ROCHESTER PUBLIC UTILITIES
WE PLEDGE, WE DELIVER

MEETING AGENDA – OCTOBER 25, 2022

COMMUNITY ROOM
4000 EAST RIVER ROAD NE
ROCHESTER, MN 55906

4:00 PM

Attending and Viewing the Meeting:

Attend the Meeting in Person: RPU Community Room

View / Livestream Meeting via Teams: Teams

A video of the meeting will be posted on the City's website

Calling in to the Meeting: 1-347-352-4853 Conference ID: 403 247 594#

For Open Comment: Press *6 to mute or unmute your phone

Call to Order

1. Approval of Agenda

2. Safety Moment

3. Consent Agenda

1. Public Utility Board - Regular Meeting - Sep 27, 2022 4:00 PM
2. Review of Accounts Payable
3. Transmission Pole Foundation Construction
   Resolution: Transmission Pole Foundation Construction
4. PURPA Public Hearing Notice
   Resolution: PURPA Public Hearing Notice
5. Authorized Depositories
   Resolution: Authorized Depositories

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. Regular Agenda

1. Distributed Energy Resources Management (DERM) Agreement
   Resolution: Distributed Energy Resources (DERM) Agreement
2. Distributed Energy Resources Rules
   Resolution: Distributed Energy Resources Rules
3. 2023 Insurance Renewals
   Resolution: 2023 Insurance Renewals

5. Board Policy Review

1. RPU Index of Board Policies

6. General Managers Report

7. Division Reports & Metrics

1. Division Reports & Metrics - October 2022

8. Other Business

9. Adjourn

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

ROCHESTER PUBLIC UTILITIES
WE PLEDGE, WE DELIVER

MEETING MINUTES – SEPTEMBER 27, 2022

COMMUNITY ROOM
4000 EAST RIVER ROAD NE
ROCHESTER, MN 55906

4:00 PM

Attending and Viewing the Meeting:

Attend in Person: RPU Service Center Community Room

View / Livestream Meeting via Teams: Teams

A video of the meeting will be available on the City's website following the meeting

Calling in to the Meeting: 1-347-352-4853 Conference ID: 915 368 211#

For Open Comment: Press *6 to mute and unmute your phone

Call to Order

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

1. Approval of Agenda

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

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

2. Safety Moment

RPU Safety Manager Bob Cooke spoke regarding the dangers of distracted walking.

3. Consent Agenda

1. Public Utility Board - Regular Meeting - Aug 30, 2022 4:00 PM

RESULT:	**ACCEPTED [UNANIMOUS]**
MOVER:	Brian Morgan, Board Member
SECONDER:	Brett Gorden, Board Vice President
AYES:	Gorden, Keane, Haskin, Johnson, Morgan

2. Review of Accounts Payable

3. **Motion to:** approve the consent agenda as presented

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Brian Morgan, Board Member
SECONDER:	Brett Gorden, Board Vice President
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.)

President Johnson opened the meeting for public comment. No one came forward to speak.

4. Consideration Of Bids

1. Transmission Pole Foundation Project

Sealed bids were opened on September 3, 2022 for the transmission pole foundation project, consisting of labor, equipment and materials to build three pier foundations to support high voltage transmission poles. Two bids were received. The low bidder, Aldridge Electric, Inc, conditioned their bid and was disqualified, and the second bidder, Alvin E. Benike, Inc, submitted a bid higher than the budgeted amount for the project. Materials Manager Andrew Bianco asked the Board to reject both bids in order to re-bid the project.

President Johnson asked what the timeline is for re-bidding. Mr. Bianco stated there has been interest in the project from other contractors and staff anticipates returning to the Board for approval next month.

Resolution: Transmission Pole Foundation Project

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to reject all bids for the Transmission Pole Foundation Project.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 27th day of September, 2022.

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

5. Regular Agenda

1. 2022 Water Utility Cost of Service Study

Director of Corporate Services Peter Hogan presented the results of the Water Utility Cost of Service Study to the Board prepared by 1898&Co. Per Board policy, the utility is required to perform a cost of service study every three years. The study shows that nationally, water utility rate increases are outpacing inflation. In a comparison of residential class water rates, the average RPU bill is low relative to other utilities in the region. The current regional average annual billing is $323, while the average annual RPU bill is $170. Likewise, RPU's commercial class water rates are lower than the annual average of $688, at $450. RPU's method of rate design per Board policy is to achieve financial stability through the alignment of fixed and variable cost with fixed and variable rates, to eliminate rate subsidization between rate classes, to reduce rate subsidization within rate classes and to approve rates that promote conservation and reduce costs. Based on the study, the proposed overall general rate increase for the water utility of 5% would result in a 74 cents increase per month for the average residential customer, and a $3.07 rate increase per month for the average commercial customer.

Board Member Patrick Keane noted that growth creates risk and asked if growth pays for its own development or if the utility absorbs some of the risk by getting paid over time. The utility tries to cover its costs and pay over time, but if up-front investment is needed staff would come to the Board for approval, said Mr. Hogan. Mr. Keane asked if incentives offered through the utility create a conflict with the Rates policy. Conservation statutes providing rebates and built-in incentives such as net metering does not follow cost of service, said Mr. Hogan, and would be in conflict, but are required by statute. Tiered rates in the water utility, whole-house time-of-use rates and electric vehicle time-of-use rates are cost-based but RPU does provide incentives for customer behavior and usage, Mr. Hogan added.

President Johnson asked how the utility receives money back for investments made in the water utility. When new development requires water access, the City charges water access fees which go into a fund administered by the City, and when RPU builds a new water tower, for example, RPU is reimbursed from the water access fund, said Mr. Hogan.

Resolution: 2022 Water Utility Cost of Service Study

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to accept and place on file the 2022 Water Utility Cost of Service Study.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 27th day of September, 2022.

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

2. 2023 Water Utility Rate Adjustment - Authorize Public Notice

At the August 10, 2022 RPU Board Meeting, management recommended a 5.0% overall general rate increase for 2023 for the water utility to align with the cost of service. For the average residential water customer, this increase would equate to $0.74 per month. Director of Corporate Services Peter Hogan requested the Board's approval to post the proposed rate schedule in the newspaper of record and invite public comment regarding rates at the October 25, 2022 and November

29, 2022 Board meetings. Final approval of rates will be made at the November Board meeting.

3. 2023 Electric Utility Rate Adjustment - Authorize Public Notice

The Board was presented with the recommendation of a 2.5% overall general rate increase for the electric utility for 2023 at the August 10, 2022 Board meeting. For the average residential RPU customer, this would amount to a $2.27 increase per month. Additionally, staff is recommending the implementation of a new residential electric vehicle time-of-use rate for customers that install a second meter on their existing residential service for an EV. The rate is designed to encourage customers to charge vehicles during off peak hours and will include a $250 rebate which may be removed in subsequent years.

Board Member Patrick Keane asked if EV owners with the second meter would receive two bills or if it would be a subset of the bill. Director of Corporate Services Peter Hogan said it would all be on one bill.

Board Member Brian Morgan asked how the two meters would fit in with the future Advanced Metering Infrastructure (AMI) that will be installed by RPU. General Manager Mark Kotschevar said this will facilitate the use of the AMI system for the EV meter by allowing direct load control to be placed on the meter through the AMI system. All EV meters on a designated transformer can then be monitored by hourly load and the chargers can be cycled to keep load below maximum, to avoid changing out the transformer for additional capacity but allowing the charge of all EV's on that transformer.

Board Member Tim Haskin asked how many EV owners are registered in the City of Rochester. Mr. Hogan stated there are about 700.

Public comment on the electric utility rate adjustment is invited at the October 25, 2022 and November 29, 2022 Board meetings. The Board will be asked to approve the 2023 rates at the November meeting.

Mr. Hogan asked the Board to authorize pubic notice of the proposed electric utility rate adjustment.

Resolution: 2023 Proposed Rate Changes Public Notice

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve the issuance of an updated public notice of the proposed 2023 rate changes for the Water Utility and Electric Utility.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 27th day of September, 2022.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Brett Gorden, Board Vice President
SECONDER:	Brian Morgan, Board Member
AYES:	Gorden, Keane, Haskin, Johnson, Morgan

4. Proposed 2023 Board Meeting Dates

Proposed 2023 meeting dates for the Rochester Public Utility Board were presented to the Board for consideration. Board members did not have any known conflicts to the proposed dates.

President Johnson asked if there will be a special budget meeting of the Board scheduled once again in August. General Manager Mark Kotschevar said it will be scheduled at a later date.

The meeting dates will be posted on the RPU website and City calendar, and may be adjusted during the year as needed with proper notice.

Public Utility Board Meeting Dates for 2023:

January 24

February 21

March 28

April 25

May 30

June 27

July 25

August 29

September 26

October 24

November 28

December 19

Resolution: Proposed 2023 Board Meeting Dates

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve the 2023 RPU Board meeting dates.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 27th day of September, 2022.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Patrick Keane, Board Member
SECONDER:	Brian Morgan, Board Member
AYES:	Gorden, Keane, Haskin, Johnson, Morgan

6. Board Policy Review

1. Board Policy #5 - Board Procedures

The Board Procedures policy was revised based on input taken from Board review of the policy at the September meeting. Changes made to the policy align with current practices. Board members were asked to approve the revised policy. Board Member Patrick Keane asked if City Attorney Michael Spindler-Krage had reviewed the policy, which was affirmed.

Resolution: Board Policy #5 - Board Procedures

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve the revised Board Policy #5 - Board Procedures.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 27th day of September, 2022.

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

2. RPU index of Board Policies

The next Board policy to be revised will be the Mission Statement. Board Members Tim Haskin and Brian Morgan will work with staff on the revision.

7. General Managers Report

Director of Customer Relations Krista Boston provided an update to the Board on the customer journey mapping process, which evaluates the customer experience from the customer's perspective. IBM Consulting is the vendor chosen by staff and the project will take nine weeks to complete. Phase 1 is the Envision phase, where the consultant will review RPU's rate design studies, customer surveys and any other customer input documents. The consultant will then interview staff during visioning workshops. Phase 2 is the Analyze phase, where interviews with potential customers will take place based on 5 different customer personas. Phase 2 is the Plan, where a list of recommendations will be presented. Ms. Boston said the results will be presented to the Board when the process is complete. Board Member Patrick Keane pointed out that renters appear to be the demographic having the most interactions with RPU. Ms. Boston concurred and called this a great opportunity to improve services.

RPU's hydrant assembly team participated in the Minnesota section of the AWWA Hydrant Hysteria competition and won for the second year in a row. Water Lead Distribution Worker Matt Brekke and Water Distribution Worker Adam Hovden qualified to compete in the national event in Toronto in 2023.

Also at the AWWA Minnesota section conference, Water Maintenance and Construction Manager Doug Klamerus received an award of excellence for outstanding service to the manufacturers and association council and the AWWA. He was also named chair-elect of the Minnesota section for 2023.

RPU lineworkers placed second and third in the MMUA Minnesota Lineworkers Rodeo event. Journeyman Lineworker Tanner Winter placed first in the mystery event, third in the obstacle course event, and second statewide overall. Journeyman Lineworker Hunter Gleason placed first in the obstacle course and first in the hurt man rescue. Journeyman Lineworker Chad Peterson placed third overall statewide.

The SMMPA Annual Meeting will be held October 13-14. Board members are invited to attend.

Public Power Week is designated for October 2-8. To commemorate the week, a bucket truck with lineworkers and outdoor demonstrations will appear at Spark at Apache Mall on October 7. There will be a presentation at the Kiwanis Sunrise on October 4. Halloween goodie bags for kids will be handed out in the RPU lobby. Also promoting Public Power Week will be social media messages, digital billboards, radio and TV spots.

RPU has executed an agreement with Virtual Peaker to implement a smart thermostat virtual direct load control program. Enrolled customers will be eligible to a credit on their bill when agreeing to allow RPU to control their thermostat during peak energy periods. RPU will be kicking off a media campaign to enroll customers.

RPU was asked by MMUA to send available crews to respond to Hurricane Ian in Florida. Four RPU lineworkers and three mechanics in three vehicles will depart on September 28 to assist Florida agencies.

General Manager Mark Kotschevar attended the SMMPA 2023 budget workshop on September 27 and reported that wholesale market energy prices have gone through the roof, causing SMMPA to burn through its cash reserves, with no excess reserves left, thus requiring a rate increase. A 10% rate increase was proposed, and the board authorized implementing up to a 10% increase. There was consensus today among the board members to approve the 10% increase. This would get passed on to customers through the power cost adjustment (PCA) tariff. For the average RPU customer, this would be in the $3-$5 range. Moving to a power cost adjustment for the agency was also discussed to mitigate market swings, and the PCA would get passed on to the SMMPA members monthly. If the market improves, this would allow SMMPA to pass along a credit to members on good months instead of a charge. A formal vote will occur at the October 14 meeting, with PCA effectiveness on February 1, 2023. Mr. Kotschevar stated this is the norm across the country in the current market, with other agencies implementing 20% increases in wholesale prices to members. Board Member Patrick Keane commented that RPU appears to be buffered from risk as a larger utility, while smaller utilities appear to be at greater risk. From a percentage perspective, it will be the same impact for all members, but from a dollar perspective, RPU as a larger utility will have a higher dollar amount, said Mr. Kotschevar. RPU does not intend to buffer with cash reserves, but will pass this on through PCA calculations and a monthly rate that varies. Board Member Brian Morgan asked if the PCA increase merits a Board discussion and potentially putting in some sort of reserve in this volatile market. The 10% increase is a fixed rate and standard charge based on kilowatt hours used, said Mr. Kotschevar, but volatility could come in early 2023 when the agency PCA takes effect. He recommended the Board and staff monitor the markets in the beginning of 2023. It's possible SMMPA may buffer the PCA costs to members, he said.

8. Division Reports & Metrics

9. Other Business

10. Adjourn

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

Submitted by:

_____
Secretary

Approved by the Board

_____
Board President

_____
Date

FOR BOARD ACTION

Agenda Item # **(ID # 15063)** **Meeting Date: 10/25/2022**

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 09/10/2022 To 10/11/2022

Consolidated & Summarized Below 1,000

Greater than 50,000 :

SOUTHERN MN MUNICIPAL POWER A	September SMMPA Bill	7,370,123.02
MN DEPT OF REVENUE	August Sales and Use Tax	933,552.77
BENIKE CONSTRUCTION (P)	Site Construction Marion Rd Substation	789,517.66
CONSTELLATION NEWENERGY-GAS D	August Gas - Westside Energy	738,938.91
CITY OF ROCHESTER	Cost Share Marion Road Distribution Duct	658,701.43
CONSTELLATION NEWENERGY-GAS D	August Gas - SLP	628,548.92
IRBY UTILITIES dba	40262FT-Wire, AL, 15kV, 750 Str, 1/C, 22	335,181.15
ULTEIG ENGINEERS INC	Marion Rd Sub Proposal (3001,7001,8601)	278,509.50
ePLUS GROUP INC.	EMS Smartnet Cisco Hardware and Software	202,091.11
IRBY UTILITIES dba	19878FT-Wire, AL, 15kV, 750 Str, 1/C, 22	165,643.37
A & A ELECT & UNDERGROUND CON	2022-23 Directional Boring	150,181.69
CONSTELLATION NEWENERGY-GAS D	August Gas - Cascade Creek	133,258.69
THE ENERGY AUTHORITY INC	September MISO Transmission	127,460.63
IRBY UTILITIES dba	13448FT-Wire, AL, 15kV, 750 Str, 1/C, 22	111,658.74
MN DEPT OF HEALTH	Community Water Supply July-September 2022	104,594.00
ETHOSENERGY (P)	GT1 Repairs and Assembly	86,558.90
ASPLUNDH TREE EXPERT LLC (P)	2022 Hourly Tree Trimming	84,633.21
MASTEC NORTH AMERICA INC	Manhole Rebuild 2022	70,618.20
BERGERSON CASWELL INC	Well #31 Pump Removal and Rehab	70,050.00
PAYMENTUS CORPORATION	August Electronic Bill Payment Services	64,021.82
CROWN TECHNICAL SYSTEMS	Relay and Control Panels - Marion Road	59,057.00
KFI ENGINEERS	Marion Road Duct Bank Design	55,943.70
EPLUS TECHNOLOGY INC	72EA-SFP Module	53,449.09
MASTEC NORTH AMERICA INC	Manhole 25 Rebuild	51,423.32
	Price Range Total:	13,323,716.83

5,000 to 50,000 :

VIKING ELECTRIC SUPPLY INC	4560FT-Conduit, 5", PVC Sch 40, 20FT Length	48,381.60
ASPLUNDH TREE EXPERT LLC (P)	612 Tree Clearance	43,646.68
DAKOTA SUPPLY GROUP	3780FT-Conduit, 5", PVC Sch 40, 20'	42,574.52
DOXIM UTILITEC LLC	September Bill Print and Mail Services	32,364.18
MINNESOTA ENERGY RESOURCES CO	August Gas - Westside Energy	31,917.59
US BANK-VOYAGER	September Fuel	29,139.96
PEAKER SERVICES INC	2-Valve Rebuild, Liquid Metering, LQ2	28,418.47
EPLUS TECHNOLOGY INC	Defense Threat Protection	27,632.94
MN DEPT OF COMMERCE	Q2FY2023 Indirect Assessment	27,017.56
PEOPLES ENERGY COOPERATIVE (P	September 2022 Compensable	26,300.44
E3 SPARK PLUGS dba	200EA-Spark plug	25,295.18
UTEGRATION LLC	SAP Support 2022	24,500.00
EPLUS TECHNOLOGY INC	4EA-CATALYST 9300x Uplink Switch	24,285.44
CITY OF ROCHESTER	Unemployment Compensation	23,796.23
KANTOLA CONSULTING	Cayenta, Time of Use & SEW Project Meetings	23,210.00
GRAYBAR ELECTRIC COMPANY INC	17000FT-Cable, Fiber Optic, OS2, 228 Fib	21,816.13
USIC HOLDINGS INC	September 2022 Locating Services	21,600.82
UTIL-ASSIST INC	AMI/MDM/Install Consulting	21,055.00
CITY OF ROCHESTER	Eagleview Aerial Photography	19,200.97
WIESER PRECAST STEPS INC (P)	3EA-Pulling Vaults	18,197.69
MOODYS INVESTORS SERVICE INC	Annual Bond Rating Agency Fee	18,000.00

ROCHESTER PUBLIC UTILITIES

A/P Board Listing By Dollar Range

For 09/10/2022 To 10/11/2022

Consolidated & Summarized Below 1,000

53	JENNINGS, STROUSS & SALMON PL	Legal Fees	15,077.00
54	PETROTECH INC	W251G Controls Upgrade	14,711.28
55	CENTURYLINK (P)	2022 Monthly Telecommunications	13,804.19
56	NORTHERN TOOL & EQUIPMENT INC	CIP-Lighting (C&I)-Incentives/Rebates	13,705.77
57	FORBROOK LANDSCAPING SERVICES	Landscaping Svcs (Electric)	13,656.03
58	VISION COMPANIES LLC (P)	Employee Development	13,387.50
59	SCHMIDT GOODMAN OFFICE PRODUC	Mail Room Furniture	11,842.82
60	ADVANTAGE DIST LLC (P)	5211GAL-Urea 32, WES	11,724.75
61	EPLUS TECHNOLOGY INC	E911 ANYWHERE CLOUD SERVICE	10,863.54
62	MERIT CONTRACTING INC (P)	Roof Sealing for GT1	10,000.06
63	McGRANN SHEA CARNIVAL STRAUGH	Q3 Retainer	10,000.00
64	CRESCENT ELECTRIC SUPPLY CO	1760FT-Conduit, 3", PVC Sch 40	9,658.88
65	MAYO FOUNDATION	CIP-Custom (C&I)-Incentives/Rebates	8,532.00
66	SOLID WASTE OLMSTED COUNTY	August Electricity Purchased by RPU	8,516.17
67	UPSIDE INNOVATIONS	1EA-Industrial Step w/Platform	8,296.91
68	EPLUS TECHNOLOGY INC	1EA-Router, C8300, Cisco Catalyst	7,839.24
69	CLARK CONCRETE INC	Install Paving Panel-3rd Ave & 4th St	7,800.00
70	BORDER STATES ELECTRIC SUPPLY	132EA-Meter, FM2S CL200 240V AMR	7,781.70
71	MN DEPARTMENT OF COMMERCE	Customer Refunds 14973	7,714.92
72	HAWKINS INC	660GAL-Carus 8500 2022	7,685.04
73	SCHWEITZER ENGINEERING LABS I	1EA-SEL COMM 3530 RTAC 48/125VDC 48VAC	7,673.60
74	EPLUS TECHNOLOGY INC	20EA-Cisco IP Phone 8845	7,665.60
75	TANI DIVISION BD SCHIFFLER IN	Insulation Blankets for GT-1 Additional	7,406.44
76	BARR ENGINEERING COMPANY (P)	General Groundwater Consulting Services	7,380.40
77	EPLUS TECHNOLOGY INC	Cisco DNA License (3 yrs)	7,306.70
78	DOYLE CONNER CO INC (P)	Removal/Excavate/Base Concrete Widening	7,168.00
79	MITSUBISHI ELECTRIC POWER PRO	24EA-Batteries 12HX540-FR	7,144.80
80	IRBY UTILITIES dba	1EA-Trans, PM, 3ph, 45kVA,13.8/8,208/120	7,085.00
81	BADGER METER INC (P)	4EA-Meter,E-Series Ultra 3" (03) 17" LL	7,016.24
82	SENECA FOODS CORPORATION	CIP-Lighting (C&I)-Incentives/Rebates	6,970.00
83	GDS ASSOCIATES INC	MISO Attachment O Consulting Service	6,952.50
84	SANS INSTITUTE dba	NERC CIP Security Awareness Licenses-100	6,786.56
85	VIKING ELECTRIC SUPPLY INC	2000FT-Wire, AL, 600V, 4/0-2/0 NEU YS Tr	6,701.18
86	HAWKINS INC	45EA-Chlorine Gas 2022	6,603.75
87	ELEVATE MARKETING SOLUTIONS L	2022 Advertising	6,506.00
88	EPLUS TECHNOLOGY INC	Maintenance for Firepower	6,444.31
89	TWIN CITY SECURITY INC	2022 Security Services	6,419.95
90	BORDER STATES ELECTRIC SUPPLY	25EA-Cutout Door, 30A ELF, 15KV	6,346.75
91	CITY OF ROCHESTER	Q3 Attorney Services	6,250.00
92	EPLUS TECHNOLOGY INC	REDSKY E911 Anywhere Cloud Service Elin	6,192.55
93	WIESER PRECAST STEPS INC (P)	1EA-Pulling Vault, Combined	6,014.02
94	KNXR - FM	Utility Scams Communication Ads	6,000.00
95	CUSTOM TRUCK ONE SOURCE L.P.	SDP Rental - Backyard Digger Derrick	5,814.00
96	WIESER PRECAST STEPS INC (P)	1EA-Manhole, Straight Thru, 8' x 6' x 5'	5,616.00
97	WESCO DISTRIBUTION INC	3EA-Metal Sec. Encl, 3ph, 30"x78"x22" 60	5,589.00
98	MINNESOTA ENERGY RESOURCES CO	August Gas - SLP	5,564.70
99	CRESCENT ELECTRIC SUPPLY CO	10EA-Elbow, 5", Steel, 36 Radius, 90Deg	5,488.00
100	IRBY UTILITIES dba	3EA-Trans, OH, 1ph, 37.5kVA,13.8/8,120/2	5,421.00
101	WIESER PRECAST STEPS INC (P)	4EA-Grd Sleeve, Switch Basement, PME	5,420.00
102	VERIZON WIRELESS	2022 Cell & IPad Monthly Service	5,377.31
103	NETWORK SERVICES COMPANY	SLP Floor Scrubber	5,332.53
104	LRS OF MINNESOTA, LLC	2022 Waste removal SC	5,328.22

ROCHESTER PUBLIC UTILITIES

A/P Board Listing By Dollar Range

For 09/10/2022 To 10/11/2022

Consolidated & Summarized Below 1,000

MITSUBISHI ELECTRIC POWER PRO	Installation and Removal of Batteries	5,233.67
WIESER PRECAST STEPS INC (P)	1EA-Manhole, Straight Thru, 8' x 6' x 5'	5,200.00
KORTERRA INC	Contractor Interface/Service Fee	5,174.68
INSPEC INC.	2017-22 Electric Pavement Assessment	5,000.00
	Price Range Total:	1,016,542.66

1,000 to 5,000 :

GRAINGER INC	Hydraulic Press for WES	4,825.52
ONLINE INFORMATION SERVICES I	August & Sept 2022 Utility Exchange Report	4,755.85
HYBRID MECHANICAL	Westside Air and Urea Modifications	4,604.74
BURNS & MCDONNELL INC (P)	Water Rate Study	4,572.22
GRAYBAR ELECTRIC COMPANY INC	100EA-Anchor Bolt, 1" x 40", Streetlight	4,486.35
BORDER STATES ELECTRIC SUPPLY	1EA-Switch, Air, Unit Top, 3ph, 900A, LB	4,457.32
BANKS JOSHUA C	Q3 Video & Digital Services	4,415.00
CRESCENT ELECTRIC SUPPLY CO	8EA-Elbow, 5", Steel, 36 Radius, 90Deg	4,390.40
MASTEC NORTH AMERICA INC	2022 Joint Trench Directional Boring	4,257.91
ADVANTAGE DIST LLC (P)	Lubricants	4,201.88
TERRACON CONSULTANTS, INC.	Marion Road Sub Testing and Inspection	4,138.50
ALLIED VALVE INC	GT1 Main Campus Gas Valve	4,098.66
PREMIER ELECTRICAL CORP dba	Fuel Station Lighting	3,967.20
BORDER STATES ELECTRIC SUPPLY	60EA-Arrester, 10kV, Dist, Elbow MOV	3,918.90
DAKOTA SUPPLY GROUP	15EA-Filter, Mini-pleat, 20 x 20 x 4, AH	3,814.32
CONSOLIDATED COMMUNICATIONS d	2021-22 Network and Co-location Services	3,755.50
GE GRID SOLUTIONS, LLC REMIT	1EA-Breaker, Dashpot-AEG, 161KV-CCS, CHS	3,716.60
FEDERAL MEDICAL CENTER	CIP-Lighting (C&I)-Incentives/Rebates	3,671.60
HYBRID MECHANICAL	Westside Air Modifications	3,642.21
HARRIS ROCHESTER INC (HIMEC)	New Exhaust Hood in Battery Room	3,638.03
ROCHESTER CHEVROLET CADILLAC	Vehicle 502 Service	3,510.13
KATS EXCAVATING LLC	SA Water, Water Service Repair	3,500.00
QUANTITATIVE MARKET INTELLIGE	2022 Qtly Customer Satisfaction Survey	3,206.25
MICHAELS STORES INC	CIP-VSDs-Incntivs/Rebates	3,200.00
ULTEIG ENGINEERS INC	Engineering Services 2022	3,187.75
DUNCAN COMPANY INC	5EA-Sensor, Chlorine Gas, Honeywell	3,030.50
CITY OF ROCHESTER	Workers Compensation Payments	3,027.85
GRAYBAR ELECTRIC COMPANY INC	1762FT-Cable, Fiber Optic, OS2, 144 Fibe	2,994.11
WESCO DISTRIBUTION INC	2000EA-Flagging Tape, Yellow, Undergroun	2,992.50
MALLOY ELECTRIC dba	1EA-Charging Motor, 230VAC/DC, 161KV, WC	2,948.00
HAWKINS INC	6699LB-Hydrofluosilicic Acid 2022	2,883.25
EPLUS TECHNOLOGY INC	DNA Advantage 3 Year License	2,871.39
GOPHER STATE ONE CALL	August Completed Tickets	2,829.60
EPLUS TECHNOLOGY INC	Unified Communications Upgrade	2,822.50
TOTAL TOOL SUPPLY INC (P)	Crane Maintenance	2,821.50
MALLOY ELECTRIC dba	1EA-Charging Motor, 230VAC/DC, 161KV, CH	2,817.00
HAWKINS INC	2EA-Double Wall Tank	2,812.84
IHEART MEDIA dba	August Ads-Solar Contractors	2,810.00
GRAYBAR ELECTRIC COMPANY INC	1200FT-Cable, Fiber Optic, Single-Mode	2,773.80
VIKING AUTOMATIC SPRINKLER IN	GT1 Overhaul Plus Fire Inspection	2,773.41
GRAYBAR ELECTRIC COMPANY INC	2EA-SL Base, Brkaway, SB1 (Use w/2705)	2,766.61
BOB THE BUG MAN LLC	2022 Rodent Control (Well Houses)	2,756.00
HILLERS FLOORING AMERICA INC	Mail Room Carpet-Materials & Labor	2,697.75

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157	JETTER CLEAN INC	Drain Cleaning PM	2,650.00
158	PREMIER ELECTRICAL CORP dba	Morton Electrical Install	2,640.88
159	ULTEIG ENGINEERS INC	Engineering Services - Zumbro Substation	2,625.00
160	REINHAUSEN MANUFACTURING INC	1EA-Dehydrating Breather, 120VAC/DC, 250	2,588.49
161	E3 SPARK PLUGS dba	100EA-Ignition Coil Rubber Boot Kit	2,580.00
162	SOMA CONSTRUCTION INC	WM Break Repair Material	2,572.41
163	KAMAN INDUSTRIAL TECHNOLOGIES	Fastener Set; Coupling Spacer; Hubs;Coupler	2,551.06
164	GOPHER SEPTIC SERVICE INC	September Completed Tickets	2,513.70
165	IHEART MEDIA dba	September Ads 9/1-9/16/22-Utility Scams	2,508.00
166	KNXR - FM	April Ads 4/22/22-4/29/22	2,500.00
167	K A A L TV LLC	8/29-9/20/22 Utility Scam Communications	2,450.00
168	VIRTEVA LLC	Intune Implementation Assistance	2,445.00
169	KNXR - FM	April Ads 4/15/22-4/22/22	2,400.00
170	MIDCONTINENT ISO INC	September MISO Fees	2,357.55
171	ELITE CARD PAYMENT CENTER	TechStreet IEEE SA 2023 Standard Books	2,335.16
172	ELITE CARD PAYMENT CENTER	Reserve Urea	2,295.66
173	VIKING ELECTRIC SUPPLY INC	Lights for Basement @ Marion Road Sub	2,263.06
174	CONCAST INC	4EA-Grd Sleeve, 3ph, 23 x 79 x 36, Conca	2,179.98
175	IHEART MEDIA dba	Solar Contractors Communication Spot	2,178.00
176	FORBROOK LANDSCAPING SERVICES	Landscaping CSC	2,134.40
177	OPEN ACCESS TECHNOLOGY	2022 NERC Web Compliance Software	2,130.82
178	HDR ENGINEERING INC	Water Facilities Communication Study	2,126.88
179	PFANNENBERG SALES AMERICA LLC	1EA-Refurbish Cooling Unit at WES	2,114.00
180	ELITE CARD PAYMENT CENTER	JWilder, HCTC Conf, Las Vegas, Registration	2,113.55
181	BORDER STATES ELECTRIC SUPPLY	1EA-Crimper, 6-Ton, Kit	2,109.27
182	UNITED RENTALS INC	Washing Exterior of SM Res	2,077.88
183	ALLIED VALVE INC	GT1 Liquid Fuel Relief Valve	1,993.55
184	ELITE CARD PAYMENT CENTER	Freight-Reserve Urea	1,966.50
185	NANTT DELMAR	Customer Refunds 14868	1,949.42
186	STAR ENERGY SERVICES LLC	Application Blocks of NOVA, 22-23'	1,923.75
187	REGIONAL CONCRETE CUTTING INC	Concrete Work Labor & Materials	1,906.65
188	WARNING LITES OF MN INC (P)	Signage for WM Break Repairs	1,880.00
189	BOLTON AND MENK (P)	TMOB/SPRINT Telecom Mod #94 Willow	1,878.48
190	ATLAS COPCO COMPRESSORS LLC	1EA-Valve, Blow Down, EWD75CEHP, WES	1,866.04
191	BORDER STATES ELECTRIC SUPPLY	1EA-Crimper, 6-Ton, 18V	1,865.37
192	MN MUNICIPAL UTILITIES ASSN C	Sept-MMUA School,Marshall,Registration-4	1,860.00
193	ELITE CARD PAYMENT CENTER	Dec-MMUA School,Marshall,Registration-4	1,860.00
194	AE2S	Consulting Services HVAC Wellhouse	1,858.50
195	BURNS & MCDONNELL INC (P)	Rate Design and Consulting 2022	1,841.70
196	MN DEPARTMENT OF COMMERCE	Customer Refunds 15180	1,783.70
197	TOPAZ POINTE HOME OWNERS ASSO	Customer Refunds 14784	1,763.68
198	EPLUS TECHNOLOGY INC	2EA-Platinum Secondary Power Supply	1,670.82
199	WILDER JAMES	J.Wilder-Cash Advance, HCTC 2022 Cayenta	1,668.00
200	MN DEPARTMENT OF COMMERCE	Customer Refunds 14769	1,655.63
201	MAVO SYSTEMS INC (P)	Asbestos Abatement SLP	1,650.00
202	VERIZON CONNECT NWF INC	September 2022-GPS Fleet Tracking	1,602.81
203	ELITE CARD PAYMENT CENTER	MNAWWA Conference,Duluth,Registration-5	1,600.00
204	CLAREY'S SAFETY EQUIPMENT dba	2EA-Sensor, Chlorine Gas, Honeywell	1,595.00
205	CITY OF ROCHESTER	USGS 37th St Gauging Station Cost Share	1,488.37
206	YASZEMSKI MICHAEL	Customer Refunds 14852	1,483.17
207	WESCO DISTRIBUTION INC	50EA-Grnd Conn, Cross Grid, #2-250 To #2	1,477.50
208	MIRATECH GROUP LLC	2EA-Pulsation dampener 0.13 L, WS, UIS	1,440.16

