirements and configuration. POC test plans and training plans will be produced by the vendor(s) for RPU to review and comment. It is advised that each vendor specify what will be required to satisfy Alpha and Beta, respectively.

E Source estimates a 6-to-9-month Alpha phase. A quality gate exists at the end of the Alpha phase with specific acceptance criteria for each vendor that signals completion.

Beta Phase

The Beta POC Phase is intended to demonstrate network connectivity and system functionality, with an emphasis on the meter-to-cash process, in a real-world environment. The Beta POC will require the installation and testing of the following:

- Identified network infrastructure devices and backhaul communications
- Deployment of Beta electric meters and water endpoints
- Software configuration and integration

Beta Phase involves installing electric and water meters (including endpoints) in the field for a subset of the overall meter population. RPU may select meters to represent one full billing cycle or route (as appropriate) and represent a diverse cross-section of the full meter, customer, and billing type population. Other meters installed during Beta POC may not be billed via AMI during this phase but are deployed to test a variety of other variables including: each meter size, type, and/or endpoint configuration; varied terrain; and hardto-reach locations.

The Beta phase begins with field deployment of a pre-determined quantity of metering hardware. Since the Beta phase cannot be entered without a successful completion of the Alpha phase, basic meter reading and billing functionality can be available immediately; this allows routes to be moved to automated billing immediately upon route acceptance (if desired). The balance of systems interfaces, included work order management for full deployment, are configured and fully tested.

If RPU elects to use a third-party installation contractor, it will be necessary to configure and test the interface(s) with the contractor's work order management system. It is advised that this is completed prior to the Beta field deployment so to have an opportunity to troubleshoot and resolve issues prior to full deployment. If RPU chooses to self-deploy some or all meters, it will be necessary to assess the in-house work order management system and determine if configuration changes are required to support the full deployment.

Business process changes are finalized and tested, so that they can also be debugged prior to a production deployment. This provides the users time to adjust to new processes and procedures, which builds a familiarity with the new systems and methods to be employed. Additional functionality is added and tested in stages, with the goal to complete

© 2021 E Source Companies LLC || Do not share this document outside of Rochester Public Utilities.

Attachment: DRAFT RPU AMI Assessment and Business Case Report 20210521(13332:AMI Business Case)

51

system integration and documentation activities prior to user training and system acceptance testing.

User training runs in parallel with the end of the Beta phase, typically beginning approximately two months before the end of Beta. The respective users, system owners, and system administrators are trained on full use of the AMI Headend software, MDMS software, and Customer Portal (or changes to the existing customer portal), as appropriate.

There is a comprehensive Quality Assurance (QA) effort that must be planned for during the Beta phase. Beta is also the time to plan for parallel testing and the desired timing to "go live" with AMI meter reads for billing.

The Beta phase is complete with RPU system acceptance. This serves as the quality gate to move forward to full deployment. E Source estimates a 9–12-month Beta phase duration for RPU.

Use Case Implementation

Many use cases can be refined during the POC, but most cannot be implemented until meter data is collected during the Beta Phase. Planning for use case implementation will begin and some use cases will be tested on a limited basis.

Milestone 3 – Start Full Deployment

Full Deployment will begin with the installation of all remaining endpoints and meters not installed during the Beta POC phase. Reaching this milestone represents acceptance of the Beta POC, which provides actual AMI sourced billing reads and ensures continuity of the meter-to-cash process over the sample population. At this point, the critical functions and processes to support the billing operations will be in place. The full deployment phase represents a shift to more a logistics project, but the basic billing processes developed during Beta are established and meter cycles/routes start billing based on AMI meter reads as cycles/routes are completed.

Use Case Implementation

Many use cases can be implemented following successful completion and acceptance of the POC. Table 13 includes those use cases, as noted in Appendix 4.

Table 13 Use Cases that may be Implemented After POC is Complete			
All	1,2,3,4,5,6,7,14,16,18,22,23,24,29,32,33,34,35,38,40,41,42,87,93,105		
Electric	25,26,27,28,30,31,36,43,49,50,51,52,75,76,77,78,80,89,113		
Water	8,12,13,15,17,21,37,39,56,57,88,90,91,94,95,110		

Milestone 4 - Stabilize and Re-evaluate Use Cases

Much of the hard work of an AMI deployment is completed when Beta POC Phase is completed, but RPU staff will still be adjusting to new ways to perform billing processes and accommodate customer needs.

Stabilize

Having new processes for billing customers and the amount of information available to assist customers will take time and repetition to adjust to, but there comes a point where staff confidence in the skills to manage an AMI system is high and the new processes have become normal. During this time, re-engineered processes should be audited and adjusted as required. There are some processes that RPU staff will be slow to adopt and may want to return to older more familiar processes. These need to be evaluated to reinforce training or adjust the process as appropriate. Issues with new processes should be elevated to the Executive Steering Committee for consideration and re-direction as appropriate.

Re-evaluate Use Cases

As more meter routes are incorporated into the AMI system, more use cases become available for implementation. Some use cases will be easily implemented while others will require evaluation and refinement. Some of the more advanced use cases may require the purchase of specialized software, development of a custom software application, or contracting for analytics as a service. These should each be evaluated for their cost and their value to RPU, after which RPU will assess if there is clear value for further investment or if a business case should be performed to evaluate the cost benefit.

Use Case Implementation

Some use cases can be implemented with only limited functionality using an AMI or MDMS, depending on that system's capabilities. For a more robust solution, an analytics platform will be required using either purchased software, customized software, or an analytics service provider. Table 14 includes those use cases, as noted in Appendix 4.

Table 14 Use Cases that may be Implemented with Limited AMI Functionality			
All	19,20,68,69,70,10,105		
Electric	44,47,48,53,63,64,65,66,71,72,73,74,75,76,78,79,80,96,99,103,108		
Water	60,61,67,98		

Milestone 5 - Full Deployment Complete

The Full Deployment Completion milestone coincides with the conclusion of all activities that constitute full system and hardware deployment and acceptance. At this point, the AMI project will transition into a sustained program, with operations administrated by a dedicated AMI Program Manager. Interval reads will be accessible by utility staff and by customers (depending on customer portal implementation), and RPU can begin developing advanced processes and tools around this new influx of data.

Use Case Implementation

Table 15 includes use cases selected by RPU for deployment during this time include the following, as noted in Appendix 4.

Table 15 Use Cases to be Implemented During Full Deployment			
All	9,10,11,19,20,68,69,70,81,82,83,104,106,112		
Electric	44,45,46,47,48,53,54,62,63,64,65,71,72,73,74,79,84,97,99,107,109		
Water	55,58,59,61,67,85,86,92,98,100,101,102		

Milestone 6 – Continue Use Case Evaluation and Identify Opportunities

At Milestone 4, RPU will evaluate current use cases identified during the assessment and business case completed by E Source. The purpose at Milestone 4 is to identify the value of currently identified use cases as they are implemented and consider more robust analytical solutions.

At Milestone 6, which is approximately 6 months to a year after completion of full deployment, RPU should reassess previously identified use cases and re-evaluate if other use case opportunities should be considered. AMI is an enabling technology. While AMI systems themselves are reliable and stable, new use cases that bring value to a utility are still being discovered and developed. It is important at this juncture to not allow valuable use cases that may be difficult to implement, to not be implemented without oversight, and to make a conscious decision not to implement some use cases. It is recommended that the status of all use cases should be presented and reviewed by the Executive Steering Committee. Some use cases may need additional resources or redirection from the Committee.

The goals and objectives established by RPU at the outset of the project should be assessed and measured for degree of success with conclusions presented to the Executive Steering Committee.

Long Term Planning

As stated in the beginning of the AMI Strategic Roadmap, the long term (4-to-10 years after starting AMI deployment) planning should include:

- Maintain the integrity of the AMI system (data quality)
- Refine successful, value-add use cases
- Identify and implement new use case opportunites that bring value to RPU and their customers

Over the long term, there can be many unknown external factors that may affect the AMI program and RPU's demands on an AMI system. As such, the elements outlined here should be considered aspirational, rather than expectational or definitive.

To be sure, an AMI system is a long-term investment in a technology that can continually be used to gain new insights in how to better serve customers and improve operational efficiencies. The items identified above are discussed in more detail below.

Maintain the integrity of the AMI system

An AMI system provides value only if the data (interval readings, register readings, alarms, and events) are reliable and correct (data quality). Proper customer billing, use cases, customer perception, customer confidence, and operational efficiencies will all be negatively impacted if the system integrity is compromised.

Re-engineered processes will focus on maintaining the data quality, but it will be an ongoing process to investigate and address issues as they are identified. Further, there will be software revisions for various system components and the need to refine processes as circumstances change.

The AMI network software will provide key process indicators on the status of the network and its components. These should be reviewed regularly by the AMI Program staff to ensure the system integrity is maintained.

Refine successful, value-add use cases

Often, a utility easily recognizes the value of ensuring the meter-to-cash process is reliable and successful but more advanced use cases can be discarded because their value has not been immediately recognized and they are hard to implement. They have not registered "on management's radar." It is recommended that all use cases identified by RPU during the assessment completed by E Source be tracked by the Executive Steering Committee periodically for their status and value. This way, it stays "on the radar" and the value is not lost. Staff working on implementation of more advanced use cases may need more resources and / or guidance from the Executive Steering Committee.

The use cases identified by RPU will be implemented over the first 1-to-3 years of AMI deployment but, over time, these will generally break into a few categories, divided be ease of implementation and amount of value for the utility:

- 1. Easy to implement and maintain, and bring high value These should be periodically reviewed to identify additional efficiencies and improvements that could be gained.
- 2. Easy to implement and maintain, but bring limited value These should be identified and reviewed to determine if they can bring more value and how or if they should be discontinued.
- 3. Hard to implement or maintain, but high value is recognized At Milestone 4, advanced use cases are evaluated to determine if specialized software or development of a custom software application should be considered. This category represents the need to continue this evaluation on an on-going basis.

4. Hard to implement or maintain, but limited value is recognized - These should be identified and reviewed to determine if they can bring more value and how or if they should be discontinued.

Identify and implement new use case opportunities

How AMI data is used to bring value to a utility and its customers is still evolving. Use cases from an AMI system that are not considered today may bring great value to a utility in the future. New potential use cases should be discovered through conferences, consulting resources, or RPU staff experimentation. Some future use cases may be easy to implement, and some may be difficult or expensive. Each new use case should be tracked by the Executive Steering Committee to ensure new use cases are focused on bringing value to RPU goals and strategies, recognize new accomplishments, and provide oversight of the processes and value gained.

An AMI system is a communications network. Adding gateway devices connected to any number of sensors can add value by carrying the sensor data over the network to the Headend System and possibly a data repository where it can be combined and integrated with other data to form actionable information. There are numerous sensors available today and the number of sensors and how they are used to address a business purpose will only grow in the future.

Integration with other core software systems at RPU is a key method of gaining more value from AMI data. If AMI data is integrated to a data repository, it can be combined with other core software systems that are also integrated to the data repository. This allows custom software applications to monitor, maintain, and correct utility issues, sometimes even before the issues occur using predictive analytics. Artificial intelligence applications continue to grow and offer the ability to identify patterns that might take years to decipher using current methods. Some utilities today have developed or are currently developing platforms like this to monitor and maintain distribution systems or plant operations. Figure 9 provides a graphical representation of the AMI inspired reporting and analytics journey for a utility.

6.1.a





Staffing Plan

In order to support the roadmap, E Source worked with RPU to develop a staffing plan that identifies an overall strategy necessary to facilitate implementation, as well as maintenance of the AMI/MDMS program as an ongoing initiative within RPU. Specific responsibilities and time commitments were identified by role type and department for both the Project Team and the Program Team.

In addition, a governance structure was developed to guide the AMI Project and AMI Program based on current RPU governance practices. During the AMI project, an Executive Steering Committee will be formed to oversee the project at a high-level. RPU will identify a governance strategy for the AMI Program throughout the course of the project.

Governance

The governance of the AMI system installation, goals, and use case implementation is best suited through the combination of an Executive Steering Committee and a Project Team.

Executive Steering Committee

An Executive Steering Committee to guide the AMI Project through procurement and implementation is often comprised 2-3 Division Directors, the Project Manager(s), and 1-2 key SMEs. The Committee plays the following role on the project:

- Responsible for decision-making of major scope, outcomes, and budget
- Providing guidance for reporting to the Utility Board
- Serving as a high-level clearinghouse of organizational resources and priorities
- Meeting regularly (typically monthly) or as needed for key decision-making

Division Directors are often chosen to sit on the Steering Committee by either of the following approach:

- Their organizational staff fulfils most of the project's technical team functions
- Their divisional responsibilities substantially span the scope and outcomes of the project

The Executive Steering Committee may choose to formally dissolve as the AMI Project transitions into the AMI Program; however, dedicated and structured leadership of the AMI Program as it matures and expands is crucial to fully implement RPU's desired roadmap and take advantage of the benefits of AMI technology. Table 16 identifies the roles and time commitment of the Executive Steering Committee throughout the procurement and implementation of the AMI project.

Table 16 Executive Steering Committee Roles						
Role	Description	Business Area	RPU Department	FTEs		
Executive/ Project Sponsor(s)	Approve or reject changes to budget, schedule, and resources, secure project resources and prioritize AMI project among competing projects. Provide reporting to the Utility Board.	General Manager / Division Directors	TBD	0.05		
Project Manager	Guide decisions regarding project direction and changes to budget, schedule, or resources. Provide updates, information, and recommendations to Division Directors.	Electric	Core Services	0.1		
Project Manager	Guide decisions regarding project direction and changes to budget, schedule, or resources. Provide updates, information, and recommendations to Division Directors.	Water	Core Services	0.1		
SME	Guide decisions regarding project direction and changes to budget, schedule, or resources. Provide updates, information, and recommendations to Division Directors.	Finance	Corporate Services	0.1		
SME	Guide decisions regarding project direction and changes to budget, schedule, or resources. Provide updates, information, and recommendations to Division Directors.	Customer Service / Billing	Customer Relations	0.1		

Project Team Roles

AMI/MDMS implementations involve more than mass meter replacements, and it is critical to properly staff them with a cross-functional utility staff, including metering, field services, operations, finance, customer service, engineering, and information technology, as well as any other groups that will be interfacing with the applications or using AMI data.