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209	IRBY UTILITIES dba	2022 Rubber Goods Testing & Replacement	1,424.96
210	MINNESOTA ENERGY RESOURCES CO	August Gas - Cascade Creek	1,397.68
211	AMARIL UNIFORM COMPANY	6EA-Sweatshirt, FR Two-Tone Hooded Zip	1,378.69
212	ELITE CARD PAYMENT CENTER	Microsoft Server Management	1,353.05
213	WSB & ASSOCIATES	Surveying Services	1,350.00
214	OVERHEAD DOOR CO OF OLMSTED C	Garage Door Repair, SLP	1,330.59
215	BORDER STATES ELECTRIC SUPPLY	12PKG-Label, Transformer Safety, Cabinet	1,311.36
216	CITY OF ROCHESTER	Workers Compensation Admin Fees	1,282.00
217	BORDER STATES ELECTRIC SUPPLY	72EA-Conn, SL 14-4, Deadfront Clear	1,263.60
218	MSC INDUSTRIAL SUPPLY CO INC	250FT-Chain, 5/16", Blk, Gr 80, 5100# Wo	1,226.39
219	APPLIED AEROSOL TECHNOLOGIES	CIP-Lighting (C&I)-Incentives/Rebates	1,222.00
220	READY MIX CONCRETE COMPANY LL	Concrete Work	1,219.44
221	VAN METER INC dba	1 Pair ITools Real Jacks	1,216.91
222	ELITE CARD PAYMENT CENTER	Rob Castillo OES-NA Registration	1,200.00
223	BARR ENGINEERING COMPANY (P)	Water Quality Database Project	1,198.00
224	BENSON ANTHONY	MISO Fall Workshop, Air	1,177.20
225	BORDER STATES ELECTRIC SUPPLY	50EA-Guy,Steel Deadend, .375", EHS, Long	1,152.00
226	CORE & MAIN LP (P)	12EA-Manhole Spacer Ring, 36" x 1.5" Pla	1,141.17
227	ELITE CARD PAYMENT CENTER	MValere, HCTC Conf, Las Vegas, Registration	1,134.10
228	ELITE CARD PAYMENT CENTER	DLarson, HCTC Conf, Las Vegas, Registration	1,134.10
229	ELITE CARD PAYMENT CENTER	MTowne, HCTC Conf, Las Vegas, Registration	1,134.10
230	GRAYBAR ELECTRIC COMPANY INC	3 Galvanized 5-90 Rigid Elbows	1,130.40
231	BORDER STATES ELECTRIC SUPPLY	100EA-Grnd Clamp, 2 Cable to Flat, #4-30	1,125.00
232	OPEN ACCESS TECHNOLOGY	October NERC Tag Agent,WebSmart	1,110.93
233	POMPS TIRE SERVICE INC	Tires	1,103.85
234	WESCO DISTRIBUTION INC	48EA-Conn, Ped, 350, 6-Tap, Deadfront, C	1,103.04
235	EPLUS TECHNOLOGY INC	Cisco DNA support (3 yrs)	1,096.05
236	WARTSILA NORTH AMERICA	1EA-Electronic Unit	1,088.07
237	BOLTON AND MENK (P)	Dish Wireless Golden Hill Site Review	1,080.00
238	CUSTOM COMMUNICATIONS INC	4EA-Alarm, Control Panel, 8-Zone	1,078.50
239	WARNING LITES OF MN INC (P)	Safety Lights for 9/1-9/7/22	1,070.89
240	SCHMIDT GOODMAN OFFICE PRODUC	Install /Design-Mail Room	1,063.41
241	AMARIL UNIFORM COMPANY	6EA-Vest, FR, Hi-Vis	1,051.65
242	EPLUS TECHNOLOGY INC	Catalyst C8300 Maintenance	1,044.66
243	AMARIL UNIFORM COMPANY	5EA-Sweatshirt, FR Two-Tone, Hooded Zip	1,042.03
244	AE2S	Elec & Mech Design Services Wellhouse 42	1,038.00
245	RESCO	20EA-Bracket, Equip Mtg, 1ph, 1.5" x 18	1,031.80
246	ROCHESTER ARMORED CAR CO INC	2022 Pick Up Services	1,025.87
247	KINDSCHY CHRISTINA	Customer Refunds 14679	1,022.37
248	BORDER STATES ELECTRIC SUPPLY	2EA-Crimper, Service Cable	1,021.04
249	TOWNE MELANI	Travel, Utility Conf.,Savannah, Lodging	1,013.88
250	AMAZON.COM	1EA-Thermometer, Hand-Held, IR	1,013.00
251			
252		**Price Range Total:**	306,932.78
253			
254	**0 to 1,000 :**		
255			
256	ELITE CARD PAYMENT CENTER	Summarized transactions: 62	16,736.65
257	FIRST CLASS PLUMBING & HEATIN	Summarized transactions: 27	12,196.89
258	REBATES	Summarized transactions: 59	12,040.99
259	BORDER STATES ELECTRIC SUPPLY	Summarized transactions: 34	10,165.61
260	Customer Refunds (CIS)	Summarized transactions: 84	9,570.11

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261	CITY LAUNDERING COMPANY	Summarized transactions: 26	5,338.57
262	EPLUS TECHNOLOGY INC	Summarized transactions: 21	5,291.26
263	VIKING ELECTRIC SUPPLY INC	Summarized transactions: 35	3,727.79
264	IRBY UTILITIES dba	Summarized transactions: 18	3,696.18
265	AMARIL UNIFORM COMPANY	Summarized transactions: 12	3,205.71
266	WESCO DISTRIBUTION INC	Summarized transactions: 8	3,089.57
267	CITY OF ROCHESTER	Summarized transactions: 12	3,047.73
268	LAWSON PRODUCTS INC (P)	Summarized transactions: 20	2,607.14
269	NETWORK SERVICES COMPANY	Summarized transactions: 9	2,596.97
270	CRESCENT ELECTRIC SUPPLY CO	Summarized transactions: 32	2,425.89
271	DAKOTA SUPPLY GROUP	Summarized transactions: 14	2,143.66
272	JOHN HENRY FOSTER MN INC (P)	Summarized transactions: 6	2,038.70
273	DZUBAY TONY	Summarized transactions: 6	2,016.92
274	PROLINE DISTRIBUTORS	Summarized transactions: 27	1,991.32
275	BOLTON AND MENK (P)	Summarized transactions: 3	1,980.00
276	OSWEILER TODD	Summarized transactions: 4	1,849.37
277	GRAYBAR ELECTRIC COMPANY INC	Summarized transactions: 9	1,778.28
278	LRS OF MINNESOTA, LLC	Summarized transactions: 3	1,767.43
279	ROCHESTER CHEVROLET CADILLAC	Summarized transactions: 8	1,617.42
280	AMAZON.COM	Summarized transactions: 21	1,537.03
281	SNAP ON INDUSTRIAL	Summarized transactions: 2	1,512.44
282	MINNESOTA ENERGY RESOURCES CO	Summarized transactions: 5	1,496.08
283	ROCH AREA BUILDERS INC	Summarized transactions: 2	1,454.00
284	CORE & MAIN LP (P)	Summarized transactions: 4	1,437.69
285	SOMA CONSTRUCTION INC	Summarized transactions: 2	1,410.12
286	PROCESS MEASUREMENT CO	Summarized transactions: 5	1,402.23
287	ROCHESTER SWEEPING SERVICE LL	Summarized transactions: 2	1,350.00
288	ARNOLDS A KLEEN-TECH COMPANY	Summarized transactions: 12	1,326.07
289	USA BLUE BOOK DBA	Summarized transactions: 4	1,308.27
290	NORTHERN / BLUETARP FINANCIAL	Summarized transactions: 10	1,226.49
291	U S A SAFETY SUPPLY	Summarized transactions: 9	1,205.95
292	PAYNE LUKE	Summarized transactions: 2	1,191.87
293	MALLOY ELECTRIC dba	Summarized transactions: 5	1,174.49
294	IDEAL SERVICE COMPANY INC	Summarized transactions: 3	1,130.55
295	NAPA AUTO PARTS dba	Summarized transactions: 21	1,130.36
296	CUSTOM COMMUNICATIONS INC	Summarized transactions: 3	1,126.46
297	SEEME PRODUCTIONS LLC	Summarized transactions: 2	1,120.00
298	HAWKINS INC	Summarized transactions: 9	1,102.26
299	KNXR - FM	Summarized transactions: 2	1,100.00
300	GRAINGER INC	Summarized transactions: 10	1,089.74
301	ON SITE SANITATION INC	Summarized transactions: 5	1,086.56
302	CENTURYLINK (P)	Summarized transactions: 4	1,083.51
303	BUCHOLZ MICHAEL	Summarized transactions: 3	1,067.37
304	ANDERSON JUDITH	Summarized transactions: 5	1,065.79
305	HALO BRANDED SOLUTIONS (P)	Summarized transactions: 3	1,026.16
306	ADVANCE AUTO PARTS	Summarized transactions: 16	994.51
307	WINKELS ELECTRIC INC	Summarized transactions: 3	983.77
308	GOAT PROS	Summarized transactions: 1	961.88
309	KLAMERUS DOUG	Summarized transactions: 4	958.63
310	FARRELL EQUIPMENT (P)	Summarized transactions: 6	952.60
311	NALCO COMPANY LLC	Summarized transactions: 9	937.50
312	STRUVES PAINT & DECORATING (P	Summarized transactions: 4	937.19

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313	LOCATORS AND SUPPLIES	Summarized transactions: 5	936.81
314	ADVANTAGE DIST LLC (P)	Summarized transactions: 1	928.16
315	BOB THE BUG MAN LLC	Summarized transactions: 4	924.47
316	NORTH CENTRAL INTERNATIONAL L	Summarized transactions: 3	886.03
317	CENTER FOR ENERGY AND ENVIRON	Summarized transactions: 2	846.51
318	ULTEIG ENGINEERS INC	Summarized transactions: 2	838.50
319	CITY LAUNDERING COMPANY	Summarized transactions: 5	836.25
320	VAN METER INC dba	Summarized transactions: 9	828.20
321	EARLS SMALL ENGINE REPAIR INC	Summarized transactions: 5	819.14
322	SCHMIDT GOODMAN OFFICE PRODUC	Summarized transactions: 1	814.19
323	LANGUAGE LINE SERVICES INC	Summarized transactions: 1	804.57
324	THE ENERGY AUTHORITY INC	Summarized transactions: 1	789.23
325	MACQUEEN EQUIPMENT	Summarized transactions: 4	779.32
326	CITY OF ROCHESTER	Summarized transactions: 4	777.72
327	DYNAMIC LIFECYCLE INNOVATIONS	Summarized transactions: 2	764.37
328	AT&T	Summarized transactions: 1	763.65
329	GARCIA GRAPHICS INC	Summarized transactions: 5	761.00
330	PROPERTY RECORDS OLMSTED COUN	Summarized transactions: 4	750.00
331	INNOVATIVE OFFICE SOLUTIONS L	Summarized transactions: 4	692.80
332	VIOLA NURSERY AND GREENHOUSE	Summarized transactions: 1	684.00
333	PREMIER ELECTRICAL CORP dba	Summarized transactions: 2	677.29
334	HSI WORKPLACE COMPLIANCE SOLU	Summarized transactions: 1	640.00
335	HACH COMPANY	Summarized transactions: 3	632.59
336	KFI ENGINEERS	Summarized transactions: 1	630.00
337	TOWNE MELANI	Summarized transactions: 4	625.35
338	KAMAN INDUSTRIAL TECHNOLOGIES	Summarized transactions: 7	621.07
339	NORTHWEST LINEMAN COLLEGE	Summarized transactions: 1	616.00
340	FASTENAL COMPANY	Summarized transactions: 12	604.97
341	MN DEPT OF HEALTH - ENVIRO HE	Summarized transactions: 1	600.00
342	MEG CORP	Summarized transactions: 2	585.00
343	HEROLD FLAGS	Summarized transactions: 6	566.17
344	BARRY SCREEN PRINT CO dba	Summarized transactions: 8	554.78
345	SARGENTS LANDSCAPE NURSERY IN	Summarized transactions: 4	546.36
346	RESCO	Summarized transactions: 6	540.05
347	REINDERS INC	Summarized transactions: 2	535.75
348	RAIN RICHARD	Summarized transactions: 4	530.25
349	BURGGRAFS ACE HARDWARE OF ROC	Summarized transactions: 3	523.53
350	PFANNENBERG SALES AMERICA LLC	Summarized transactions: 2	519.40
351	CLARK CHAD	Summarized transactions: 2	499.55
352	ROCH PLUMBING & HEATING CO IN	Summarized transactions: 2	499.10
353	AIRGAS SAFETY INC	Summarized transactions: 4	494.34
354	MITSUBISHI ELECTRIC POWER PRO	Summarized transactions: 1	491.20
355	MIDWEST MECHANICAL SOLUTIONS	Summarized transactions: 3	484.92
356	MENARDS ROCHESTER NORTH	Summarized transactions: 6	478.35
357	CLARK CONCRETE INC	Summarized transactions: 1	475.00
358	CORPORATE WEB SERVICES INC	Summarized transactions: 2	474.14
359	CONCAST INC	Summarized transactions: 2	472.02
360	KEACH TODD	Summarized transactions: 3	456.81
361	UPSIDE INNOVATIONS	Summarized transactions: 1	456.15
362	READY MIX CONCRETE COMPANY LL	Summarized transactions: 2	451.27
363	KANTOLA CONSULTING	Summarized transactions: 1	440.00
364	GE GRID SOLUTIONS, LLC REMIT	Summarized transactions: 2	437.08

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365	BEES INDUSTRIAL SERVICES LLC	Summarized transactions: 3	430.34
366	CLAREY'S SAFETY EQUIPMENT dba	Summarized transactions: 1	423.49
367	MENARDS ROCHESTER SOUTH	Summarized transactions: 7	418.84
368	PEOPLES ENERGY COOPERATIVE	Summarized transactions: 3	409.14
369	SUNBELT RENTALS	Summarized transactions: 2	403.52
370	MENARDS ROCHESTER SOUTH	Summarized transactions: 4	402.89
371	WARNING LITES OF MN INC (P)	Summarized transactions: 2	402.48
372	BOWMANS DOOR SOLUTIONS	Summarized transactions: 1	395.84
373	FORSTNER JAY	Summarized transactions: 2	393.76
374	CHEMSEARCH	Summarized transactions: 1	391.00
375	ULINE	Summarized transactions: 2	388.44
376	ALTEC INDUSTRIES INC	Summarized transactions: 3	385.08
377	MIRATECH GROUP LLC	Summarized transactions: 4	375.12
378	REGIONAL CONCRETE CUTTING INC	Summarized transactions: 1	374.06
379	VIKING ELECTRIC SUPPLY (P)	Summarized transactions: 2	341.27
380	PHENOVA INC	Summarized transactions: 2	334.20
381	GREAT RIVER ENERGY	Summarized transactions: 1	332.95
382	ALLIED VALVE INC	Summarized transactions: 3	330.12
383	SHERWIN WILLIAMS CO	Summarized transactions: 2	326.89
384	EXPRESS SERVICES INC	Summarized transactions: 1	315.84
385	PEOPLES ENERGY COOPERATIVE	Summarized transactions: 2	313.24
386	ENVIRONMENTAL RESOURCES OLMST	Summarized transactions: 1	310.45
387	DEFRANG SPENCER	Summarized transactions: 2	301.00
388	BRIAN ANDERSON	Summarized transactions: 1	300.00
389	MILESTONE MATERIALS	Summarized transactions: 1	296.18
390	GOODIN COMPANY	Summarized transactions: 7	295.58
391	RONCO ENGINEERING SALES INC	Summarized transactions: 3	293.23
392	CHARTER COMMUNICATIONS	Summarized transactions: 2	288.04
393	PETERSON CHAD	Summarized transactions: 1	288.00
394	WINTER TANNER	Summarized transactions: 1	288.00
395	CASEY JEREMY	Summarized transactions: 1	288.00
396	KIMERY BOWDRIE	Summarized transactions: 1	288.00
397	MENSINK NICHOLAS	Summarized transactions: 1	288.00
398	MENARDS ROCHESTER NORTH	Summarized transactions: 3	287.54
399	ALLIED ELECTRONICS INC	Summarized transactions: 2	287.13
400	CREDIT MANAGEMENT LP	Summarized transactions: 1	280.79
401	POLLARDWATER dba	Summarized transactions: 2	269.19
402	ZIEGLER INC	Summarized transactions: 1	260.05
403	MSC INDUSTRIAL SUPPLY CO INC	Summarized transactions: 4	245.23
404	BREKKE MATTHEW	Summarized transactions: 2	244.00
405	VANCO SERVICES LLC	Summarized transactions: 1	240.72
406	SCHUMACHER EXCAVATING INC.	Summarized transactions: 1	240.00
407	MASON JOSH	Summarized transactions: 1	224.00
408	NEUBAUER WADE	Summarized transactions: 1	224.00
409	HOVDEN ADAM	Summarized transactions: 1	224.00
410	BRENT BUNKE	Summarized transactions: 1	224.00
411	MCMASTER CARR SUPPLY COMPANY	Summarized transactions: 18	211.22
412	GRENZ HENRY	Summarized transactions: 1	210.00
413	NUVERA	Summarized transactions: 1	207.90
414	EMEDCO INC	Summarized transactions: 4	207.50
415	DAKOTA SUPPLY GROUP	Summarized transactions: 2	200.42
416	CHOSEN VALLEY TESTING	Summarized transactions: 1	188.00

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417	SARGENTS LANDSCAPE NURSERY IN	Summarized transactions: 3	185.74
418	WARTSILA NORTH AMERICA	Summarized transactions: 2	184.47
419	DAVE SYVERSON TRUCK CENTER IN	Summarized transactions: 3	183.19
420	VERIFIED CREDENTIALS, LLC	Summarized transactions: 2	179.00
421	FERGUSON ENTERPRISES INC #165	Summarized transactions: 1	169.69
422	VERIZON WIRELESS	Summarized transactions: 1	167.43
423	KAUTZ TRAILER SALES INC	Summarized transactions: 2	162.19
424	CORE & MAIN LP (P)	Summarized transactions: 2	161.60
425	MIDWEST SIGNTECH OF ROCHESTER	Summarized transactions: 2	161.16
426	GLEASON HUNTER	Summarized transactions: 1	160.00
427	THOMAS TOOL & SUPPLY INC	Summarized transactions: 4	152.81
428	STAR ENERGY SERVICES LLC	Summarized transactions: 2	149.00
429	FEDEX SHIPPING	Summarized transactions: 15	139.35
430	NORTHERN / BLUETARP FINANCIAL	Summarized transactions: 2	139.34
431	FORUM COMMUNICATIONS COMPANY	Summarized transactions: 3	138.46
432	BADGER METER INC (P)	Summarized transactions: 1	135.00
433	U S PLASTICS CORP	Summarized transactions: 2	128.36
434	WATER SYSTEMS COMPANY	Summarized transactions: 2	125.50
435	NAPA AUTO PARTS dba	Summarized transactions: 2	120.88
436	SANCO ENTERPRISES	Summarized transactions: 4	117.48
437	VIKING ELECTRIC SUPPLY INC	Summarized transactions: 2	117.03
438	PAULS LOCK & KEY SHOP INC	Summarized transactions: 1	115.00
439	REINHAUSEN MANUFACTURING INC	Summarized transactions: 1	88.07
440	SLEEPY EYE TELEPHONE CO	Summarized transactions: 1	84.76
441	REBATES	Summarized transactions: 3	75.00
442	ELECTRICAL TRAINING ALLIANCE	Summarized transactions: 1	73.92
443	RONCO ENGINEERING SALES INC	Summarized transactions: 2	69.86
444	CUSTOM TRUCK ONE SOURCE L.P.	Summarized transactions: 1	68.00
445	MISSISSIPPI WELDERS SUPPLY CO	Summarized transactions: 1	65.91
446	METRO SALES INC	Summarized transactions: 1	54.44
447	MINOGUE PETER	Summarized transactions: 1	43.00
448	FRANZ REPROGRAPHICS INC	Summarized transactions: 1	41.11
449	FEDEX SHIPPING	Summarized transactions: 4	40.27
450	FIRST SUPPLY (P)	Summarized transactions: 1	37.96
451	TOTAL TOOL SUPPLY INC (P)	Summarized transactions: 1	33.00
452	MINNESOTA ENERGY RESOURCES CO	Summarized transactions: 1	31.23
453	FIRST SUPPLY (P)	Summarized transactions: 1	30.80
454	DUNCAN COMPANY INC	Summarized transactions: 1	28.65
455	KRUGER RONALD	Summarized transactions: 1	23.00
456	MISSISSIPPI WELDERS SUPPLY CO	Summarized transactions: 2	19.22
457	A T & T MOBILITY	Summarized transactions: 1	17.77
458	VIKING ELECTRIC SUPPLY (P)	Summarized transactions: 2	15.34
459	POMPS TIRE SERVICE INC	Summarized transactions: 1	5.16
460	UNITED PARCEL SERVICE	Summarized transactions: 1	2.15
461			
462		**Price Range Total:**	205,321.12
463			
464		**Grand Total:**	14,852,513.39

FOR BOARD ACTION

Agenda Item # **(ID # 15054)** **Meeting Date: 10/25/2022**

SUBJECT: Transmission Pole Foundation Construction

PREPARED BY: Andrew Bianco

ITEM DESCRIPTION:

Sealed bids were opened on October 12, 2022 for the Transmission pole foundation project. This project consists of labor, equipment, and materials necessary to construct three pier foundations for the purpose of supporting high voltage transmission poles. The location of the pole foundations is adjacent to the Marion Road Substation. The Engineers' estimate for this project is $180,000.00

A breakdown of the bids is as follows:

Vendor	Bid Amount
Primoris Electric Inc.	$129,419.88
Tri-State Drilling	$144,487.00
M.J. Electric LLC.	$182,030.00
Carl Bolander & Sons LLC.	$254,540.00
Veit & Company, Inc.	$347,250.00
MACD Corp.	$675,000.00

Based on our evaluation of the bids, the lowest responsive bidder is Primoris Electric, Inc. Staff has no concerns about their ability to perform successfully. It is expected that this work will be completed no later than April 1, 2023.

UTILITY BOARD ACTION REQUESTED:

Approve a resolution to accept the bid from Primoris Electric, Inc. in the amount of $129,419.88, plus a contingency of $12,900.00, and authorize the Mayor and City Clerk to execute the agreement. Staff further recommends the Board authorize the RPU project manager to perform the acts necessary to execute the project.

ROCHESTER PUBLIC UTILITIES
WE PLEDGE, WE DELIVER

Contract Signature Page
Transmission Pole Foundation Construction
Solicitation #2022-41

Contract Number: 22-41
Contractor Name: Primoris Electric, Inc.
Contractor Address: 7280 Dickman Trail, Inver Grove Heights, MN 55076

Contract Price: $129,419.88

The contract documents as provided in the solicitation form the entire agreement between the parties and all contract documents are as fully a part of the agreement as if attached hereto or herein repeated. The hierarchy of contract documents is listed in order of precedence.

The contract documents shall consist of the following:

Contract Signature Page
IFB and General Terms and Conditions
Technical Specifications including any/all addendums and Special Terms
Instructions to Bidders
Contractor's Proposal
Approved Change Orders
Responsible Contractor Certificate and Supplemental Certificate, if applicable.
Personnel Risk Assessment Form, if applicable.
Contractor Safety Acknowledgement
Purchase Order
Insurance Certificate
Exemption from Security Deposit (SDE), if applicable

Primoris Electric Inc.

_____
Ken Beckett, Senior Vice President

CITY OF ROCHESTER

_____
Kim Norton, Mayor

Attest

_____
Kelly K. Geistler, City Clerk

Approved as to Form:

_____
Michael Spindler-Krage, City Attorney

ROCHESTER PUBLIC UTILITIES

_____
Mark Kotschevar, General Manager

ROCHESTER PUBLIC UTILITIES
WE PLEDGE, WE DELIVER

RESOLUTION

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve a resolution to accept the bid from Primoris Electric, Inc. in the amount of $129,419.88, plus a contingency of $12,900.00, for transmission pole foundation construction, and authorize the Mayor and City Clerk to execute the agreement. This resolution authorizes the RPU project manager to perform the acts necessary to execute the project.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 25th day of October, 2022.

_____

President

_____

Secretary

FOR BOARD ACTION

Agenda Item # **(ID # 15048)** **Meeting Date: 10/25/2022**

SUBJECT: PURPA Public Hearing Notice

PREPARED BY: Steve Nyhus

ITEM DESCRIPTION:

The Public Utilities Regulatory Policy Act (PURPA) was originally enacted in 1978. Section 111 of PURPA contains a series of so-called "shall consider" standards: PURPA directs that covered utilities "shall consider each standard … and make a determination concerning whether or not it is appropriate to implement such standard …."

Utilities are not required to *adopt* the standards per se, but rather to consider *whether* such standards should be adopted. This consideration must take place through a public process with a public hearing, and the Board must make a final determination based on written findings made available to the public.

The "shall consider" standards have been added to from time to time over the years, and with each addition covered utilities have had to consider them. The Infrastructure Investment and Jobs Act of 2021 (IIJA) added two more "shall consider" standards, pertaining to:

20) "…the use of demand-response and demand flexibility practices by commercial, residential, and industrial consumers to reduce electricity consumption during periods of unusually high demand…," and

21) "…measures to promote greater electrification of the transportation sector…"

The IIJA requires that covered utilities set a public hearing date by November 15, 2022, and that the consideration process be completed by November 15, 2023.

UTILITY BOARD ACTION REQUESTED:

Approve the attached resolution setting the public hearing date for consideration of the most recent PURPA "shall consider" standards.

ROCHESTER PUBLIC UTILITIES
WE PLEDGE, WE DELIVER

RESOLUTION

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to hold a public hearing on Tuesday, January 10, 2023, beginning at 5:00 PM, at the RPU Service Center, to receive public comment on certain standards required by the Public Utility Regulatory Policies Act of 1978, as amended by the Infrastructure Investment and Jobs Act of 2021, pertaining to demand-response and demand management practices and measures to promote greater electrification of the transportation sector. The RPU General Manager is authorized to take such actions necessary to provide notice to the public and facilitate the public hearing.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 25th day of October, 2022.

_____

President

_____

Secretary

FOR BOARD ACTION

Agenda Item # **(ID # 15058)** **Meeting Date: 10/25/2022**

SUBJECT: Authorized Depositories

PREPARED BY: Peter Hogan

ITEM DESCRIPTION:

The Board is asked to pass a resolution authorizing the depositories for Utility funds. The Utility uses the same depositories as the City and follows the investment policies established by the City.

In June 2022 a five year guaranteed income contract with Bayerische Landesbank matured. The attached resolution removes Bayerische Landesbank and adds the Minnesota Municipal Money Market Fund (the 4M Fund) which is sponsored and managed by the League of Minnesota Cities in accordance with Minnesota State Statutes. The City of Rochester currently uses the 4M Fund.

The resolution continues to authorize US Bank and Wells Fargo as depositories of Utility funds.

UTILITY BOARD ACTION REQUESTED:

The Board is requested to approve the attached resolution.

RESOLUTION

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, that the following banks, authorized to do business in Minnesota, are the designated depositories for the demand deposit accounts and temporary investment of funds of Rochester Public Utilities, City of Rochester, Minnesota, within the limits established by the City of Rochester, for the term commencing November 1, 2022 through the 31st day of December, 2023.

US Bank

Wells Fargo

Minnesota Municipal Money Market Fund (4M Fund)

The above depositories, and any added during the term by the City Finance Director, shall pay interest at such rates or rates, per annum, as may be mutually agreed upon by Rochester Public Utilities and the respective depository at the time such deposits and investments are made.

The depository shall pay on demand all deposits subject to payment on demand, with accrued interest, and pay on demand all time deposits with accrued interest, at or after maturity.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 25th day of October, 2022.

_____

President

_____

Secretary

FOR BOARD ACTION

Agenda Item # **(ID # 15043)** **Meeting Date: 10/25/2022**

SUBJECT: Distributed Energy Resources Management (DERM) Agreement

PREPARED BY: Patty Hanson

ITEM DESCRIPTION:

The 2019 Burns & McDonnell Demand Side Management Study identified several technologies in the demand response space that were considered reliable load management resources, that can contribute to greater demand and energy efficiency savings and increase the inclusion of products that enable customer participation in peak load management programs, now and into RPU's future.

As presented at the November 30, 2021 Board meeting, a plan was shared to implement a Bring Your Own Thermostat (BYOT) smart thermostat program, with a DERMs (distributed energy resources management) provider that allows for more program participation levels and scalability to include EVs and solar battery storage.

Following an RFP process, Virtual Peaker, Inc. was determined as the best fit as RPU's DERM provider and staff is seeking approval of a three-year agreement with an annual projected value of $140,000. Costs will fluctuate based on the number of enrollees and device manufacturer chosen by the customer. At this time, RPU is ready to move forward with a BYOT program with Ecobee, NEST and Honeywell manufacturers all managed by Virtual Peaker. This agreement includes services for an EV program when RPU is ready to move in that direction.

The proposed agreement includes the costs for implementation, device, and annual subscription fees. The term of the initial agreement is three-years that will automatically renew for an additional three-year period, contingent upon annual approval of the budget.

Purchasing is still negotiating the agreement and seeks board approval subject to final approval from the General Manager and City Attorney.

UTILITY BOARD ACTION REQUESTED:

Approve an agreement with Virtual Peaker, Inc. as RPU's distributed energy resources provider and authorize the Mayor and City Clerk to execute the agreement, subject to the General Manager and City Attorney's review of the final agreement, with future funding contingent on Board and Common Council approval of the annual budget.

DRAFT

SAAS SERVICES ORDER FORM

Customer: Rochester Public Utilities	**Contact:** Patty Hanson
Address: 4000 E River Rd NE, Rochester, MN 55906	**Phone:** 507-280-1615
	E-Mail: PHanson@rpu.org
Services: *Virtual Peaker will provide a subscription to its Software as a Service distributed energy platform that schedules and controls residential energy loads for electric utility service providers.* (the "Service(s)").	
Fees: As shown in Table 1: Pricing Structure Proposal in the SOW dated September 20, 2022.	**Initial Service Term**: Three years from the effective date of this agreement.
Implementation Services: Company will use commercially reasonable efforts to provide Customer the services described in the Statement of Work ("SOW") attached as Exhibit A hereto.	

SAAS SERVICES AGREEMENT

This SaaS Services Agreement ("Agreement") is entered into on this _____ day of _____, 2022 (the "Effective Date") between Virtual Peaker, Inc with a place of business at 825 E. Market Street Suite 203, Louisville, KY 40206 ("Company"), and the Customer listed above ("Customer"). This Agreement includes and incorporates the above Order Form and MSA #22-196, There shall be no force or effect to any different terms of any related purchase order or similar form even if signed by the parties after the date hereof.

VIRTUAL PEAKER, INC.

By:_____

Name:_____

Title:_____

CITY OF ROCHESTER

By: _____
Kim Norton, Mayor

Attest: _____
Kelly K. Geistler, City Clerk

Approved
as to Form: _____
Michael Spindler-Krage, City Attorney

ROCHESTER PUBLIC UTILITIES

By: _____
Mark Kotschevar, General Manager

TERMS AND CONDITIONS

1.1 **SAAS SERVICES AND SUPPORT**

1.2 Subject to the terms of this Agreement, Company will use commercially reasonable efforts to provide Customer the Services in accordance with the Service Level Terms attached hereto as Exhibit B. As part of the registration process, Customer will identify an administrative user name and password for Customer's Company account. Company reserves the right to refuse registration of, or cancel passwords it deems inappropriate.

1.3 Subject to the terms hereof, Company will provide Customer with reasonable technical support services in accordance with the terms set forth in Exhibit C.

2. RESTRICTIONS AND RESPONSIBILITIES

2.1 Customer will not, directly or indirectly: reverse engineer, decompile, disassemble or otherwise attempt to discover the source code, object code or underlying structure, ideas, know-how or algorithms relevant to the Services or any software, documentation or data related to the Services ("Software"); modify, translate, or create derivative works based on the Services or any Software (except to the extent expressly permitted by Company or authorized within the Services); use the Services or any Software for timesharing or service bureau purposes or otherwise for the benefit of a third; or remove any proprietary notices or labels. With respect to any Software that is distributed or provided to Customer for use on Customer premises or devices, Company hereby grants Customer a non-exclusive, non-transferable, non-sublicensable license to use such Software during the Term only in connection with the Services.

2.2 Further, Customer may not remove or export from the United States or allow the export or re-export of the Services, Software or anything related thereto, or any direct product thereof in violation of any restrictions, laws or regulations of the United States Department of Commerce, the United States Department of Treasury Office of Foreign Assets Control, or any other United States or foreign agency or authority. As defined in FAR section 2.101, the Software and documentation are "commercial items" and according to DFAR section 252.227-7014(a)(1) and (5) are deemed to be "commercial computer software" and "commercial computer software documentation." Consistent with DFAR section 227.7202 and FAR section 12.212, any use modification, reproduction, release, performance, display, or disclosure of such commercial software or commercial software documentation by the U.S. Government will be governed solely by the terms of this Agreement and will be prohibited except to the extent expressly permitted by the terms of this Agreement.

2.3 Customer represents, covenants, and warrants that Customer will use the Services only in compliance with Company's standard published policies then in effect (Appendix 1) and all applicable laws and regulations. Customer hereby agrees to indemnify and hold harmless Company against any damages, losses, liabilities, settlements and expenses (including without limitation costs and attorneys' fees) in connection with any claim or action that arises from an alleged violation of the foregoing or otherwise from Customer's use of Services. Although Company has no obligation to monitor Customer's use of the Services, Company may do so and may prohibit any use of the Services it believes may be (or alleged to be) in violation of the foregoing.

2.4 Customer shall be responsible for obtaining and maintaining any equipment and ancillary services needed to connect to, access or otherwise use the Services, including, without limitation, modems, hardware, servers, software, operating systems, networking, web servers and the like (collectively, "Equipment"). Customer shall also be responsible for maintaining the security of the Equipment, Customer account, passwords (including but not limited to administrative and user passwords) and files, and for all uses of Customer account or the Equipment with or without Customer's knowledge or consent.

3. PROPRIETARY RIGHTS

3.1 Company shall own and retain all right, title and interest in and to (a) the Services and Software, all improvements, enhancements or modifications thereto, (b) any software, applications, inventions or other technology developed in connection with Implementation Services or support, and (c) all intellectual property rights related to any of the foregoing.

3.2 Notwithstanding anything to the contrary, Company shall have the right to collect and analyze data and other information relating to the provision, use and performance of various aspects of the Services and related systems and technologies (including, without limitation, information concerning Customer Data and data derived therefrom), and Company will be free (during and after the term hereof) to (i) use such information and data to improve and enhance the Services and for other development, diagnostic and corrective purposes in connection with the Services and other Company offerings, and (ii) disclose such data solely in aggregate or other de-identified form in connection with its business. No rights or licenses are granted except as expressly set forth herein.

4. PAYMENT OF FEES

4.1 Customer will pay Company the then applicable fees described in the Order Form for the Services and Implementation Services in accordance with the terms therein (the "Fees"). Company reserves the right to change the Fees or applicable charges and to institute new charges and Fees at the end of the Initial Service Term or then-current renewal term, upon thirty (30) days prior notice to Customer (which may be sent by email).

5. TERM AND TERMINATION

5.1 This Agreement is for the Initial Service Term as specified in the Order Form. At least 90 days prior to expiration, Company shall provide to Customer proposed renewal options.

5.2 All sections of this Agreement, which by their nature should survive termination, will survive termination, including, without limitation, accrued rights to payment, confidentiality obligations, warranty disclaimers, and limitations of liability.

6. WARRANTY AND DISCLAIMER

Company shall use reasonable efforts consistent with prevailing industry standards to maintain the Services in a manner which minimizes errors and interruptions in the Services and shall perform the Implementation Services in a professional and workmanlike manner. Services may be temporarily unavailable for scheduled maintenance or for unscheduled emergency maintenance, either by Company or by third-party providers, or because of other causes beyond Company's reasonable control, but Company shall use reasonable efforts to provide advance notice in writing or by e-mail of any scheduled service disruption. HOWEVER, COMPANY DOES NOT WARRANT THAT THE SERVICES WILL BE UNINTERRUPTED OR ERROR FREE; NOR DOES IT MAKE ANY WARRANTY AS TO THE RESULTS THAT MAY BE OBTAINED FROM USE OF THE SERVICES. EXCEPT AS EXPRESSLY SET FORTH IN THIS SECTION, THE SERVICES AND IMPLEMENTATION SERVICES ARE PROVIDED "AS IS" AND COMPANY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT.

7. INDEMNITY

To the fullest extent permitted by law, Company shall defend, indemnify and hold Customer harmless from liability to third parties resulting from infringement by the Service of any United States patent or any copyright or misappropriation of any trade secret or other intellectual property right, provided Company is promptly notified of any and all threats, claims and proceedings related thereto and given reasonable assistance and the opportunity to assume sole control over defense and settlement; Company will not be responsible for any settlement it does not approve in writing. The foregoing obligations do not apply with respect to portions or components of the Service (i) not supplied by Company, (ii) made in whole or in part in accordance with Customer specifications, (iii) that are modified after delivery by Company, (iv) combined with other products, processes or materials where the alleged infringement relates to such combination, (v) where Customer continues allegedly infringing activity after being notified thereof or after being informed of modifications that would have avoided the alleged infringement, or (vi) where Customer's use of the Service is not strictly in accordance with this Agreement. If, due to a claim of infringement, the Services are held by a court of competent jurisdiction to be or are believed by Company to be infringing, Company may, at its option and expense (a) replace or modify the Service to be non-infringing provided that such modification or replacement contains substantially similar features and functionality, (b) obtain for Customer a license to continue using the Service, or (c) if neither of the foregoing is commercially practicable, terminate this Agreement and Customer's rights hereunder and provide Customer a refund of any prepaid, unused fees for the Service.

8. LIMITATION OF LIABILITY

NOTWITHSTANDING ANYTHING TO THE CONTRARY, EXCEPT FOR BODILY INJURY OF A PERSON, COMPANY AND ITS SUPPLIERS (INCLUDING BUT NOT LIMITED TO ALL EQUIPMENT AND TECHNOLOGY SUPPLIERS), OFFICERS, AFFILIATES, REPRESENTATIVES, CONTRACTORS AND EMPLOYEES SHALL NOT BE RESPONSIBLE OR LIABLE WITH RESPECT TO ANY SUBJECT MATTER OF THIS AGREEMENT OR TERMS AND CONDITIONS RELATED THERETO UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER THEORY: (A) FOR ERROR OR INTERRUPTION OF USE OR FOR LOSS OR INACCURACY OR CORRUPTION OF DATA OR COST OF PROCUREMENT OF SUBSTITUTE GOODS, SERVICES OR TECHNOLOGY OR LOSS OF BUSINESS; (B) FOR ANY INDIRECT, EXEMPLARY, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES; (C) FOR ANY MATTER BEYOND COMPANY'S REASONABLE CONTROL; OR (D) FOR ANY AMOUNTS THAT, TOGETHER WITH AMOUNTS ASSOCIATED WITH ALL OTHER CLAIMS, EXCEED THE FEES PAID BY CUSTOMER TO COMPANY FOR THE SERVICES UNDER THIS AGREEMENT IN THE 12 MONTHS PRIOR TO THE ACT THAT GAVE RISE TO THE LIABILITY, IN EACH CASE, WHETHER OR NOT COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

9. MISCELLANEOUS

If any provision of this Agreement is found to be unenforceable or invalid, that provision will be limited or eliminated to the minimum extent necessary so that this Agreement will otherwise remain in full force and effect and enforceable. This Agreement is the complete and exclusive statement of the mutual understanding of the parties and supersedes and cancels all previous written and oral agreements, communications and other understandings relating to the subject matter of this Agreement, and that all waivers and modifications must be in a writing signed by both parties, except as otherwise provided herein. No agency, partnership, joint venture, or employment is created as a result of this Agreement and Customer does not have any authority of any kind to bind Company in any respect whatsoever. In any action or proceeding to enforce rights under this Agreement, the prevailing party will be entitled to recover costs and attorneys' fees. All notices under this Agreement will be in writing and will be deemed to have been duly given when received, if personally delivered; when receipt is electronically confirmed, if transmitted by e-mail; the day after it is sent, if sent for next day delivery by recognized overnight delivery service; and upon receipt, if sent by certified or registered mail, return receipt requested. This Agreement shall be governed by the laws of the State of Minnesota, Olmsted County,

Rochester, MN, without regard to its conflict of laws provisions. The parties shall work together in good faith to issue at least one mutually agreed upon press release within 90 days of the Effective Date, and Customer otherwise agrees to reasonably cooperate with Company to serve as a reference account upon request.

Appendix 1

Virtual Peaker Client Use Policy

CONFIDENTIAL

Version – September 2022

Purpose and Scope

The purpose of this policy is to lay out acceptable use of the Virtual Peaker platform and user entity responsibilities (UER).

This policy affects all clients of Virtual Peaker and any users that interact with the Utility Application on behalf of the client.

Policy

Usage of the Virtual Peaker platform by the client is subject to the following:

- The client is prohibited from using the platform to increase the temperature of the water in a water heater above the user selected setpoint without the water heater installation including a thermostatic mixing valve. This condition could result in abnormally high water temperatures and a scalding risk.
- Every person using the platform should have their own account. Therefore, the client is prohibited from utilizing a single account login to provide multiple people with access to the platform.

User Entity Responsibilities (UER)

In addition to Virtual Peaker's controls, each user entity's internal control relative to security should be evaluated to receive the full benefits of the services provided by Virtual Peaker.

For user entities to maximize their security posture while using Virtual Peaker's services, each user entity must evaluate its own internal control to determine whether the identified user entity responsibilities have been implemented and are operating effectively.

- User entities should ensure that only authorized users are granted access to content data through the application and should periodically review access granted to ensure that it remains appropriate to users' respective job functions. (CC6.1)
- User entities should ensure sound password security practices are implemented to ensure that access to content data is restricted to authorized users. (CC6.1)

- User entities should review and respond, as appropriate, to any notices provided by Virtual Peaker, particularly any system changes impacting the security or confidentiality of content data. (CC2.3)
- User entities should notify their account representative if they become aware of a possible security breach. (CC7.2)
- User entities should consider the potential for fraud when utilizing the Virtual Peaker platform with their customers (CC3.3)

EXHIBIT A

Virtual Peaker

Scope of Work for Rochester Public Utilities

20 Sep 2022

Introduction

Rochester Public Utilities (RPU) accepted Virtual Peaker's proposal as a distributed energy resource management (DERM) provider beginning with RPU's Smart Thermostat Program. The SOW details the services Virtual Peaker will provide to RPU. Terms and conditions of this engagement are subject to the Master Service Agreement, as well as, terms laid out in Virtual Peaker's Software as a Service Agreement.

Services

Virtual Peaker will provide RPU a subscription to its Software as a Service (SaaS) distributed energy platform. This platform is designed to help RPU connect directly with distributed energy resources, specifically behind the meter assets such as electric vehicles and thermostats, etc., to encourage customer participation in peak load management programs. The platform is specifically designed to work with smaller utilities and teams that need to launch with limited resources.

The software platform is divided into modules that are designed to meet RPU's specific program needs. Our tiered pricing model allows RPU to move up tiers of service as the program becomes more complex. As part of its initial engagement with RPU, Virtual Peaker will provide its *Shift* DERMS Tier 2 suite and *Relay* Customer Engagement Tier 2 suite to RPU. This will include:

- **Enrollment Management**
  - Ability to review and approve customer applications for the program with associated customer communications templates
  - Auto-approval module
  - Enrollment messaging including approval and denial messaging
- **Device Control**
  - Ability to dispatch thermostats for load management events including setpoint adjustments
  - Schedule events in the future
  - Cloud based real time control
  - Trigger emergency events
  - Customized groupings using Platoons
- **Behavioral Demand Response**

    - Ability to send email customized behavioral messages to customers to take action to reduce their energy consumption
    - Schedule events in the future
- **Analytics and Reporting**
    - Ability to access customer/enrollment, device and event reporting in the platform, as well as, have analytics on the microsite and enrollment web pages
    - Realtime and historical reporting of device telemetry data
    - Event efficacy reporting
    - Customized baselines
- **Microsite/Program Landing Page**
    - Configurable web page that provides program information, program requirements and call to action for enrollment
    - Links to the enrollment form
    - White labeled and branded to RPU's preferred branding
- **BYOD Enrollment Form**
    - Web form for enrolling into the program with qualifying information, including the ability to add custom questions to the form
    - White labeled and branded to RPU's preferred branding
    - Terms and conditions acceptance built into the enrollment form
- **Message Center**
    - Ability to send customers campaigns about program milestones as well as individual messages for conveying program information on incentives, event participation, etc.
    - Messages white labeled and branded to RPU's preferred branding
    - Ability to send messages via email, SMS, and/or the homeowner app
    - Automatic offline device messaging
    - Message reporting
- **Homeowner App**
    - Web app that allows RPU customers to see their device and event information
    - White labeled and branded to RPU's preferred branding
    - Local weather data
    - Configurable in-app utility driven marketing widgets
- **Incentive Management**
    - Ability to manage enrollment and participation incentives with incentive eligibility, cadence and issuing in the form of digital incentives or checks to participating customers

Integrations

As part of our proposal, Virtual Peaker will grant RPU access device integrations for two different device types and unlimited original equipment manufacturers (OEMs). These integrations will allow RPU to stream data and send dispatch signals to these devices. Based on our understanding of RPU's requirements, Virtual Peaker will grant RPU access to device

integrations for Google Nest, Honeywell, and ecobee. Our proposal does not include any devices that are not already integrated into Virtual Peaker's platform.

Virtual Peaker will also support a basic integration with RPU's CIS/billing system to streamline customer enrollment. This integration will function as a flat file exchange of anonymized billing information, supporting Virtual Peaker's "auto-approval modal" for enrollment management. This will allow for RPU to easily identify which enrollees are actual RPU customers.

As a software as a service (SaaS) product, any updates or upgrades to the existing services that RPU uses (services included, as part of this SOW) will not be charged. However, if Virtual Peaker adds new products and/or features outside of this SOW, additional fees will apply to enable those products and/or features.

Client Success & Training

Virtual Peaker will provide an account manager and fully staffed Client Success team that will support RPU through the setup and deployment of the software. Once launched, Virtual Peaker will provide ongoing support and maintenance to the RPU team. The Virtual Peaker team will work with RPU staff to set up an ongoing cadence for check-ins that is convenient for both teams. Virtual Peaker will NOT provide direct, "frontline" support for RPU customers.

Virtual Peaker will also provide training sessions on the platform functionality for key RPU personnel, including technical stakeholders and those that will interact directly with RPU customers.

This "launch" phase will include a weekly virtual check-in meeting. The Client Success Manager will also setup training sessions with all RPU users throughout the implementation process. Other elements shepherded by the Client Success Manager include the sharing of internal Virtual Peaker documentation, process guidance, managing the project scope, marketing assistance, feature development, and integration documentation and implementation.

Ongoing Support includes:

- Client Success Manager continues in a biweekly, monthly, or quarterly virtual meeting (frequency determined by RPU).
- Any member of RPU may also access support by emailing support@virtualpeaker.io, using our in-app support widget, or submitting a ticket directly from our Help Portal. All submitted issues are tracked and accessible across the organization.
- RPU can contact their Client Success Manager directly by email or telephone.
- Online technical support available between the hours of 8am-9pm central time, Monday through Friday.

Virtual Peaker releases updates to our platform continuously, and generally these updates are incremental improvements. When there are more substantial user experience changes, we

provide notification and training along with the release. As part of our collaboration, RPU will have the opportunity to provide feedback on the platform and desired improvements. This feedback is reviewed in conjunction with other client feedback and incorporated into our product roadmap.

Invoicing Schedule

Virtual Peaker will invoice RPU platform fees and 50% of implementation fees upon contract execution. The balance of implementation fees will be invoiced following program launch.

Virtual Peaker will invoice by email to invoices@rpu.org monthly for device fees and OEM fees. Please see “Pricing Structure” for a breakdown of each fee type.

Proposed Timeline

Virtual Peaker will coordinate a project timeline with RPU’s Project Manager within 30 days of execution of this agreement. Virtual Peaker expects the implementation phase to take approximately 12 weeks. Key considerations for executing on the 12 week timeline include customer marketing, branding, and communications approval.

Pricing Schedule

Per the submitted pricing structure proposal (**Table 1**), Virtual Peaker will invoice an annual subscription fee, a one-time setup fee, a Virtual Peaker device fee, and pass through OEM device fees. OEM device fees will be passed through to RPU and invoiced monthly. OEM device fees are detailed in **Table 1**. The Virtual Peaker device fees will be invoiced monthly based on the number of devices existing in the program. Though not detailed in **Table 1**, the per unit Virtual Peaker device fee decreases as the number of devices increases, see **Table 2**.

Table 1: Pricing Structure

Item No.	Description	Bid Amount
1	Program implementation fees (e.g., set up, integration).	$ 15,500 (one-time fee) 50% paid upon contract execution 50% paid upon program launch
2	Pricing for all annual platform fees.	$ 82,000 / year (up to 2 device types and unlimited device OEMs)
3	Provide pricing for annual and/or volumetric vendor set up fee per manufacturer.	Ecobee: $15/device/year + $10k annual platform fee Google Nest: $15/device/year + $10k setup fee Honeywell: $15/device/year + $7500 setup fee Virtual Peaker Device Fee: $12/year/device (for all device types)

Table 2: Virtual Peaker Device Fees

From	To	Annual Unit Price
0 devices	5,000	$12.00
5,001	10,000	$10.80
10,001	25,000	$9.60
25,001	100,000	$9.00

SIGNATURES

Each of the parties below represents and warrants that the signatory is duly authorized to execute and deliver this agreement and each party agrees to be bound hereby.

VIRTUAL PEAKER, INC.

By:

Name:

Title:

Date:

ROCHESTER PUBLIC UTILITIES

By:

Name:

Title:

Date:

EXHIBIT B

Service Level Terms (SLA)

Company shall make the Services available 99.9%, measured monthly (Uptime Service Level). The calculation of Uptime Service Level availability shall not include US Federal holidays, weekends, force majeure events, pre-scheduled maintenance, emergency maintenance, or maintenance otherwise requested by Customer. Further, any downtime resulting from outages of third-party connections or utilities or other reasons beyond Company's control will also be excluded from any such calculation.

If the Services do not meet the Uptime Service Level, upon Customer's request and Company's reasonable investigation, Company will credit to Customer a percentage of the monthly fees charged for the affected month ("**Service Level Credit**"), calculated as follows:

*(([hours in the month] – [hours of Outage rounded up to the nearest 10 minutes]) / [hours in the month]) * 100*.

Uptime Percentage	**Credit Percentage**
99.97%-99.98%	1%
99.5%-99.96%	3%
<99.5%	5%

As a condition of Company's obligation to provide the Service Level Credit, Customer must request such Service Level Credit within thirty (30) days following any disruption of the Services ("**Credit Request**"). Such Credit Request must be emailed to support@virtual-peaker.com and contain a sufficient description of the disruption including the date, time, and duration of the disruption. Company shall have (30) days to review and investigate the Credit Request. If it is determined that a Service Level Credit is owed, the Service Level Credit will appear as a credit on the next Customer invoice (or, if such Service Level Credit accrues in the final billing period of the term hereof, Company shall promptly refund such amount to the Customer).

Failure of Customer to submit a Credit Request to Company within thirty (30) days following any disruption of the Services shall result in Customer's forfeiture of its right to receive a Service Level Credit for the period in which the disruption occurred. Except as otherwise provided in this SLA, Service Level Credits may not be redeemed for cash. Customer's sole and exclusive remedy, and Company's entire liability, in connection with this SLA shall be the Service Level Credits. Service Level Credits are not a form of liquidated damages and is simply a mechanism that specifies that the Customer will pay a different service charge for a different level of performance.

EXHIBIT C

Support Terms

Company will provide Technical Support to Customer on weekdays during the hours of 8:00 am through 10:59 pm Central time, with the exclusion of Federal Holidays ("**Support Hours**"). Company will use commercially reasonable efforts to respond to all Helpdesk tickets within one (1) business day.

Premium Support

- Company will provide support via phone, email, and through the web-based support portal.
- Customer may initiate a help desk ticket at any time by calling (715)-505-4425, emailing support@virtual-peaker.com, or filing a ticket through the support link inside the application.
- Company will provide Customer access to support articles through the web-based support portal.
- Company will provide initial training at the time of project kickoff through an in-person meeting or video conference.
- Company will schedule regular phone-based meetings with Customer to review program progress and address any questions or issues. The pace and frequency of support meetings will be set by the Customer.

ROCHESTER PUBLIC UTILITIES
WE PLEDGE, WE DELIVER

RESOLUTION

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve an agreement with Virtual Peaker, Inc. as RPU's distributed energy resources provider and authorize the Mayor and City Clerk to execute the agreement, subject to the General Manager and City Attorney's review of the final agreement, with future funding contingent on Board and Common Council approval of the annual budget.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 25th day of October, 2022.

_____

President

_____

Secretary

FOR BOARD ACTION

Agenda Item # **(ID # 14989)** **Meeting Date: 10/25/2022**

SUBJECT: Distributed Energy Resources Rules

PREPARED BY: Steve Cook

ITEM DESCRIPTION:

Rochester Public Utilities is required to allow Distributed Energy Resources to interconnect to our electric system. The Minnesota Municipal Utility Association (MMUA) has assisted the municipal utilities in the State with meeting our requirements by providing documents related to the processes, agreement requirements, contracts, and technical specifications that individual utilities can personalize and adopt in order to meet State requirements. The Board originally adopted this standard set of documents in 2018 and the first update in 2019. MMUA has recently provided members with a second updated version of process and rules documents.

The documents have several administrative changes from those that the Board has previously adopted. One of the important changes is to clarify that RPU reserves our right to be the exclusive provider of electric service to all present and future customers in our service territory and not allow third party sale agreements. There were also lots of small changes that were implemented to make the documents easier to read and follow for the average customer.

RPU staff is requesting that the RPU Board adopt several new and updated documents, which for the most part will replace documents with similar titled documents previously adopted by the Board. This will ensure we are using a consistent set of compliant documents for all municipals in the State.

Adopt:

1) Minnesota Municipal Interconnection Process (M-MIP) Booklet #1 - Process Overview
2) Minnesota Municipal Interconnection Process (M-MIP) Booklet #2 - Simplified Process
3) Minnesota Municipal Interconnection Process (M-MIP) Booklet #3 - Fast Track Process
4) Minnesota Municipal Interconnection Process (M-MIP) Booklet #4 - Study Process
5) Pre-Application Report
6) Interconnection Application

FOR BOARD ACTION

Agenda Item # **(ID # 14989)** **Meeting Date: 10/25/2022**

7) Minnesota Municipal Interconnection Process (M-MIP) - System Impact Study Agreement

8) Minnesota Municipal Interconnection Process (M-MIP) - Facilities Study Agreement

9) Minnesota Municipal Interconnection Process (M-MIP) - Transmission System Impact Study Agreement

10) Minnesota Municipal Interconnection Process - Minnesota Municipal Interconnection Agreement

11) Rochester Public Utilities - Rules Governing the Interconnection of Cogeneration and Small Power Production Facilities with Rochester Public Utilities

11) Schedule 1, Schedule 2, and Schedule 3

Note: Schedule 1 was approved by the Board on March 22, 2022 and Schedule 2 was previously titled schedule 4 and approved by the Board on March 22, 2022.

UTILITY BOARD ACTION REQUESTED:

Adopt the documents listed above with an effective date of November 11, 2022 and authorize staff to make minor changes and corrections to these documents as needed with approval of the General Manager.

Minnesota Municipal Interconnection Process (M-MIP)

Booklet #1

Process Overview

Provided to all interconnection inquirers

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Foreword

The State of Minnesota currently has interconnection process standards in effect to address the interconnection of distributed energy resources (DER) to the distribution grid. Under Minnesota Statute §216B.1611, cooperatives and municipals shall adopt an interconnection process that addresses the same issues as the interconnection process approved by the Minnesota Public Utilities Commission. The Minnesota Municipal Interconnection Process (Interconnection Process) applies to any DER no larger than 10-megawatts (MW) AC interconnecting to and operating in parallel with the electric distribution system of a municipal utility that has adopted it for use. This interconnection process document is designed to be customer-centric when explaining the steps and details to interconnect DER systems to the distribution grid.

The Interconnection Process is comprised of four booklets: 1) Process Overview, 2) Simplified Process, 3) Fast Track Process, and 4) Study Process and also contains several forms, including a final Interconnection Agreement. For the majority of DER interconnections, only the Process Overview and the Simplified Process booklet will apply. For larger and more complex DER interconnections, the Fast Track Process or the Study Process may apply.

As part of the Interconnection Process, an Interconnection Agreement is to be executed prior to interconnecting a DER system to the utility distribution grid. For most DER interconnections, the utility's Contract for Cogeneration and Small Power Production Facilities (Uniform Contract) will be used. For DER systems that do not fall under the terms of the Uniform Contract, the Minnesota Municipal Interconnection Agreement (MMIA) will apply.

The process to interconnect a DER system to the distribution grid starts with the submission of an Interconnection Application. Each track has different information that is requested in the application and the non-refundable interconnection application fees will vary. Both the electric utility and the interconnecting customer have timelines that are enforced to ensure a timely application review, contract execution and interconnection commissioning.

The key to a successful interconnection of a DER system is communication between all parties. Timely submission of the Interconnection Application prior to the purchase and installation of a DER system is strongly recommended. The utility encourages customers to ask questions throughout the interconnection process. Interconnecting DER system to the distribution grid is not an effortless process, but it does not need to be a problematic process either.

Key Terminology

1.1. Distributed Energy Resource

Distributed Energy Resources, DER, were often referred to in past interconnection processes as Distributed Generation, DG, and on occasion also interchanged with the term Qualifying Facility, QF. This Interconnection Process uses the term DER to address all types of generation and energy resources that can be interconnected to the electric Distribution System. DER technologies can include photovoltaic solar systems, wind turbines, storage batteries or diesel generators and are not limited to renewable types of technologies.

1.2. Point of Common Coupling (PCC) / Point of DER Connection (POC)

DER systems often reside behind the utility's revenue meter of a residence or business. The meter is normally the point of demarcation between the utility-owned equipment and the customer-owned equipment. The term Point of Common Coupling, PCC, is the demarcation location between the utility and the customer.

The Point of DER Connection, PoC, can be different from the PCC. The PoC is the location where a DER system would interconnect to the electrical system normally owned by the customer. For example, the PoC for a rooftop photovoltaic solar system may be the main electrical panel in a customer's home.

1.3. Capacity

Throughout the Interconnection Process will be references to the capacity of the DER system. In most cases, the capacity listed is referring to the Nameplate Capacity of the DER system. All capacity references will be in alternating current, AC.

There can be multiple DER systems with different PoCs that all have the same PCC submitted on a single interconnection application. The capacity for this type of interconnection would be the aggregate Nameplate Capacity of all DER systems at the individual PoCs. Additional examples of DER system arrangements can be seen in Section 13 under the definition of Point of Common Coupling.

2 Roles

2.1. Overview

During the interconnection process for a proposed DER system, there may be multiple entities involved in the application, approval and commissioning processes. The main entities that are involved during the Interconnection Process for a proposed DER system are the Interconnection Customer, the Application Agent and the DER

Interconnection Coordinator. Official definitions of each entity are defined in the Glossary (Section 13). Additional details are explained in the subsections below.

2.2. DER Interconnection Coordinator

The utility is referred to as the Area Electric Power Supply Operator in this Interconnection Process. The Area EPS Operator shall designate a DER Interconnection Coordinator to serve as a single point of contact from which general information on the application process may be obtained. The DER Interconnection Coordinator shall be available to provide coordination assistance with the Interconnection Customer but is not responsible for directly answering or resolving all of the issues involved in review and implementation of the interconnection process and standards.

The contact information of the DER Interconnection Coordinator will be posted on the Area EPS Operator's website if feasible, or available from the utility.

2.3. Interconnection Customer

The owner of the proposed DER system and the entity requesting interconnection to the distribution system.

2.4. Application Agent

The Interconnection Customer may designate, on the Interconnection Application or in writing after the application has been submitted, an Application Agent to serve as a single point of contact to coordinate with the DER Interconnection Coordinator on their behalf. Designation of an Application Agent does not absolve the Interconnection Customer from signing application documents and the responsibilities outlined in the Interconnection Process or in interconnection agreements. DER vendors, project managers or electricians are common entities that the Interconnection Customer may designate to perform this role.

2.5. Engineering Roles

Either party may designate a specific person to be a single point of contact to provide technical expertise during the Interconnection Process for themselves or their organization. The person to supply engineering expertise may be a third party such as an engineering consultant or manufacturer's engineer.

3 Processes

3.1. Overview

The Interconnection Process applies to any DER no larger than 10 MW AC interconnecting to and operating in parallel with an Area EPS distribution system in

Minnesota. Interested parties with plans to interconnect DER systems larger than 10 MW AC to the distribution system should contact the Area EPS Operator for a case-specific interconnection process. Federal Energy Regulatory Commission's (FERC) interconnection process will supersede any interconnection process the Area EPS Operator has for DER system interconnections that fall under the jurisdiction of FERC.