The Project Team commonly consists of 1-2 Project Manager(s) depending on scope and organizational structure, several project SMEs, and often project consultants. The Project Team members support the project through day-to-day activities, such as:

- Providing all project management activities including scope, budget, and schedule
- Performing all project tasks and activities or coordinates these with outside resources
- Generating reports and dashboards for organizational communications
- Leading or contributing to organizational training and maintenance postimplementation

Project Managers are often chosen based on the following criteria:

- Their organizational staff fulfils most of the project's technical team functions
- Their managerial responsibilities substantially span the scope and outcomes of the project
- They possess and have demonstrated project leadership skills in past work

Although it is not a hard and fast rule, often the AMI Project Manager will transition into the AMI Program Manager role, which is described below.

E Source identified Project Team roles for each phase of the AMI/MDMS project from Procurement through Full Deployment based on RPU's organizational structure and best practice to fulfil project needs. Table 17 includes the Project Team roles.

Project Team roles have been identified by project phase in Table 17 and Table 18. Time commitment varies based on phase, and the expected duration of each project phase is as follows:

- Procurement: 6-9 months
- Implementation (Planning and POC): 18-21 months

Table 17 Project Team Roles – Procurement Phase					
Role	Description	Business Area	RPU Department	FTEs	
Project Manager(s)	Perform general project management, vendor coordination, procurement team coordination, and stakeholder communication. Often represents their department on the procurement team, if applicable.	Electric	Core Services	0.5	
Role	Description	Business Area	RPU Department	FTEs	
-----------------------	--	-----------------------------	--	------	
Project Manager(s)	roject Perform general project management, lanager(s) vendor coordination, procurement team coordination, and stakeholder communication. Often represents their department on the procurement team, if applicable		Construction, Maintenance & Field Operations Management - Water	0.5	
SME	Represent Electric Meter Shop operations in requirements gathering for RFP, RFP and evaluation criteria development support, shortlist presentations and evaluation, and proposal review and scoring.	Electric Meter Shop	Meter Shop	0.5	
SME	Represent Water Meter Shop operations in requirements gathering for RFP, RFP and evaluation criteria development support, shortlist presentations and evaluation, and proposal review and scoring.	Water Meter Shop	Construction, Maintenance & Field Operations Management - Water	0.5	
SME	Represent Electric Field Service operations in requirements gathering for RFP, RFP and evaluation criteria development support, shortlist presentations and evaluation, and proposal review and scoring.	Electric Field Services	Construction, Maintenance & Field Operations Management - Electric	0.5	
SME	Represent Water Field Service operations in requirements gathering for RFP, RFP and evaluation criteria development support, shortlist presentations and evaluation, and proposal review and scoring.	Water Field Services	Construction, Maintenance & Field Operations Management - Water	0.5	
SME	Represent Customer Service/Billing operations in requirements gathering for RFP, RFP and evaluation criteria development support, shortlist presentations and evaluation, and proposal review and scoring.	Customer Service/Billing	Customer Contact	0.5	
SME	Represent Information Services operations in requirements gathering for RFP, RFP and evaluation criteria development support, shortlist presentations and evaluation, and proposal review and scoring.	Information Services	Information Services	0.5	
SME	Represent Engineering operations in requirements gathering for RFP, RFP and evaluation criteria development support, shortlist presentations and evaluation, and proposal review and scoring.	Engineering	Infrastructure Planning & Design Management	0.25	
SME	Provide legal review and approval of vendor contracts prior to Board approval.	Legal		0.1	

Role	Description	Business Area	RPU Department	FTEs
SME	Provide standard procurement support/administration.	Procurement	Procurement Management	0.1

Table 18 Project Team Roles – Implementation Phase					
Role	Description	Business Area	RPU Department	FTEs	
Project Manager	Perform general project management, vendor coordination, project team coordination, stakeholder communication. Often represents their department on the procurement team, if applicable.	Electric	Core Services	0.5	
Project Manager	Perform general project management, vendor coordination, project team coordination, stakeholder communication. Often represents their department on the procurement team, if applicable.	Water	Construction, Maintenance & Field Operations Management - Water	0.5	
SME	Attend workshops, attend trainings, perform business process re- engineering, perform AMI testing, provide subject matter expertise, document completion and validation, hardware procurement and installation for project, and meter installation/deployment field/backoffice support.	Electric Meter Shop	Meter Shop	1	
SME	Attend workshops, attend trainings, perform business process re- engineering, perform AMI testing, provide subject matter expertise, document completion and validation, hardware procurement and installation for project, and meter installation/deployment field/backoffice support.	Water Meter Shop	Construction, Maintenance & Field Operations Management - Water	1	
SME	Attend workshops, attend trainings, perform business process re- engineering, perform AMI testing, provide subject matter expertise, document completion and validation, hardware procurement and installation for project, and meter installation/deployment field/backoffice support.	Electric Field Services	Construction, Maintenance & Field Operations Management - T&D	1	

Role	Description	Business Area	RPU Department	FTEs
SME	Attend workshops, attend trainings, perform business process re- engineering, perform AMI testing, provide subject matter expertise, document completion and validation, hardware procurement and installation for project, and meter installation/deployment field/backoffice support.	Water Field Services	Construction, Maintenance & Field Operations Management - Water	1
SME	Attend workshops, attend trainings, perform business process re- engineering, perform CIS and MDMS testing, provide subject matter expertise, and document completion and validation.	Customer Service/ Billing	Customer Contact	1
SME	SME Attend workshops, attend trainings, perform business process re- engineering, perform AMI/MDMS testing, provide subject matter expertise, document completion and validation, and meter installation/deployment backoffice support.		Device Management	1
Test Lead	Organize testing, manage ticket resolution, and coordinate testers, vendors, and PM. Will most likely be fulfilled by a Core Team Member.	TBD		0.25
SME	Provide subject matter expertise for GIS data and integration.	GIS	Geographic Information Services	0.1
SME	Provide subject matter expertise for OMS data and integration.	OMS	Geographic Information Services	0.1
SME	Provide subject matter expertise for SCADA data and integration.	SCADA		0.1
SME	SME Develop and deliver internal and external awareness and education communications.		Marketing and/or Communications	0.1
SME	SME Provide integration, IT systems, and security subject matter expertise, development, and testing on an asneeded basis.		Information Services	0.1 - 0.25
SME	Provide subject matter expertise for infrastructure and engineering.	Engineering	Infrastructure Planning & Design Management	0.1

Program Roles

New responsibilities, such as maintaining the network, hardware, and software systems, as well as responding to the events, alarms, and meter communications generated by the AMI system and utilizing data transmitted to the MDMS, were reviewed, allowing RPU to gain a deeper understanding of what tasks will be required and who may perform them within the organization.

E Source identified potential Program Roles to support the new day-to-day responsibilities related to AMI/MDMS technology and business processes. These roles would supplement or, in some cases, replace current roles that are no longer needed due to AMI technology. For example, because meter reading will be performed over the AMI network, the meter reader role would be eliminated and a new role would be created to handle AMI/MDMS-related responsibilities, such as an AMI Analyst to perform who day-to-day MDMS monitoring in coordination with Billing. AMI-related responsibilities or roles may be absorbed by one or more current positions in the organization.

It is important to note that the roles and responsibilities currently assigned are subject to change throughout the implementation process, as RPU becomes more familiar with the AMI/MDMS technology and re-engineers their business processes to best accommodate their organizational structure. It is critical to involve the resources who are expected to assume the Program Roles in the AMI project, if possible, so that they may become superusers of the systems and business process experts. Table 19 includes those roles:

Table 19 Program Roles					
Role	Description	Department	Deployment FTE	Ongoing FTE	
AMI Program Manager	The AMI Program Manager will ensure proper system oversight and all QA functions are occurring as expected. This role will also keep their finger on the pulse of the AMI system at a higher level, which includes project performance measurement. The Manager will be responsible for coordinating with vendors and other utility departments.	TBD	1	1	
AMI System Technician	The AMI System Technician works to monitor new equipment in the field that is required for network communications, such as collectors and backhaul points, as well as metering and endpoint technology and headend systems/software. It is typically a part time, office-based subject matter expert to provide troubleshooting support, configuration changes, and firmware releases for meters, endpoints, and the network devices (i.e., collectors) in coordination with the Meter Shops.	TBD	0.5	0.25	

AMI AnalystThe AMI Analyst will be a super-user that will manage configuration and day-to-day monitoring of the MDMS in coordination with Billing and perform creation and daily handling of pre-assigned reports. They will manage alarms and meter/endpoint communication issues identification and handling in coordination with the Meter Shops. During Full Deployment, they will manage installation data quality management/ monitoring with assistance from other groups/project team members. It is typically a full time, office-based staff member focused on identifying, troubleshooting, and dispatching staff to resolve issues in the field in coordination with the Meter Shops.TBD1.51	Role	Description	Department	Deployment FTE	Ongoing FTE
	AMI Analyst	The AMI Analyst will be a super-user that will manage configuration and day-to-day monitoring of the MDMS in coordination with Billing and perform creation and daily handling of pre-assigned reports. They will manage alarms and meter/endpoint communication issues identification and handling in coordination with the Meter Shops. During Full Deployment, they will manage installation data quality management/ monitoring with assistance from other groups/project team members. It is typically a full time, office-based staff member focused on identifying, troubleshooting, and dispatching staff to resolve issues in the field in coordination with the Meter Shops.	TBD	1.5	1

Risk Register

Like any large-scale technology investment, the transition to AMI is not immediate and not without obstacles. The complexity involved with bridging multiple departments, integrating with a live billing system, and sustaining critical utility operations will no doubt lead to challenges. However, many project hurdles can be planned for and addressed as part of a proper risk management approach. As part of RPU's consideration for an AMI deployment, E Source commenced early identification, prioritization, and development of mitigation strategies for risks that may be inherent to the project. To this end, a risk register has been developed that documents potential risks, priorities, and response strategies.

As with Goals and Objectives, for the purposes of planning, risks have been characterized to align with the "Five R" Customer First areas RPU has identified in its Strategic Plan (Relationships, Reputation, Rates, Reliability, and Responsibility). Each risk is assigned a risk impact (representing the potential impact of the risk, should the risk be realized) and a risk probability (representing the likelihood of the risk occurring during the course of the project), each of which is rated on a 1-5 scale. The confluence of these two vectors generates a normalized risk score, denoting the priority.

Risks can be addressed by one of four (4) responses:

- **Accept**—Acknowledging the existence of a particular risk and making a deliberate decision to accept it without engaging in special efforts to control it.
- **Avoid**—Adjusting program requirements or constraints to eliminate or reduce the risk).
- **Mitigate**—Implementing actions to minimize the impact or likelihood of the risk.
- **Transfer**—Reassigning organizational accountability, responsibility, and authority to another stakeholder willing to accept the risk.

A strategy has been developed for each risk identified in the risk register.

As of this assessment, 31 risks have been identified, including: 18 implementation phase risks, and 13 post-implementation phase risks. RPU has identified ten (10) risks at priority 4.0 or above; however, each of these risks can be actively mitigated with appropriate action by RPU, and half occur post-implementation. These risks are outlined in Table 20.

Table 20: Sample High-Priority Risks					
Probability	Risk Impact	Normalized Risk Score	Risk Description	Customer First Area(s)	Phase
4	4	4.0	Data is not available to be used across platforms or in other environments	Reliability	Post- Implementation
3	5	4.1	Increased staffing cost during implementation, especially for field staff overtime or to hire temporary/contracted staff	Responsibility	Implementation
3	5	4.1	Vendor or supply chain instability could threaten program support, especially related to the degree of industry consolidation, mergers, and acquisitions, as well as new entrants into the AMI technology space	Reputation, Rates, and Reliability	Post- Implementation
3	5	4.1	Operations needed to support RPU's AMI program at varying points of system maturity may be inefficient	Reliability, and Responsibility	Post- Implementation
4	5	4.5	Increased staffing, or staffing increases in key areas	Responsibility	Implementation
4	5	4.5	The RPU AMI architecture solution is assumed to be a common platform used by both the Electric and Water Utility, but to the extent that the Water Utility solution is bifurcated or separated, funding availability in the water utility may affect implementation; moreover, other RPU competing projects in other areas may impact	Reliability	Implementation

Probability	Risk Impact	Normalized Risk Score	Risk Description	Customer First Area(s)	Phase
			available internal resources (i.e., personnel and funding)		
4	5	4.5	Lessons learned from previous RPU projects (such as the Cayenta implementation, West Side generating station, or Douglas Trail substation) are not adequately reviewed for applicability	Responsibility	Implementation
4	5	4.5	The development of more explicit change management processes is not formalized for a deployment of the breath and size of the AMI project	Responsibility	Implementation
5	5	5.0	Failure to manage or identify potential technology obsolescence of selected AMI system	Reputation, Rates, and Reliability	Post- Implementation
5	5	5.0	AMI may result in higher rates for customers due to implementation costs and ongoing operations of the program	Rates	Post- Implementation

See Appendix 5 for the full risk register, including mitigation strategies. As a living document, this risk register should be actively managed by the Project Manager as RPU proceeds with its AMI Program.