The Interconnection Process for DER is broken into three different tracks; the Simplified Process, the Fast Track Process, and the Study Process. The general classification of each track is summarized in Table 3.1 below.

Table 3.1. Interconnection Process Tracks

Track	DER Technology	Size Limitations
Simplified Process	Certified Inverter only	20 kW AC
Fast Track Process	All types	5 MW AC
Study Process	All types	10 MW AC

If engineering screens are failed during the application process, a proposed DER interconnection may be moved into a different track. When a proposed DER interconnection is moved into a different track, additional information may be requested, and additional fees may apply.

3.2. Importance of Process Timelines

It is very important to pay attention to timelines listed for each process track. The timelines exist for an orderly and efficient process to interconnect DER systems to the Distribution System. If a timeline is missed by an Interconnection Customer, without the Interconnection Customer requesting a Timeline Extension explained in Section 10, the Interconnection Application will be deemed withdrawn by the Area EPS Operator.

The Area EPS Operator also needs to abide by the timelines listed for each process track. The process for an Area EPS Operator to request Timeline Extensions is also addressed in Section 10.

Unless otherwise stated, all time frames are measured in Business Days. For purpose of measuring these time intervals, the time shall be computed so as to exclude the first and include the last day of the prescribed duration of time. Any communication sent or received after 4:30 p.m. Central Prevailing Time or on a Saturday, Sunday or Holiday shall be considered to be sent on the next Business Day.

3.3. Simplified Process

An application to interconnect a certified[1], inverter-based DER system no larger than 20 kilowatts (kW) shall be evaluated under the Simplified Process. A common form of DER inverter certification is UL 1741. Proposed DER systems that require Area EPS system modifications to accommodate the interconnection do not qualify for the Simplified Process. A transformer change, fusing upgrades or line extensions are common examples of Area EPS system modification. Simplified Process eligibility does not imply or indicate the Interconnection Application will pass the initial review screens. Failure to pass the screens will route the Interconnection Application to the Fast Track Process.

3.4. Fast Track Process

An application to interconnect a DER shall be evaluated under the Fast Track Process if the eligibility requirements are not exceeded in Table 3.2 and the application does not qualify for the Simplified Process. Fast Track eligibility for DERs is determined based upon the generator type, the size of the generator, voltage of the line, and the location and type of line at the Point of Common Coupling, (PCC). All synchronous and induction machines must be no larger than 2 MW to be eligible for Fast Track Process consideration.

Table 3.2. Fast Track Eligibility for DER

Line Voltage	Fast Track Eligibility[2] Regardless of Location	Fast Track Eligibility for certified, inverter-based DER on a Mainline[3] and ≤ 2.5 Electrical Circuit Miles from Substation[4]
< 5 kV	≤ 500 kW	≤ 500 kW
≥ 5 kV and < 15 kV	≤ 1 MW	≤ 2 MW
≥ 15 kV and < 30 kV	≤ 2 MW	≤ 4 MW
≥ 30 kV and ≤ 69 kV	≤ 4 MW	≤ 5 MW

In addition to the size threshold, the Interconnection Customer's proposed DER must meet the codes, standards and certification requirements found in Section 15 and Section 14.

[1] Additional information regarding certified equipment is found in Sections 14 and 15.
[2] Synchronous and induction machine eligibility is limited to no more than 2 MW even when line voltage is greater than 15 kV.
[3] For purposes of this table, a Mainline is the three-phase backbone of a circuit. It will typically constitute lines with wire sizes of 4/0 American wire gauge, 266 kcmil, 336.4 kcmil, 397.5 kcmil, 477 kcmil and 795 kcmil.
[4] An Interconnection Customer can determine this information about its proposed interconnection location in advance by requesting a pre-application report described in Section 5.

3.5. Study Process

An application to interconnect a DER that does not meet the Simplified Process or Fast Track Process eligibility requirements or does not pass the review as described in either process, shall be evaluated under the Study Process.

3.6. Process Assistance

Prior to submitting an Interconnection Application, the Interconnection Customer may ask the Area EPS Operator's DER Interconnection Coordinator which process track a proposed interconnection is subject to and about additional details regarding each process track.

An Interconnection Customer can obtain, through an informal request, general information about the Interconnection Process and about potentially Affected System(s) for a proposed interconnection at a specific location. The existing electric system information provided to the Interconnection Customer should include relevant system study results, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the Area EPS Operator's System. Information will be provided to the extent such provision does not violate the privacy policies of the Area EPS Operator, confidentiality provisions of prior agreements or critical infrastructure requirements. The Area EPS Operator shall comply with reasonable requests for such information.

4 Interconnection Application

4.1. Overview

Each process track has different information that needs to be provided to the Area EPS Operator. Table 4.1 indicates which application is to be completed in its entirety and submitted to the Area EPS Operator to start the interconnection process for the proposed DER system.

Table 4.1. Interconnection Application

Process Track	Application
Simplified	Simplified Interconnection Application
Fast Track	Standard Interconnection Application
Study	Standard Interconnection Application

The Area EPS Operator will provide all necessary Interconnection Applications, Interconnection Process documents and sample interconnection agreements on its

website if possible. The Area EPS Operator will also accept Interconnection Applications submitted electronically either through a web portal or to an email address specified by the Area EPS Operator. The Area EPS Operator may allow the Interconnection Application to be submitted with an electronic signature.

4.2. Availability of Information

The Area EPS Operator will provide all necessary Interconnection Applications, Interconnection Process documents and sample interconnection agreements on its website if possible. If a website is not available, the applicable documents will be readily available at the Area EPS Operator's main office.

The Area EPS Operator will establish a public queue of active interconnection applications on its website once the Area EPS Operator has received at least 40 completed Interconnection Applications in a year. The public queue will be updated, at minimum, on a monthly basis.

4.3. Interconnection Application Process Fees

Each Interconnection Application submitted to the Area EPS Operator must include the appropriate interconnection application process fee prior to the Area EPS Operator reviewing the Interconnection Application. The required process fee for each process track is listed in Table 4.2.

Table 4.2. Interconnection Application Process Fee

Process Track		Process Fee
Simplified		$100
Fast Track	Certified[5] System	$100 + $1/kW
	Non-Certified System	$100 + $2/kW
Study		$1,000 + $2/kW down payment. Additional study fees may apply.

4.4. Application Review Timelines

The Interconnection Application shall be date- and time-stamped upon initial, and if necessary, resubmission receipt. The Area EPS Operator shall notify the Interconnection Customer if the Interconnection Application is deemed incomplete within ten (10) Business Days. This notification shall include a written list detailing all information that must be provided to complete the Interconnection Application. Depending on the process track the Interconnection Customer has between five (5) and

[5] Additional information regarding certified equipment is found in Sections 14 and 15.

ten (10) Business Days to provide the missing information unless additional time is requested with valid reasons. Failure to submit the requested information within the stated timeline will result in the Interconnection Application being withdrawn.

An Interconnection Application will be deemed complete upon submission to the Area EPS Operator when all documents, fees and information required with the Interconnection Application adhering to Minnesota Technical Requirements are included. The time- and date- stamp of the completed Interconnection Application shall be accepted as the qualifying date for purposes of establishing a queue position as described in Section 4.7.

Depending on the process track the Area EPS Operator has either a total of twenty (20) Business Days or twenty-five (25) Business Days to complete the Interconnection Application review and submit notice back to the Interconnection Customer stating the proposed DER system may proceed with the interconnection process or the proposed DER system requires additional engineering studies. The period of time when waiting for the Interconnection Customer to provide missing information is not included in the Area EPS Operator's twenty (20) Business Days or twenty-five (25) Business Days review timeline.

4.5. Comparability

The Area EPS Operator shall receive, process and analyze all Interconnection Applications in a timely manner. The Area EPS Operator shall use the same Reasonable Efforts in processing and analyzing Interconnection Applications from all Interconnection Customers.

4.6. Changing Process Queues

During the review of the initially submitted Interconnection Application for the proposed DER system, the Area EPS Operator may determine the proposed DER system should be in a different process track. For proposed DER systems that are moved into a different process track after submittal of the initial application, the difference between the originally submitted processing fee and the current process track's processing fee will be assessed. In addition, the Area EPS Operator may request the Interconnection Customer to provide additional information regarding the proposed DER system.

4.7. Queue Position

The Area EPS Operator shall maintain a single, administrative queue and may manage the queue by geographical region. The queue position of each completed Interconnection Application is used to determine the engineering review. The queue

position is also used to determine the cost responsibility for system upgrades necessary to accommodate the interconnection.

An Interconnection Application will retain its queue number even when it is moved into a different process track. An Interconnection Application can lose its queue position if the Interconnection Customer misses timelines in the applicable process track. The Interconnection Customer and Area EPS Operator have the opportunity to request timeline extensions which are explained in detail in Section 10.

4.8. Site Control

Documentation of site control must be submitted with the Interconnection Application. Site control may be demonstrated by any of the following:

- Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the DER system.
- An option to purchase or acquire a leasehold site for constructing the DER system.
- An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant to the Interconnection Customer the right to possess or occupy a site for constructing the DER system.

For DER in the Simplified Process, proof of site control may be demonstrated by the site owner's signature on the Simplified Interconnection Application.

5 Pre-Application Report

5.1. Pre-Application Report Requests

The Interconnection Customer may submit a Pre-Application Report Request, including a non-refundable fee of $300, for a Pre-Application Report on a proposed project at a specific site. The Interconnection Customer must fill out the Pre-Application Request form as completely as possible. The Area EPS Operator shall provide the readily available data listed in Section 5.3 within fifteen (15) Business Days of receipt of a completed request form and payment. The Pre-Application Report produced by the Area EPS Operator is non-binding, does not confer any rights, and does not preclude the Interconnection Customer from any interconnection process steps including submission of the Interconnection Application.

5.2. Information Provided

Using the information provided in the Pre-Application Report Request form, the Area EPS Operator will identify the substation/area bus, bank or circuit likely to serve the

proposed PCC. This selection by the Area EPS Operator does not necessarily indicate, after application of the screens and/or study, that this would be the circuit the project ultimately connects to. The Interconnection Customer must request additional Pre-Application Reports if information about multiple PCCs is requested.

The Pre-Application Report will only include existing data. A request for a Pre-Application Report does not obligate the Area EPS Operator to conduct a study or other analysis of the proposed DER in the event that data is not readily available. The Area EPS Operator will provide the Interconnection Customer with the data that is available. The confidentiality provisions in Section 12.1 apply to Pre-Application Reports.

5.3. Pre-Application Report Components

The Pre-Application Report shall include the following pieces of information provided the data currently exists and is readily available.

- Total capacity (in megawatts (MW)) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed Point of Common Coupling.
- Existing aggregate generation capacity (in MW) interconnected to a substation/area bus, bank or circuit (i.e., amount of generation online) likely to serve the proposed Point of Common Coupling.
- Aggregate queued generation capacity (in MW) for a substation/area bus, bank or circuit (i.e., amount of generation in the queue) likely to serve the proposed Point of Common Coupling.
- Available capacity (in MW) of substation/area bus or bank and circuit likely to serve the proposed Point of Common Coupling (i.e., total capacity less the sum of existing aggregate generation capacity and aggregate queued generation capacity).
- Substation nominal distribution voltage and/or transmission nominal voltage if applicable.
- Nominal distribution circuit voltage at the proposed Point of Common Coupling.
- Approximate circuit distance between the proposed Point of Common Coupling and the substation.
- Relevant line section(s) actual or estimated peak load and minimum load data, including daytime minimum load and absolute minimum load, when available.

- Whether the Point of Common Coupling is located behind a line voltage regulator.
- Number and rating of protective devices and number and type (standard, bi-directional) of voltage regulating devices between the proposed Point of Common Coupling and the substation/area. Identify whether the substation has a load tap changer.

- Number of phases available on the Area EPS medium voltage system at the proposed Point of Common Coupling. If a single phase, distance from the three-phase circuit.

- Limiting conductor ratings from the proposed Point of Common Coupling to the distribution substation.

- Whether the Point of Common Coupling is located on a spot network, grid network, or radial supply.

- Based on the proposed Point of Common Coupling, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.

6 Capacity of the Distributed Energy Resources

6.1. Existing DER System Expansion

If the Interconnection Application is for an increase in capacity to an existing DER system, the Interconnection Application shall be evaluated on the basis of the total new alternating current (AC) capacity of the DER. The maximum capacity for the DER shall be the aggregate maximum Nameplate Rating unless the conditions in Section 6.3 are met.

6.2. New DER Systems

An Interconnection Application for a DER that includes multiple energy production devices, (i.e. solar and storage), at a site for which the Interconnection Customer seeks a simple Point of Common Coupling, shall be evaluated on the basis of the aggregated maximum Nameplate Rating unless the conditions in Section 6.3 are met.

6.3. Limited Capacity

A DER system may include devices, (i.e. control systems, power relays or other similar device settings), that can limit the maximum capacity at which the DER system can generate into the Area EPS Operator's distribution system. For DER system that include

capacity limited devices, the Interconnection Customer must obtain the Area EPS Operator's agreement to consider the DER system with the Nameplate Rating as the limited capacity. The Area EPS Operator's agreement shall not be unreasonably withheld provided proper documentation is provided showing the effective limit active power output will not adversely affect the safety and reliability of the Area EPS Operator's distribution system. If the Area EPS Operator does not agree, the Interconnection Application must be withdrawn or revised to specify the maximum capacity that the DER system is capable of injecting into the Area EPS Operator's distribution system without such limitations. Nothing in this section shall prevent the Area EPS Operator from considering a higher output, (i.e. aggregate Nameplate Rating), if the limitations do not provide adequate assurance, when evaluating the system impacts.

7 Modification to Interconnection Applications

7.1. Procedures

At any time after the Interconnection Application is deemed complete, the Interconnection Customer or the Area EPS Operator may identify modifications to the proposed DER system that may improve costs and benefits (including reliability) of the proposed DER system and the ability for the Area EPS Operator to accommodate the proposed DER system. The Interconnection Customer shall submit to the Area EPS Operator in writing all proposed modifications to any information provided in the Interconnection Application. The Area EPS Operator cannot unilaterally modify the Interconnection Application.

Additional information regarding modifications to interconnection applications is found in each process track document.

8 Interconnection Agreements

8.1. Timelines

After the Interconnection Application has been approved by the Area EPS Operator, the Area EPS Operator shall provide the Interconnection Customer with an executable Interconnection Agreement within five (5) Business Days. The Interconnection Customer shall have thirty (30) Business Days to sign and return the Interconnection Agreement to the Area EPS Operator. The Area EPS Operator shall sign the Interconnection Agreement within five (5) business days after receiving the signed Interconnection Agreement from the Interconnection Customer.

If the Interconnection Customer fails to return a signed Interconnection Agreement to the Area EPS Operator within thirty (30) Business Days and fails to request an extension as explained in Section 10, the Interconnection Application will be deemed withdrawn.

8.2. Types of Agreements

There are two main types of Interconnection Agreements that may be executed with an approved Interconnection Application. In general, Interconnection Customers with a proposed DER system that qualifies for the Simplified Process track will sign the Area EPS Operator's Uniform Contract for Cogeneration and Small Power Production Facilities (Uniform Contract). Proposed DER systems less than 100 kW that are under the Fast Track process may also sign the Uniform Contract. All other sized DER system will sign the Minnesota Municipal Interconnection Agreement (MMIA). Area EPS Operators who do not purchase the excess generation of the proposed DER system will also require the MMIA to be executed for any size of DER system.

Table 8.1. Interconnection Agreements

Process Track		Interconnection Agreement
Simplified		Uniform Contract
Fast Track	Qualifies for Net Energy Billing	Uniform Contract
	Less than 100 kW & Area EPS Agrees to Purchase Excess Generation	Uniform Contract
	All Other DER systems	MMIA
Study		MMIA

Interconnection Customers may choose to sign the MMIA in lieu of the Uniform Contact. A separate power purchase agreement will also need to be executed if the Uniform Contract is not utilized. Interconnection of the proposed DER system will not occur until a signed Uniform Contract or the MMIA is returned to the Area EPS Operator no later than five (5) days prior to scheduled testing and inspection.

9 Interconnection

9.1. Metering

Any metering requirements necessitated by the use of the DER system shall be installed at the Interconnection Customer's expense. The metering requirement costs will be included in the final invoice of interconnection costs to the Interconnection Customer. The Interconnection Customer is also responsible for metering replacement costs not covered in the Interconnection Customer's general customer charge. The Area EPS Operator may charge Interconnection Customers an ongoing metering-related charge for an estimate of ongoing metering-related costs specifically demonstrated.

9.2. Inspection, Testing and Commissioning

The Interconnection Customer shall arrange for the inspection and testing of the DER system and the Customer's Interconnection Facilities prior to interconnection pursuant to Minnesota Technical Requirements. Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards of Minnesota's Technical Requirements and Section 15.

The Interconnection Customer shall notify the Area EPS Operator of testing and inspection no fewer than five (5) Business Days in advance, or as may be agreed to by the Parties. Depending on the process track, either a Certificate of Completion or a testing procedure shall be submitted to the Area EPS Operator prior to the testing and inspection date. The Area EPS Operator shall send qualified personnel to the DER site to inspect the interconnection and witness the testing. Testing and inspection shall occur on a Business Day at a mutually agreed upon time and date. The Area EPS Operator may waive the right to witness the testing.

9.3. Interconnection Costs

The Interconnection Customer shall pay for the actual cost of the Interconnection Facilities and Distribution Upgrades along with the Area EPS Operator's cost to commission the proposed DER system. An estimate of the interconnection costs shall be stated in the Uniform Contract or MMIA.

9.4. Technical Requirements

The Area EPS Operator shall use Reasonable Efforts to provide the Interconnection Customer the Minnesota Technical Requirements by providing the document with the notice of approval of the interconnection application or by providing a website link to the document. Additionally, the Area EPS Operator shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. Unless notified by the Area EPS Operator, the Interconnection Customer only needs to be in compliance with the current version of the Minnesota Technical Requirements at the time of interconnection.

9.5. Authorization for Parallel Operations

The Interconnection Customer shall not operate its DER system in parallel with the Area EPS Operator's distribution system without prior written authorization from the Area EPS Operator. The Area EPS Operator shall provide such authorization within three (3) Business Days from when the Area EPS Operator receives notification that the Interconnection Customer has complied with all applicable parallel operations requirements; the completion of a successful testing and inspection of the DER system and all payments for issued bills related to the interconnection process that are past

due have been paid in full. Such authorization shall not be unreasonably withheld, conditioned or delayed.

10 Extension of Timelines

10.1. Reasonable Efforts

The Area EPS Operator shall make Reasonable Efforts to meet all time frames provided in these procedures. If the Area EPS Operator cannot meet a deadline provided herein, it must notify the Interconnection Customer in writing within three (3) Business Days after the deadline to explain the reason for the failure to meet the deadline and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

10.2. Extensions

For applicable time frames described in these procedures, the Interconnection Customer may request, in writing, one extension equivalent to half of the time originally allotted (e.g., ten (10) Business Days for a twenty (20) Business Days original time frame) which the Area EPS Operator may not unreasonably refuse. No further extensions for the applicable time frame shall be granted absent a Force Majeure Event or other similarly extraordinary circumstance.

11 Disputes

11.1. Procedures

The Parties agree to make good faith efforts to attempt to resolve all disputes arising out of the interconnection process and associated study and Interconnection Agreements. The Parties agree to follow the established dispute resolution policy adopted by the Area EPS Operator.

12 Clauses

12.1. Confidentiality

Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of these procedures, design, operating specifications, and metering data provided by the Interconnection Customer may be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such. If requested by either Party, the other Party shall provide in writing the basis for asserting that the information warrants confidential treatment. Parties providing a Governmental Authority trade secret, or privileged or otherwise not public or nonpublic data under Minnesota Government Data Practices Act, Minnesota Statutes

Chapter 13, shall identify such data consistent with the Commission's September 1, 1999 Revised Procedures for Handling Trade Secret and Privileged Data.

Confidential Information does not include information previously in the public domain with proper authorization, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be publicly divulged in an action to enforce these procedures. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without prior written authorization from the Party providing that information, except to fulfill obligations under these procedures, or to fulfill legal or regulatory requirements that could not otherwise be fulfilled by not making the information public.

Each Party shall hold in confidence and shall not disclose Confidential Information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential Information shall be clearly marked as such on each page or otherwise affirmatively identified. If a court, government agency or entity with the right, power, and authority to do so, requests or requires either Party, by subpoena, oral disposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirements(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this Agreement. In the absence of a protective order or waiver the Party shall disclose such confidential information which, in the opinion of its counsel, the party is legally compelled to disclose. Each Party will use reasonable efforts to obtain reliable assurance that confidential treatment will be accorded to any confidential information furnished.

Critical infrastructure information or information that is deemed or otherwise designated by a Party as Critical Energy/Electric Infrastructure Information (CEII) pursuant to FERC regulation, 18 C.F.R. §388.133, as may be amended from time to time, may be subject to further protections for disclosure as required by FERC or FERC regulations or orders and the disclosing Party's CEII policies. Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages and may seek other remedies available at law or in equity for breach of this provision.

12.2. Non-Warranty

The Area EPS Operator does not give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, operated, installed or maintained by the Interconnection Customer, including without limitation the DER and any structures, equipment, wires, appliances or devices not owned, operated or maintained by the Area EPS Operator. The Area EPS Operator does not guarantee uninterrupted power supply to the DER and will operate the Distribution System with the same reliability standards for the entire customer base.

12.3. Indemnification

Each Party is protected from liability incurred to third parties as a result of carrying out the provisions of this interconnection process and subsequent interconnection agreements. The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

This indemnification obligation shall apply notwithstanding any negligent or intentional acts, errors or omissions of the indemnified Party, but the indemnifying Party's liability to indemnify the indemnified Party shall be reduced in proportion to the percentage by which the indemnified Party's negligent or intentional acts, errors or omissions caused the damages.

Neither Party shall be indemnified for its damages resulting from its sole negligence, intentional acts or willful misconduct. These indemnity provisions shall not be construed to relieve any insurer of its obligation to pay claims consistent with the provisions of a valid insurance policy.

If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.

Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.

12.4. Limitation of Liability

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for an indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under in Section 12.3.

13 Glossary

Affected System – Another Area EPS Operator's System, Transmission Owner's Transmission System, or Transmission System connected generation which may be affected by the proposed interconnection.

Applicant Agent – A person designated in writing by the Interconnection Customer to represent or provide information to the Area EPS on the Interconnection Customer's behalf throughout the interconnection process.

Area EPS – The electric power distribution system connected at the Point of Common Coupling.

Area EPS Operator – An entity that owns, controls, or operates the electric power distribution systems that are used for the provision of electric service in Minnesota.

Business Day – Monday through Friday, excluding Holidays as defined by Minn. Stat. §645.44, Subdivision 5. Any communication to have been sent or received after 4:30 p.m. Central Prevailing Time or on a Saturday, Sunday or holiday shall be considered to have been sent on the next Business Day.

Certified Equipment – Certified equipment is equipment that has been tested by a nationally recognized lab meeting a specific standard. For DER systems, a UL 1741 listing is a common form of DER inverter certification. Additional information is contained in Sections 14 and 15.

Confidential Information – Any confidential and/or proprietary information provided by one Party to the other Party and is clearly marked or otherwise designated "Confidential." All procedures, design, operating specifications, and metering data provided by the Interconnection Customer may be deemed Confidential Information. See Section 12.1 for further information.

Distributed Energy Resource (DER) – A source of electric power that is not directly connected to a bulk power system or central station service. DER includes both generators and energy storage technologies capable of exporting active power to an EPS. An interconnection system or a supplemental DER device that is necessary for compliance with this standard is part of a DER. For the purpose of the Interconnection Process and interconnection agreements, the DER includes the Customer's Interconnection Facilities but shall not include the Area EPS Operator's Interconnection Facilities.

Distribution System – The Area EPS facilities which are not part of the Local EPS, Transmission System or any generation system.

Distribution Upgrades – The additions, modifications, and upgrades to the Distribution System at or beyond the Point of Common Coupling to facilitate interconnection of the DER and render the distribution service necessary to effect the Interconnection Customer's connection to the Distribution System. Distribution Upgrades do not include Interconnection Facilities.

Electric Power System (EPS) – The facilities that deliver electric power to a load.

Fast Track Process – The procedure as described in the Interconnection Process - Fast Track Process for evaluating an Interconnection Application for a DER that meets the eligibility requirements of Section 3.4.

Force Majeure Event – An act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, an order, regulation, or restriction imposed by governmental, military or lawfully established civilian authorities, or another cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing.

Good Utility Practice – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and act which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Area EPS Operator, or any Affiliate thereof. The governing authority of the municipal utility is the authority governing interconnection requirements unless otherwise provided for in the Minnesota Technical Requirements.

Interconnection Agreement – The terms and conditions between the Area EPS Operator and Interconnection Customer (Parties). See Section 8 for when the Uniform Contract or Minnesota Municipal Interconnection Agreement applies.

Interconnection Application – The Standard or Simplified Interconnection Application, as applicable, pursuant to Section 4.

Interconnection Customer – The person or entity named on the electric utility bill for a premise who proposes to interconnect a DER on that premise with the Area EPS Operator's Distribution System. The Interconnection Customer is responsible for ensuring the DER is designed, operated and maintained in compliance with the Minnesota Technical Requirements.

Interconnection Facilities – The Area EPS Operator's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities

include all facilities and equipment between the DER and the Point of Common Coupling, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the DER to the Area EPS Operator's System. Some examples of Customer Interconnection Facilities include supplemental DER devices, inverters, and associated wiring and cables up to the Point of DER Connection. Some examples of Area EPS Operator Interconnection Facilities include sole use facilities such as line extensions, controls, relays, switches, breakers, transformers and shall not include Distribution Upgrades or Network Upgrades.

Interconnection Process – The Area EPS Operator's interconnection standards in this document.

Material Modification – A modification to machine data, equipment configuration or to the interconnection site of the DER at any time after receiving notification by the Area EPS Operator of a complete Interconnection Application that has a material impact on the cost, timing, or design of any Interconnection Facilities or Upgrades, or a material impact on the cost, timing or design of any Interconnection Application with a later Queue Position or the safety or reliability of the Area EPS.[6]

MN Technical Requirements – The Minnesota Technical Interconnection and Interoperability Requirements (TIIR) as adopted by the Minnesota Public Utilities Commission on January 22, 2022 as part of Docket No. E-999/CI-16-521.

Nameplate Rating – Nominal voltage (V), current (A), maximum active power (kWac), apparent power (kVA), and reactive power (kVar) at which a DER is capable of sustained operation. For a Local EPS with multiple DER units, the aggregate nameplate rating is equal to the sum of all DERs nameplate rating in the Local EPS. For purposes of the Attachment V in the Interconnection Agreement, the DER system's capacity may, with the Area EPS's agreement, be limited thought use of control systems, power relays or similar device settings or adjustments as identified in IEEE 1547. The nameplate ratings referenced in the Interconnection Process are alternating current nameplate DER ratings at the Point of DER Coupling.

[6] A Material Modification shall include, but may not be limited to, a modification from the approved Interconnection Application that: (1) changes the physical location of the point of common coupling such that it is likely to have an impact on technical review; (2) increases the nameplate rating or output characteristics of the Distributed Energy Resource; (3) changes or replaces generating equipment, such as generator(s), inverter(s), transformers, relaying, controls, etc., and substitutes equipment that is not like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; (4) changes transformer connection(s) or grounding; and/or (5) changes to a certified inverter with different specifications or different inverter control settings or configuration. A Material Modification shall not include a modification from the approved Interconnection Application that: (1) changes the ownership of a Distributed Energy Resource; (2) changes the address of the Distributed Energy Resource, so long as the physical point of common coupling remains the same; (3) changes or replaces generating equipment such as generator(s), inverter(s), solar panel(s), transformers, relaying, controls, etc. and substitutes equipment that is a like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; and/or (4) increases the DC/AC ratio but does not increase the maximum AC output capability of the Distributed Energy Resource in a way that is likely to have an impact on technical review.

Network Upgrades – Additions, modifications, and upgrades to the Transmission System required at or beyond the point at which the DER interconnects with the Area EPS Operator's System to accommodate the interconnection with the DER to the Area EPS Operator's System. Network Upgrades do not include Distribution Upgrades.

Operating Requirements – Any operating and technical requirements that may be applicable due to the Transmission Provider's technical requirements or Minnesota Technical Requirements, including those set forth in the Interconnection Agreement.

Party or Parties – The Area EPS Operator and the Interconnection Customer.

Point of Common Coupling (PCC) – The point where the Interconnection Facilities connect with the Area EPS Operator's Distribution System. See figure 1. Equivalent, in most cases, to "service point" as specified by the Area EPS Operator and described in the National Electrical Code and the National Electrical Safety Code.

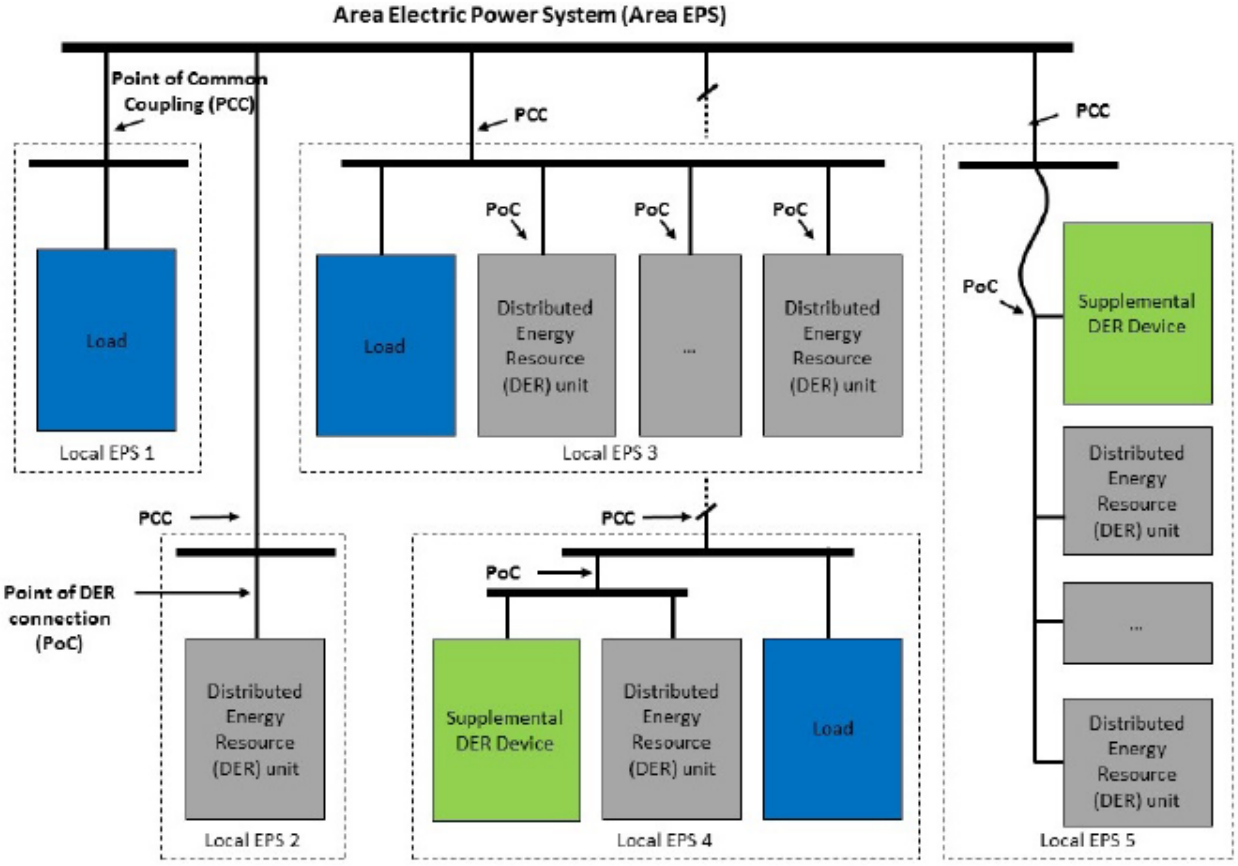

Figure 1: Point of Common Coupling and Point of DER Connection (Source: IEEE 1547)

Point of DER Connection (PoC) – When identified as the Reference Point of Applicability, the point where an individual DER is electrically connected in a Local EPS and meets the requirements of this standard exclusive of any load present in the respective part of the Local EPS (e.g., terminals of the inverter when no supplemental DER device is required). For DER

unit(s) that are not self-sufficient to meet the requirements without a supplemental DER device(s), the Point of DER Connection is the point where the requirements of this standard are met by DER in conjunction with a supplemental DER device(s) exclusive of any load present in the respective part of the Local EPS.

Queue Position – The order of a valid Interconnection Application, relative to all other pending valid Interconnection Applications, that is established based upon the date- and time- of receipt of the complete Interconnection Application as described in Section 4.7.

Reasonable Efforts – With respect to an action required to be attempted or taken by a Party under these procedures, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Reference Point of Applicability – The location, either the Point of Common Coupling or the Point of DER Connection, where the interconnection and interoperability performance requirements specified in IEEE 1547 apply. With mutual agreement, the Area EPS Operator and Customer may determine a point between the Point of Common Coupling and Point of DER Connection. See Minnesota Technical Requirements for more information.

Simplified Process – The procedure for evaluating an Interconnection Application for a certified inverter-based DER no larger than 20 kW that uses the screens described in the Interconnection Process – Simplified Process document. The Simplified Process includes simplified procedures.

Study Process – The procedure for evaluating an Interconnection Application that includes the scoping meeting, system impact study, and facilities study.

Transmission Owner – The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System relevant to the Interconnection.

Transmission Provider – The entity (or its designated agent) that owns, leases, controls, or operates transmission facilities used for the transmission of electricity. The term Transmission Provider includes the Transmission Owner when the Transmission Owner is separate from the Transmission Provider. The Transmission Provider may include the Independent System Operator or Regional Transmission Operator.

Transmission System – The facilities owned, leased, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service. See the Commission's July 26, 2000 Order Adopting Boundary Guidelines for Distinguishing Transmission from Generation and Distribution Assets in Docket No. E-999/CI-99-1261.

Uniform Contract – The Area EPS Operator's agreement form for Cogeneration and Small Power Production Facilities that may be applied to all qualifying new and existing interconnections between the Area EPS Operator and a DER system having capacity less than 40 kilowatts.

Upgrades – The required additions and modifications to the Area EPS Operator's Transmission or Distribution System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

14 Certification of DER Equipment

Distributed Energy Resource (DER) equipment proposed for use in an interconnection system shall be considered certified for interconnected operation if the following criteria is met:

1) It has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in the Overview Process,

2) It has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and

3) Such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.

The Interconnection Customer must verify that the assembly and use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.

Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for a DER Design Evaluation or an on-site commissioning test by the parties to the interconnection as provided for in the Minnesota Technical Requirements.

If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.

Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL and does not violate the interface components' labeling and listing performed by the NRTL, no further type-test review, testing or additional equipment on the customer side of the Point of Common Coupling shall be required to be considered certified for the purposes of this interconnection procedure; however, nothing herein shall preclude the need for a DER design evaluation or an on-site

commissioning test by the parties to the interconnection as provided for in the Minnesota Technical Requirements.

An equipment package does not include equipment provided by the Area EPS.

15 Certification Codes and Standards

The existing Minnesota Technical Requirements and the following standards shall be used in conjunction with the Interconnection Process. The process has started to update the Technical Requirements to meet IEEE 1547-2018. Once that process is completed, the updated DER Technical Interconnection and Interoperability Requirements will supersede this section.

When the stated version of the following standards is superseded by an approved revision then that revision shall apply:

IEEE 1547-2003 IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems

IEEE 1547a-2014 IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems – Amendment 1

IEEE 1547.1-2005 IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems

IEEE 1547.1a-2015 (Amendment to IEEE Std 1547.1-2005) IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems – Amendment 1

UL 1741 Inverters, Converters, Controllers, and Interconnection System Equipment for Use in Distributed Energy Resources (2010)

NFPA 70 (2017), National Electrical Code

IEEE Std C37.90.1 (2012) (Revision of IEEE Std C37.90.1-2002), IEEE Standard for Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems Associated with Electric Power Apparatus

IEEE Std C37.90.2 (2004) (Revision of IEEE Std C37.90.2-1995), IEEE Standard for Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-20021989 (Revision of C37.108-19892002), IEEE Guide for the Protection of Network Transformers

IEEE Std C57.12.44-2014 (Revision of IEEE Std C57.12.44-2005), IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low-Voltage (1000 V and Less) AC Power Circuits

IEEE Std C62.41.2-2002_Cor 1-2012 (Corrigendum to IEEE Std C62.41.2-2002) – IEEE Recommended Practice on Characterization of Surges in Low-Voltage (1000 V and Less) AC Power Circuits Corrigendum 1: Deletion of Table A.2 and Associated Text

IEEE Std C62.45-2002 (Revision of IEEE Std C62.45-1992) – IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000 V and less) AC Power Circuits

ANSI C84.1-(2016) Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE Standards Dictionary Online, [Online]

NEMA MG 1-2016, Motors and Generators

IEEE Std 519-2014, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

Minnesota Municipal Interconnection Process (M-MIP)

Booklet #2

Simplified Process

For interconnecting up to 20 kilowatts

(Used for most homes and businesses)

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1 Applicability

1.1. Capacity Limit

The Simplified Process only is applicable to certified inverter-based Distributed Energy Resource (DER) systems with the capacity of 20 kW AC or less. The capacity is determined by the aggregated summation of the Nameplate Rating of the inverters that make up the DER system. Additional information regarding the capacity limits can be seen in Section 6 of the Process Overview document.

1.2. Certified Inverters

A certified inverter will have certification of meeting the current version of the IEEE standard 1547. A common inverter certification is UL 1741. Note that certified inverters may still need to have a setting adjusted to meet the technical requirements of the Area EPS Operator. Additional information regarding certified equipment is found in Section 14 and Section 15 of the Process Overview document.

2 Application Submission

2.1. Simplified Process Application

The Interconnection Customer shall complete the Simplified Interconnection Application and submit it to the Area EPS Operator to initialize the Interconnection Process. A completed Simplified Interconnection Application will include the following:

- A completed Simplified Interconnection Application signed by the Interconnection Customer,
- A non-refundable processing fee of $100,
- An aerial site layout drawing of the proposed DER system,
- A one-line diagram of the proposed DER system showing the point of common coupling, PCC, to the Area EPS Operator's Distribution System, and
- All certified equipment manufacturer specification sheets.

2.2. Battery Storage

An inverter-based DER system may include battery storage. DER systems that include battery storage must also complete the Energy Storage Application with the Simplified Interconnection Application.

2.3. Site Control

By signing the Simplified Interconnection Application, the Interconnection Customer is indicating that the proposed DER system is being located where the Interconnection Customer has site control. Site control includes ownership of, a leasehold interest in, or a right to develop a site for the purpose of construction of a DER. Additional information regarding Site Control can be reviewed in the Process Overview document in Section 4.8.

3 Application Review

3.1. Timelines

The Interconnection Application shall be date- and time-stamped upon initial, and if necessary, resubmission receipt. The Interconnection Customer shall be notified of receipt by the Area EPS Operator within ten (10) Business Days of receipt of the Interconnection Application.

The Area EPS Operator shall notify the Interconnection Customer if the Interconnection Application is deemed incomplete within ten (10) Business Days and provide a written list detailing all information that must be provided to complete the Interconnection Application. The Interconnection Customer has five (5) Business Days to provide the missing information unless additional time is requested with valid reasons. Failure to submit the requested information within the stated timeline will deem the Interconnection Application withdrawn. The Area EPS Operator has an additional five (5) Business Days to review the additionally provided information for completeness.

An Interconnection Application will be deemed complete upon submission to the Area EPS Operator provided all documents, fees and information required with the Interconnection Application adhering to Minnesota Technical Requirements is included. The time- and date- stamp of the completed Interconnection Application shall be accepted as the qualifying date for the purpose of establishing a queue position as described in Section 4.7 of the Overview Process document.

The Area EPS Operator has a total of twenty (20) Business Days to complete the Interconnection Application review from the receipt of a completed Interconnection Application and submit notice back to the Interconnection Customer stating the proposed DER system may proceed with the interconnection process or the proposed DER system has been moved into a different process track. The time during which the Interconnection Customer provides missing information is not included in the Area EPS Operator's twenty (20) Business Days review timeline.

3.2. Initial Review Screens

The Area EPS Operator shall determine if the DER can be interconnected safely and reliably using Initial Review Screens and without the construction of facilities by the Area EPS Operator. The Initial Review screens include the following engineering screens:

- The proposed DER's PCC must be on a portion of the Area EPS Operator's Distribution System.

- For interconnection of a proposed DER to a radial distribution circuit, the aggregated generation, including the proposed DER, on the circuit shall not exceed 15% of the line section annual peak load as most recently measured or 100% of the substation aggregated minimum load. A line section is that portion of an Area EPS Operator's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line. The Area EPS Operator may consider 100% of applicable loading (i.e. daytime minimum load for solar), if available, instead of 15% of line section peak load.

- For interconnection of a proposed DER to the load side of network protectors, the proposed DER must utilize an inverter-based equipment package and, together with the aggregated other inverter-based DERs, shall not exceed the smaller of 5% of a network's maximum load or 50 kW.[1]

- The proposed DER, in aggregation with other DERs on the distribution circuit, shall not contribute more than 10% to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed PCC.

- The proposed DER, in aggregate with other Distributed Energy Resources on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5% of the short circuit interrupting capability; nor shall the interconnection be proposed for a circuit that already exceeds 87.5% of the short circuit interrupting capability.

[1] Network protectors are protective devices used on secondary networks (spot and grid networks) to automatically disconnect their associated transformers when reverse power flow occurs. Secondary networks are most often used in densely populated downtown areas.

- Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Area EPS Operator's electric power system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Results
Three-Phase, three wire	Three-phase or single-phase, phase-to-phase	Pass Screen
Three-phase, four wire	Effectively-grounded three-phase or single-phase, line-to-neutral	Pass Screen

- If the proposed DER is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed DER, shall not exceed 20 kW or 65% of the transformer nameplate rating.

- If the proposed DER is single-phase and is to be interconnected on a center tap neutral of a 240-volt service, its addition shall not create an imbalance between the two sides of the 240-volt service of more than 20% of the nameplate rating of the service transformer.

The technical screens listed shall not preclude the Area EPS Operator from using tools that perform screening functions using different methodologies given the analysis is aimed at preventing the voltage, thermal and protection limitations as the listed screen.

3.3. Notification of Approval of Application

Provided the Simplified Interconnection Application passes the initial screens, or if the proposed interconnection fails the screens but the Area EPS Operator determines that the DER may never the less be interconnected consistent with safety, reliability and power quality standards, the Area EPS Operator shall provide notice to the Interconnection Customer that their Simplified Interconnection Application has been approved.

3.4. Failure of Review Screens

If the proposed interconnection fails the screens the Interconnection Customer will be notified by the Area EPS Operator that the Simplified Interconnection Application has

been moved to the Fast Track Process. The Area EPS Operator shall provide the Interconnection Customer the opportunity to attend a customer options meeting. Additional information regarding the customer options meeting is found in Section 3.5 of the Fast Track Process document. The Interconnection Customer will need to provide a completed Interconnection Application to the Area EPS Operator prior to, or at the customer options meeting.

The Area EPS Operator shall notify the Interconnection Customer of the determination and provide copies of all directly pertinent data and analyses underlying its conclusion, subjected to confidentiality provisions in Section 12.1 of the Overview Process document.

4 Interconnection Agreement

4.1. Uniform Contract

The Area EPS Operator shall provide the Interconnection Customer with an executable copy of the Area EPS Operator's Contract for Cogeneration and Small Power Production Facilities (Uniform Contract) within five (5) Business Days of notice of approval of the Simplified Interconnection Application.

4.2. Minnesota Municipal Interconnection Agreement

The Interconnection Customer may request on the Simplified Interconnection Application an executable copy of the Area EPS Operator's Minnesota Municipal Interconnection Agreement (MMIA) in lieu of signing the Uniform Contract. If the MMIA is requested, the Area EPS Operator shall provide an executable copy of the MMIA within five (5) Business Days of notice of approval of the Simplified Interconnection Application.

4.3. Completion of Agreement

The Interconnection Customer must return a signed Uniform Contract or MMIA at least thirty (30) Business Days prior to a requested in-service date of the propose DER. The Area EPS Operator shall sign and return a copy of the fully executed Uniform Contract or the MMIA back to the Interconnection Customer.

The Interconnection Customer may update the requested in-service date submitted on the Simplified Interconnection Application to a date thirty (30) Business Days or later from the date on which the Interconnection Customer submits a signed Uniform Contract or MMIA and payment, if required, unless the Area EPS Operator agrees to an earlier date.

Upon receipt of the signed Uniform Contract or MMIA, the Area EPS Operator may schedule appropriate metering replacements and construction of facilities, if necessary.

5 Insurance

5.1. Insurance Requirements

At minimum, the Interconnection Customer shall maintain, for the duration the DER system is interconnected to the Area EPS Operator's Distribution System, $300,000 of general liability insurance from a qualified insurance agency with a B+ or better rating by "Best." Such general liability insurance shall include coverage against claims for damages resulting from (i) bodily injury, including wrongful death; and (ii) property damage arising out of the Interconnection Customer's ownership and/or operation of the DER under this agreement. Evidence of the insurance shall state that coverage provided is primary and is not excess to or contributing with any insurance or self-insurance by the Area EPS Operator.

5.2. Self-Insurance

The Interconnection Customer may choose to be self-insured provided there is an established record of self-insurance. The Interconnection Customer shall supply the Area EPS Operator at least twenty (20) days prior to the date of initial operation, evidence of an acceptable plan to self-insure to a level of coverage equivalent to that required in Section 5.1. Failure of the Interconnection Customer or the Area EPS Operator to enforce the minimum levels of insurance does not relieve the Interconnection Customer from maintaining such levels of insurance or relieve the Interconnection Customer of any liability.

5.3. Proof of Insurance

Prior to initial operation of the DER, the Interconnection Customer shall furnish the Area EPS Operator with the Declarations page of the Homeowner's insurance policy documenting insurance of the DER, if applicable or other insurance certificates and endorsements documenting insurance. Thereafter, the Area EPS Operator shall have the right to periodically inspect or obtain a copy of the original policy or polices of insurance. Additionally, the Area EPS Operator may request to be additionally listed as an interested third party on the insurance certificates and endorsements to meet the right to periodically obtain a copy of the policy or policies of insurance.

6 Timeline Extensions

6.1. Reasonable Efforts

The Area EPS Operator shall make Reasonable Efforts to meet all time frames provided in these procedures. If the Area EPS Operator cannot meet a deadline provided herein, it must notify the Interconnection Customer in writing within three (3) Business Days after the deadline to explain the reason for the failure to meet the deadline and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

6.2. Extensions

For applicable time frames described in these procedures, the Interconnection Customer may request in writing one extension equivalent to half of the time originally allotted (e.g., ten (10) Business Days for a twenty (20) Business Days original time frame) which the Area EPS Operator may not unreasonably refuse. No further extensions for the applicable time frame shall be granted absent a Force Majeure Event or other similarly extraordinary circumstance.

7 Modifications to Application

7.1. Procedures

At any time after the Interconnection Application is deemed complete, the Interconnection Customer or the Area EPS Operator may identify modifications to the proposed DER system that may improve costs and benefits (including reliability) of the proposed DER system and the ability for the Area EPS Operator to accommodate the proposed DER system. The Interconnection Customer shall submit to the Area EPS Operator in writing all proposed modifications to any information provided in the Interconnection Application. The Area EPS Operator cannot unilaterally modify the Interconnection Application.

7.2. Timelines

Within ten (10) Business Days of receipt of the proposed modification, the Area EPS Operator shall evaluate whether the proposed modification to the Interconnection Application constitutes a Material Modification. The definition in Section 13 Glossary of the Process Overview document includes examples of what does and does not constitute a Material Modification.

The Area EPS Operator shall notify the Interconnection Customer in writing of the final determination of the proposed modification. For proposed modifications that are

determined to be a Material Modification the Interconnection Customer may choose to either: 1) withdraw the proposed modification; or 2) proceed with a new Interconnection Application. The Interconnection Customer shall provide its determination in writing to the Area EPS Operator within ten (10) Business Days after being provided the Material Modification determination. If the Interconnection Customer does not provide its determination within the timeline, the Interconnection Application shall be considered withdrawn.

If the proposed modification is not determined to be a Material Modification, then the Area EPS Operator shall notify the Interconnection Customer in writing that the modification has been accepted and the Interconnection Customer shall retain its eligibility for interconnection, including its place in the queue.

8 Interconnection

8.1. Metering

Any metering requirements necessitated by the use of the DER system shall be installed at the Interconnection Customer's expense. The metering requirement costs will be included in the final invoice of interconnection costs to the Interconnection Customer. The Interconnection Customer is also responsible for metering replacement costs not covered in the Interconnection Customer's general customer charge. The Area EPS Operator may charge Interconnection Customers an ongoing metering-related charge for an estimate of ongoing metering-related costs specifically demonstrated.

8.2. Construction

The Interconnection Customer may proceed to construct (including operational testing not to exceed two hours) the DER system when the Area EPS Operator has approved the Simplified Interconnection Application. Upon receipt of a signed Uniform Contract or MMIA the Area EPS Operator shall schedule and execute appropriate construction of facilities, if necessary, which shall be completed prior to the Interconnection Customer returning the Certification of Completion. The Area EPS Operator will notify the Interconnection Customer when construction of the distribution facilities is completed.

8.3. Inspection, Testing and Commissioning

Upon completing construction of the DER system, the Interconnection Customer will cause the DER system to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction. The Interconnection Customer shall then arrange for the inspection and testing of the DER system and the Customer's Interconnection Facilities prior to interconnection pursuant to Minnesota Technical Requirements. Commissioning test of the Interconnection Customer's installed

equipment shall be performed pursuant to applicable codes and standards of Minnesota's Technical Requirements. The Interconnection Customer shall provide the Area EPS Operator with a Certificate of Completion after completion of the DER installation.

Prior to parallel operation, the Area EPS Operator may inspect the DER for compliance with standards, which may include a witness test, and schedule appropriate metering replacements, if necessary. The Area EPS Operator shall send qualified personnel to the DER site to inspect the interconnection and witness the testing but bears no liability for the results of the test.

The Area EPS Operator is obligated to complete the witness test, if required, within ten (10) Business Days of receipt of the Certification of Completion. If the Area EPS Operator does not inspect within ten (10) Business Days, the witness test is deemed waived unless upon mutual agreement of both Parties to extend the timeline for the witness test.

Within three (3) Business Days of satisfactory inspection or waiver of inspection, the Area EPS Operator shall provide the Interconnection Customer written acknowledgment that the DER has permission to operate. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Area EPS Operator of the safety, durability, suitability, or reliability of the DER or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the DER.

If the witness test is not satisfactory, the Area EPS Operator has the right to disconnect the DER. The Interconnection Customer has no right to operate in parallel, except for optional testing not to exceed two hours, until permission to operate is granted by the Area EPS Operator.

8.4. Interconnection Costs

The Interconnection Customer shall pay for the actual cost of the Interconnection Facilities and Distribution Upgrades along with the Area EPS Operator's cost to commission the proposed DER system. An estimate of the interconnection costs shall be stated in the Uniform Contract or MMIA. The Area EPS Operator shall render the final interconnection cost invoice to the Interconnection Customer within thirty (30) Business Days after the proposed DER system has been commissioned by the Area EPS Operator, or upon the commissioning being waived by the Area EPS Operator. The Interconnection Customer shall make payment to the Area EPS Operator within

twenty-one (21) Business Days of receipt, or as otherwise stated in the Uniform Contract.

The Area EPS Operator does not give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, operated, installed or maintained by the Interconnection Customer, including without limitation the DER and any structures, equipment, wires, appliances or devices not owned, operated or maintained by the Area EPS Operator.

8.5. Authorization for Parallel Operation

The Interconnection Customer shall not operate its DER system in parallel with the Area EPS Operator's Distribution System without prior written authorization from the Area EPS Operator. The Area EPS Operator shall provide such authorization within three (3) Business Days from when the Area EPS Operator receives the Certificate of Completion and notification the Interconnection Customer has complied with all applicable parallel operations requirements. Such authorization shall not be unreasonably withheld, conditioned or delayed.

8.6. Continual Compliance

The Interconnection Customer shall be fully responsible for operating, maintaining, and repairing the DER as required to ensure that it complies at all times with the interconnection standards to which it has been certified. The Interconnection Customer shall also operate its DER system in compliance with the Area EPS Operator's technical requirements as referred to in the executed Uniform Contract or MMIA. The Area EPS Operator may periodically inspect, at its own expense, the operation of DER system as it relates to power quality, thermal limits and reliability. Failure by the Interconnection Customer to remain in compliance with the technical requirements will result in the DER system's disconnection from the Area EPS Operator's Distribution System.

8.7. Disconnection of DER

The Area EPS Operator has the right to disconnect the DER in the event the Interconnection Customer:

- Does not continue to follow and maintain IEEE 1547 settings approved by the Area EPS Operator as indicated by the adopted technical requirements.

- Does not meet all the requirements of the Simplified Process.

- Refuses to sign either the Interconnection Agreement or the Area EPS Operator's Uniform Contract.

The Area EPS Operator may temporarily disconnect the DER upon the following conditions:

- For scheduled outages upon reasonable notice.
- For unscheduled outages or emergency conditions.

- If the DER does not operate in a manner consistent with the Simplified Process.

The Area EPS Operator shall inform the Interconnection Customer in advance of any scheduled disconnections, or as reasonable, after an unscheduled disconnection.

Minnesota Municipal Interconnection Process (M-MIP)

Booklet #3

Fast Track Process

For interconnecting systems of less than 4 megawatts

that do not qualify for the Simplified Process

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1 Applicability

1.1. Capacity Limit

The Fast Track Process is available to an Interconnection Customer proposing to interconnect a Distributed Energy Resource (DER) with the Area EPS Operator's Distribution System if the DER capacity does not exceed the size limits in Table 1.1 and does not qualify for the Simplified Process. The capacity is determined by the aggregated summation of the Nameplate Rating of all components that make up the DER system. Additional information regarding the capacity limits can be seen in Section 6 of the Process Overview document.

Table 1.1. Fast Track Eligibility for DER

Line Voltage	Fast Track Eligibility[1] Regardless of Location	Fast Track Eligibility for certified, inverter-based DER on a Mainline[2] and ≤ 2.5 Electrical Circuit Miles from Substation[3]
< 5 kV	≤ 500 kW	≤ 500 kW
≥ 5 kV and < 15 kV	≤ 1 MW	≤ 2 MW
≥ 15 kV and < 30 kV	≤ 3 MW	≤ 4 MW
≥ 30 kV and ≤ 69 kV	≤ 4 MW	≤ 5 MW

Fast Track eligibility for DERs is determined based upon the generator type, the size of the generator, voltage of the line, and the location of and the type of line at the Point of Common Coupling. All synchronous and induction machines must be no larger than 2 MW to be eligible for Fast Track Process consideration. Fast Track eligibility does not imply or indicate that a DER will pass the engineering screens or be exempt from the proposed DER Interconnection being placed into the Study Process.

1.2. Codes, Standards and Certification Requirements

The Interconnection Customer's proposed DER must meet the codes, standards and certification requirements listed in Section 14 and Section 15 of the Overview Process document. The Area EPS Operator may allow DER systems that do not meet codes, standards and certification only if the DER system design is reviewed and tested and determined that it is safe to operate in parallel with the Distribution System.

[1] Synchronous and induction machine eligibility is limited to no more than 2 MW even when line voltage is greater than 15 kV.

[2] For purposes of this table, a Mainline is the three-phase backbone of a circuit. It will typically constitute lines with wire sizes of 4/0 American wire gauge, 266 kcmil, 336.4 kcmil, 397.5 kcmil, 477 kcmil and 795 kcmil.

[3] An Interconnection Customer can determine this information about its proposed interconnection location in advance by requesting a pre-application report described in the Overview Process document.

2 Application Submission

2.1. Fast Track Process Application

The Interconnection Customer shall complete the Standard Interconnection Application and submit it to the Area EPS Operator to initialize the Interconnection Process. A completed Interconnection Application will include the following:

- A completed Interconnection Application signed by the Interconnection Customer.
- A non-refundable processing fee indicated in Section 2.3.
- A site layout drawing of the proposed DER system.
- A one-line diagram of the proposed DER system showing the point of common coupling to the Area EPS Operator's Distribution System.
- All equipment manufacturer specification sheets.
- Documentation of site control indicated in Section 2.5.

2.2. Professional Licensed Engineer Signature

The one-line diagram submitted with the Interconnection Application will require a signature from a professional engineer licensed in the State of Minnesota certifying the DER was designed in conformance to the Minnesota Technical Requirements for the following conditions:

- Certified[4] equipment is greater than 250 kW.
- Non-certified equipment is greater than 20 kW.

2.3. Processing Fee

The processing fee will differ for a Fast Track Interconnection Application depending on the type of equipment utilized as seen in Table 2.1.

[4] Additional information regarding certified equipment is found in Section 14 and Section 15 of the Process Overview document.

Table 2.1. Interconnection Application Process Fee

Equipment Type	Process Fee
Certified System	$100 + $1/kW
Non-Certified System	$100 + $2/kW

2.4. Battery Storage

An inverter-based DER system may include battery storage. DER systems that include battery storage should complete the Energy Storage Application along with the Interconnection Application.

2.5. Site Control

Documentation of site control must be submitted with the Interconnection Application. Site control may be demonstrated by any of the following:

- Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the DER system.
- An option to purchase or acquire a leasehold site for constructing the DER system.
- An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for constructing the DER system.

3 Application Review

3.1. Timelines

The Interconnection Application shall be date- and time-stamped upon initial, and if necessary, resubmission receipt. The Interconnection Customer shall be notified of receipt by the Area EPS Operator within ten (10) Business Days of receipt of the Interconnection Application.

The Area EPS Operator shall notify the Interconnection Customer if the Interconnection Application is deemed incomplete within ten (10) Business Days and provide a written list detailing all information that must be provided to complete the Interconnection Application. The Interconnection Customer has ten (10) Business Days to provide the missing information unless additional time is requested with valid reasons. Failure to submit the requested information within the stated timeline will result in the Interconnection Application being deemed withdrawn. The Area EPS Operator has an

additional five (5) Business Days to review the additionally provided information for completeness.

An Interconnection Application will be deemed complete upon submission to the Area EPS Operator provided all documents, fees and information required with the Interconnection Application adhering to Minnesota Technical Requirements is included. The time- and date- stamp of the completed Interconnection Application shall be accepted as the qualifying date for the purpose of establishing a queue position as described in Section 4.7 in the Overview Process document.

The Area EPS Operator has a total of twenty-five (25) Business Days to complete the Interconnection Application review and submit notice back to the Interconnection Customer stating the proposed DER system may proceed with the interconnection process or a supplemental review offer is to be made or the proposed DER system has been moved into a different process track. The period of time when waiting for the Interconnection Customer to provide missing information is not included in the Area EPS Operator's twenty-five (25) Business Days review timeline.

3.2. Initial Review Screens

The Area EPS Operator shall determine if the DER can be interconnected safely and reliably without the construction of facilities by the Area EPS Operator by using a set of Initial Review Screens. The Initial Review screens include the following engineering screens:

- The proposed DER's Point of Common Coupling must be on a portion of the Area EPS Operator's Distribution System.

- For interconnection of a proposed DER to a radial distribution circuit, the aggregated generation, including the proposed DER, on the circuit shall not exceed 15% of the line section annual peak load as most recently measured or 100% of the substation aggregated minimum load. A line section is that portion of an Area EPS Operator's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line. The Area EPS Operator may consider 100% of applicable loading (i.e. daytime minimum load for solar), if available, instead of 15% of line section peak load.

- For interconnection of a proposed DER to the load side of network protectors, the proposed DER must utilize an inverter-based equipment package and,

together with the aggregated other inverter-based DERs, shall not exceed the smaller of 5% of a network's maximum load or 50 kW.[5]

- The proposed DER, in aggregation with other DERs on the distribution circuit, shall not contribute more than 10% to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed Point of Common Coupling.

- The proposed DER, in aggregate with other Distributed Energy Resources on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5% of the short circuit interrupting capability; nor shall the interconnection be proposed for a circuit that already exceeds 87.5% of the short circuit interrupting capability.

- Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Area EPS Operator's electric power system due to a loss of ground during the operating time of any anti-islanding function.

Table 3.1. Type of Primary Distribution Line Interconnections

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Results
Three-Phase, three wire	Three-phase or single-phase, phase-to-phase	Pass Screen
Three-phase, four wire	Effectively-grounded three-phase or single-phase, line-to-neutral	Pass Screen

- If the proposed DER is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed DER, shall not exceed 20 kW or 65% of the transformer nameplate rating.

[5] Network protectors are protective devices used on secondary networks (spot and grid networks) to automatically disconnect associated transformers when reverse power flow occurs. Secondary networks are most often used in densely populated downtown areas.

- If the proposed DER is single-phase and is to be interconnected on a center tap neutral of a 240-volt service, its addition shall not create an imbalance between the two sides of the 240-volt service of more than 20% of the nameplate rating of the service transformer.

The technical screens listed shall not preclude the Area EPS Operator from using tools that perform screening functions using different methodologies provided the analysis is targeted to maintain the voltage, thermal and protection objectives as the listed screen.

3.3. Notification of Approval of Application

Provided the Interconnection Application passes the initial screens, or if the proposed interconnection fails the screens but the Area EPS Operator determines that the DER may nevertheless be interconnected consistent with safety, reliability and power quality standards, the Area EPS Operator shall provide notice to the Interconnection Customer that their Interconnection Application has been approved. The Area EPS Operator shall provide the Interconnection Customer with an Interconnection Agreement as outlined in Section 5.

3.4. Failure of Review Screens

If the proposed interconnection fails the screens, and the Area EPS Operator does not or cannot determine from the Initial Review that the DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards, unless the Interconnection Customer is willing to consider minor modifications or further study, the Area EPS Operator shall provide the Interconnection Customer the opportunity to attend a customer options meeting.

The Area EPS Operator shall notify the Interconnection Customer of the determination and provide copies of all directly pertinent data and analyses underlying its conclusion, subject to confidentiality provisions in Section 12.1 of the Overview Process document.

3.5. Customer Options Meeting

Within ten (10) Business Days of the Area EPS Operator's notification to the Interconnection Customer of the proposed interconnection's failure of the engineering screens, the Area EPS Operator and the Interconnection Customer shall schedule a customer options meeting to review possible facility modification, screen analysis and related results to determine what further steps are needed to permit the DER to be interconnected safely and reliably to the Distribution System. At the customer options meeting the Area EPS Operator shall:

- Offer to perform a supplemental review in accordance with Section 4 and provide a non-binding good faith estimate of the cost of such review; or

- Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Application under the Study Process track.

4 Supplemental Review

4.1. Acceptance of Supplemental Review

To accept the offer of a supplemental review, the Interconnection Customer shall agree in writing and submit a deposit for the estimated costs of the supplemental review in the amount of the Area EPS Operator's good faith estimate of the costs of such review within fifteen (15) Business Days once the supplemental review offer is made by the Area EPS Operator. If the written agreement and deposit have not been received by the Area EPS Operator within that timeframe, the Interconnection Application can only continue being evaluated under the Study Process or it can be withdrawn by the Interconnection Customer.