Risk of "As Is" Approach (Scenario 0)

Although an AMI implementation presents risks to the utility, a status quo approach also represents risk, especially as it relates to the Five R Customer First areas:

- Relationships Customer expectations are changing as more and more customers are exposed to technology savvy utilities using AMI data to enrich the customer experience. These expectations will continue to grow and utilities without an AMI are not positioned to enhance the customer / utility relationship through uses such as water leak alerts and associated high water bills, data driven conservation, and outage management.
- 2. Reputation While there are many factors that contribute to being a world-class utility, utilities without AMI struggle to be world-class. World-class utilities are using

66

AMI generated customer data to enhance their services and responsiveness to customers and enhance operational effectiveness.

- Rates AMI systems are expensive to install but represent a comittment to technology instead of more labor to maintain the status quo or improve operational effectvieness. Technology gets less expensive and labor gets more expensive over time.
- 4. Reliability System reliability can be maintain through careful investment. Careful investment requires data driven decisions. Some data will not be available without an AMI system. The ability to maintain system reliability will be tested in future years as more electric vehicles and distributed energy resources are deployed on the RPU system. Lack of insights into how these devices impact the grid will challenge the system reliability.
- 5. Responsibility Regulators and the community expect a utility to grow and enhance their system to improve reliability and enhance the customer experience. System growth and enhancement come from more data organized for effective decision making. Further, employees see other utilities where technology is effectively deployed and intuitively know their utility'ies excellence is tied to effective use of technology.

Next Steps

Recommended Go/No-Go Decision

Based on E Source's discovery efforts and findings in this feasibility study, RPU appears to be well-equipped to proceed with an AMI program. E Source recommends that RPU move forward with the implementation of an AMI program, beginning next with the procurement phase. This technology will have merits across the organization by driving efficiencies at RPU, streamlining work processes, and supporting environmentally friendly initiatives (such as water loss and greenhouse gas reductions).

Procurement

If RPU decides to move forward with an AMI program, the selection of, and contracting with, the vendor/contractor(s) is a critical step in acquiring a system that meets the business and long-term needs of the utility. E Source recommends that RPU solicit proposals for AMI, MDMS, and meter installation services. It is important to secure vendors that are the right fit for the utility. Below are some details on the steps to be taken to ensure the right vendor/contractor selection.

Requirements Development

E Source's approach to the procurement of technology is premised on the need to identify tight, detailed specifications and requirements. RPU will need to conduct additional sessions with project stakeholders to develop robust specifications based on RPU's business goals, objectives, current situation, plans for future changes, and other necessary elements. The following topics should be addressed during this phase:

- Procurement Requirements What are the rules your utility must follow?
- Business Requirements What challenges/problems must you solve?
- Functional Requirements What do you want this new technology to do?
- Integration Requirements How do you want this new technology to interface with other systems?

RFP Development

Based on the requirements and functional specifications, an RFP is developed. This comprehensive document provides the vendor community with the essential information to prepare a robust response specific to RPU. The SOW is incorporated into your standard RFP contract template and reviewed by all team members (including purchasing and legal) to ensure that the requirements are accurately reflected. If warranted, vendors should be pre-qualified prior to publication in order to narrow the number of responses to those that can truly offer a preferred solution.

RFP Management

On average, E Source recommends that the RFP response period for an AMI procurement last approximately six to eight weeks so that the vendor community has

6.1.a

68

ample time to prepare thorough and thoughtful responses. Among the many tasks that must be managed once the RFP is released are:

- (a) advertising the RFP
- (b) setting the agenda and leading a pre-proposal meeting
- (c) receiving and responding to vendor questions; and
- (d) publishing any necessary addenda.

This is also the time to prepare for the work required in upcoming phases including, but not limited to, the evaluation process and criteria; reference checks; and vendor contracting approval tasks.

Response Evaluation & Selection

As the responses are received, the evaluation process starts. Evaluating multiple RFP responses can be complex and time-consuming, especially when it comes to analyzing cost. When lining up the cost proposals side-by-side, it is common to discover that each vendor quote differs in some fashion, making it difficult to perform a direct comparison. This can be minimized by structuring the RFP properly to allow for cost-normalization.

The result of the analysis is a ranking of the proposals based on the utility's evaluation criteria and ultimately concluding on a shortlist of recommended candidates. Preparation is necessary to customize the shortlist meeting agenda and outline any remaining questions for each shortlisted vendor. Following the shortlist interviews and prior to selection is the time to contact references, document the references' experiences with the vendor(s), and arrange site visits, so that RPU may obtain useful feedback on the shortlisted candidates from other utilities.

As the evaluation process concludes, RPU will weigh the pros and cons of each shortlist candidate to arrive at a final selection of the optimal solution for the utility.

Vendor Contracting

Once RPU has selected the vendor(s), contract negotiations can begin. This endeavor is typically lengthy, given the cost of the project, the details that need to be captured, and the approval process.

E Source recommends a thorough review of the proposed SOW by the respective project SMEs to determine whether the SOW is in compliance with RPU's technical requirements. It is also critical to engage and contract with the CIS and all third-party vendors with intended integrations at this junction to ensure a proper understanding of requirements and to prevent potential development delays. Finally, the proposed contract(s) must also have a thorough review by legal and purchasing to negotiate terms that are as favorable as possible to RPU. It is important to memorialize very specific systems-acceptance criteria, along with detailing the rights and responsibilities of all parties within the contract.

Appendix 1: Detailed Business Case Analysis

The purpose of this appendix is to provide additional detail into the capital and operational expenses incurred in each scenario. A table comparing these expenses, as well as benefits, is provided in Table 21.

Tal	able 21 Cost-Benefit Overview						
	Total Project Lifespan	Scenario 0	Scenario 1	Scenario 2a	Scenario 2b	Scenario 3	
	Category	Status Quo Electric and Metering Systems	Unified Network	Independent Electric and Water Networks	Electric-Only Network	Hybrid Migratory Network	
	Total Capital Expense (Present Value)	\$12,891,000	\$22,180,000	\$20,714,000	\$8,770,000	\$22,991,000	
	Total Operational Expense (Present Value)	\$3,623,000	\$12,155,000	\$13,175,000	\$10,242,000	\$10,740,000	
	Total Benefits (Present Value)	\$8,210,000	\$38,896,000	\$38,679,000	\$19,631,000	\$38,681,000	

The five scenarios details include:

- Scenario 0: Status Quo—an "as is" approach, wherein RPU continues to construct new electric and water metering services using existing technologies, continue its current operational norms and processes, and invests money into maintaining the current metering system.
- Scenario 1: Unified Network—the deployment of a single network to accommodate both electric and water services, with all electric meters exchanged for new meters.
- Scenario 2a: Independent Electric and Water Networks—the deployment of wholly separate networks for electric and water services, with the electric network leveraging RPU's current investment in Itron Bridge electric meters.
- Scenario 2b: Independent Electric-Only Network—the deployment of an electric-only network, with the electric network leveraging RPU's current investment in Itron Bridge electric meters.
- Scenario 3: Hybrid Migratory Network—the deployment of a network solely for Itron Bridge meters, plus a unified network for all water and any non-Bridge electric meters; over time, Itron Bridge meters will be replaced, and new meters will be installed that are compatible with the unified network.

Scenario 0: Status Quo

In this scenario, RPU will continue to sink costs into its current metering program in order to continue existing electric and water metering operations and systems. This includes

6.1.a

© 2021 E Source Companies LLC || Do not share this document outside of Rochester Public Utilities.

continued installation of existing technologies for new customer services, replacing electric or water meter ERTs as they reach end-of-life and fail. Labor required to exchange metering equipment will be sourced from in-house resources in this scenario only.

High-Level Cost-Benefit Analysis Results

The financial metrics associated with Scenario 0 are outlined in Table 22. Meter equipment costs for 10 years have been capitalized to assess financial metrics.

Table 22 Scenario 0 Base (Table 22 Scenario 0 Base Case Financial Metrics				
	Financial Metric	Results			
	NPV	\$(8,304,000)			
	IRR	-15.4%			
	CapEx per Account	\$125			
	Total CapEx (Present Value)	\$12,891,000			
	Total OpEx (Present Value)	\$3,623,000			
	Total Benefits (Present Value)	\$8,210,000			
	ROI	-43.4%			
	Payback Period (Years)	No Payback within Lifespan			

Net and cumulative cash flow across the project lifespan is illustrated in Figure 10, while relative costs and benefits are plotted in Figure 11 with a cash flow overlay. Net annual cash flow is positive post-AMI deployment. Additionally, the average annual cash flow is a loss of \$435,000.



71





It should be noted that the overall outlook of the model can change with variance to the underlying assumptions. A summary of sensitivities performed is illustrated in Table 23. In this matrix, capital expenses, operational expenses, or benefits are increased or decreased to demonstrate changes in financial metrics.

	Table 23 Scenario 0 Sensitivity Matrix						
		CapEx Sensit	ivity	OpEx Sensitiv	vity	Benefits Sens	itivity
		+5%	-5%	+5%	-5%	+5%	-5%
NPV		\$(8,949,000)	\$(7,660,000)	\$(8,486,000)	\$(8,123,000)	\$(7,894,000)	\$(8,715,000)
IRR		-16.8%	-14.0%	-15.9%	-14.9%	-13.6%	-17.4%
	x per	\$132	\$119	\$125	\$125	\$125	\$125
Total (Pres Value	CapEx ent	\$13,536,000	\$12,246,000	\$12,891,000	\$12,891,000	\$12,891,000	\$12,891,000
Total (Pres Value	OpEx ent	\$3,623,000	\$3,623,000	\$3,804,000	\$3,442,000	\$3,623,000	\$3,623,000
Total Bene (Pres Value	fits ent e)	\$8,210,000	\$8,210,000	\$8,210,000	\$8,210,000	\$8,620,000	\$7,799,000
ROI		-45.5%	-41.1%	-44.0%	-42.7%	-40.5%	-46.2%
Payba Perio (Year	ack d s)	No Payback within Lifespan					

From this sensitivity analysis, we can derive best- and worst-case underlying Scenario 0. The best- and worst-case are compared in Table 24.

© 2021 E Source Companies LLC || Do not share this document outside of Rochester Public Utilities.

Table 24 Scenario 0 Best- and Worst-Case

Dest- and worst-case		
Financial Metric	Best-Case	Worst-Case
NPV	\$(7,068,000)	\$(9,541,000)
IRR	-11.9%	#NUM!
CapEx per	\$119	\$132
Account		
Total CapEx	\$12,246,000	\$13,536,000
(Present Value)		
Total OpEx	\$3,442,000	\$3,804,000
(Present Value)		
Total Benefits	\$8,620,000	\$7,799,000
(Present Value)		
ROI	-37.4%	-48.8%
Payback Period	No Payback	No Payback
(Years)	within Lifespan	within Lifespan

Capital Expenses

Figure 12 illustrates the capital outlay of the project by category.



At a high-level, we assess a capitalized cost of about \$12.9 million, amortized over a 20year period. These projections are based on a 25-year ERT lifespan and take into account RPU's current asset demographics. Industry research indicates that this lifespan is relatively optimistic, and that premature failure is likely, bringing forward costs.

Operational Expenses

Per this model, average operating expenses of approximately \$235,000 will be incurred per annum after deployment of the system, across the project lifespan, without respect to sensitivity or escalation. Figure 13 illustrates projected growth in the operational expense per year over the 20-year project lifespan.

6.1.a



Scenario 1: Unified Network

Scenario 1 involves the deployment of a single network to accommodate both electric and water services, with all electric meters being exchanged for new meters.

High-Level Cost-Benefit Analysis Results

The financial metrics associated with Scenario 1 are outlined in Table 25.

Table 25 Scenario 1 Base	Case Financial Metrics	
	Financial Metric	Results
	NPV	\$4,561,000
	IRR	6.0%
	CapEx per Account	\$216
	Total CapEx (Present Value)	\$22,180,000
	Total OpEx (Present Value)	\$12,155,000
	Total Benefits (Present Value)	\$38,896,000
	ROI	29.3%
	Payback Period (Years)	13

Net and cumulative cash flow across the project lifespan is illustrated in Figure 14, while relative costs and benefits are plotted in Figure 15 with a cash flow overlay. Net annual cash flow is positive post-AMI deployment. Additionally, the average annual cash flow is \$1,740,000 post-deployment.

Figure 14 Scenario 1 Base Case AMI Cash Flow



Figure 15 Scenario 1 Base Case Cost-Benefit Analysis



It should be noted that the overall outlook of the model can change with variance to the underlying assumptions. If, for example, E Source or RPU conducts aggressive vendor negotiations, the estimated expenditures will decrease. The overall AMI initiative would, in turn, realize a more accelerated payback. Another area with margin for improving the business case is additional operational benefits from post-deployment data utilization. A summary of sensitivities performed is illustrated in Table 26. In this matrix, capital expenses, operational expenses, or benefits are increased or decreased to demonstrate changes in financial metrics.

Table 26 Scenario 1 Sensitivity Matrix						
	CapEx Sensit	ivity	OpEx Sensitivi	ty	Benefits Sens	itivity
	+5%	-5%	+5%	-5%	+5%	-5%
NPV	\$3,452,000	\$5,670,000	\$3,953,000	\$5,168,000	\$6,505,000	\$2,616,000
IRR	5.2%	6.9%	5.6%	6.4%	7.3%	4.7%
CapEx per Account	\$227	\$205	\$216	\$216	\$216	\$216
Total CapEx (Present Value)	\$23,289,000	\$21,071,000	\$22,180,000	\$22,180,000	\$22,180,000	\$22,180,000
Total OpEx (Present Value)	\$12,155,000	\$12,155,000	\$12,763,000	\$11,548,000	\$12,155,000	\$12,155,000
Total Benefits (Present Value)	\$38,896,000	\$38,896,000	\$38,896,000	\$38,896,000	\$40,841,000	\$36,951,000
ROI	25.7%	33.2%	26.7%	32.1%	35.8%	22.9%
Payback Period (Years)	14	13	14	13	12	15

From this sensitivity analysis, we can derive best- and worst-case underlying Scenario 1. The best- and worst-case are compared in Table 27.

Table 27 Scenario 1 Best- and Worst-Case					
	Financial Metric	Best-Case	Worst-Case		
	NPV	\$8,222,000	\$899,000		
	IRR	8.7%	3.6%		
	CapEx per	\$205	\$227		
	Account				
	Total CapEx	\$21,071,000	\$23,289,000		
	(Present Value)				
	Total OpEx	\$11,548,000	\$12,763,000		
	(Present Value)				
	Total Benefits	\$40,841,000	\$36,951,000		
	(Present Value)				
	ROI	43.0%	17.0%		
	Payback Period	11	16		
	(Years)				

Capital Expenses

In addition to the general assumptions outlined, a buy-back from Itron Bridge meters is assessed in this scenario, as incentive for RPU to implement the latest iteration of Itron's AMI technology.

Figure 16 illustrates the capital outlay of the project by category.

6.1.a

Figure 16 Scenario 1 Estimated Program Capital Outlay by Category



Operational Expenses

Per this model, average operating expenses of approximately \$850,000 will be incurred per annum after deployment of the system, across the project lifespan, without respect to sensitivity or escalation. Figure 17 illustrates projected growth in the operational expense per year over the 20-year project lifespan.



76

6.1.a

Scenario 2a: Independent Electric and Water Networks

Scenario 2a involves the deployment of wholly separate networks for electric and water services, with the electric network leveraging RPU's current investment in Itron Bridge electric meters.

High-Level Cost-Benefit Analysis Results

The financial metrics associated with Scenario 2a are outlined in Table 28.

Table 28 Scenario 2a Base Case Financial Metrics					
	Financial Metric	Results			
	NPV	\$4,790,000			
	IRR	6.4%			
	CapEx per Account	\$202			
	Total CapEx (Present Value)	\$20,714,000			
	Total OpEx (Present Value)	\$13,175,000			
	Total Benefits (Present Value)	\$38,679,000			
	ROI	29.2%			
	Payback Period (Years)	13			

Net and cumulative cash flow across the project lifespan is illustrated in Figure 18, while relative costs and benefits are plotted in Figure 19 with a cash flow overlay. Net annual cash flow is positive post-AMI deployment. Additionally, the average annual cash flow is \$1,652,000 post-deployment.



Figure 19 Scenario 2a Base Case Cost-Benefit Analysis



As mentioned above, the overall outlook of the model can change with variance to the underlying assumptions. A summary of sensitivities performed is illustrated in Table 29. In this matrix, capital expenses, operational expenses, or benefits are increased or decreased to demonstrate changes in financial metrics.

Table 29 Scenario 2a Sensitivity Matrix						
	CapEx Sensitivity	y	OpEx Sensitivity		Benefits Sensitiv	ity
	+5%	-5%	+5%	-5%	+5%	-5%
NPV	\$3,755,000	\$5,826,000	\$4,132,000	\$5,449,000	\$6,724,000	\$2,856,000
IRR	5.5%	7.3%	5.9%	6.8%	7.7%	5.0%
CapEx per Account	\$212	\$192	\$202	\$202	\$202	\$202
Total CapEx (Present Value)	\$21,750,000	\$19,678,000	\$20,714,000	\$20,714,000	\$20,714,000	\$20,714,000
Total OpEx (Present Value)	\$13,175,000	\$13,175,000	\$13,834,000	\$12,516,000	\$13,175,000	\$13,175,000
Total Benefits (Present Value)	\$38,679,000	\$38,679,000	\$38,679,000	\$38,679,000	\$40,613,000	\$36,745,000
ROI	25.8%	32.9%	26.4%	32.2%	35.7%	22.8%
Payback Period (Years)	14	12	13	13	12	14

From this sensitivity analysis, we can derive best- and worst-case underlying Scenario 2a. The best- and worst-case are compared in Table 30.

Table 30 Scenario 2a Best- and Worst-Case				
	Financial Metric	Best-Case	Worst-Case	
	NPV	\$8,419,000	\$1,162,000	
	IRR	9.2%	3.8%	
	CapEx per Account	\$192	\$212	
	Total CapEx (Present Value)	\$19,678,000	\$21,750,000	
	Total OpEx (Present Value)	(Present \$12,516,000 \$13	\$13,834,000	
	Total Benefits (Present Value)	\$40,613,000	\$36,745,000	
	ROI	42.8%	16.9%	
	Payback Period (Years)	11	15	

Capital Expenses

Figure 20 illustrates the capital outlay of the project by category.



Operational Expenses

Per this model, average operating expenses of approximately \$921,000 will be incurred per annum after deployment of the system, across the project lifespan, without respect to sensitivity or escalation. Figure 21 illustrates projected growth in the operational expense per year over the 20-year project lifespan.

79

6.1.a





Scenario 2b: Independent Electric-Only Network

Scenario 2b the deployment of an electric-only network, with the electric network leveraging RPU's current investment in Itron Bridge electric meters.

High-Level Cost-Benefit Analysis Results

The financial metrics associated with Scenario 2b are outlined in Table 31.

Table 31 Scenario 2b Base	e Case Financial Metrics	
	Financial Metric	Results
	NPV	\$618,000
	IRR	3.8%
	CapEx per Account	\$152
	Total CapEx (Present Value)	\$8,770,000
	Total OpEx (Present Value)	\$10,242,000
	Total Benefits (Present Value)	\$19,631,000
	ROI	16.2%
	Payback Period (Years)	16

Net and cumulative cash flow across the project lifespan is illustrated in Figure 22, while relative costs and benefits are plotted in Figure 23 with a cash flow overlay. Net annual cash flow is positive post-AMI deployment. Additionally, the average annual cash flow is \$743,000 post-deployment.

Figure 22 Scenario 2b Base Case AMI Cash Flow



Figure 23 Scenario 2b Base Case Cost-Benefit Analysis



As mentioned above, the overall outlook of the model can change with variance to the underlying assumptions. A summary of sensitivities performed is illustrated in Table 32. In this matrix, capital expenses, operational expenses, or benefits are increased or decreased to demonstrate changes in financial metrics.

Table 32	Table 32 Scenario 2b Sensitivity Matrix						
	CapEx Sensitivity	y	OpEx Sensitivity		Benefits Sensitiv	ity	
	+5%	-5%	+5%	-5%	+5%	-5%	
NPV	\$180,000	\$1,057,000	\$106,000	\$1,131,000	\$1,600,000	\$(363,000)	
IRR	3.2%	4.4%	3.1%	4.4%	5.0%	2.5%	
CapEx per Account	\$159	\$144	\$152	\$152	\$152	\$152	
Total CapEx (Present Value)	\$9,209,000	\$8,332,000	\$8,770,000	\$8,770,000	\$8,770,000	\$8,770,000	
Total OpEx (Present Value)	\$10,242,000	\$10,242,000	\$10,754,000	\$9,730,000	\$10,242,000	\$10,242,000	
Total Benefits (Present Value)	\$19,631,000	\$19,631,000	\$19,631,000	\$19,631,000	\$20,612,000	\$18,649,000	
ROI	13.9%	18.5%	12.8%	19.8%	22.0%	10.4%	
Payback Period (Years)	16	15	16	15	14	17	

From this sensitivity analysis, we can derive best- and worst-case underlying Scenario 2b. The best- and worst-case are compared in Table 33.

Table 33 Scenario 2b Best- and Worst-Case					
Financial Metric	Best-Case	Worst-Case			
NPV	\$2,551,000	\$(1,314,000)			
IRR	6.3%	1.3%			
CapEx per Account	\$144	\$159			
Total CapEx (Present Value)	\$8,332,000	\$9,209,000			
Total OpEx (Present Value)	\$9,730,000	\$10,754,000			
Total Benefits (Prese Value)	nt \$20,612,000	\$18,649,000			
ROI	28.4%	5.1%			
Payback Period (Year	r s) 13	19			

Capital Expenses

Figure 24 illustrates the capital outlay of the project by category.

83



Figure 24 Scenario 2b Estimated Program Capital Outlay by Category

Operational Expenses

\$4,500,000

Per this model, average operating expenses of approximately \$716,000 will be incurred per annum after deployment of the system, across the project lifespan, without respect to sensitivity or escalation. Figure 25 illustrates projected growth in the operational expense per year over the 20-year project lifespan.

Capital Outlay by Category

Figure 25 Scenario 2b Estimated Annual Program Operational Expense by Year



Scenario 3: Hybrid Migratory Network

Scenario 3 involves the deployment of a network solely for Itron Bridge meters, plus a unified network for all water and any non-Bridge electric meters; over time, Itron Bridge meters will be replaced, and new meters will be installed that are compatible on the unified network.

High-Level Cost-Benefit Analysis Results

The financial metrics associated with Scenario 3 are outlined in Table 34.

Table 34 Scenario 3 Base Case Financial Metrics				
	Financial Metric	Results		
	NPV	\$4,950,000		
	IRR	6.1%		
	CapEx per Account	\$224		
	Total CapEx (Present Value)	\$22,991,000		
	Total OpEx (Present Value)	\$10,740,000		
	Total Benefits (Present Value)	\$38,681,000		
	ROI	32.5%		
	Payback Period (Years)	14		

Net and cumulative cash flow across the project lifespan is illustrated in Figure 26, while relative costs and benefits are plotted in Figure 27 with a cash flow overlay. Net annual cash flow is positive post-AMI deployment. Additionally, the average annual cash flow is \$1,739,000 post-deployment.

Figure 26 Scenario 3 Base Case AMI Cash Flow



Figure 27 Scenario 3 Base Case Cost-Benefit Analysis



As mentioned above, the overall outlook of the model can change with variance to the underlying assumptions. A summary of sensitivities performed is illustrated in Table 35. In this matrix, capital expenses, operational expenses, or benefits are increased or decreased to demonstrate changes in financial metrics.

Tab	Table 35 Scenario 3 Sensitivity Matrix						
	CapEx Sensitivit	у	OpEx Sensitivity		Benefits Sensitiv	ity	
	+5%	-5%	+5%	-5%	+5%	-5%	
NPV	\$3,800,000	\$6,099,000	\$4,413,000	\$5,487,000	\$6,884,000	\$3,016,000	
IRR	5.3%	7.0%	5.8%	6.4%	7.3%	4.9%	
CapEx per Account	\$235	\$213	\$224	\$224	\$224	\$224	
Total CapE (Present Value)	\$24,141,000	\$21,841,000	\$22,991,000	\$22,991,000	\$22,991,000	\$22,991,000	
Total OpE (Present Value)	\$10,740,000	\$10,740,000	\$11,277,000	\$10,203,000	\$10,740,000	\$10,740,000	
Total Bene (Present Value)	fits \$38,681,000	\$38,681,000	\$38,681,000	\$38,681,000	\$40,615,000	\$36,747,000	
ROI	28.4%	36.8%	30.1%	35.0%	39.1%	25.8%	
Payback Period (Years)	14	13	14	13	13	15	

From this sensitivity analysis, we can derive best- and worst-case underlying Scenario 3. The best- and worst-case are compared in Table 36.

Table 36 Scenario 3 Best- and Worst-Case						
Financial Metric	Best-Case	Worst-Case				
NPV	\$8,570,000	\$1,329,000				
IRR	8.6%	3.8%				
CapEx per Account	\$213	\$235				
Total CapEx (Present Value)	\$21,841,000	\$24,141,000				
Total OpEx (Present Value)	\$10,203,000	\$11,277,000				
Total Benefits (Present Value)	\$40,615,000	\$36,747,000				
ROI	46.4%	19.9%				
Payback Period (Years)	12	16				

Capital Expenses

In addition to the general assumptions outlined, it is assumed that Itron Bridge meters will be gradually phased out in the five years following initial deployment.

Figure 28 illustrates the capital outlay of the project by category.





Operational Expenses

Per this model, average operating expenses of approximately \$721,000 will be incurred per annum after deployment of the system, across the project lifespan, without respect to sensitivity or escalation. Figure 29 illustrates projected growth in the operational expense per year over the 20-year project lifespan.



Appendix 2: Strategic Roadmap



88

© 2021 E Source Companies LLC || Do not share this document outside of Rochester Public Utilities.

Appendix 3: Staffing Plan



Appendix 4: Use Case Prioritization Workbook



90

6.1.a

© 2021 E Source Companies LLC || Do not share this document outside of Rochester Public Utilities.

Appendix 5: Risk Register



© 2021 E Source Companies LLC || Do not share this document outside of Rochester Public Utilities.