The Interconnection Customer may specify within the written agreement the order in which the Area EPS Operator will complete the supplemental review screens listed in Section 4.4.

4.2. Supplemental Review Costs

The Interconnection Customer shall be responsible for the Area EPS Operator's actual costs for conducting the supplemental review. The Interconnection Customer shall pay any review costs that exceed the deposit within twenty (20) Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the Area EPS Operator will return such excess within twenty (20) Business Days of the invoice without interest.

4.3. Supplemental Review Timelines

Within thirty (30) Business Days following the receipt of the deposit for a supplemental review, the Area EPS Operator shall:

- Perform the supplemental review using the screens in Section 4.4.

- Notify the Interconnection Customer of the results in writing.

- Include copies of the Area EPS Operator's analysis under the screens with the written notification.

Unless the Interconnection Customer provides instruction for how to respond to a failure of any of the supplemental review screens in the written acceptance of supplemental review, the Area EPS Operator shall notify the Interconnection Customer within two (2) Business Days if a supplemental review screen is failed or if the Area EPS Operator is unable to perform the supplemental review screen. The Area EPS Operator shall then obtain the Interconnection Customer's permission to either:

- Continue evaluating the proposed interconnection using the supplemental review screens in Section 4.4.
- Terminate the supplemental review and continue evaluating the Interconnection Application in the Study Process track.
- Terminate the supplemental review upon withdrawal of the Interconnection Application by the Interconnection Customer.

The Interconnection Customer shall respond with its choice within five (5) Business Days of notification from the Area EPS Operator.

4.4. Supplemental Review Screens

The three supplemental review screens are the Minimum Load screen, the Voltage and Power Quality screen and the Safety and Reliability screen.

4.4.1. Minimum Load Screen

The aggregate DER capacity on the line section is less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed DER. If minimum load data is not available, or cannot be calculated, estimated or determined, the Area EPS Operator shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification under Section 4.3. The line section minimum load data shall include onsite load but not station service load served by the proposed DER in this screen.

The type of generation used by the proposed DER will be considered when calculating, estimating, or determining circuit or line section minimum load relevant for the application of this screen. Solar photovoltaic (PV) generation systems with no battery storage use daytime minimum load (i.e., 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems), while all other generation uses absolute minimum load.

When this screen is being applied to a DER that serves some station service load, only the net injection into the Area EPS Operator's electric system will be considered as part of the aggregate generation.

The Area EPS Operator will not consider as part of the aggregate generation for purposes of this screen DER capacity known to be already reflected in the minimum load data.

4.4.2. Voltage and Power Quality Screen

In aggregate with existing generation on the line section the following conditions shall be met for the screen to be passed:

- The voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions.
- The voltage fluctuation is within acceptable limits as defined by Institute of Electrical and Electronics Engineers (IEEE) Standard 1453, or utility practice similar to IEEE Standard 1453.
- The harmonic levels meet IEEE Standard 519 limits.

4.4.3. Safety and Reliability Screen

The location of the proposed DER and the aggregate generation capacity on the line section do not create impacts to safety or reliability that cannot be adequately addressed without application of the Study Process. The Area EPS Operator shall give due consideration to the following and other factors in determining potential impacts to safety and reliability in applying this screen.

- Whether the line section has significant minimum loading levels dominated by a small number of customers (e.g., several large commercial customers).
- Whether the loading along the line section is uniform or even.
- Whether the proposed DER is located in close proximity to the substation (i.e., less than 2.5 electrical circuit miles), and whether the line section from the substation to the Point of Common Coupling is a main line rated for normal and emergency ampacity.

- Whether the proposed DER incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time.

- Whether operational flexibility is reduced by the proposed DER, such that transfer of the line section(s) of the DER to a neighboring distribution circuit/substation may trigger overloads or voltage issues.

- Whether the proposed DER employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, islanding, reverse power flow, or voltage quality.

4.5. Identification of Construction of Facilities

If the proposed interconnection requires the construction of any distribution or transmission facilities, the Area EPS Operator shall notify the Interconnection Customer of the requirement when it provides the supplemental review results. The Area EPS Operator may include a non-binding good faith estimate to construct the facilities included with the supplemental review results. In lieu of providing a non-binding good faith estimate to construct the necessary facilities, the Area EPS Operator may require the proposed interconnection to move to the Study Process for a facility study instead.

Upon being presented with either the non-binding good faith estimate or the requirement for a facility study, the Interconnection Customer has five (5) Business Days to inform the Area EPS Operator to proceed with the proposed interconnection or withdraw the Interconnection Application.

4.6. Supplemental Review Results

If the proposed interconnection passes the supplemental review screens in Section 4.4 and does not require construction of distribution or transmission facilities by the Area EPS on its own system, the Area EPS Operator shall provide an executable Interconnection Agreement within five (5) Business Days after the supplemental review screens are completed. Information regarding the Interconnection Agreement is detailed in Section 5.

If the proposed interconnection passes the supplemental review screens in Section 4.4 and the Interconnection Customer agrees to the non-binding good faith estimate of construction of any distribution or transmission facilities by the Area EPS Operator, the Area EPS Operator shall provide an executable Interconnection Agreement within twenty (20) Business Days. Included with the Interconnection Agreement shall be non-

binding good faith estimate of construction costs and a construction schedule for the facilities. Information regarding the Interconnection Agreement is detailed in Section 5.

If the proposed interconnection does not pass the supplemental review screens in Section 4.4 the Area EPS Operator shall provide the Interconnection Customer with the option of commencing the Study Process. The Interconnection Customer shall notify the Area EPS Operator within fifteen (15) Business Days if they wish to proceed with the Study Process to retain their queue position or the Interconnection Application will be deemed withdrawn.

5 Interconnection Agreement

5.1. Uniform Contract

For a proposed interconnection that meets the conditions of being classified as a qualifying facility less than 40 kW, the Area EPS Operator shall provide the Interconnection Customer with an executable copy of the Area EPS Operator's Uniform Contract for Cogeneration and Small Power Production Facilities (Uniform Contract).

5.2. Minnesota Municipal Interconnection Agreement

For proposed interconnections that do not meet the conditions of being classified as a qualifying facility less than 40 kW or if requested by the Interconnection Customer in lieu of signing the Uniform Contract, the Area EPS Operator shall provide an executable copy of the Minnesota Municipal Interconnection Agreement (MMIA).

5.3. Completion of Agreement

The Interconnection Customer must return a signed Interconnection Agreement at least thirty (30) Business Days prior to the requested in-service date of the proposed DER. The Area EPS Operator shall sign and return a copy of the fully executed Interconnection Agreement back to the Interconnection Customer.

The Interconnection Customer may update the requested in-service date submitted on the Interconnection Application to a date thirty (30) Business Days or later from the date on which the Interconnection Customer submits a signed Interconnection Agreement and payment if required unless the Area EPS Operator agrees to an earlier date.

Upon receipt of the signed Interconnection Agreement, the Area EPS Operator may schedule appropriate metering replacements and construction of facilities, if necessary.

6 Insurance

6.1. Insurance Requirements

At minimum, the Interconnection Customer shall maintain, for the duration the DER system is interconnected to the Area EPS Operator's Distribution System, general liability insurance from a qualified insurance agency with a B+ or better rating by "Best" with a combined single limit of not less than those described in Table 6.1. Such general liability insurance shall include coverage against claims for damages resulting from (i) bodily injury, including wrongful death; and (ii) property damage arising out of the Interconnection Customer's ownership and/or operation of the DER under this agreement. Evidence of the insurance shall state that coverage provided is primary and is not excess to or contributing with any insurance or self-insurance by the Area EPS Operator.

Table 6.1. Liability Insurance Requirements

DER System Size	Liability Insurance Requirement
< 40 kW AC	$300,000
≥ 40 kW AC and < 250 kW AC	$1,000,000
≥ 250 kW AC and < 5 MW AC	$2,000,000
≥ 5 MW AC	$3,000,000

For all proposed DER systems, except those that are qualifying systems less than 40 kW AC, the general liability insurance shall, by endorsement to the policy or polices:

- Include the Area EPS Operator as additionally insured.
- Contain severability of interest clause or cross-liability clause.
- Provide that the Area EPS Operator shall not by reason incur liability to the insurance carrier for the payment of premiums for such insurance if the Area EPS Operator is included as an additionally insured.

6.2. Self-Insurance

The Interconnection Customer may choose to be self-insured provided there is an established record of self-insurance. The Interconnection Customer shall supply the Area EPS Operator at least 20 days prior to the date of initial operation, evidence of an acceptable plan to self-insure to a level of coverage equivalent to that required in Section 6.1. Failure of the Interconnection Customer or the Area EPS Operator to enforce the minimum levels of insurance does not relieve the Interconnection Customer from maintaining such levels of insurance or relieve the Interconnection Customer of any liability.

6.3. Proof of Insurance

The Interconnection Customer shall furnish the required insurance certificates and endorsements to the Area EPS Operator prior to the initial operation of the DER. A copy of the Declaration page of the Homeowner's insurance policy is a common example of an insurance certificate. Thereafter, the Area EPS Operator shall have the right to periodically inspect or obtain a copy of the original policy or polices of insurance. Additionally, the Area EPS Operator may request to be additionally listed as an interested third part on the insurance certificates and endorsements for qualifying facilities less than 40 kW AC to meet the right to periodically obtain a copy of the policy or policies of insurance.

7 Timeline Extensions

7.1. Reasonable Efforts

The Area EPS Operator shall make Reasonable Efforts to meet all time frames provided in these procedures. If the Area EPS Operator cannot meet a deadline provided herein, it must notify the Interconnection Customer in writing within three (3) Business Days after the deadline to explain the reason for the failure to meet the deadline and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

7.2. Extensions

For applicable time frames described in these procedures, the Interconnection Customer may request in writing one extension equivalent to half of the time originally allotted (e.g., ten (10) Business Days for a twenty (20) Business Days original time frame) which the Area EPS Operator may not unreasonably refuse. No further extensions for the applicable time frame shall be granted absent a Force Majeure Event or other similarly extraordinary circumstance.

8 Modifications to Application

8.1. Procedures

At any time after the Interconnection Application is deemed complete, the Interconnection Customer or the Area EPS Operator may identify modifications to the proposed DER system that may improve costs and benefits (including reliability) of the proposed DER system and the ability for the Area EPS Operator to accommodate the proposed DER system. The Interconnection Customer shall submit to the Area EPS Operator in writing all proposed modifications to any information provided in the Interconnection Application. The Area EPS Operator cannot unilaterally modify the Interconnection Application.

8.2. Timelines

Within ten (10) Business Days of receipt of the proposed modification, the Area EPS Operator shall evaluate whether the proposed modification to the Interconnection Application constitutes a Material Modification. The definition in the Section 13 Glossary of the Process Overview document includes examples of what does and does not constitute a Material Modification.

The Area EPS Operator shall notify the Interconnection Customer in writing of the final determination of the proposed modification. For proposed modifications that are determined to be a Material Modification the Interconnection Customer may choose to either: 1) withdraw the proposed modification; or 2) proceed with a new Interconnection Application. The Interconnection Customer shall provide its determination in writing to the Area EPS Operator within ten (10) Business Days after being provided the Material Modification determination. If the Interconnection Customer does not provide its determination within the timeline, the Interconnection Application shall be considered withdrawn.

If the proposed modification is not determined to be a Material Modification, then the Area EPS Operator shall notify the Interconnection Customer in writing that the modification has been accepted and the Interconnection Customer shall retain its eligibility for interconnection, including its place in the queue.

9 Interconnection

9.1. Interconnection Milestones

For DER systems that are not a qualifying facility less than 40 kW AC, the Interconnection Customer and the Area EPS Operator shall agree on milestones for which each Party is responsible and list them in Attachment IV of the MMIA. To the greatest extent possible, the Parties will identify all design, procurement, installation and construction requirements associated with the project, and clear associated timelines, at the beginning of the design, procurement, installation and construction phase, or as early within the process as possible.

A Party's obligation under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, it shall immediately notify the other Party of the reason(s) for not meeting the milestone, propose the earliest reasonable alternative date in which this and future milestones will be met, and request appropriate amendments to the MMIA and its attachments. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless:

- The Party will suffer significant uncompensated economic or operational harm from the delay, or

- Attainment of the same milestone has previously been delayed, or

- The Party has reason to believe the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstance explained by the Party proposing the amendment.

If the Party affected by the failure to meet a milestone disputes the proposed extension, the affected Party may pursue dispute resolution as described in the Overview Process document.

9.2. Metering

Any metering requirements necessitated by the use of the DER system shall be installed at the Interconnection Customer's expense. The metering requirement costs will be included in the final invoice of interconnection costs to the Interconnection Customer. The Interconnection Customer is also responsible for metering replacement costs not covered in the Interconnection Customer's general customer charge. The Area EPS Operator may charge Interconnection Customers an ongoing metering-related charge for an estimate of ongoing metering-related costs specifically demonstrated.

9.3. Construction

The Interconnection Customer may proceed to construct (including operational testing not to exceed two hours) the DER system when the Area EPS Operator has approved the Interconnection Application. Upon receipt of a signed Uniform Contract or Interconnection Agreement the Area EPS Operator shall schedule and execute appropriate construction of facilities.

9.4. Inspection, Testing and Commissioning

Upon completing construction of the DER system, the Interconnection Customer will cause the DER system to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction. The Interconnection Customer shall then arrange for the inspection and testing of the DER system and the Customer's Interconnection Facilities prior to interconnection pursuant to Minnesota Interconnection Technical Requirements. Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards of Minnesota's Technical Requirements and Section 15 in the Overview Process.

The Interconnection Customer shall notify the Area EPS Operator of testing and inspection no fewer than five (5) Business Days in advance, or as may be agreed to by the Parties. The Interconnection Customer shall provide to the Area EPS Operator a testing procedure that will be followed on the day of testing and inspection no fewer than ten (10) Business Days prior to the testing and inspection date. The testing procedure should include tests and/or inspections to confirm the DER system will meet the technical requirements of interconnection. The Area EPS Operator shall review the testing procedure for completeness and shall notify the Interconnection Customer if the testing procedure fails to address components of the technical requirements for interconnection.

The Area EPS Operator shall send qualified personnel to the DER site to inspect the interconnection and witness the testing. Testing and inspection shall occur on a Business Day at a mutually agreed upon date and time. The Area EPS Operator may waive the right to witness the testing.

9.5. Interconnection Costs

9.5.1 Estimation of Interconnection Costs

The Interconnection Customer shall pay for the actual cost of the Interconnection Facilities and Distribution Upgrades along with the Area EPS Operator's cost to commission the proposed DER system. An estimate of the interconnection costs shall be stated in the Uniform Contract or in the MMIA in Attachment II as a detailed itemization of such costs. If Network Upgrades are required, the actual cost of the Network Upgrades, including overheads, shall be borne by the Interconnection Customer pursuant to the Transmission Provider and associated agreements.

9.5.2 Progressive Payment of Interconnection Costs

The Area EPS Operator shall bill the Interconnection Customer for the design, engineering, construction and procurement costs of the Interconnection Facilities and Upgrades described in the MMIA Attachment II on a monthly basis or other basis agreed upon by both Parties in the MMIA or Uniform Contract. The Interconnection Customer shall pay each bill within twenty-one (21) Business Days or as agreed to in the MMIA or Uniform Contract.

9.5.3 Final Accounting of Interconnection Facilities and Upgrade Costs

If distribution or transmission facilities required upgrades to accommodate the proposed DER system, the Area EPS Operator shall render the final interconnection cost invoice to the Interconnection Customer within eighty (80) Business Days (approximately four calendar months) of completing the

construction and installation of the Area EPS Operator's Interconnection Facility and Upgrades. The Area EPS Operator shall provide the Interconnection Customer with a final accounting report identifying the difference between the actual Interconnection Customer's cost responsibility and the Interconnection Customer's previous aggregate payments to the Area EPS Operator for the specific DER system interconnection. Upon the final accounting submitted to the Interconnection Customer, the balance between the actual cost and previously aggregated payments shall be paid to the Area EPS Operator within twenty (20) Business Days. If the balance between the actual cost and previously aggregated payments is a credit, the Area EPS Operator shall refund the Interconnection Customer within twenty (20) Business Days.

9.5.4 Final Interconnection Costs without Facilities and Upgrades Needed

Within thirty (30) Business Days the final invoice for the interconnection costs shall be rendered to the Interconnection Customer once the proposed DER system has been commissioned by the Area EPS Operator, or upon the commissioning being waived by the Area EPS Operator. The Interconnection Customer shall make payment to the Area EPS Operator within twenty-one (21) Business Days of receipt, or as otherwise stated in the Uniform Contract or MMIA.

9.6. Security of Payment

At the option of the Area EPS Operator, either the "Traditional Security" or the "Modified Security" method shall be used for assurance of payment of interconnection cost.

Under the Traditional Security method, the Interconnection Customer shall provide reasonable, adequate assurances of credit, including a letter of credit or personal guaranty of payment and performance from a creditworthy entity acceptable under the Area EPS Operator credit policy. The letter of credit shall also include procedures for the unpaid balance of the estimated amount shown in the Interconnection Agreement for the totality of all anticipated work or expense incurred by the Area EPS Operator associated with the Interconnection Application. The payment for these estimated costs shall be as follows:

- 1/3 of estimated costs shall be due no later than when the Interconnection Customer signs the Interconnection Agreement.

- An additional 1/3 of estimated costs shall be due prior to initial energization of the DER with the Area EPS Operator.

- Remainder of actual costs, incurred by Area EPS Operator, shall be due within thirty (30) Business Days from the date the bill is mailed by the Area EPS Operator after project completion.

Under the Modified Security method, at least twenty (20) Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Area EPS Operator's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Area EPS Operator, at the Interconnection Customer's option, a guaranty, letter of credit or other form of security that is reasonably acceptable to the Area EPS Operator and is consistent with the Minnesota Uniform Commercial Code. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Area EPS Operator's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Area EPS Operator under the Interconnection Agreement during its term.

The guaranty must be made by an entity that meets the creditworthiness requirements of the Area EPS Operator and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.

The letter of credit must be issued by a financial institution or insurer reasonably acceptable to the Area EPS Operator and must specify a reasonable expiration date not sooner than sixty (60) Business Days (three calendar months) after the due date of the final accounting report and bill described in Section 9.5

9.7. Non-Warranty

Area EPS Operator does not give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, operated, installed or maintained by the Interconnection Customer, including without limitation the DER and any structures, equipment, wires, appliances or devices not owned, operated or maintained by the Area EPS Operator. The Area EPS Operator does not guarantee uninterrupted power supply to the DER and will operate the Distribution System with the same reliability standards for the entire customer base.

9.8. Authorization for Parallel Operation

The Interconnection Customer shall not operate its DER system in parallel with the Area EPS Operator's Distribution System without prior written authorization from the Area EPS Operator. The Area EPS Operator shall provide such authorization within three (3) Business Days from when the Area EPS Operator receives notification that the Interconnection Customer has complied with all applicable parallel operations requirements and commissioning has been successfully completed. Such authorization shall not be unreasonably withheld, conditioned or delayed.

9.9. Continual Compliance

The Interconnection Customer shall be fully responsible to operate, maintain, and repair the DER as required to ensure that it complies at all times with the interconnection standards to which it has been certified. The Interconnection Customer shall also operate its DER system in compliance with the Area EPS Operator's technical requirements referred to in the executed Interconnection Agreement. The Area EPS Operator may periodically inspect, at its own expense, the operation of the DER system as it relates to power quality, thermal limits and reliability. Failure by the Interconnection Customer to remain in compliance with the technical requirements will result in the disconnection of the DER system from the Area EPS Operator's Distribution System.

9.10. Disconnection of DER

The Area EPS Operator has the right to disconnect the DER in the event of the following:

- Does not continue to follow and maintain IEEE 1547 settings approved by the Area EPS Operator as indicated by the adopted technical requirements.
- Does not meet all the requirements of the Fast Track Process.
- Refuses to sign either the MMIA or the Area EPS Operator's Uniform Contract.

The Area EPS Operator may temporarily disconnect the DER upon the following conditions:

- For scheduled outages upon reasonable notice.
- For unscheduled outages or emergency conditions.

- If the DER does not operate in the manner consistent with the Fast Track Process.

The Area EPS Operator shall inform the Interconnection Customer in advance of any scheduled disconnections, or as reasonable, after an unscheduled disconnection.

Minnesota Municipal Interconnection Process (M-MIP)

Booklet #4

Study Process

For interconnecting systems larger than 4 megawatts

or in need of additional studies

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1 Applicability

1.1. Applicability

The Study Process is applicable to an Interconnection Customer proposing to interconnect a Distributed Energy Resource (DER) with the Area Electrical Power System (Area EPS) Operator's Distribution System, if the DER capacity is larger than 4 MW or is identified through the engineering screening process to need additional studies.

The majority of proposed DER interconnections will initially apply for interconnection under the Simplified or Fast Track Processes. Initial and supplemental screening results are to be considered throughout the Study Process.

1.2. Codes, Standards and Certification Requirements

The Interconnection Customer's proposed DER must meet the codes, standards and certification requirements listed in Section 13, 14 and Section 15 of the Process Overview document. The Area EPS Operator may allow DER systems that do not meet codes, standards and certification only if the DER system design is reviewed, tested and determined to be safe to operate in parallel with the Distribution System.

2 Application Submission

2.1. Initial Interconnection Application for the Study Process

For proposed DER interconnections that are not initially applied for under the Fast Track Process, the Interconnection Customer shall complete the Standard Interconnection Application and submit it to the Area EPS Operator to initiate the Interconnection Process. A completed Interconnection Application will include the following:

- A completed Interconnection Application signed by the Interconnection Customer.
- A process fee not to exceed $1,000, plus $2.00 per kW, toward the deposit of the study(s) indicated in Section 4.
- A site layout drawing of the proposed DER system.
- A one-line diagram of the proposed DER system showing the Point of Common Coupling to the Area EPS Operator's Distribution System.
- All equipment manufacturer specification sheets.
- Documentation of site control as indicated in Section 2.4.

2.2. Professional Licensed Engineer Signature

The one-line diagram submitted with the Interconnection Application will require a signature from a professional engineer licensed in the State of Minnesota certifying the DER was designed in conformance to the Minnesota Technical Requirements for the following conditions:

- Certified[1] equipment is greater than 250 kW.
- Non-certified equipment is greater than 20 kW.

2.3. Battery Storage

An inverter-based DER system may include battery storage. DER systems that include battery storage should complete the Energy Storage Application along with the Interconnection Application.

2.4. Site Control

Documentation of site control must be submitted with the Interconnection Application. Site control may be demonstrated by any of the following:

- Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the DER system;
- An option to purchase or lease a site for constructing the DER system;
- An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for constructing the DER system.

2.5. Interconnection Applications from Other Processes

Some Interconnection Applications submitted under the Fast Track Process may be moved into the Study Process due to issues with the DER interconnection identified by engineering screens. An Area EPS Operator cannot request a new Interconnection Application submission if the Interconnection Application has already been submitted through the Fast Track Process. The Interconnection Customer who had already paid a processing fee for the Fast Track Process is still responsible to make a deposit toward the applicable studies address in Section 4, 5 and 6, but does not need to submit an additional processing fee.

[1] Additional information regarding certified equipment is found in Sections 14 and 15 of the Process Overview booklet.

3 Initial Steps

3.1. Completeness Review and Queue Position

The Interconnection Application originally submitted under the Study Process shall be date- and time-stamped upon initial receipt, and if necessary, resubmission receipt. The Interconnection Customer shall be notified of receipt by the Area EPS Operator within ten (10) Business Days after receipt.

The Area EPS Operator shall notify the Interconnection Customer, within ten (10) Business Days, if the Interconnection Application is deemed incomplete, and provide a written list detailing all information that must be provided to complete the Interconnection Application. The Interconnection Customer has ten (10) Business Days, to provide the missing information, unless additional time is requested with a valid reason. Failure to submit the requested information, within the stated timeline, will result in the Interconnection Application being deemed withdrawn. The Area EPS Operator has an additional five (5) Business Days to review the additionally provided information for completeness.

An Interconnection Application will be deemed complete upon submission to the Area EPS Operator, provided all documents, fees and information required with the Interconnection Application, adhering to Minnesota Technical Requirements, is included. The date- and time-stamp of the completed Interconnection Application shall be accepted as the qualifying date for the purpose of establishing a queue position, as described in Section 4.7 of the Overview Process document.

Interconnection Applications already screened in the Simplified Process or Fast Track Process shall retain their original queue position in the Study Process provided all applicable timelines were met.

3.2. Scoping Meeting

A scoping meeting shall be held within ten (10) Business Days after the Interconnection Application submitted under the Study Process is deemed complete. For Interconnection Applications that were submitted under or put through the Fast Track Process, the scoping meeting will occur within ten (10) Business Days after the Interconnection Customer has elected to continue with the Study Process. The scoping meeting timeline may be extended upon mutual agreement of both Parties. The scoping meeting may also be omitted by mutual agreement.

The purpose of the scoping meeting is to discuss the Interconnection Application and review existing study results relevant to the Interconnection Application. The Parties shall further discuss whether the Area EPS Operator should perform a System Impact

Study or Studies, or proceed directly to a Facilities Study or an Interconnection Agreement. If the Area EPS Operator determines there is no potential for Transmission System or Distribution System adverse system impacts, the Interconnection Application shall proceed directly to a Facilities Study or an executable Interconnection Agreement, as agreed to by the Parties.

4 System Impact Study

4.1. Electric System Impacts

A System Impact Study shall identify and detail the electric system impacts that would result if the proposed DER(s) were interconnected without project modifications or electric system modifications. The System Impact Study is also to study the potential impacts, including but not limited to, those identified in the scoping meeting. A System Impact Study shall evaluate the impacts of the proposed interconnection on the reliability of the electric system.

4.2. System Impact Study Agreement

If the Parties agree at the scoping meeting that a System Impact Study should be performed, the Area EPS Operator shall provide the Interconnection Customer a System Impact Study Agreement, not later than five (5) Business Days after the scoping meeting. If the scoping meeting was omitted by mutual agreement, the Area EPS Operator shall provide the Interconnection Customer a System Impact Study Agreement within ten (10) Business Days after the Interconnection Customer waives the scoping meeting.

The System Impact Study Agreement shall include an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study. If applicable, the System Impact Study Agreement shall list any additional and reasonable technical data on the DER needed to perform the study. The scope and cost responsibilities are to be described in the System Impact Study Agreement.

4.3. System Impact Study Costs

A deposit of the good faith estimated cost for each System Impact Study shall be provided by the Interconnection Customer with the return of a signed System Impact Study Agreement.

4.4. System Impact Study Timelines

Both the Area EPS Operator and the Interconnection Customer has timeline responsibilities under the System Impact Study.

4.4.1. Interconnection Customer Timelines

In order to remain in consideration for interconnection, an Interconnection Customer who has requested a System Impact Study shall meet the following conditions within twenty (20) Business Days of being provided a System Impact Study Agreement:

- Return a signed System Impact Study Agreement.
- Provide to the Area EPS Operator any requested additional and reasonable technical data on the DER needed to perform the System Impact Study.
- Pay the required study deposit.

Upon the Interconnection Customer's request, the Area EPS Operator shall grant a time frame extension as described in Section 9.2, if additional technical data is requested.

4.4.2 Area EPS Operator Timelines

A System Impact Study shall be completed within thirty (30) Business Days after the System Impact Study Agreement has been signed by both Parties and delivered with the deposit and requested technical information to the Area EPS Operator. The results of the System Impact Study shall be delivered to the Interconnection Customer within five (5) Business Days of completion of the System Impact Study. Upon request, the Area EPS Operator shall provide the Interconnection Customer supporting documentation developed in the preparation of the System Impact Study, subjected to confidentiality arrangements consistent with Section 12.1 of the Overview Process and terms of the System Impact Study Agreement.

5 Transmission System Impact Study

5.1. Transmission System Impacts

In instances where the System Impact Study shows potential for Transmission System adverse system impacts, the Area EPS Operator shall contact the appropriate Transmission Provider within five (5) Business Days following the identification of such impacts. The Area EPS Operator shall coordinate with the Area EPS Operator's Transmission Provider to have the necessary studies to determine if the DER causes any adverse transmission impacts. The appropriate Transmission Provider shall provide a Transmission System Impact Study Agreement for the Interconnection Customer. Included in the Transmission System Impact Study Agreement will be a non-binding,

good faith estimate of cost for the study, along with a scope outline of the study and any additional technical data required to complete the Transmission System Impact Study.

5.2. Transmission System Impact Study Timelines

In order to remain in consideration for interconnection, an Interconnection Customer must return the executed Transmission System Impact Study Agreement, along with the study deposit, within fifteen (15) Business Days. The Transmission System Impact Study shall be completed and the results provided to the Interconnection Customer in as timely a manner as possible, after the Transmission System Impact Study Agreement is signed by the Parties. The Area EPS Operator shall be responsible for coordination with the Transmission Provider as needed. Affected Systems shall participate in the study and provide all information necessary to prepare the study.

5.3. Regional Transmission Operator Jurisdiction

In certain circumstances the Transmission Provider may not be able to study a proposed DER system if there is a possible affect to the bulk Transmission System. In these situations, the Area EPS Operator will coordinate with the Transmission Provider to inform the Interconnection Customer that the proposed DER system will need to follow the Regional Transmission Operator's interconnection process. For most of Minnesota, the Regional Transmission Operator is Midcontinent Independent System Operator (MISO).

6 Facilities Study

6.1. Construction of Facilities

If construction of facilities is required, a Facility Study may be necessary to specify and estimate the cost of the equipment, engineering, procurement and construction work. A Facility Study is identified by an Initial Review, Supplemental Review or the Study Process to provide interconnection and interoperability of the DER with the Area EPS Operator's Distribution System as required by Minnesota Technical Requirements. At the determination of the Area EPS Operator, Interconnection Applications reviewed in the Simplified Process or the Fast Track Process that require construction of facilities may forgo a Facilities Study.

6.2. Facilities Study Agreement

The Area EPS Operator shall provide the Interconnection Customer a Facilities Study Agreement either:

- in tandem with the results of the Interconnection Customer's System Impact Study, or

- in tandem with a Transmission System Impact Study, or

- if no System Impact Study is required, within five (5) Business Days after the scoping meeting, or

- within ten (10) Business Days after the Interconnection Application is deemed complete and approved through the Simplified Process or Fast Track Process.

The Facilities Study Agreement shall be accompanied by an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the Facilities Study. The scope of and cost responsibilities for the Facilities Study are to be described in the Facilities Study Agreement. A deposit of the good faith estimated costs for the Facilities Study shall be provided by the Interconnection Customer at the time it returns the Facilities Study Agreement.

6.3. Facilities Study Timeline

In order to remain under consideration for interconnection, the Interconnection Customer must return the executed Facilities Study Agreement and pay the required study deposit within fifteen (15) Business Days.

6.4. Identification of Construction of Facilities

The Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads), needed to implement the conclusions of the System Impact Study(-ies). Design for any required Interconnection Facilities and/or Upgrades shall be performed under the Facilities Study Agreement unless the Facilities Study Agreement was deemed unnecessary by the Area EPS Operator. However, in the event that the Interconnection Customer did not provide the Area EPS Operator all required Conditional Use Permits at the time of entering into the Facilities Study Agreement, any such Design and/or Upgrades by the Area EPS Operator may be delayed until after the Interconnection Customer has provided to the Area EPS Operator all required Conditional Use Permits or provides a final design. The information in the Conditional Use Permits, or changes to the design, may result in significant modifications to the planned design and/or Upgrades. The Interconnection Customer may send to the Area EPS Operator a redacted version of the Conditional Use Permit(s) to ensure confidentiality, but any and all information that the Area EPS Operator would reasonably need to perform an accurate Facilities Study shall not be redacted. If necessary to comply with these requirements, a confidential version of the

Conditional Use Permit(s) may be provided to the Area EPS Operator, with the confidential information being clearly marked and subjected to Confidentiality provisions in the Overview Process document Section 12.1.