FOR BOARD ACTION Agenda Item # (ID # 13350) Meeting Date: 5/25/2021 **SUBJECT: RPU Index of Board Policies PREPARED BY:** Christina Bailey **ITEM DESCRIPTION:** UTILITY BOARD ACTION REQUESTED:

ROCHESTER PUBLIC UTILITIES		
INDEX OF BOARD POLICIES		
		RESPONSIBLE BOARD
	REVISION DATE	COMMITTEE
BOARD		
1. Mission Statement	6/26/2012	Policy
2. Responsibilities and Functions	3/27/2012	Policy
3. Relationship with the Common Council	2/28/2012	Policy
4. Board Organization	3/27/2018	Policy
5. Board Procedures	3/27/2012	Policy
6. Delegation of Authority/Relationship with Management	7/24/2018	Policy
7. Member Attendance at Conferences and Meetings	12/18/2018	Policy
8. Board Member Expenses	12/18/2018	Policy
9. Conflict of Interest	11/26/1985	Delete
10. Alcohol and Illegal Drugs	7/28/1988	Delete
11. Worker Safety	3/27/2012	Policy
CUSTOMER		
12. Customer Relations	4/30/2019	Ops & Admin
13. Public Information and Outreach	4/30/2019	Communications
14. Application for Service	7/1/2016	Ops & Admin
15. Electric Utility Line Extension Policy	3/28/2017	Finance
16. Billing, Credit and Collections Policy	12/17/2019	Finance
17. Electric Service Availability	10/29/2019	Ops & Admin
18. Water and Electric Metering	6/26/2018	Ops & Admin
19. Electric & Water Bill Adjustment	3/10/1994	Finance
20. Rates	7/25/2017	Finance
21. Involuntary Disconnection	4/24/2018	Communications
ADMINISTRATIVE		
22. Acquisition and Disposal of Interest in Real Property	12/19/2017	Ops & Admin
23. Electric Utility Cash Reserve Policy	1/28/2020	Finance
24. Water Utility Cash Reserve Policy	1/28/2020	Finance
25. Charitable Contributions	6/25/2019	Communications
26. Utility Compliance	10/24/2017	Communications
27. Contribution in Lieu of Taxes	6/29/1999	Finance
28. Joint-Use of Infrastructure and Land Rights	3/30/2021	Ops & Admin
29. Customer Data Policy	10/9/2014	Communications
30. Life Support	9/24/2019	Communications
31. Electric Utility Undergrounding Policy	9/29/2020	Ops & Admin
Red - Currently being worked on		
Yellow - Will be scheduled for revision		

7.1.a

FOR BOARD ACTION Agenda Item # (ID # 13361) Meeting Date: 5/25/2021 SUBJECT: Division Report and Metrics - May 2021 **PREPARED BY:** Christina Bailey **ITEM DESCRIPTION:** UTILITY BOARD ACTION REQUESTED:
Division Reports & Metrics May 2021

CORE SERVICES SAFETY, COMPLIANCE & PUBLIC AFFAIRS POWER RESOURCES CUSTOMER RELATIONS CORPORATE SERVICES FINANCIAL REPORTS

Packet Pg. 145

9.1.a

Attachment: Division Reports May 2021(13361:Division Report and Metrics - May 2021)

Division Reports & Metrics May 2021

CORE SERVICES

Electric Utility:

1. Electric Outage Calculations for the month and year to date (Apr. 2021 Data)

- a. Reliability = 99.99589%
- b. 2,298 Customers affected by Outages
- c. SAIDI = 1.78 min
- d. CAIDI = 43.95 min

Year-to-date Reliability = 99.98322% Year-to-date Customers affected by Outages = 9,615 Year-to-date SAIDI = 1.85 min Year-to-date CAIDI = 48.04 min

2. Electric Utility Operations – T&D, Engineering, System Ops, GIS, Tech Services:

- T&D is approximately 80% complete with converting the City streetlights to LED •
- Design work continues for the Marion Road Substation with bid packages for the remaining • major equipment being finalized
- Updated our procedures to comply with new NERC reliability standards



• Summary of individual electrical outages (greater than 200 customers - Apr. 2021 data)

# Customers	Date	Duration	Cause
1,221	4/22/21	39m	Vehicle Hit Pole
632	4/12/21	31m	Underground Equipment

• Summary of aggregated incident types (greater than 200 customers - Apr. 2021 data)

# Customers	Total # of Incidents	Cause
1,221	1	Vehicle Hit Pole
827	4	Underground Equipment

Water Utility:

Water Outage Calculations for the month (April 2021 data):

Water Outage Calculations for the month.

- a. Reliability = 99.99824757%
- b. 136 Customers Affected by Outages
- c. 519.1 Customer Outage Hours
- d. SAIDI = 0.8
- e. CAIDI = 229.0

Year-to-date Customers Affected by Outages = 497

Year-to-date Reliability = 99.99887638%

Year-to-date Customers Affected by Outages = 497 Year-to-date Customer Outage Hours = 1331.4 Year-to-date SAIDI = 1.9 Year-to-date CAIDI = 160.7

- Performed 2,774 Gopher State water utility locates during the month for a total of 4,824 for the year.
- Repaired water distribution system failures or maintenance at the following locations during the month:

3470 22 nd Ave NW – (Leak) – 4/1	3101 Superior Dr NW - (Main Break) - 4/23
6109 Fairway Dr NW - (Leak) - 4/5	106 21 st St SE (Main Break) - 4/28

RPU personnel received 67 inquiries during the month by phone, email, and in person related to
questions about letters that customers received regarding how to accomplish backflow testing
and backflow prevention.









GIS/Property Rights

• Hydro line LIDAR flight completed utilizing drone technology. Deliverables will include a 3D point cloud of the corridor and also identify vegetation and other clearance issues that need to be addressed.

SAFETY / COMPLIANCE & PUBLIC AFFAIRS May 2021

1. <u>Safety</u>

TRAINING	Total Requir Enrollment	ed s	Comple 4/3	etions as of 80/2021	Percent Complete		
April 2021	625			613	98.1%		
Calendar Year to 4/30/2021	2556			2544	99.5%		
SAFETY TEAMS	Total Membe	ers	Member	s Attending	Percent Attending		
April 2021	25			22	88.0%		
Calendar Year to 4/30/2021	146		128		87.7%		
INCIDENTS	Reports Submitted	OSHA	A Cases ¹	RPU RIR²	BLS RIR ³		
April 2021	1		0				
Calendar Year to 4/30/2021	9		2	3.3	1.7		

¹ Deemed to meet OSHA criteria as a recordable case by RPU Safety Manager, subject to change

² Recordable Incident Rate – Number of OSHA Recordable Cases per 100 employees.

³ Bureau of Labor Statistics nonfatal illnesses and injuries in the utility sector



22 of RPU's 24 departments are recordable injury free in 2021 204 of RPU's 206 employees are recordable injury free in 2021



2021 OSHA Recordable Case Detail									
Work Area	Incident Date	Description	Primary Reason it's a Recordable	Corrective Action					
T&D	2/8/2021	Slipped on ice in parking lot striking head and shoulder (R) on pavement	Restricted Work	Reviewed salting/sanding procedures					
Water	3/1/2021	Possible knee (L) injury due to slip on ice	Days Away	Encouraged use of better slip resistant footwear					

SAFETY INITIATIVES

- 1. Working with Procurement to investigate options for optimizing the availability of first aid supplies
- 2. Annual fit tests were provided to all respirator users
- 3. Safety Manager facilitated discussions with other managers regarding updated restricted duty procedures

2. Environmental & Regulatory Affairs

- On April 20th RPU staff met with the MN Dept. of Natural Resources to discuss RPU's water sustainability efforts.
- On April 30th RPU, Parks & Recreation, Sargent's and Whiting partnered to give away 800 bur oak trees to the public to celebrate Arbor Day.
- On May 12th the 2020 Water Quality Report was made available. The Water Quality Report provides RPU's water customers important information about the quality of the drinking water in 2020.

3. Communications

- May 1-8 was National Drinking Water Week. We promoted RPU's water quality and safety by highlighting our water staff on digital billboards across Rochester during that week.
- Our excavation safety communication program kicks off this month through an excavation safety brochure mailing to all commercial contractors that requested a locate within RPU service territory last year. This brochure provides excavators with safety information, a website resource for online training on the RPU website, and a resource for additional brochures for their staff, if needed.

- The new 2020 Water Quality Report brochure is now available in hard copy and on the RPU website.
- A student from Rochester was selected as the third place recipient for the MMUA Tom Bovitz Memorial Scholarship Essay Contest. We will try to do a photo with the student and an MMUA representative at an RPU Board Meeting at a later time.



Tweets 36

18.3K 19.7%

70 402

432 1336.4% 3

Followers 1,076 12

RPU Environmental Stewardship Metric

Tons CO2 Saved

12 Month Rolling Sum



9.1.a

Packet Pg. 154

POWER RESOURCES MANAGEMENT

MAY 2021

Portfolio Optimization

- 1. In April, RPU continued to bid GT1, GT2 and WES into the MISO day-ahead and realtime markets. Only GT2 and WES are capable of participating in the ancillary services market. GT2 was on annual maintenance shut down for the last half of the month.
 - a. Ancillary Service Market Supplemental Reserves
 - i. Cleared DA
 - 1. GT2 16 days
 - 2. WES 30 days
 - ii. Deployment YTD
 - 1. GT2 1
 - 2. WES 1
 - b. Dispatched by MISO

i.	GT1 – 3	times	YTD 10
ii.	GT2 – 5	times	YTD 30
iii.	$WES - 1^{\circ}$	1 times	YTD 27

c. Hours of Operation

i.	GT1 – 26 hours	YTD 55 hours
ii.	GT2 – 26 hours	YTD 206 hours
iii.	WES – 96 hours	YTD 176 hours

d. Electricity Generated

i.	GT1 – 597 MWh	YTD 1,106 MWh
ii.	GT2 – 862 MWh	YTD 6,418 MWh
iii.	WES – 3,300 MWh	YTD 5,786 MWh

e. Forced Outage

i.	GT1 – 96 hours	YTD 206 hours
ii.	GT2 – 0 hours	YTD 0 hours
iii.	WES – 0 hours	YTD 168 hours

2. MISO market Real Time Price averaged \$14.83/MWh and Day Ahead Price averaged \$16.72/MWh. These values are three to four times higher than January averages.



CUSTOMER RELATIONS (Contact Center and Marketing, Commercial and Residential)

Opportunities for Customers

- 1. A Community Education class called "*Electric Vehicles They are coming, but are they for you*" was held virtually on Tuesday, May 4. Fifteen people attended the class. The class went over its allotted time with attendees asking several pragmatic questions.
- 2. A virtual Neighborhood Energy Challenge workshop with Community Education was held on Tuesday, May 15. We had 30 households registered to attend.
- 3. On April 26, Customer Care Advisors started making outreach calls to known tenants and property owners informing them of the *RentHelpMN* program. This program will assists tenants who meet the eligibility requirements with past rent, past due utilities, and upcoming rent. As of May 17, about 1,600 customers have been contacted.
- 4. A collaborative effort is underway in completing a technical upgrade to Cayenta. The upgrade to version 9 is scheduled to begin July 2021 and wrap up by December 2021.



- Avoided kW: 671 kW
- Cost of Avoided kW: \$737/kW



• Total Customers Enrolled: 44



• Total Customers Enrolled: 27



- Total Number in Dollars Processed by Representatives: \$691,475 (graphed above)
- Total Number of Transactions Processed by Representatives: 3,102



- Total Number of Calls: 5,026 (graphed above)
- Total Number of Calls: 6,519 (graphed above)

Attachment: Division Reports May 2021(13361:Division Report and Metrics - May 2021)

Corporate Services

1. Business Services:

- Payroll/HR Coordinated the on boarding of one full time employee and several seasonal grounds crew and hydrant painters.
- Payroll/HR Assisted employees with changed payroll reporting for covid related illness and recording time to get vaccinated.
- Payroll/HR Coordination of the City's Wellness program information to RPU employees.
- Project Management Implemented a technology acquisition process (TAPs) to evaluate and leverage existing capabilities across the city, and vet IT security and contractual risks related to new or expanded technology acquisitions.
- NERC Compliance completed the required quarterly cyber security awareness training for all employees. Completed a review of authorized users with remote access to RPU systems.
- Administrative Updated the Electric Rules and Regulations publication.
- As part of the customer outreach efforts 9,358 customer letters were printed and mailed internally including 6,191 outreach letters and 1,556 Rent Help MN program letters.



• Water Ops Back Flow

Purchasing and Materials Management:

- 2. Eminent Domain procedures for the Marion Road land have concluded. A settlement agreement was reached with the land owner.
- **3.** Executed Consolidated Communications pole attachment agreement. CenturyLink agreements are still outstanding.
- **4.** Building materials costs continue to escalate to the point where vendors are moving to cost plus agreements, which shifts the risk of material price increases to the Utility.





5. Finance and Accounting:

General

- The 2022 budget process has started. The budget will be reviewed with the Finance Committee and the Board in August. The RPU budget will be reviewed by the City Council during a study session in September, with approvals requested of the RPU Board and Council in October and December respectively. The accounting team is working on revenue forecast and salary forecast for 2022.
- Covid19 Financial Impacts As part of our 2021 Electric Utility budget process sales volumes and gross margin were adjusted down. The 2021budget anticipates a slow recovery during 2021. The Electric Utility gross margin for April 2021 is under budget by \$142,593 or (3.2%). This is \$38,208 or 0.9% above April 2020 actual gross margin. Wholesale sales are \$238,036 below budget.



- 9.1.a
- Accounts Receivable Past due account balances have increased from \$1,348,197 at the end of February 2020, before the pandemic, to \$2,794,514 at the end of April 2021. Of this amount \$1,834,475 is due from residential customers and \$960,039 is due from commercial accounts. RPU will continue to reach out to customers to get them connected to assistance that they may be qualified for.

Description		Residential					Commercial (Non Residential)					
	02/	29/2020	04	/30/2021	In	cr (Decr)	02/	/29/2020	03/	/31/2021	In	cr (Decr)
% Current		92.0%		73.5%		-18.5%		94.6%		82.7%		-11.9%
% Past Due		17.5%		34.0%		16.5%		5.8%		18.0%		12.2%
Amount Past Due	\$	968,491	\$	1,834,475	\$	865,984	\$	379,705	\$	960,039	\$	580,334
# Customers Past Due		6,349		4,436		(1,913)		385		384		(1)
Average Balance Past Due	\$	153	\$	414	\$	261	\$	986	\$	2,500	\$	1,514
# Customers > \$1,500 Past Due		17		321		304		38		62		24
# Customers > \$5,000 Past Due		-		9		9		13		30		17

6. Information Technology:

General

- Open IT System Administrator position has been filled with the person starting on June 3rd.
- The major project in the IT area at present is the upgrade of the SCADA controls system. This project is on schedule.
- Completed the single sign on project for the SAP environment.
- IT Project Management Process is sharing project pipeline information with operational division. This process communicates project priorities, resources allocations and project timing.

7. Financial Results:

Note: Budget numbers are compared to the approved 2021 budget and have been adjusted for 2020 approved project budgets carried over to 2021.

The large variance in the Electric Utility Change in Net Position for April is due to budgeted contributions in aid of construction related to the Marion Substation and 10MW solar installation being behind compared to the budget timing.

	Current Month	1	Year to Date			
Actual	Budget	Variance	Actual	Budget	Variance	
\$ 11,012	\$ 11,689	\$ (677)	\$ 47,645	\$ 46,428	\$ 1,217	
819	843	(24)	3,207	3,304	(97)	
796	1,805	(1,009)	4,057	3,936	121	
109	84	25	240	284	(44)	
	Actual \$ 11,012 819 796 109	Actual Budget \$ 11,012 \$ 11,689 819 843 796 1,805 109 84	Actual Budget Variance \$ 11,012 \$ 11,689 \$ (677) 819 843 (24) 796 1,805 (1,009) 109 84 25	Actual Budget Variance Actual \$ 11,012 \$ 11,689 \$ (677) \$ 47,645 819 843 (24) 3,207 796 1,805 (1,009) 4,057 109 84 25 240	Actual Budget Variance Actual Budget \$ 11,012 \$ 11,689 \$ (677) \$ 47,645 \$ 46,428 819 843 (24) 3,207 3,304 796 1,805 (1,009) 4,057 3,936 109 844 25 240 284	





Packet Pg. 164















Attachment: Division Reports May 2021 (13361 : Division Report and Metrics - May 2021)

Packet Pg. 167



TO: Jeremy Sutton, Director of Power Resources, Fleet & Facilities

FROM: Tina Livingston, Senior Financial Analyst

SUBJECT: LOAD FORECAST SUMMARY FOR 2021

	SYS	STEM ENERGY		PEAK SYSTEM DATA					
MONTH	ACTUAL	FORECAST	% DIFF	ACTUAL	FORECAST	% DIFF			
_	MWH	MWH		MW	MW				
JAN	97,934	101,211	-3.2%	164.6	182.4	-9.7%			
FEB	92,648	92,886	-0.3%	172.3	179.6	-4.0%			
MAR	90,288	92,601	-2.5%	151.8	158.0	-3.9%			
APR	85,195	90,885	-6.3%	158.6	168.7	-6.0%			
MAY					194.6				
JUN					227.8				
JUL					265.5				
AUG					246.3				
SEP					238.8				
OCT					170.9				
NOV					171.7				
DEC					173.6				
YTD	366,066	377,583	-3.1						

HISTORICAL SYSTEM PEAK 292.1 MW 07/20/2011

% DIFF = (ACTUAL / FORECAST X 100) - 100 MWH = MEGAWATT HOUR = 1000 KILOWATT HOURS MW = MEGAWATT = 1000 KILOWATTS

2021 YTD SYSTEM REQUIREMENTS



Energy Required for the Month (MWH)





9.1.a

ROCHESTER PUBLIC UTILITIES

	INDEX					
<i>K:</i> \	RPU\GA\FINANCIAL REPORTS\ I	FINANCIALS CRMO.pdf				
DATE:	April	2021				
TO:						
From:	Julie Ackerman Controller	(507) 280-1617				
SUBJ:	RPU - Financial S	tatements				

RPU - ELECTRIC UTILITY Financial Reports

Page # REPORT TITLE:

- 1 Statement of Net Position Condensed
- 2 Statement of Revenues, Expenses & Changes in Net Position YTD
- 3 Statement of Cash Flows YTD
- 4 5 Production and Sales Statistics YTD
- **6** GRAPH Capital Expenditures
- 7 GRAPH Major Maintenance Expenditures
- 8 GRAPH Cash & Temporary Investments
- 9 GRAPH Changes in Net Position
- 10 GRAPH Bonds

RPU - WATER UTILITY Financial Reports

Page # REPORT TITLE:

- 11 Statement of Net Position Condensed
- 12 Statement of Revenues, Expenses
 - & Changes in Net Position YTD
- **13** Statement of Cash Flows YTD
- 14 Production and Sales Statistics YTD
- 15 GRAPH Capital Expenditures
- 16 GRAPH Major Maintenance Expenditures
- 17 GRAPH Cash & Temporary Investments
- 18 GRAPH Changes in Net Position

END OF BOARD PACKET FINANCIALS

ROCHESTER PUBLIC UTILITIES

STATEMENT OF NET POSITION

ELECTRIC UTILITY

April 30, 2021

7		<u>April 2021</u>	<u>April 2020</u>	Difference	<u>% Diff.</u>	March 2021
8	ASSETS					
9	CURRENT ASSETS					
10	CASH & INVESTMENTS					
11	Unreserved Cash & Investments	30,289,567	12,862,910	17,426,657	135.5	32,355,216
12	BOARD RESERVED CASH & INVESTMENTS	6 530 006	7 060 405	(722,420)	(10.1)	6 520 00(
13	Working Funds Reserve	19.537.000	20.590.000	(1.053.000)	(10.1)	19.537.00(
15	Special Capital & Major Maintnce Reserve	2,800,818	9,699,776	(6,898,957)	(71.1)	2,800,81
16	Contingency Reserve	10,943,000	10,581,000	362,000	3.4	10,943,00(🌄
17	General Capital & Major Maintnce Reserve	22,169,951	25,714,897	(3,544,946)	(13.8)	22,152,30
18	Total Reserved Cash & Investments	61,980,765	73,849,108	(11,868,342)	(16.1)	61,963,11
19 20	Receivables & Accrued Utility Revenues	92,270,332 20,906,946	16 945 453	5,558,314 3,961,493	0.4 23.4	20 809 624
21	Inventory	6,420,602	6,695,845	(275,242)	(4.1)	6,387,47
22	Other Current Assets	1,942,195	1,974,865	(32,670)	(1.7)	2,395,54: 0
23	RESTRICTED ASSETS					<u>.</u>
24	Restricted Cash and Equivalents	5,333,729	5,872,958	(539,230)	(9.2)	4,202,68(
25		126,873,804	118,201,139	8,672,665	7.3	128,113,65° Š
26	NON-CORRENT ASSETS					p
28	RESTRICTED CASH & INVESTMENTS					ar
29	Debt Service Reserve	12,072,991	12,955,835	(882,844)	(6.8)	12,072,99 💆
30	Funds Held in Trust	0	0	0	0.0	(Q
31	Total Restricted Cash & Investments	12,072,991	12,955,835	(882,844)	(6.8)	12,072,99
32	Total Restricted Assets	12,072,991	12,955,835	(882,844)	(6.8)	12,072,99
33	CAPITAL ASSETS					o D
34	NON-DEPRECIABLE ASSETS					S
35	Land and Land Rights	9,543,522	9,542,782	740	0.0	9,543,52
37	Total Non-depreciable Assets	28 330 553	20 806 831	7 523 723	36.2	27 496 19(
38	DEPRECIABLE ASSETS	20,000,000	20,000,001	1,020,120	50.2	27,400,100
39	Utility Plant in Service, Net	246,321,988	250,695,798	(4,373,810)	(1.7)	247,448,57
40	Steam Assets, Net	1,374,601	1,669,158	(294,557)	(17.6)	1,399,14
41	Total Depreciable Assets	247,696,589	252,364,956	(4,668,368)	(1.8)	248,847,71
42	Net Capital Assets	276,027,142	273,171,787	2,855,355	1.0	276,343,91(
43	Other Non-Current Assets	12,110,499	12,087,972	22,527	0.2	12,147,49
44	Total Non-Current Assets	300,210,632	298,215,594	1,995,038	0.7	300,564,39
45	TOTAL ASSETS	427,084,435	416,416,733	10,667,703	2.6	428,678,04{ 🙍
46	DEFERRED OUTFLOWS OF RESOURCES					2
47	DEFERRED OUTFLOWS OF RESOURCES	3,600,738	2,010,116	1,590,622	79.1	3,593,41
48	TOTAL ASSETS + DEFERRED OUTFLOW RESOURCE	430,685,173	418,426,848	12,258,325	2.9	432,271,46
49	LIABILITIES					e
50	CURRENT LIABILITIES	0.000.400			(= =)	2
51 52	Accounts Payable	9,088,109	9,633,296	(545,187) 252 601	(5.7)	11,604,73 C
53	Customer Deposits	1,958,730	1,739,055	219,675	12.6	1,894,36
54	Compensated absences	2,104,751	1,902,249	202,502	10.6	2,115,22: 🚬
55	Accrued Salaries & Wages	420,266	992,569	(572,303)	(57.7)	963,207
56	Interest Payable	2,741,062	3,366,708	(625,646)	(18.6)	2,170,34
57 58	Current Portion of Long Term Debt Misc Other Current Liabilities	6,515,000	6,015,000	500,000	8.3	6,515,000 C
59	Total Current Liabilities	26,362,803	26,931,156	(568,353)	(2.1)	28,611,56
60	NON-CURRENT LIABILITIES					с ,
61	Compensated absences	1,513,930	1,330,098	183,833	13.8	1,520,314
62 62	Other Non-Current Liabilities	14,291,386	12,590,021	1,701,365	13.5	
64	Long-Term Debt	175.675.069	183.350.158	(7,297,217) (7,675,089)	(4.2)	175.810.72
65	Total Non-Current Liabilities	193,282,401	206,369,508	(13,087,108)	(6.3)	193,427,678
66	TOTAL LIABILITIES	219,645,203	233,300,664	(13,655,461)	(5.9)	222,039,242
67	DEFERRED INFLOWS OF RESOURCES			(1.05)	(== -)	
68	DEFERRED INFLOWS OF RESOURCES	1,510,085	3,145,612	(1,635,527)	(52.0)	1,498,78(
69	NET PUSITION	105 100 001	04 200 074	10 970 040	44 5	
70 74	Internities In Capital Assets	100, 182,984	94,309,974 2 506 250	10,873,010	11.5	105,955,042
72	Unrestricted Net Position	101.754.234	85,164,348	16.589.886	19.5	100,746.06
73	TOTAL NET POSITION	209,529,885	181,980,572	27,549,313	15.1	208,733,444
74	TOTAL LIAB, DEFERRED INFLOWS, NET POSITION	430,685,173	418,426,848	12,258,325	2.9	432,271,460

1

2

3

4

5 6

5/1

ROCHESTER PUBLIC UTILITIES <u>Statement of Revenues, Expenses & Changes in Net Position</u>

1

2

3 4

5

6

April , 2021 YEAR TO DATE

7		Actual YTD	<u>Original</u> Budget YTD	<u>Actual to</u> Original Budget	% Var.	Last Yr Actual YTD	
8	SALES REVENUE						
9	Retail Revenue						
10	Electric - Residential Service	16,618,151	16,922,312	(304,161)	(1.8)	16,173,73	
11	Electric - General & Industrial Service	25,461,027	26,081,020	(619,993)	(2.4)	25,582,20	E
12	Electric - Public Street & Highway Light	551,910	493,690	58,220	11.8	517,12	5
13	Electric - Rental Light Revenue	60,353	84,276	(23,923)	(28.4)	64,83	4
14	Electric - Interdepartmenti Service	304,166	265,479	38,687	14.6	298,26	d d
15		(221,204)	(497,808)	276,554	55.6	(330,47	Σ
16	Electric - Clean Air Rider	683,747	660,809	22,938	3.5	634,63	5
17	Electric - Total Retail Revenue	43,458,100	44,009,779	(551,679)	(1.3)	42,940,32	<u>ػ</u>
18	VVNOIESAIE Electric Revenue	1 200 020	750 100	456 710	60.7	216.92	Ē
19	Capacity & Domand	1,200,030	50 490	450,710	00.7	52.26	ž
20	Total Wholesale Electric Revenue	1 308 804	802 608	<u>49,400</u> 506 196	63.1	270 10	2
21	Steem Sales Bayerus	0.077.704	1 616 000	1 001 701	70.4	270,10 C	đ
22	Steam Sales Revenue	2,877,781	1,616,000	1,201,781	78.1	1,000,00	5
23	TOTAL SALES REVENUE	47,644,684	46,428,387	1,216,298	2.6	44,865,98	קר
24	COST OF REVENUE					<u> </u>	
25	Purchased Power	26,818,840	27,987,970	(1,169,131)	(4.2)	26,678,70	ō
26	Generation Fuel, Chemicals & Utilities	2,835,155	1,418,002	1,417,153	99.9	1,035,88	2
27	TOTAL COST OF REVENUE	29,653,995	29,405,973	248,022	0.8	27,714,59	ŝ
28	GROSS MARGIN						5
29	Retail	16,639,261	16,021,808	617,452	3.9	16,261,61	ē
30	Wholesale	1,351,429	1,000,606	350,823	35.1	889,76	ò
31	TOTAL GROSS MARGIN	17,990,690	17,022,414	968,276	5.7	17,151,38	-
32	FIXED EXPENSES					5	Z
33	Utilities Expense	156 919	162 927	(6,008)	(37)	153 74	Š
34	Depreciation & Amortization	4.907.235	4.643.412	263.823	5.7	4.930.20	2
35	Salaries & Benefits	6,730,846	5,977,996	752,850	12.6	6,709,42	Ň
36	Materials, Supplies & Services	3,053,186	3,670,039	(616,853)	(16.8)	3,300,53 🧯	n
37	Inter-Utility Allocations	(631,367)	(573.000)	(58,367)	(10.2)	(573.62	5
38	TOTAL FIXED EXPENSES	14,216,820	13,881,373	335,447	2.4	14,520,27	ב
39	Other Operating Revenue	3,171,758	3,251,682	(79,924)	(2.5)	1,945,17	2
40		6 045 628	6 302 723	552 004	8.6	4 576 28	5
40		0,943,020	0,392,723	552,904	0.0	4,570,20	212
41	NON-OPERATING REVENUE / (EXPENSE)			(400.070)	(07.7)	Ë	2
42	Investment Income (Loss)	440,020	608,697	(168,676)	(27.7)	522,35	2
43	Interest Expense	(1,882,990)	(2,060,633)	177,643	8.6	(2,112,83	D
44	Amonuzation of Dept issue Costs	(33,034)	(23,724)	(7,929)	(30.0)	(20,90	Ē
45	Miscellaneous - Net	(42,206)	(2,250)	(39,956)	(1,775.8)	(57,97	S B C
46	TOTAL NON-OPERATING REV (EXP)	(1 518 829)	(1 479 910)	(38 918)	(2.6)	(1 675 41	Ī
	INCOME (LOSS) BEFORE TRANSFERS / CAPITAL	(1,1,0,020)	(.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		()	(1,2,0,1)	
47	CONTRIBUTIONS	5,426,799	4,912,813	513,986	10.5	2,900,87	
48	Transfers Out	(2,625,189)	(2,733,332)	108,143	4.0	(2,640,03	
49	Capital Contributions	1,255,855	1,756,294	(500,440)	(28.5)	191,29	
50	CHANGE IN NET POSITION	4 057 465	3 935 775	121 689	31	452 12	
		-,007,400 =	0,000,110	121,003	3.1		
51 52		200,472,420				181 980 57	
52		203,023,003					
54			Rolling 12 Months	Planned for Curr Vear			
55	Debt Coverage Ratio	-	3 76	2.93			
55		2	0.10	2.00	5/13/2021	3:11 PM	