The Area EPS Operator may contract with consultants to perform activities required under the Facilities Study Agreement. The Interconnection Customer and the Area EPS Operator may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design will be reviewed and/or modified prior to acceptance by the Area EPS Operator, under the provisions of the Facilities Study Agreement. The Area EPS Operator shall make sufficient information available to the Interconnection Customer, in accordance with confidentiality and critical infrastructure requirements, to permit the Interconnection Customer to obtain an independent design and cost estimate for any necessary facilities.

6.5. Facilities Study Report Timeline

In cases where Upgrades are required, the Facilities Study must be completed within forty-five (45) Business Days of the receipt of the executed Facilities Study Agreement and deposit. In cases where no Upgrades are necessary, and the required facilities are limited to Interconnection Facilities, the Facilities Study must be completed within thirty (30) Business Days of the receipt of the executed Facilities Study Agreement and deposit.

Once the Facilities Study is completed, a draft Facilities Study Report shall be prepared and transmitted to the Interconnection Customer. Upon request, the Area EPS Operator shall provide the Interconnection Customer supporting documentation developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with these procedures and the Facilities Study Agreement.

Within ten (10) Business Days of providing a draft Facilities Study Report to the Interconnection Customer, the Area EPS Operator and Interconnection Customer shall meet to discuss the results of the Facilities Study. This meeting may be omitted by mutual agreement. The Interconnection Customer may, within twenty (20) Business Days after receipt of the draft report, provide written comments to the Area EPS Operator, which the Area EPS Operator shall address in the final report.

The Area EPS Operator shall issue the final Facilities Study Report within fifteen (15) Business Days of receiving the Interconnection Customer's comments, or promptly upon receiving the Interconnection Customer's statement that they will not provide comments. The Area EPS Operator may reasonably extend the time frame, upon notice

to the Interconnection Customer, if the Interconnection Customer's comments require additional analyses or lead to significant modifications by the Area EPS Operator prior to issuance of the final Facilities Study Report.

7 Interconnection Agreement

7.1. Uniform Contract

For a proposed interconnection that meets the conditions of being classified as a qualifying facility less than 40 kW, the Area EPS Operator shall provide the Interconnection Customer with an executable copy of the Area EPS Operator's Uniform Contract for Cogeneration and Small Power Production Facilities (Uniform Contract), within five (5) Business Days after the completion of the applicable study(-ies).

7.2. Minnesota Municipal Interconnection Agreement

For proposed interconnections that do not meet the conditions of being classified as a qualifying facility less than 40 kW or if requested by the Interconnection Customer in lieu of signing the Uniform Contract, the Area EPS Operator shall provide the Interconnection Customer an executable Minnesota Municipal Interconnection Agreement (MMIA) within five (5) Business Days after the completion of the applicable study(-ies).

7.3. Completion of Agreement

The Interconnection Customer must return a signed Interconnection Agreement at least thirty (30) Business Days prior to the requested in-service date of the propose DER. The Area EPS Operator shall sign and return a copy of the fully executed Interconnection Agreement, back to the Interconnection Customer.

The Interconnection Customer may update the requested in-service date submitted on the Interconnection Application to a date thirty (30) Business Days or later from the date on which the Interconnection Customer submits a signed Interconnection Agreement and payment if required unless the Area EPS Operator agrees to an earlier date.

Upon receipt of the signed Interconnection Agreement, the Area EPS Operator may schedule appropriate metering replacements and construction of facilities, if necessary.

8 Insurance

8.1. Insurance Requirements

At minimum, the Interconnection Customer shall maintain, for the duration the DER system is interconnected to the Area EPS Operator's Distribution System, general liability insurance from a qualified insurance agency with a B+ or better rating by "Best," with a combined single limit of not less than those described in Table 8.1. Such general liability insurance shall include coverage against claims for damages resulting from (i) bodily injury, including wrongful death; and (ii) property damage arising out of the Interconnection Customer's ownership and/or operation of the DER under this agreement. Evidence of the insurance shall state that coverage provided is primary and is not excess to or contributing with any insurance or self-insurance by the Area EPS Operator.

Table 8.1 Liability Insurance Requirements

DER System Size	Liability Insurance Requirement
< 40 kW AC	$300,000
≥ 40 kW AC and < 250 kW AC	$1,000,000
≥ 250 kW AC and < 5 MW AC	$2,000,000
≥ 5 MW AC	$3,000,000

For all proposed DER systems, except those that are qualifying systems less than 40 kW AC, the general liability insurance shall, by endorsement to the policy or polices:

- Include the Area EPS Operator as additionally insured.
- Contain severability of interest clause or cross-liability clause.
- Provide that the Area EPS Operator shall not by reason of its inclusion as an additional insured incur liability to the insurance carrier for the payment of premiums for such insurance if the Area EPS Operator is included as an additionally insured.

8.2. Self-Insurance

The Interconnection Customer may choose to be self-insured provided there is an established record of self-insurance. The Interconnection Customer shall supply the Area EPS Operator at least twenty (20) Business Days prior to the date of initial operation, evidence of an acceptable plan to self-insure to a level of coverage equivalent to that required in Section 8.1. Failure of the Interconnection Customer or the Area EPS Operator to enforce the minimum levels of insurance does not relieve the Interconnection Customer from maintaining such levels of insurance or relieve the Interconnection Customer of any liability.

8.3. Proof of Insurance

The Interconnection Customer shall furnish the required insurance certificates and endorsements to the Area EPS Operator prior to the initial operation of the DER. A copy of the Declaration page of the homeowner's insurance policy is a common example of an insurance certificate. Thereafter, the Area EPS Operator shall have the right to periodically inspect or obtain a copy of the original policy or polices of insurance. Additionally, the Area EPS Operator may request to be additionally listed as an interested third party on the insurance certificates and endorsements for qualifying facilities less than 40 kW AC, to meet the right to periodically obtain a copy of the policy or policies of insurance.

9 Timeline Extensions

9.1. Reasonable Efforts

The Area EPS Operator shall make Reasonable Efforts to meet all the time frames provided in these procedures. If the Area EPS Operator cannot meet a deadline provided herein, it must notify the Interconnection Customer in writing within three (3) Business Days after the deadline, explaining the reason for the failure to meet the deadline and providing an estimated time by which it will complete the applicable interconnection procedure in the process.

9.2. Extensions

For applicable time frames described in these procedures, the Interconnection Customer may request in writing one extension equivalent to half of the time originally allotted (e.g., ten (10) Business Days for a twenty (20) Business Days original time frame), which the Area EPS Operator may not unreasonably refuse. No further extensions for the applicable time frame shall be granted, absent a Force Majeure Event or other similarly extraordinary circumstance.

10 Modifications to Application

10.1. Procedures

At any time after the Interconnection Application is deemed complete, the Interconnection Customer or the Area EPS Operator may identify modifications to the proposed DER system that may improve costs and benefits. This includes reliability of the proposed DER system and the ability for the Area EPS Operator to accommodate the proposed DER system. The Interconnection Customer shall submit to the Area EPS Operator, in writing, all proposed modifications to any information provided in the Interconnection Application. The Area EPS Operator cannot unilaterally modify the Interconnection Application.

10.2. Timelines

Within ten (10) Business Days of receipt of the proposed modification, the Area EPS Operator shall evaluate whether the proposed modification to the Interconnection Application constitutes a Material Modification. The definition in the Section 13 Glossary of the Process Overview document includes examples of what does and does not constitute a Material Modification.

The Area EPS Operator shall notify the Interconnection Customer in writing of the final determination of the proposed modification. For proposed modifications that are determined to be a Material Modification the Interconnection Customer may choose to either: 1) withdraw the proposed modification; or 2) proceed with a new Interconnection Application. The Interconnection Customer shall provide its choice in writing to the Area EPS Operator within ten (10) Business Days after being provided the Material Modification determination. If the Interconnection Customer does not provide its choice within the timeline, the Interconnection Application shall be considered withdrawn.

If the proposed modification is not determined to be a Material Modification, then the Area EPS Operator shall notify the Interconnection Customer in writing that the modification has been accepted and the Interconnection Customer shall retain its eligibility for interconnection, including its position in the queue.

11 Interconnection

11.1. Interconnection Milestones

For DER systems that are not a qualifying facility less than 40 kW AC, the Interconnection Customer and the Area EPS Operator shall agree on milestones for which each Party is responsible and list them in Attachment IV in the Interconnection Agreement. To the greatest extent possible, the Parties will identify all design, procurement, installation and construction requirements associated with the project while also clearly identifying associated timelines, at the beginning, or as early within the process as possible, of the design, procurement, installation and construction phase.

A Party's obligation under this provision may be extended by agreement. If a Party anticipates that they will be unable to meet a milestone for any reason other than a Force Majeure Event, they shall immediately notify the other Party of the reason(s) for not meeting the milestone, then propose the earliest reasonable alternative date in which this and future milestones will be met and request appropriate amendments to the Interconnection Agreement and its attachments. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless:

- The Party will suffer significant uncompensated economic or operational harm from the delay, or

- Attainment of the same milestone has previously been delayed, or

- The Party has reason to believe the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstance explained by the Party proposing the amendment.

If the Party affected by the failure to meet a milestone disputes the proposed extension, the affected Party may pursue dispute resolution as described in the Overview Process document.

11.2. Metering

Any metering requirements necessitated by the use of the DER system shall be installed at the Interconnection Customer's expense. The metering-related costs will be included in the final invoice of interconnection costs to the Interconnection Customer. The Interconnection Customer is also responsible for metering replacement costs not covered in the Interconnection Customer's general customer charge. The Area EPS Operator may charge Interconnection Customers an ongoing metering-related charge for an estimate of ongoing metering-related costs specifically demonstrated.

11.3. Inspection, Testing and Commissioning

Upon completing construction of the DER system, the Interconnection Customer will cause the DER system to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction. The Interconnection Customer shall then arrange for the inspection and testing of the DER system and the Customer's Interconnection Facilities prior to interconnection pursuant to Minnesota Technical Requirements. Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards of Minnesota's Technical Requirements and Section 15 in the Overview Process.

The Interconnection Customer shall notify the Area EPS Operator of testing and inspection no fewer than five (5) Business Days in advance, or as may be agreed to by the Parties. The Interconnection Customer shall provide to the Area EPS Operator a testing procedure that will be followed on the day of testing and inspection no fewer than ten (10) Business Days prior to the testing and inspection date. The testing procedure should include tests and/or inspections to confirm the DER system will meet the technical requirements of interconnection. The Area EPS Operator shall review the testing procedure for completeness and notify the Interconnection Customer if the

testing procedure fails to address components of the technical requirements for interconnection.

The Area EPS Operator shall send qualified personnel to the DER site to inspect the interconnection and witness the testing. Testing and inspection shall occur on a Business Day at a mutually agreed upon date and time. The Area EPS Operator may waive the right to witness the testing.

11.4. Interconnection Costs

11.4.1 Estimation of Interconnection Costs

The Interconnection Customer shall pay for the actual cost of the Interconnection Facilities and Distribution Upgrades along with the Area EPS Operator's cost to commission the proposed DER system. An estimate of the interconnection costs shall be stated in the Uniform Contract or in the MMIA in Attachment II, Interconnection Facilities and Upgrades, as a detailed itemization of such costs. If Network Upgrades are required, the actual cost of the Network Upgrades, including overheads, shall be borne by the Interconnection Customer pursuant to the Transmission Provider and associated agreements.

11.4.2 Progressive Payment of Interconnection Costs

The Area EPS Operator shall invoice the Interconnection Customer for the design, engineering, construction and procurement costs of the Interconnection Facilities and Upgrades described in the MMIA Attachment II, on a monthly basis, or other manner agreed upon by both Parties in the MMIA, or as described in the Uniform Contract. The Interconnection Customer shall pay each invoice within twenty-one (21) Business Days or as agreed to in the MMIA or Uniform Contract.

11.4.3 Final Accounting of Interconnection Facilities and Upgrade Costs

If distribution or transmission facilities required upgrades to accommodate the proposed DER system, the Area EPS Operator shall render the final interconnection cost invoice to the Interconnection Customer within eighty (80) Business Days (approximately four calendar months) of completing the construction and installation of the Area EPS Operator's Interconnection Facility and Upgrades. The Area EPS Operator shall provide the Interconnection Customer with a final accounting report identifying the difference between the actual Interconnection Customer's cost responsibility and the Interconnection Customer's previous aggregate payments to the Area EPS Operator for the specific DER system interconnection. Upon the final accounting submitted to the Interconnection Customer, the balance between the actual cost and previously

aggregated payments shall be paid to the Area EPS Operator within twenty (20) Business Days. If the balance between the actual cost and previously aggregated payments is a credit, the Area EPS Operator shall refund the Interconnection Customer within twenty (20) Business Days.

11.4.4 Final Interconnection Costs without Facilities and Upgrades Needed

Within thirty (30) Business Days the final invoice for the interconnection costs shall be rendered to the Interconnection Customer once the proposed DER system has been commissioned by the Area EPS Operator, or upon the commissioning being waived by the Area EPS Operator. The Interconnection Customer shall make payment to the Area EPS Operator within twenty-one (21) Business Days of receipt, or as otherwise stated in the Uniform Contract or MMIA.

11.5. Security of Payment

At the option of the Area EPS Operator, either the "Traditional Security" or the "Modified Security" method shall be used for assurance of payment of interconnection cost.

Under the Traditional Security method, the Interconnection Customer shall provide reasonable, adequate assurances of credit, including a letter of credit or personal guaranty of payment and performance from a creditworthy entity acceptable under the Area EPS Operator credit policy. The letter of credit shall also include procedures for the unpaid balance of the estimated amount shown in the Interconnection Agreement for the totality of all anticipated work or expense incurred by the Area EPS Operator associated with the Interconnection Application. The payment for these estimated costs shall be as follows:

- One-third of estimated costs, shall be due no later than when the Interconnection Customer signs the Interconnection Agreement.

- An additional one-third of estimated costs, shall be due prior to initial energization of the DER with the Area EPS Operator.

- After the project completion, the remainder of actual costs, incurred by Area EPS Operator, shall be due within thirty (30) Business Days from the date the invoice is mailed.

Under the Modified Security method, at least twenty (20) Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete

portion of the Area EPS Operator's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Area EPS Operator, at the Interconnection Customer's option, a guaranty, letter of credit or other form of security that is reasonably acceptable to the Area EPS Operator and is consistent with the Minnesota Uniform Commercial Code. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Area EPS Operator's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Area EPS Operator under the Interconnection Agreement during its term.

The guaranty must be made by an entity that meets the creditworthiness requirements of the Area EPS Operator and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.

The letter of credit must be issued by a financial institution or insurer reasonably acceptable to the Area EPS Operator and must specify a reasonable expiration date not sooner than sixty (60) Business Days, (three calendar months), after the due date of the final accounting report and invoice described in Section 11.4.

11.6. Non-Warranty

Area EPS Operator does not give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, operated, installed or maintained by the Interconnection Customer, including without limitation the DER and any structures, equipment, wires, appliances or devices not owned, operated or maintained by the Area EPS Operator. The Area EPS Operator does not guarantee uninterrupted power supply to the DER and will operate the Distribution System with the same reliability standards for the entire customer base.

11.7. Authorization for Parallel Operation

The Interconnection Customer shall not operate its DER system in parallel with the Area EPS Operator's Distribution System without prior written authorization from the Area EPS Operator. The Area EPS Operator shall provide such authorization within three (3) Business Days from when the Area EPS Operator receives notification that the Interconnection Customer has complied with all applicable parallel operations requirements and commissioning has been successfully completed. Such authorization shall not be unreasonably withheld, conditioned or delayed.

11.8. Continual Compliance

The Interconnection Customer shall operate its DER system in compliance with the Area EPS Operator's technical requirements referred to in the executed Interconnection Agreement. The Area EPS Operator may periodically inspect, at its own expense, the operation of DER system as it relates to power quality, thermal limits and reliability. Failure by the Interconnection Customer to remain in compliance with the technical requirements will result in the disconnection of the DER system from the Area EPS Operator's Distribution System.

11.9. Disconnection of DER

The Area EPS Operator has the right to disconnect the DER in the event of the following:

- Does not continue to follow and maintain IEEE 1547 settings approved by the Area EPS Operator as indicated by the adopted technical requirements.
- Does not meet all the requirements of the Study Process.
- Refuses to sign either the Interconnection Agreement or the Area EPS Operator's Uniform Contract.

The Area EPS Operator may temporarily disconnect the DER upon the following conditions:

- For scheduled outages upon reasonable notice.
- For unscheduled outages or emergency conditions.
- If the DER does not operate in the manner consistent with the Study Process.

The Area EPS Operator shall inform the Interconnection Customer in advance of any scheduled disconnections, or as reasonable, after an unscheduled disconnection.

Minnesota Municipal Interconnection Process (M-MIP)

System Impact Study Agreement

System Impact Study Agreement

THIS AGREEMENT is made and entered into this _____day of_____ 20___ by and between_____, ("Interconnection Customer"), and _____, a municipal utility existing under the laws of the State of Minnesota, ("Area EPS Operator"). Interconnection Customer and Area EPS Operator each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, the Interconnection Customer is proposing to develop a Distributed Energy Resource (DER) or generating capacity addition to an existing DER consistent with the Interconnection Application completed by the Interconnection Customer on_____(date); and

WHEREAS, the Interconnection Customer desires to interconnect the DER with the Area EPS Operator's Electric System; and

WHEREAS, the Interconnection Customer has requested the Area EPS Operator to perform a System Impact Study to assess the impact of interconnecting the DER with the Area EPS Operator's Electric System, and potential Affected System(s);

NOW, THEREFORE, in consideration of, and subject to, the mutual covenants contained herein the Parties agreed as follows:

1. When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated, or the meanings specified, in the Minnesota Municipal Interconnection Process (M-MIP).

2. The Interconnection Customer elects and the Area EPS Operator shall cause to be performed a System Impact Study consistent with the M-MIP. The scope of a System

Impact Study shall be subject to the assumptions set forth in this Agreement, including Attachment A.

3. A System Impact Study will be based upon the technical information provided by Interconnection Customer in the Interconnection Application. The Area EPS Operator reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the System Impact Study.

4. A System Impact Study may, as necessary, consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews. A System Impact Study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. A System Impact Study shall provide a list of facilities that are required as a result of the Interconnection Application and non-binding good faith estimates of cost responsibility and time to construct. A Facilities Study may be required to identify all possibilities of facility upgrades, cost estimates and estimate of construction time.

5. A distribution System Impact Study shall incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on electric system operation, as necessary.

6. If the System Impact Study determines Affected Systems may be affected, a separate Transmission System Impact Study may be required. All Affected Systems shall be

afforded an opportunity to review and comment upon a System Impact Study that indicates potential adverse system impacts on their electric systems.

7. If the Area EPS Operator uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required Network Upgrades, the System Impact Study shall consider all Distributed Energy Resources (and with respect to Section 7.3 below, any identified Upgrades associated with such higher queued interconnection) that, on the date the System Impact Study is commenced.

   7.1. Are directly interconnected with the Area EPS Operator's Electric System; or

   7.2. Are interconnected with Affected Systems and may have an impact on the proposed interconnection; and

   7.3. Have a pending higher queued Interconnection Application to interconnect with the Area EPS Operator's Electric System.

8. A deposit of the equivalent of the good faith estimated cost of a System Impact Study shall be required from the Interconnection Customer when the signed Agreement is provided to the Area EPS Operator.

9. Any study fees shall be based on the Area EPS Operator's actual costs and include a summary of professional time. An invoice shall be sent to the Interconnection Customer within twenty (20) Business Days after the study is completed and delivered.

10. The Interconnection Customer must pay any study costs that exceed the deposit without interest, within twenty (20) Business Days, on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Area EPS

Operator shall refund such excess within twenty (20) Business Days of the invoice without interest.

11. Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions, shall be governed by the laws of the State of Minnesota. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

12. Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

13. No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

14. Waiver

14.1. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement, will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

14.2. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by the

Interconnection Customer, shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Area EPS Operator. Any waiver of this Agreement shall, if requested, be provided in writing.

15. Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original, but all constitute one and the same instrument.

16. No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties, or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power, or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

17. Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore, insofar as practicable, the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

18. Subcontractors

18.1. Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement, in

providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

18.2. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires, as if no subcontract had been made; provided, however, that in no event shall the Area EPS Operator be liable for the actions or inactions of the Interconnection Customer or their subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement, upon the hiring Party, shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

18.3. The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

19. Inclusion of Area EPS Operator Tariffs and Rules

The interconnection services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the tariff schedules and rules applicable to the electric service provided by the Area EPS Operator, which tariff schedules and rules are hereby incorporated into this Agreement by this reference. Notwithstanding any other provisions of this Agreement, the Area EPS Operator shall have the right to unilaterally change rates, charges, classification, service, tariff, or rule or any agreement relating thereto. The Interconnection Customer shall have the right to protest any such change through the Area EPS Operator's dispute resolution process, pursuant to the Area EPS Operator's rules and regulations.

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert Name of Area EPS Operator]	[Insert Name of Interconnection Customer]
(Signature)	(Signature)
(Title)	(Title)

Attachment A

Assumptions Used in Conducting the System Impact Study

The System Impact Study shall be based upon the following assumptions:

1) Designation of Point of Common Coupling and configuration to be studied.

2) Designation of alternative Points of DER Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (attached to this Agreement) are to be provided by the Interconnection Customer and the Area EPS Operator. The Area EPS Operator shall use the Reference Point for Applicability which is either the Point of Common Coupling or the Point(s) of DER Interconnection as described in IEEE 1547.

Additional DER Technical Data Required for System Impact Study

If applicable, the Area EPS Operator shall provide a list of any additional technical data that is required to adequately perform the System Impact Study. This list of required technical data shall be attached to this Agreement. As indicated in Section 4 of the Study Process document of the M-MIP, this information is to be returned with the signed System Impact Study Agreement and deposit.

Data to Be Provided by the Area EPS Operator with the System Impact Study Agreement

Estimate Cost of System Impact Study	$
Time duration to complete System Impact Study	Business Days

Minnesota Municipal Interconnection Process (M-MIP)

Facilities Study Agreement

Facilities Study Agreement

THIS AGREEMENT is made and entered into this _____day of_____ 20___ by and between_____, ("Interconnection Customer"), and _____, a municipal utility existing under the laws of the State of Minnesota, ("Area EPS Operator"). Interconnection Customer and Area EPS Operator each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS the Interconnection Customer is proposing to develop a Distributed Energy Resource (DER) or generating capacity addition to an existing DER consistent with the Interconnection Application completed by the Interconnection Customer on_____(date); and

WHEREAS the Interconnection Customer desires to interconnect the DER with the Area EPS Operator's Electric System;

WHEREAS the Area EPS Operator has completed Initial Review, Supplemental Review, and/or a System Impact Study, and provided the results of said review to the Interconnection Customer, or determined none was required; and

WHEREAS the Interconnection Customer has requested the Area EPS Operator to perform a Facilities Study(s) to specify, and estimate the cost of, the equipment, engineering, procurement and construction work, needed to implement the conclusions of the above noted review in accordance with Good Utility Practice, to physically and electrically connect the DER with the Area EPS Operator's distribution system.

NOW, THEREFORE, in consideration of, and subject to, the mutual covenants contained herein the Parties agreed as follows:

1. When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated, or the meanings specified, in the Minnesota Municipal Interconnection Process (M-MIP).

2. The Interconnection Customer elects and the Area EPS Operator shall cause a Facilities Study consistent with the standard M-MIP to be performed. The scope of the Facilities Study shall be subject to data provided in Section 17 to this Agreement.

3. The Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads), needed to implement the conclusions of the System Impact Study(s). The Facilities Study shall also identify: 1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, 2) the nature and estimated cost of the Area EPS Operator's Interconnection Facilities and Upgrades, necessary to accomplish the interconnection, and 3) an estimate of the time required to complete the construction and installation of such facilities.

4. The Area EPS Operator may propose to group facilities required for more than one Interconnection Customer in order to minimize facilities costs through economies of scale. Any Interconnection Customer may require the installation of facilities required for its own Distributed Energy Resource, if they are willing to pay the costs of those facilities.

5. A deposit of the equivalent of the good faith estimated cost of a distribution Facility Study shall be required from the Interconnection Customer when the signed Agreement is provided to the Area EPS Operator.

6. Any study fees shall be based on the Area EPS Operator's actual costs and include a summary of professional time. An invoice shall be sent to the Interconnection Customer within twenty (20) Business Days after the study is completed and delivered.

7. The Interconnection Customer must pay any study costs that exceed the deposit without interest, within twenty (20) Business Days, on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Area EPS Operator shall refund such excess within twenty (20) Business Days of the invoice without interest.

8. Governing Law, Regulatory Authority, and Rules

   The validity, interpretation and enforcement of this Agreement and each of its provisions, shall be governed by the laws of the State of Minnesota. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

9. Amendment

   The Parties may amend this Agreement by a written instrument duly executed by both Parties.

10. No Third-Party Beneficiaries

    This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

11. Waiver

    11.1. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement, will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

    11.2. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure

to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by the Interconnection Customer, shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Area EPS Operator. Any waiver of this Agreement shall, if requested, be provided in writing.

12. Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

13. No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties, or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

14. Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore, insofar as practicable, the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

15. Subcontractors

15.1. Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to

comply with all applicable terms and conditions of this Agreement, in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

15.2. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires, as if no subcontract had been made; provided, however, that in no event shall the Area EPS Operator be liable for the actions or inactions of the Interconnection Customer or their subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement, upon the hiring Party, shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

15.3. The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

16. Inclusion of Area EPS Operator Tariffs and Rules

The interconnection services provided under this Agreement, shall at all times, be subject to the terms and conditions set forth in the tariff schedules and rules applicable to the electric service provided by the Area EPS Operator, which tariff schedules and rules are hereby incorporated into this Agreement by this reference. Notwithstanding any other provisions of this Agreement, the Area EPS Operator shall have the right to unilaterally change rates, charges, classification, service, tariff, or rule or any agreement relating thereto. The Interconnection Customer shall have the right to protest any such change through the Area EPS Operator's dispute resolution process, pursuant to the Area EPS Operator's rules and regulations.

17. Data to be Provide by Interconnection Customer with Facilities Agreement

17.1. The Interconnection Customer shall be available to meet on site with the Area EPS Operator within five (5) Business Days of signing the Facilities Study Agreement. The personnel furnished by the Interconnection Customer for this site visit shall bring detailed information on the site layout. The Area EPS Operator may request the Interconnection Customer physically places stakes at the locations of major components.

17.2. The Interconnection Customer shall furnish a final site plan detailing the location of major equipment at the time this agreement is returned. The Point of Common Coupling (PCC) and Point of Distributed Resource Connection (PoC) shall be clearly marked. The site plan shall depict any nearby roads and be labeled with the road name. Accurate dimensions shall be included on the site plan. The proper emergency (911) address, corresponding to the site, shall be labeled on the site plan.

17.3. The Interconnection Customer shall furnish a final one-line diagram detailing the electrical connections between major components. The one-line shall be returned with the signed Facilities Study Agreement.

17.4. Technical cut sheets on all equipment related to metering shall be provided by the Interconnection Customer along with the signed Facilities Study Agreement.

17.5. If available, copies of the Conditional Use Permits(s) from all necessary authorities shall be returned by the Interconnection Customer with the signed Facilities Study Agreement.

17.6. The Interconnection Customer shall secure any necessary easements from private land owners prior to signing the Facilities Study Agreement. Documentation of any such agreements shall be provided to the Area EPS Operator.

17.7. In the event that the Area EPS Operator determines a site survey is necessary in order to complete a Facilities Study, the Interconnection Customer shall make good faith efforts to complete the survey in a timely manner.

17.8. The Facilities Study assumes all land use permits required for the interconnection will be approved by the proper authorities. Permits are submitted after Interconnection Agreement is signed and may impact project costs (i.e. overhead to underground requirements.)

17.9. The Interconnection Customer and Area EPS Operator shall provide a single point of contact for design and construction related matters. The Interconnection Customer single point of contact shall respond in a timely manner to the Area EPS Operator's questions during the Facilities Study.

17.10. In the event that an Interconnection Customer does not provide the necessary information described in this Agreement, or if the Interconnection Customer takes more than five (5) Business Days to respond to a question during the Facilities Study, the Facilities Study timeframe shall pause until the question is resolved.

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert Name of Area EPS Operator]	[Insert Name of Interconnection Customer]
(Signature)	(Signature)
(Title)	(Title)

Data to Be Provided by the Area EPS Operator with the Facilities Study Agreement

Estimate Cost of Facility Study	$
Time duration to complete Facility Study	Business Days

Minnesota Municipal Interconnection Process (M-MIP)

Transmission System Impact Study Agreement

Transmission System Impact Study Agreement

THIS AGREEMENT is made and entered into this _____day of_____ 20___ by and between_____, ("Interconnection Customer"), and _____, a municipal utility existing under the laws of the State of Minnesota, ("Area EPS Operator"), and _____, a transmission system owner existing under the laws of the State of Minnesota, ("Transmission Provider"). Interconnection Customer, Area EPS Operator and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS the Interconnection Customer is proposing to develop a Distributed Energy Resource or generating capacity addition to an existing DER, (in either case referred to herein as a "DER"), interconnected to the Area EPS Operator's Electric System, as described in the Interconnection Application completed by the Interconnection Customer and submitted to the Area EPS Operator on_____; and

WHEREAS the Interconnection Customer has requested the Area EPS Operator to work with the Transmission Provider to perform a Transmission System Impact Study to assess the impact on the Transmission Provider's electric transmission system of interconnecting the DER with the Area EPS Operator's Electric System, and to determine if there are potential Affected System(s) in addition to the Transmission Provider's electric transmission system;

NOW, THEREFORE, in consideration of, and subject to, the mutual covenants contained herein the Parties agreed as follows:

1. When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated, or the meanings specified, in the Minnesota Municipal Interconnection Process (M-MIP).

2. The Interconnection Customer requests and the Area EPS Operator and its Transmission Provider agrees to perform a Transmission System Impact Study consistent with the M-MIP. The Interconnection Customer understands and acknowledges that each of the Area EPS Operator and the Transmission Provider may perform separate system impact studies. The scope of a Transmission System Impact Study shall be subject to the assumptions set forth in this Agreement; including Attachment A.

3. A Transmission System Impact Study will be based upon the technical information provided by Interconnection Customer in the Interconnection Application. Each of the Area EPS Operator and Transmission Provider reserve the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the System Impact Study. Neither the Area EPS Operator nor the Transmission Provider will be obligated to commence the Transmission System Impact Study until each has received adequate technical information from the Interconnection Customer.

4. In the event that the applicable bulk transmission system generation interconnection process, (such as the Midcontinent Independent System Operator or MISO, or Southwest Power Pool or SPP), supersedes the M-MIP, the Transmission Provider will so notify the Interconnection Customer and this Agreement will be deemed terminated.

5. A Transmission System Impact Study may, as determined by the Area EPS Operator and/or the Transmission Provider, consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage analysis and flicker studies, protection and set point coordination studies, and grounding reviews. A Transmission System Impact Study shall

state the assumptions upon which it is based, indicate the applicable Local Planning Criteria used, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and provide for the interconnection. A Transmission System Impact Study shall provide a list of transmission facilities that are required as a result of the Interconnection Application and non-binding good faith estimates of cost responsibility and time to construct such transmission facilities. A Facilities Study may be required to identify all possibilities of facility upgrades, cost estimates and estimate of construction time.

6. If the Transmission Provider determines there are any potential Affected System(s), the Affected System(s) will be asked to participate in or review/comment on the Transmission System Impact Study. The Affected System(s) will be entitled to determine in their sole discretion the extent of their participation or review/comment, and will be entitled to apply their respective Local Planning Criteria. The Transmission Provider will inform the Interconnection Customer of the estimated cost of the Affected System's participation in or review/comment on the Transmission System Impact Study.