ROCHESTER PUBLIC UTILITIES <u>STATEMENT OF CASH FLOWS</u> ELECTRIC UTILITY FOR APRIL, 2021 YEAR-TO-DATE

1

2

3

4

5

6

7		Actual YTD	<u>Last Yr Actual YTD</u>
8	CASH FLOWS FROM OPERATING ACTIVITIES		
9	Cash Received From Customers	46,997,889	46,521,181
10	Cash Received From Other Revenue Sources	4,267,058	271,736
11 12	Cash Received From Wholesale & Steam Customer Cash Paid for:	3,394,869	1,744,916
13	Purchased Power	(27,351,993)	(27,067,528)
14	Operations and Maintenance	(9,097,903)	(10,106,115)
15	Fuel	(2,988,109)	(1,419,663)
16	Payment in Lieu of Taxes	(2,700,369)	(2,745,361)
17	Net Cash Provided by(Used in) Utility		
18	Operating Activities	12,521,441	7,199,166
19	Sewer, Storm Water, Sales Tax & MN Water Fee Collections		
20	Receipts from Customers	14,595,952	14,217,808
21	Remittances to Government Agencies	(14,343,141)	(14,203,024)
22	Net Cash Provided by(Used in) Non-Utility		
23	Operating Activities	252,811	14,784
24 25	OPERATING ACTIVITIES	12,774,252	7,213,950
26			
20 27	FINANCING ACTIVITIES		
28	Additions to Utility Plant & Other Assets	(6,309,956)	(4,427,260)
29	Payments related to Service Territory Acquisition	(33,549)	(82,408)
30	Payment on Long-Term Debt	3,175,000	0
32	Cash Paid for Interest & Commissions	(4 463 881)	0
33	NET CASH PROVIDED BY(USED IN)	(4,400,001)	0
34	CAPITAL & RELATED ACTIVITIES	(7,632,386)	(4,509,668)
35	CASH FLOWS FROM INVESTING ACTIVITIES		
36	Interest Earnings on Investments	(8,011)	(22,368)
37	Construction Fund (Deposits)Draws	0	0
38	Bond Reserve Account	(3,276,355)	(4,698,367)
39		0	/50
40	NET CASH PROVIDED BY(USED IN)	<i>/</i>	
41	INVESTING ACTIVITIES	(3,284,366)	(4,719,979)
42	Net Increase(Decrease) in Cash & Investments	1,857,500	(2,015,697)
43	Cash & Investments, Beginning of Period	90,412,832	88,727,715
44	CASH & INVESTMENTS, END OF PERIOD	92,270,332	86,712,018
45	Externally Restricted Funds	17,406,719	18,828,793
40	Granu Total	109,677,051	105,540,811

05/14/2021

ROCHESTER PUBLIC UTILITIES PRODUCTION & SALES STATISTICS ELECTRIC UTILITY

1

2

3

4

5

April, 2021

YEAR-TO-DATE

6							Last Yr
7			Actual YTD	Budget YTD	Variance	<u>% Var.</u>	Actual YTD
8							
9	ENERGY SUPPLY (kWh)	(primarily calend	ar month)				
10	Net Generation						
11	IBM Diesel Generators		10,534	0	10,534	-	8,233
12	Lake Zumbro Hydro Cascade Creek Gas Turbine		3,359,059	4,277,256	(918,197) 3.011.189	(21.5)	6,415,781 1 285 398
14	Westside Energy Station		5 786 150	10 776 000	(4 989 850)	(46.3)	5 661 716
15	Total Net Generation		16 679 932	19,566,256	(2,886,324)	(14.8)	13 371 128
16			10,010,002	10,000,200	(2,000,021)	(1.1.0)	10,011,120
17	Firm Purchases		362 821 232	373 305 746	(10 484 514)	(2.8)	361 923 838
18	Non-Firm Purchases		67,296	0	(10,404,314) 67,296	-	0
19	LRP Received		0	0	0	-	0
20	Total Other Power Supply		362,888,528	373,305,746	(10,417,218)	(2.8)	361,923,838
21	TOTAL ENERGY SUPPLY		379,568,460	392,872,002	(13,303,542)	(3.4)	375,294,966
22	ENERGY USES (kWh)	(primarily billing	period)				
23	Retail Sales	# Custs					
23 24	Retail Sales Electric - Residential Service	<u># Custs</u> 52,762	115,446,822	117,392,749	(1,945,927)	(1.7)	111,665,565
23 24 25	Retail Sales Electric - Residential Service Electric - General Service & Industrial	# Custs 52,762 5,108	115,446,822 234,334,261	117,392,749 245,444,597	(1,945,927) (11,110,336)	(1.7) (4.5)	111,665,565 239,703,357
23 24 25 26	Retail Sales Electric - Residential Service Electric - General Service & Industrial Electric - Street & Highway Lighting	# Custs 52,762 5,108 3	115,446,822 234,334,261 1,562,392	117,392,749 245,444,597 2,034,763	(1,945,927) (11,110,336) (472,371)	(1.7) (4.5) (23.2)	111,665,565 239,703,357 2,033,362
23 24 25 26 27	Retail Sales Electric - Residential Service Electric - General Service & Industrial Electric - Street & Highway Lighting Electric - Rental Lights	# Custs 52,762 5,108 3 n/a	115,446,822 234,334,261 1,562,392 268,867	117,392,749 245,444,597 2,034,763 298,268	(1,945,927) (11,110,336) (472,371) (29,401)	(1.7) (4.5) (23.2) (9.9)	111,665,565 239,703,357 2,033,362 298,798
23 24 25 26 27 28	Retail Sales Electric - Residential Service Electric - General Service & Industrial Electric - Street & Highway Lighting Electric - Rental Lights Electric - Interdptmntl Service	# Custs 52,762 5,108 3 n/a 1	115,446,822 234,334,261 1,562,392 268,867 2,186,688	117,392,749 245,444,597 2,034,763 298,268 1,945,686	(1,945,927) (11,110,336) (472,371) (29,401) 241,002	(1.7) (4.5) (23.2) (9.9) 12.4	111,665,565 239,703,357 2,033,362 298,798 2,085,889
23 24 25 26 27 28 29	Retail Sales Electric - Residential Service Electric - General Service & Industrial Electric - Street & Highway Lighting Electric - Rental Lights Electric - Interdptmntl Service Total Customers	# Custs 52,762 5,108 3 n/a 1 57,874	115,446,822 234,334,261 1,562,392 268,867 2,186,688	117,392,749 245,444,597 2,034,763 298,268 1,945,686	(1,945,927) (11,110,336) (472,371) (29,401) 241,002	(1.7) (4.5) (23.2) (9.9) 12.4	111,665,565 239,703,357 2,033,362 298,798 2,085,889
23 24 25 26 27 28 29 30	Retail Sales Electric - Residential Service Electric - General Service & Industrial Electric - Street & Highway Lighting Electric - Rental Lights Electric - Interdptmntl Service Total Customers Total Retail Sales	# Custs 52,762 5,108 3 n/a 1 57,874	115,446,822 234,334,261 1,562,392 268,867 2,186,688 353,799,030	117,392,749 245,444,597 2,034,763 298,268 1,945,686 367,116,063	(1,945,927) (11,110,336) (472,371) (29,401) 241,002 (13,317,033)	(1.7) (4.5) (23.2) (9.9) 12.4 (3.6)	111,665,565 239,703,357 2,033,362 298,798 2,085,889 355,786,971
 23 24 25 26 27 28 29 30 31 	Retail Sales Electric - Residential Service Electric - General Service & Industrial Electric - Street & Highway Lighting Electric - Rental Lights Electric - Interdptmntl Service Total Customers Total Retail Sales Wholesale Sales	# Custs 52,762 5,108 3 n/a 1 57,874	115,446,822 234,334,261 1,562,392 268,867 2,186,688 353,799,030 13,355,614	117,392,749 245,444,597 2,034,763 298,268 1,945,686 367,116,063 15,289,000	(1,945,927) (11,110,336) (472,371) (29,401) 241,002 (13,317,033) (1,933,386)	(1.7) (4.5) (23.2) (9.9) 12.4 (3.6) (12.6)	111,665,565 239,703,357 2,033,362 298,798 2,085,889 355,786,971 6,995,044
 23 24 25 26 27 28 29 30 31 32 	Retail Sales Electric - Residential Service Electric - General Service & Industrial Electric - Street & Highway Lighting Electric - Rental Lights Electric - Interdptmntl Service Total Customers Total Customers Total Retail Sales Wholesale Sales Company Use	# Custs 52,762 5,108 3 n/a 1 57,874	115,446,822 234,334,261 1,562,392 268,867 2,186,688 353,799,030 13,355,614 820,846	117,392,749 245,444,597 2,034,763 298,268 1,945,686 367,116,063 15,289,000 1,257,599	(1,945,927) (11,110,336) (472,371) (29,401) 241,002 (13,317,033) (1,933,386) (436,753)	(1.7) (4.5) (23.2) (9.9) 12.4 (3.6) (12.6) (34.7)	111,665,565 239,703,357 2,033,362 298,798 2,085,889 355,786,971 6,995,044 865,334
23 24 25 26 27 28 29 30 31 32 33	Retail Sales Electric - Residential Service Electric - General Service & Industrial Electric - Street & Highway Lighting Electric - Rental Lights Electric - Interdptmntl Service Total Customers Total Customers Total Retail Sales Wholesale Sales <u>Company Use</u> TOTAL ENERGY USES	# Custs 52,762 5,108 3 n/a 1 57,874	115,446,822 234,334,261 1,562,392 268,867 2,186,688 353,799,030 13,355,614 <u>820,846</u> 367,975,490	117,392,749 245,444,597 2,034,763 298,268 1,945,686 367,116,063 15,289,000 1,257,599 383,662,662	(1,945,927) (11,110,336) (472,371) (29,401) 241,002 (13,317,033) (1,933,386) (436,753) (15,687,172)	(1.7) (4.5) (23.2) (9.9) 12.4 (3.6) (12.6) (34.7) (4.1)	111,665,565 239,703,357 2,033,362 298,798 2,085,889 355,786,971 6,995,044 <u>865,334</u> 363,647,349
23 24 25 26 27 28 29 30 31 32 33 33 34	Retail Sales Electric - Residential Service Electric - General Service & Industrial Electric - Street & Highway Lighting Electric - Rental Lights Electric - Interdptmntl Service Total Customers Total Customers Total Retail Sales Wholesale Sales Company Use TOTAL ENERGY USES Lost & Unaccntd For Last 12 Months	# Custs 52,762 5,108 3 n/a 1 57,874	115,446,822 234,334,261 1,562,392 268,867 2,186,688 353,799,030 13,355,614 <u>820,846</u> 367,975,490 38,222,437	117,392,749 245,444,597 2,034,763 298,268 1,945,686 367,116,063 15,289,000 1,257,599 383,662,662 3.1%	(1,945,927) (11,110,336) (472,371) (29,401) 241,002 (13,317,033) (1,933,386) (436,753) (15,687,172)	(1.7) (4.5) (23.2) (9.9) 12.4 (3.6) (12.6) (34.7) (4.1)	111,665,565 239,703,357 2,033,362 298,798 2,085,889 355,786,971 6,995,044 <u>865,334</u> 363,647,349
23 24 25 26 27 28 29 30 31 32 33 34 35	Retail Sales Electric - Residential Service Electric - General Service & Industrial Electric - Street & Highway Lighting Electric - Rental Lights Electric - Interdptmntl Service Total Customers Total Customers Total Retail Sales Wholesale Sales Company Use TOTAL ENERGY USES Lost & Unaccrtd For Last 12 Months STEAM SALES (mlbs)	# Custs 52,762 5,108 3 n/a 1 57,874 (primarily billing	115,446,822 234,334,261 1,562,392 268,867 2,186,688 353,799,030 13,355,614 <u>820,846</u> 367,975,490 38,222,437 <i>period</i>)	117,392,749 245,444,597 2,034,763 298,268 1,945,686 367,116,063 15,289,000 1,257,599 383,662,662 3.1%	(1,945,927) (11,110,336) (472,371) (29,401) 241,002 (13,317,033) (1,933,386) (436,753) (15,687,172)	(1.7) (4.5) (23.2) (9.9) 12.4 (3.6) (12.6) (34.7) (4.1)	111,665,565 239,703,357 2,033,362 298,798 2,085,889 355,786,971 6,995,044 <u>865,334</u> 363,647,349

Attachment: Division Reports May 2021 (13361 : Division Report and Metrics - May 2021)

9.1.a

05/14/2021

ROCHESTER PUBLIC UTILITIES PRODUCTION & SALES STATISTICS (continued) ELECTRIC UTILITY

1

2

3

4

5

April, 2021

YEAR-TO-DATE

6								Last Yr	
7 8		<u>Actual YTD</u>		<u>Budget YTD</u>		<u>Variance</u>	<u>% Var.</u>	<u>Actual YTD</u>	
9	FUEL USAGE	(calendar month))						
10	Gas Burned								
11	SLP	216,142	MCF	256,416	MCF	(40,274)	(15.7)	221,429	MCF
12	Cascade	50,262	MCF	37,915	MCF	12,347	32.6	13,395	MCF
13	Westside	44,765	MCF	74,553	MCF	(29,788)	(40.0)	43,550	MCF
14	Total Gas Burned	311,169	MCF	368,884	MCF	(57,715)	(15.6)	278,374	MCF
15	Oil Burned								
16	Cascade	205,535	GAL	0	GAL	205,535	-	1,949	GAL
17	IBM	857	GAL	0	GAL	857	-	661	GAL
18	Total Oil Burned	206,392	GAL	0	GAL	206,392	-	2,610	GAL

CAPITAL EXPENDITURES ELECTRIC

Current Year		Prior Years Ending Dec 31st				
			<u>2020</u>	<u>2019</u>	<u>201</u>	
ANNUAL BUDGET	15,246,736		15,059,888	21,990,984	31,779	
ACTUAL YTD	3,017,046		10,078,628	11,174,211	16,646	
% OF BUDGET	19.8%		66.9%	50.8%	5	



Attachment: Division Reports May 2021 (13361 : Division Report and Metrics - May 2021)

MAJOR MAINTENANCE EXPENDITURES ELECTRIC

Current Year		April, 2021	Prior	ears Ending Dec	31st
			<u>2020</u>	<u>2019</u>	<u>2018</u>
ANNUAL BUDGET	3,815,243		4,010,088	3,353,049	3,038,283
ACTUAL YTD	658,227		3,111,620	2,881,017	2,421,088
% OF BUDGET	17.3%		77.6%	85.9%	79.7%



CASH AND TEMPORARY INVESTMENTS ELECTRIC



9.1.a

5/14/2021 9:59 AM

Packet Pg. 178

9.1.a

Attachment: Division Reports May 2021 (13361 : Division Report and Metrics - May 2021)

CHANGE IN NET POSITION ELECTRIC





9

9.1.a

4/30/2021



4/30/2021


ROCHESTER PUBLIC UTILITIES

STATEMENT OF NET POSITION WATER UTILITY

1

2

3

4

5 6 April 30, 2021

7		<u>April 2021</u>	<u>April 2020</u>	Difference	<u>% Diff.</u>	March 2021
8	ASSETS					
9	CURRENT ASSETS					
10	CASH & INVESTMENTS					
11	Unreserved Cash & Investments	3,772,094	3,585,664	186,429	5.2	3,834,628
12	BOARD RESERVED CASH & INVESTMENTS					
13	Working Funds Reserve	1,045,000	1,086,000	(41,000)	(3.8)	1,045,000
14	Capital & Major Maintenance Reserve	5,766,000	5,238,000	528,000	10.1	5,766,000
15	Total Reserved Cash & Investments	9 422 000	7,008,000	535,000	2.4	9,422,000
10	Total Cash & Investments	12 205 094	11 493 664	711 429	6.2	12 267 628
18	Receivables & Accrued Utility Revenues	886 800	800 662	86 237	10.8	852 307
19	Inventory	205.310	207,285	(1.975)	(1.0)	198,942
20	Other Current Assets	108,085	70,923	37,162	52.4	124,865
21	Total Current Assets	13 405 387	12 572 534	832 854	6.6	13 443 832
22		10,400,001	12,012,004	002,004	0.0	10,440,002
23	NON-DEPRECIABLE ASSETS					
24	Land and Land Rights	677 486	677 486	0	0.0	677 486
25	Construction Work in Progress	4 597 862	2 087 012	2 510 850	120.3	4 383 501
26	Total Non-depreciable Assets	5 275 348	2 764 498	2,510,850	90.8	5 060 988
27		5,275,540	2,704,430	2,010,000	50.0	3,000,000
28	Litility Plant in Service Net	94 501 217	95 455 824	(954 607)	(1.0)	94 726 029
29	Net Capital Assets	99.776.565	98,220,322	1.556.243	1.6	99.787.017
30	Total Non-Current Assets	99,776,565	98,220,322	1.556.243	1.6	99.787.017
24		113 181 052	110 702 856	2 380 006	2.2	113 230 840
51		110,101,002	110,732,030	2,000,000	2.2	110,200,040
32	DEFERRED OUTFLOWS OF RESOURCES					
33	DEFERRED OUTFLOWS OF RESOURCES	208,036	131,362	76,674	58.4	205,280
34	TOTAL ASSETS + DEFERRED OUTLFOW RESOURCE	113,389,988	110,924,218	2,465,770	2.2	113,436,129
35	LIABILITIES					
36	CURRENT LIABILITIES					
37	Accounts Payable	138,806	178,088	(39,282)	(22.1)	129,411
38	Customer Deposits	122,852	109,772	13,079	11.9	124,452
39	Compensated Absences	334,876	357,415	(22,539)	(0.3)	329,548
40	Total Current Liabilities	57,090	772.667	(119,090)	(34.7)	716 410
41		054,230	112,001	(110,437)	(15.3)	710,419
42 13	Compensated Absences	218 516	102 016	25 601	13 3	219 515
44	Other Non-Current Liabilities	1.807.972	1.561.107	246.866	15.8	1.807.972
45	Total Non-Current Liabilities	2,026,489	1,754,023	272,466	15.5	2,027,488
46	TOTAL LIABILITIES	2,680,719	2,526,689	154,029	6.1	2,743,907
47	DEFERRED INFLOWS OF RESOURCES					
48	DEFERRED INFLOWS OF RESOURCES	798,690	989,873	(191,183)	(19.3)	890,840
49	NET POSITION					
50	Net Investment in Capital Assets	99,776,565	98,220,322	1,556,243	1.6	99,787,017
51	Unrestricted Net Assets (Deficit)	10,134,014	9,187,333	946,681	10.3	10,014,365
52	TOTAL NET POSITION	109,910,580	107,407,656	2,502,924	2.3	109,801,382
53	TOTAL LIAB DEFERRED INFLOWS NET POSITION	113 389 988	110 924 218	2 465 770	22	113 436 129

5/1

-		A stual VTD	<u>Original</u> Budget VTD	<u>Actual to</u>	9/ Vor	Last Yr
, 8	RETAIL REVENUE	<u>Actual I I D</u>	<u>Buuget IID</u>	<u> Jilgillal Duuget</u>	<u>/0 val.</u>	Actual 11D
9	Water - Residential Service	1 939 561	1 904 824	34 737	18	1 925 337
10	Water - Commercial Service	884,572	917,784	(33,212)	(3.6)	890,060
11	Water - Industrial Service	178,213	270,761	(92,548)	(34.2)	182,039
12	Water - Public Fire Protection	197,902	199,517	(1,615)	(0.8)	195,662
13	Water - Interdepartmental Service	7,233	11,129	(3,896)	(35.0)	5,806
14	TOTAL RETAIL REVENUE	3,207,481	3,304,016	(96,535)	(2.9)	3,198,905
15	COST OF REVENUE					
16	Utilities Expense	314,001	261,566	52,435	20.0	318,929
17	Water Treatment Chemicals/Demin Water	25,698	32,387	(6,689)	(20.7)	41,922
18	Billing Fees	248,830	249,143	(313)	(0.1)	166,981
19	TOTAL COST OF REVENUE	588,529	543,096	45,433	8.4	527,831
20	GROSS MARGIN	2,618,952	2,760,920	(141,969)	(5.1)	2,671,073
21	FIXED EXPENSES					
22	Depreciation & Amortization	912,789	951,500	(38,711)	(4.1)	915,400
23	Salaries & Benefits	961,659	1,015,468	(53,809)	(5.3)	926,744
24	Materials, Supplies & Services	317,670	376,465	(58,795)	(15.6)	297,497
25		631,367	573,000	58,367	10.2	573,624
26	TOTAL FIXED EXPENSES	2,823,484	2,916,433	(92,948)	(3.2)	2,713,266
27	Other Operating Revenue	481,865	482,836	(970)	(0.2)	465,546
28	NET OPERATING INCOME (LOSS)	277,333	327,323	(49,990)	(15.3)	423,353
29	NON-OPERATING REVENUE / (EXPENSE)					
30	Investment Income (Loss)	67,951	59,899	8,052	13.4	78,989
31	Interest Expense	(10)	0	(10)	0.0	(61)
32	Miscellaneous - Net	(795)	0	(795)	0.0	(224)
33	TOTAL NON-OPERATING REV (EXP)	67,147	59,899	7,247	12.1	78,704
34	CONTRIBUTIONS	344,480	387,222	(42,743)	(11.0)	502,057
35	Transfers Out	(104,408)	(103,113)	(1,295)	(1.3)	(105,747)
36	Capital Contributions	0	0	0	0.0	0
37	CHANGE IN NET POSITION	240.071	284.109	(44.038)	(15.5)	396.310
••		,		(,	()	
38	Net Position, Beginning	109,670,508				107,011,346
39	NET POSITION, ENDING	109,910,580				107,407,656

9.1.a

5/13/2021

5/13/2021 3:12 PM

12

05/14/21

ROCHESTER PUBLIC UTILITIES <u>STATEMENT OF CASH FLOWS</u> WATER UTILITY FOR APRIL, 2021 YEAR-TO-DATE

1

2

3

4

5

6

7		Actual YTD	Last Yr Actual YTD
8	CASH FLOWS FROM OPERATING AC	TIVITIES	
9 10	Cash Received From Customers Cash Paid for:	4,374,071	4,280,198
11	Operations and Maintenance	(2,583,902)	(2,355,259)
12	Payment in Lieu of Taxes	(103,774)	(105,845)
13	Net Cash Provided by(Used in) Utility		
14	Operating Activities	1,686,395	1,819,094
15	Sales Tax & MN Water Fee Collections		
16	Receipts from Customers	107,491	169,405
17	Remittances to Government Agencies	(138,573)	(140,937)
18	Net Cash Provided by(Used in) Non-Utility	(04,000)	00.400
19		(31,082)	28,468
20	NET CASH PROVIDED BY(USED IN)		
21	OPERATING ACTIVITIES	1,655,313	1,847,562
22	CASH FLOWS FROM CAPITAL & RELA	ATED	
23	FINANCING ACTIVITIES		
24	Additions to Utility Plant & Other Assets	(1,493,592)	(962,023)
25	Payment on Long-Term Debt	0	0
26	Net Loan Receipts	0	0
27	Cash Paid for Interest & Commissions	0	0
28	NET CASH PROVIDED BY(USED IN)		
29	CAPITAL & RELATED ACTIVITIES	(1,493,592)	(962,023)
30	CASH FLOWS FROM INVESTING ACT	IVITIES	
31	Interest Earnings on Investments	67,941	78,928
32	NET CASH PROVIDED BY(USED IN)		
33	INVESTING ACTIVITIES	67,941	78,928
34	Net Increase/Decrease) in Cash & Investments	220 662	064 467
54		229,002	904,407
35	Cash & Investments, Beginning of Period	11,975,432	10,529,197

36 CASH & INVESTMENTS, END OF PERIOD

Attachment: Division Reports May 2021 (13361 : Division Report and Metrics - May 2021)

12,205,094

11,493,664

05/14/2021

ROCHESTER PUBLIC UTILITIES

PRODUCTION & SALES STATISTICS

WATER UTILITY

1 2

3

4

5

April, 2021

YEAR-TO-DATE

6							Last Yr
7			Actual YTD	Budget YTD	Variance	% Var.	Actual YTD
8			(ccf)	(ccf)	(ccf)		
9	PUMPAGE	(primarily	calendar month)				
10	TOTAL PUMPAGE		1,635,268	1,537,848	97,420	6.3	1,614,533
11	RETAIL SALES	(primarily	billing period)				
		# Custs					
12	Water - Residential Service	37,313	765,471	710,351	55,120	7.8	768,372
13	Water - Commercial Service	3,664	568,017	596,724	(28,707)	(4.8)	582,274
14	Water - Industrial Service	23	179,603	220,162	(40,559)	(18.4)	183,539
15	Water - Interdptmntl Service	1	5,795	9,471	(3,676)	(38.8)	4,175
16	Total Customers	41,001					
17	TOTAL RETAIL SALES		1,518,885	1,536,708	(17,823)	(1.2)	1,538,361
18	Lost & Unaccntd For Last 12 M	lonths	318,820	5.4%			

CAPITAL EXPENDITURES WATER

Current Year		April, 2021	Prior Years Ending Dec 31st		1
			<u>2020</u>	<u>2019</u>	<u>2018</u>
ANNUAL BUDGET	6,807,825		5,917,740	4,554,317	3,171,521
ACTUAL YTD	380,019		2,365,830	1,689,025	2,264,812
% OF BUDGET	5.6%		40.0%	37.1%	71.4%



MAJOR MAINTENANCE EXPENDITURES WATER



CASH AND TEMPORARY INVESTMENTS WATER





17

CHANGE IN NET POSITION WATER





9.1.a

18