7. The Transmission System Impact Study will be scheduled for completion taking in consideration for prior-queued projects in the applicable bulk transmission generation interconnection queue or Transmission Provider's generation interconnection queue. The Transmission Provider and/or the Area EPS Operator shall notify the Interconnection Customer if such condition exists.

8. The Area EPS Operator and/or the Transmission Provider shall provide an estimate of the cost of the Transmission System Impact Study to the Interconnection Customer. At the time that the Interconnection Customer executes this Agreement, the Interconnection Customer shall provide a deposit of the estimated cost(s) of the

Transmission System Impact Study to the Area EPS Operator and/or Transmission Provider, as applicable.

9. The Interconnection Customer shall be responsible for the actual costs incurred by the Area EPS Operator and/or the Transmission Provider to perform the Transmission System Impact Study. An invoice documenting the actual costs shall be sent by the Area EPS Operator and/or Transmission Provider to the Interconnection Customer within twenty (20) Business Days after the study is completed and delivered.

10. The Interconnection Customer shall pay the invoice amount less the deposit amount, within twenty (20) Business Days, on receipt of the invoice. If the deposit exceeds the actual cost of the study, the Transmission Provider shall refund such excess amount within twenty (20) Business Days of the date of the invoice.

11. Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions, shall be governed by the laws of the State of Minnesota. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

12. Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

13. No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities

other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

14. Waiver

14.1. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement, will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

14.2. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by the Interconnection Customer, shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Area EPS Operator. Any waiver of this Agreement shall, if requested, be provided in writing.

15. Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

16. No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties, or to impose any partnership obligation or partnership liability upon a Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, any other Party.

17. Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other

Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore, insofar as practicable, the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

18. Subcontractors

18.1. Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement, in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

18.2. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires, as if no subcontract had been made; provided, however, that in no event shall the Area EPS Operator or the Transmission Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement, upon the hiring Party, shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

18.3. The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

19. Inclusion of Area EPS Operator Tariffs and Rules

The interconnection services provided under this Agreement, shall at all times, be subject to the terms and conditions set forth in the tariff schedules and rules applicable to the electric service provided by the Area EPS Operator, which tariff schedules and rules are hereby incorporated into this Agreement by this reference. Notwithstanding any other provisions of this Agreement, the Area EPS Operator shall have the right to unilaterally change rates, charges, classification, service, tariff, or rule or any agreement relating thereto. The Interconnection Customer shall have the right to protest any such change through the Area EPS Operator's dispute resolution process, pursuant to the Area EPS Operator's rules and regulations.

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert Name of Area EPS Operator]	[Insert Name of Interconnection Customer]
_____	_____
_____	_____
(Signature)	(Signature)
_____	_____
(Title)	(Title)

[Insert Name of Transmission Provider]

_____

_____

(Signature)

_____

(Title)

Attachment A

Assumptions Used in Conducting the Transmission System Impact Study

The Transmission System Impact Study shall be based upon the following assumptions:

1) Designation of Point of Common Coupling and configuration to be studied.

2) Designation of alternative Points of DER Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer, the Area EPS Operator and the Transmission Provider. The Area EPS Operator and Transmission Provider shall use the Reference Point for Applicability which is either the Point of Common Coupling or the Point(s) of DER Interconnection as described in IEEE 1547.

Additional DER Technical Data Required for Transmission System Impact Study

If applicable, the Transmission Provider shall attach a list to this Agreement any additional technical data that is required to adequately perform the Transmission System Impact Study. As indicated in Section 4 of the Study Process document of the M-MIP, this information is to be returned with the signed Transmission System Impact Study Agreement and deposit.

Data to Be Provided by the Area EPS Operator and Transmission Provider with the Transmission System Impact Study Agreement

Estimate Cost of Transmission System Impact Study	$
Time duration to complete Transmission System Impact Study	Business Days

Minnesota Municipal Interconnection Process (M-MIP)

Minnesota Municipal Interconnection Agreement (MMIA)

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MMIA Form: Feb. 2022

i.**Contact Information**

Contact information for each Party is listed below along with the basic information describing the Distributed Energy Resource (DER) system.

Area EPS Operator Information

Area EPS Operator: _____

Attention: _____

Address: _____

_____

Phone: _____

Email: _____

Interconnection Customer Information

Interconnection Customer: _____

Attention: _____

Address: _____

_____

Phone: _____

Email: _____

DER System Information

Application Number: _____

Type of DER System: _____

Capacity Rating of System (AC): _____

Limited Capacity Rating (AC): _____

Address of DER System: _____

_____

THIS AGREEMENT is made and entered into this _____day of_____ 20___ by and between_____, ("Interconnection Customer"), and _____, a municipal utility existing under the laws of the State of Minnesota, ("Area EPS Operator"). Interconnection Customer and Area EPS Operator each may be referred to as a "Party," or collectively as the "Parties."

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

1 Scope and Limitations of Agreement

1.1. This Agreement form is intended to provide for the Interconnection Customer to interconnect at the Point of Common Coupling and operate a Distributed Energy Resource with a Nameplate Rating of 10 Megawatts (MW) or less in parallel with the Area EPS at the location identified above and in the Interconnection Application.

1.2. This Agreement shall be used for all Interconnection Applications submitted under the Minnesota Municipal Interconnection Process (M-MIP) except for those Interconnection Applications that qualify and choose for the Uniform Contract to replace the need for this Agreement.

1.3. This Agreement form governs the terms and conditions under which the Interconnection Customer's Distributed Energy Resource will interconnect with, and operate in parallel with, the Area EPS Operator's Distribution System.

1.4. Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1, the M-MIP, or the body of this Agreement.

1.5. This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate agreements, if any. The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity with the applicable Area EPS Operator.

1.6. Nothing in this Agreement is intended to affect any other agreement between the Area EPS Operator and the Interconnection Customer.

2 Responsibilities of the Parties

2.1. The Parties shall perform all obligations of this Agreement in accordance with the M-MIP, Minnesota Technical Requirements, all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.

2.2. The Interconnection Customer shall construct, interconnect, operate and maintain its Distributed Energy Resource and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule and, in accordance with this Agreement, and with Good Utility Practice.

2.3. The Area EPS Operator shall construct, operate, and maintain its Distribution System and its Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.

2.4. The Interconnection Customer agrees to construct its facilities or systems in accordance with the Minnesota Technical Requirements and this Agreement; including, applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, Institute of Electrical and Electronics Engineers (IEEE), Underwriter's Laboratory (UL), and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Distributed Energy Resource so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Area EPS Operator and any Affected Systems.

2.5. Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now owns or subsequently owns unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of common coupling. The Area EPS Operator and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the Area EPS Operator's Distribution System, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.

2.6. The Area EPS Operator shall coordinate with all Affected Systems to support the interconnection.

3 Parallel Operation Obligations

3.1. Once the Distributed Energy Resource has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Distributed Energy Resource in the applicable control area, including, but not limited to; 1) the rules and procedures concerning the operation of generation set forth by the applicable system operator(s) for the Area EPS Operator's Distribution System provided or referenced in an attachment to this Agreement and; 2) the Operating Requirements set forth in Attachment 5 of this Agreement. The Minnesota Technical Requirements for interconnection are covered in a separate document, a copy of which has been made available to the Interconnection Customer and incorporated and made part of this Agreement by this reference.

4 Metering

4.1. As described in M-MIP Process Overview Section 9.1, the Interconnection Customer shall be responsible for the Area EPS Operator's reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachments 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

5 Distributed Energy Resource Capabilities and Grid Reliability

5.1. The Minnesota Technical Requirements outlines the Parties responsibilities consistent with IEEE 1547 Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces which provides requirements relevant to the interconnection and interoperability performance, operation and testing, and, to safety, maintenance and security considerations.

5.2. The Area EPS Operator may offer the Interconnection Customer the option to utilize required DER capabilities to mitigate Interconnection Customer costs related to Upgrades or Interconnection Facilities to address anticipated system impacts from the engineering review (i.e. Initial Review, Supplemental Review, or Study Process described in the M-MIP.)

6 Equipment Testing and Inspection

6.1. As described in M-MIP Process Overview Section 9.3, the Interconnection Customer shall test and inspect its Distributed Energy Resource and Interconnection Facilities prior to interconnection pursuant to Minnesota Technical Requirements and this Agreement.

7 Authorization Required Prior to Parallel Operation

7.1. As described in M-MIP Process Overview Section 9.5, the Area EPS Operator shall use Reasonable Efforts to list applicable parallel operation requirements by attaching the Minnesota Technical Requirements and/or including them in Attachment 5 to this Agreement. Additionally, the Area EPS Operator shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. Pursuant to the M-MIP Process Overview Section 8.5, the Interconnection Customer shall not operate its Distributed Energy Resource in parallel with the Area EPS Operator's Distribution System without prior written authorization of the Area EPS Operator.

8 Right of Access

8.1. Upon reasonable notice, the Area EPS Operator may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Distributed Energy Resource first produces energy to inspect the interconnection, and observe the commissioning of the Distributed Energy Resource (including any required testing), startup, and operation for a period of up to three (3) Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Area EPS Operator at least five (5) Business Days prior to conducting any on-site verification testing of the Distributed Energy Resource.

8.2. Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Area EPS Operator shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.

8.3. Each Party shall be responsible for its costs associated with the interconnection of the DER system as outlined in M-MIP Process Overview Section 9.3 and the Minnesota Technical Requirements.

9 Effective Date

9.1 This Agreement shall become effective upon execution by the Parties.

10 Term of Agreement

10.1. This Agreement shall become effective on the Effective Date and shall remain in effect from the Effective Date unless terminated earlier in accordance with Section 11 of this Agreement.

11 Termination

11.1. No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination.

11.2. The Interconnection Customer may terminate this Agreement at any time by giving the Area EPS Operator twenty (20) Business Days written notice.

11.3. The Area EPS Operator may terminate this Agreement if the listed electric generating facilities are not interconnected to the Area EPS Operator's distribution system within thirty-six (36) months of this Agreement signed by the Parties. The Parties may choose to delay termination by mutual agreement.

11.4. Either Party may terminate this Agreement after Default pursuant to Section 3.

11.5. Upon termination of this Agreement, the Distributed Energy Resource will be disconnected from the Area EPS Operator's Distribution System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this Agreement or such non-terminating Party otherwise is responsible for these costs under this Agreement.

11.6. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.

11.7. The provisions of this article shall survive termination or expiration of this Agreement.

12 Temporary Disconnection

12.1. Temporary disconnection shall continue only for so long as reasonably necessary under Good Utility Practice.

12.2. Emergency Conditions. Under emergency conditions, the Area EPS Operator may immediately suspend interconnection service and temporarily disconnect the Distributed Energy Resource. The Area EPS Operator shall use Reasonable Efforts to notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Distributed Energy Resource. The Interconnection Customer shall use Reasonable Efforts to notify the Area EPS Operator promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Area EPS Operator's Distribution System or any Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

12.3. Temporary Interruption. The Area EPS Operator may interrupt interconnection service or curtail the output of the Distributed Energy Resource and temporarily disconnect the Distributed Energy Resource from the Area EPS Operator's Distribution System when necessary for routine maintenance, construction, or repairs on the Area EPS Operator's Distribution System. The Area EPS Operator shall use Reasonable Efforts to provide the Interconnection Customer with three (3) Business Days' notice prior to such interruption. The Area EPS Operator shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

12.4. Forced Outage. During any forced outage, the Area EPS Operator may suspend interconnection service to effect immediate repairs on the Area EPS Operator's Distribution System. The Area EPS Operator shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Area EPS Operator shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.

12.5. Adverse Operating Effects. The Area EPS Operator shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Distributed Energy Resource may cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Distributed Energy Resource could cause damage to the Area EPS Operator's Distribution System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Area EPS Operator may disconnect the Distributed Energy Resource. The Area EPS Operator shall provide the Interconnection Customer

with five Business Day notice of such disconnection, unless the provisions of Section 12.2 apply.

12.6. Modification of the Distributed Energy Resource. The Interconnection Customer must receive written authorization from the Area EPS Operator before making any change to the Distributed Energy Resource that may have a material impact on the safety or reliability of the Distribution System. Such authorization shall not be unreasonably withheld if the modification is not a Material Modification. Material Modifications, including an increase Nameplate Rating or capacity, may require the Interconnection Customer to submit a new Interconnection Application as described in the M-MIP Process Overview Section 7. If the Interconnection Customer makes such modification without the Area EPS Operator's prior written authorization, the latter shall have the right to temporarily disconnect the Distributed Energy Resource.

12.7. Reconnection. The Parties shall cooperate with each other to restore the Distributed Energy Resource, Interconnection Facilities, and the Area EPS Operator's Distribution System to their normal operating state as soon as reasonably practicable following a temporary disconnection.

12.8. Treatment Similar to Other Retail Customers. If the Interconnection Customer receives retail electrical service at the same site as the Distributed Energy Resource, it may also be disconnected consistent with the rules and practices for disconnecting other retail electrical customer.

12.9. Disconnection for Default. If the Interconnection Customer is in Default of this Agreement, it may be disconnected after a sixty (60) day written notice is provided and the Default is not cured during this sixty (60) day notice. This provision does not apply to disconnection based on Sections 12.2, 12.3, 12.4 or 12.5 of this Agreement.

13 Cost Responsibility for Interconnection Facilities and Distribution Upgrades

13.1 Interconnection Facilities. The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement. The Area EPS Operator shall provide a good faith estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Area EPS Operator.

13.2 The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Area EPS Operator's Interconnection Facilities.

13.3 Distribution Upgrades. The Area EPS Operator shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. The Area EPS Operator shall provide a good faith estimate cost, including overheads, for the purchase and construction of the Distribution Upgrades and provide a detailed itemization of such costs. If the Area EPS Operator and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.

14 Cost Responsibility for Network Upgrades

14.1. Applicability. No portion of Section 14 shall apply unless the interconnection of the Distributed Energy Resource requires Network Upgrades.

14.2. Network Upgrades. The Area EPS Operator or the Transmission Owner shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement. The Area EPS Operator shall provide a good faith estimate cost, including overheads, for the purchase and construction of the Network Upgrades and provide a detailed itemization of such costs. If the Area EPS Operator and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. Unless the Area EPS Operator elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne initially by the Interconnection Customer.

14.3. Repayment of Amounts Advanced for Network Upgrades. The Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to the Area EPS Operator and Affected System operator, if any, for Network Upgrades, including any tax gross-up or other tax-related payments associated with the Network Upgrades, and not otherwise refunded to the Interconnection Customer, to be paid to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under the Area EPS Operator's Tariff and Affected System's Tariff for transmission services with respect to the Distributed Energy Resource. Any repayment shall include interest

calculated in accordance with the methodology set forth in Federal Energy Regulatory Commission's (FERC's) regulations at 18 C.F.R. § 35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. The Interconnection Customer may assign such repayment rights to any person.

14.4. Notwithstanding the foregoing, the Interconnection Customer, the Area EPS Operator, and any applicable Affected System operators may adopt any alternative payment schedule that is mutually agreeable so long as the Area EPS Operator and said Affected System operators take one of the following actions no later than five years from the Commercial Operation Date: (1) return to the Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that the Area EPS Operator or any applicable Affected System operators will continue to provide payments to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond 20 years from the commercial operation date.

14.5. If the Distributed Energy Resource fails to achieve commercial operation, but it or another Distributed Energy Resource is later constructed and requires use of the Network Upgrades, the Area EPS Operator and Affected System operator shall at that time reimburse the Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the Distributed Energy Resource, if different, is responsible for identifying the entity to which reimbursement must be made.

14.6. Special Provisions for Affected Systems. Unless the Area EPS Operator provides, under this Agreement, for the repayment of amounts advanced to any applicable Affected System operators for Network Upgrades, the Interconnection Customer and Affected System operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by the Interconnection Customer to Affected System operator as well as the repayment by Affected System Operator.

14.7. Rights Under Other Agreements. Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection

Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Distributed Energy Resource.

15 Billing, Payment, Milestones, and Financial Security

15.1. Billing and Payment Procedures and Final Accounting. The Area EPS Operator shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement, and the Interconnection Customer shall pay each bill, pursuant to the M-MIP Interconnection Process documents, or as otherwise agreed to by the Parties.

15.2. Within 80 Business Days (approximately 4 calendar months) of completing the construction and installation of the Area EPS Operator's Interconnection Facilities and/or Upgrades described in the Attachments to this Agreement, the Area EPS Operator shall provide the Interconnection Customer with a final accounting report, as described in the M-MIP Fast Track Process Section 9.4.3 and the Study Process Section 11.4.3.

15.3. Milestones. Pursuant to the M-MIP Fast Track Process Section 9.1 and the Study Process Section 11.1, the Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement.

15.4. Financial Security Arrangements. Pursuant to the M-MIP Fast Track Process Section 9.5 and the Study Process Section 11.5, the Interconnection Customer shall provide the Area EPS Operator, at the Interconnection Customer's option, a guarantee, letter of credit or other form of security that is reasonably acceptable to the Area EPS Operator and is consistent with the Minnesota Uniform Commercial Code. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Area EPS Operator's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Area EPS Operator under this Agreement during its term. In addition:

15.4.1. The guarantee must be made by an entity that meets the creditworthiness requirements of the Area EPS Operator, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.

15.4.2. The letter of credit must be issued by a financial institution or insurer reasonably acceptable to the Area EPS Operator and must specify a reasonable expiration not sooner than sixty (60) Business Days (three calendar months) after the due date for the issuance of the final bill.

16 Assignment

16.1. This Agreement may be assigned by either Party upon 15 Business Days prior written notice and opportunity to object by the other Party; provided that:

16.1.1. Either Party may assign this Agreement without the consent of the other Party to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement, provided that the Interconnection Customer promptly notifies the Area EPS Operator of any such assignment.

16.1.2. Interconnection Customer shall have the right to assign this Agreement, without the consent of the Area EPS Operator, for collateral security purposes to aid in providing financing for the Distributed Energy Resource, provided that the Interconnection Customer will promptly notify the Area EPS Operator of any such assignment.

16.1.3. Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

17 Limitations of Liability

17.1. Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

18 Non-Warranty

18.1. The Area EPS Operator does not give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, installed or maintained by the Interconnection Customer, including without limitation the Distributed Energy Resource and any structures, equipment, wires, appliances or devices not owned, operated or maintained by the Area EPS Operator.

19 Indemnity

19.1. This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in Section 17.

19.2. The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

19.3. If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

19.4. If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.

19.5. Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.

19.6. This indemnification obligation shall apply notwithstanding any negligent or intentional acts, errors or omissions of the Indemnified Party, but the Indemnifying Party's liability to indemnify the Indemnifying Party shall be reduced in proportion to the percentage by which the Indemnified Party's negligent or intentional acts, errors or omissions caused damaged.

19.7. Neither Party shall be indemnified for its damages resulting from its sole negligence, intentional acts or willful misconduct. These indemnity provisions shall not be construed to relieve any insurer of its obligation to pay claims consistent with the provisions of a valid insurance policy.

20 Consequential Damages

20.1. Other than as expressly provided for in this Agreement, neither Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

21 Force Majeure

21.1. If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party, either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

22 Default

22.1. No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement or the result of an act or omission of the other Party. Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in Section 21, the defaulting Party shall have sixty (60) calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within sixty (60) calendar days, the defaulting Party shall commence such cure within twenty (20) calendar days after notice and continuously and diligently complete such cure within six (6) months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

22.2. If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

23 Insurance

23.1. An Area EPS Operator may only require an Interconnection Customer to purchase insurance covering damages pursuant to the applicable M-MIP process document in which the distributed energy resource falls under.

23.2. The Area EPS Operator agrees to maintain general liability insurance or self-insurance consistent with the Area EPS Operator's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Area EPS Operator's liabilities undertaken pursuant to this Agreement.

23.3. The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.

23.4. Failure of the Interconnection Customer or Area EPS Operator to enforce the minimum levels of insurance does not relieve the Interconnection Customer from maintaining such levels of insurance or relieve the Interconnection Customer of any liability.

24 Confidentiality

24.1. Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement, design, operating specifications, and metering data provided by the Interconnection Customer may be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such. If requested by either Party, the other Party shall provide in writing the basis for asserting that the information warrants confidential treatment. Parties providing a Governmental Authority trade secret, privileged or otherwise not public data under Minnesota Government Data Privacy Act, Minnesota Statutes Chapter 13, must provide information consistent with the Commission's September 1, 1999 Revised Procedures for Handling Trade Secret and Privileged Data.

24.2. Confidential Information does not include information previously in the public domain with proper authorization, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be publicly divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements that could not otherwise be fulfilled by not making the information public.

24.3. Each Party shall hold in confidence and shall not disclose Confidential Information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential Information shall be clearly marked as such on each page or otherwise affirmatively identified. If a court, government agency or entity with the right, power, and authority to do so, requests or requires either Party, by subpoena, oral disposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirements(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this Agreement. In the absence of a protective order or waiver the Party shall disclose such confidential information which, in the opinion of its counsel, the party is legally compelled to disclose. Each Party will use reasonable efforts to obtain reliable assurance that confidential treatment will be accorded any confidential information so furnished.

24.4. Critical infrastructure information or information that is deemed or otherwise designated by a Party as Critical Energy/Electric Infrastructure Information (CEII) pursuant to FERC regulation 18 C.F.R. §388.133, as may be amended from time to time, may be subject to further protections for disclosure as required by FERC or FERC regulations or orders and the disclosing Party's CEII policies.

24.5. Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

24.6. Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

25 Disputes

The Parties agree in a good faith effort to attempt to resolve all disputes arising out of the interconnection process and associated study and Interconnection Agreements. The Parties agree to follow the established dispute resolution policy adopted by the Area EPS Operator.

26 Taxes

26.1. The Parties agree to follow all applicable tax laws and regulations, consistent with Internal Revenue Service and any other relevant local, state and federal requirements.

26.2. Each Party shall cooperate with the other to maintain the other Party's tax status. It is incumbent on the Party seeking to maintain its tax status to provide formal written notice to the other Party detailing what exact cooperation it is seeking from the other Party well prior to any deadlines by which any such action would need to be taken. Nothing in this Agreement is intended to adversely affect, if applicable, the Area EPS Operator's tax-exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

27 Miscellaneous

27.1. Governing Law, Regulatory Authority, and Rules. The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the Area EPS Operator's board of directors and the laws of the state of Minnesota, without regard to its conflicts of law principles. This Agreement is subject to all

Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

27.2. Amendment. The Parties may amend this Agreement by a written instrument duly executed by both Parties, or under Section 27.12 of this Agreement.

27.3. No Third-Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

27.4. Waiver. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Area EPS Operator. Any waiver of this Agreement shall, if requested, be provided in writing.

27.5. Entire Agreement. This Agreement, including all Attachments, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement. This Agreement can only be amended or modified in writing signed by both Parties.

27.6. Multiple Counterparts. This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument. Electronic signatures are acceptable if the Area EPS Operator has made such a determination pursuant to M-MIP Process Overview Section 4.1.

27.7. No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party.

Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

27.8. Severability. If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

27.9. Security Arrangements. Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

27.10. Environmental Releases. Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Distributed Energy Resource or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

27.11. Subcontractors. Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement. Each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

27.11.1. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made. In no event shall the Area EPS Operator be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this

Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

27.11.2. The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

27.12. Inclusion of Area EPS Operator Tariff and Rules. The interconnection services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the rate schedules and rules applicable to the electric service provided by the Area EPS Operator, which rate schedules and rules are hereby incorporated into this Agreement by this reference.

28 Notices

28.1. General. Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national currier service, or sent by first class mail, postage prepaid, to the person specified as follows:

Area EPS Operator Information

Area EPS Operator: _____

Attention: _____

Address: _____

_____

Phone: _____

Email: _____

Interconnection Customer Information

Interconnection Customer: _____

Attention: _____

Address: _____

_____

Phone: _____

Email: _____

28.2. Billing and Payment. Billing and payments shall be sent to the addresses set out below:

Area EPS Operator Information

Area EPS Operator: _____

Attention: _____

Address: _____

_____

Phone: _____

Email: _____

Interconnection Customer Information

Interconnection Customer: _____

Attention: _____

Address: _____

_____

Phone: _____

Email: _____

28.3. Alternative Forms of Notice. Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone or e mail to the telephone numbers and e-mail addresses set out below:

Area EPS Operator Information

Area EPS Operator: _____

Attention: _____

Address: _____

_____

Phone: _____

Email: _____

Interconnection Customer Information

Interconnection Customer: _____

Attention: _____

Address: _____

_____

Phone: _____

Email: _____

28.4. Designated Operating Representative. The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Area EPS Operator Information

Area EPS Operator: _____

Attention: _____

Address: _____

_____

Phone: _____

Email: _____

Interconnection Customer Information

Interconnection Customer: _____

Attention: _____

Address: _____

_____

Phone: _____

Email: _____

28.5. Changes to Notification. Either Party may change this information by giving five Business Days written notice to the other Party prior to the effective date of the change.

29 Signatures

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Area EPS Operator]	[Insert name of Interconnection Customer]
_____	_____
Signed: _____	Signed: _____
Name (Printed):	Name (Printed):
_____	_____
Title: _____	Title: _____

Attachment I: Glossary of Terms

Affected System – Another Area EPS Operator's System, Transmission Owner's Transmission System, or Transmission System connected generation which may be affected by the proposed interconnection.

Applicant Agent – A person designated in writing by the Interconnection Customer to represent or provide information to the Area EPS on the Interconnection Customer's behalf throughout the interconnection process.

Area EPS – The electric power distribution system connected at the Point of Common Coupling.

Area EPS Operator – An entity that owns, controls, or operates the electric power distribution systems that are used for the provision of electric service in Minnesota.

Business Day – Monday through Friday, excluding Holidays as defined by Minn. Stat. §645.44, Subdivision 5. Any communication to have been sent or received after 4:30 p.m. Central Prevailing Time or on a Saturday, Sunday or holiday shall be considered to have been sent on the next Business Day.

Certified Equipment – Certified equipment is equipment that has been tested by a national recognized lab meeting a specific standard. For DER systems, UL 1741 listing is a common form of DER inverter certification. Additional information is seen in the Certification Codes and Standards document.

Confidential Information – Any confidential and/or proprietary information provided by one Party to the other Party and is clearly marked or otherwise designated "Confidential." All procedures, design, operating specifications, and metering data provided by the Interconnection Customer may be deemed Confidential Information. See Process Overview Section 12.1 for further information.

Distributed Energy Resource (DER) – A source of electric power that is not directly connected to a bulk power system or central station service. DER includes both generators and energy storage technologies capable of exporting active power to an EPS. An interconnection system or a supplemental DER device that is necessary for compliance with this standard is part of a DER. For the purpose of the Interconnection Process and interconnection agreements, the DER includes the Customer's Interconnection Facilities but shall not include the Area EPS Operator's Interconnection Facilities.

Distribution System – The Area EPS facilities which are not part of the Local EPS, Transmission System or any generation system.

Distribution Upgrades – The additions, modifications, and upgrades to the Distribution System at or beyond the Point of Common Coupling to facilitate interconnection of the DER and render

the distribution service necessary to affect the Interconnection Customer's connection to the Distribution System. Distribution Upgrades do not include Interconnection Facilities.

Electric Power System (EPS) – The facilities that deliver electric power to a load.

Fast Track Process – The procedure as described in the Interconnection Process - Fast Track Process for evaluating an Interconnection Application for a DER that meets the eligibility requirements in the Process Overview Section 2.3.

Force Majeure Event – An act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, an order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or another cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing.

Good Utility Practice – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and act which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Area EPS Operator, or any Affiliate thereof. The utility's local governing body is the authority governing interconnection requirements unless otherwise provided for in the Minnesota Technical Requirements.

Interconnection Agreement – The terms and conditions between the Area EPS Operator and Interconnection Customer (Parties). See Section 8 in the Process Overview**Error! Reference source not found.** regarding when the Uniform Contract or Interconnection Agreement applies.

Interconnection Application – The Interconnection Customer's request to interconnect a new or modified, as described in Section 4 of the Process Overview, M-MIP. See Simplified Application Form and Interconnection Application Form.

Interconnection Customer – The person or entity named on the electric utility bill for a premise who proposes to interconnect a DER on that premise with the Area EPS Operator's Distribution

System. The Interconnection Customer is responsible for ensuring the DER is designed, operated and maintained in compliance with the Minnesota Technical Requirements.

Interconnection Facilities – The Area EPS Operator's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the DER and the Point of Common Coupling, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the DER to the Area EPS Operator's System. Some examples of Customer Interconnection Facilities include supplemental DER devices, inverters, and associated wiring and cables up to the Point of DER Connection. Some examples of Area EPS Operator Interconnection Facilities include sole use facilities such as line extensions, controls, relays, switches, breakers, transformers and shall not include Distribution Upgrades or Network Upgrades.

Interconnection Process – The Area EPS Operator's interconnection standards in this document.

Material Modification – A modification to machine data, equipment configuration or to the interconnection site of the DER at any time after receiving notification by the Area EPS Operator of a complete Interconnection Application that has a material impact on the cost, timing, or design of any Interconnection Facilities or Upgrades, or a material impact on the cost, timing or design of any Interconnection Application with a later Queue Position or the safety or reliability of the Area EPS.[1]

MN Technical Requirements – The Minnesota Technical Interconnection and Interoperability Requirements (TIIR) as adopted by the Minnesota Public Utilities Commission on January 22, 2022 as part of Docket No. E-999/CI-16-521.

Nameplate Rating - nominal voltage (V), current (A), maximum active power (kWac), apparent power (kVA), and reactive power (kVar) at which a DER is capable of sustained operation. For a Local EPS with multiple DER units, the aggregate nameplate rating is equal to the sum of all DERs nameplate rating in the Local EPS. For purposes of the Attachment V in the

[1] A Material Modification shall include, but may not be limited to, a modification from the approved Interconnection Application that: (1) changes the physical location of the point of common coupling; such that it is likely to have an impact on technical review; (2) increases the nameplate rating or output characteristics of the Distributed Energy Resource; (3) changes or replaces generating equipment, such as generator(s), inverter(s), transformers, relaying, controls, etc., and substitutes equipment that is not like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; (4) changes transformer connection(s) or grounding; and/or (5) changes to a certified inverter with different specifications or different inverter control settings or configuration. A Material Modification shall not include a modification from the approved Interconnection Application that: (1) changes the ownership of a Distributed Energy Resource; (2) changes the address of the Distributed Energy Resource, so long as the physical point of common coupling remains the same; (3) changes or replaces generating equipment such as generator(s), inverter(s), solar panel(s), transformers, relaying, controls, etc. and substitutes equipment that is a like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; and/or (4) increases the DC/AC ratio but does not increase the maximum AC output capability of the Distributed Energy Resource in a way that is likely to have an impact on technical review.

Interconnection Agreement, the DER system's capacity may, with the Area EPS's agreement, be limited thought use of control systems, power relays or similar device settings or adjustments as identified in IEEE 1547. The nameplate ratings referenced in the Interconnection Process are alternating current nameplate DER ratings at the Point of DER Coupling.

Network Upgrades – Additions, modifications, and upgrades to the Transmission System required at or beyond the point at which the DER interconnects with the Area EPS Operator's System to accommodate the interconnection with the DER to the Area EPS Operator's System. Network Upgrades do not include Distribution Upgrades.

Operating Requirements – Any operating and technical requirements that may be applicable due to the Transmission Provider's technical requirements or Minnesota Technical Requirements, including those set forth in the Interconnection Agreement.

Party or Parties – The Area EPS Operator and the Interconnection Customer.

Point of Common Coupling (PCC) – The point where the Interconnection Facilities connect with the Area EPS Operator's Distribution System. See figure 1. Equivalent, in most cases, to "service point" as specified by the Area EPS Operator and described in the National Electrical Code and the National Electrical Safety Code.

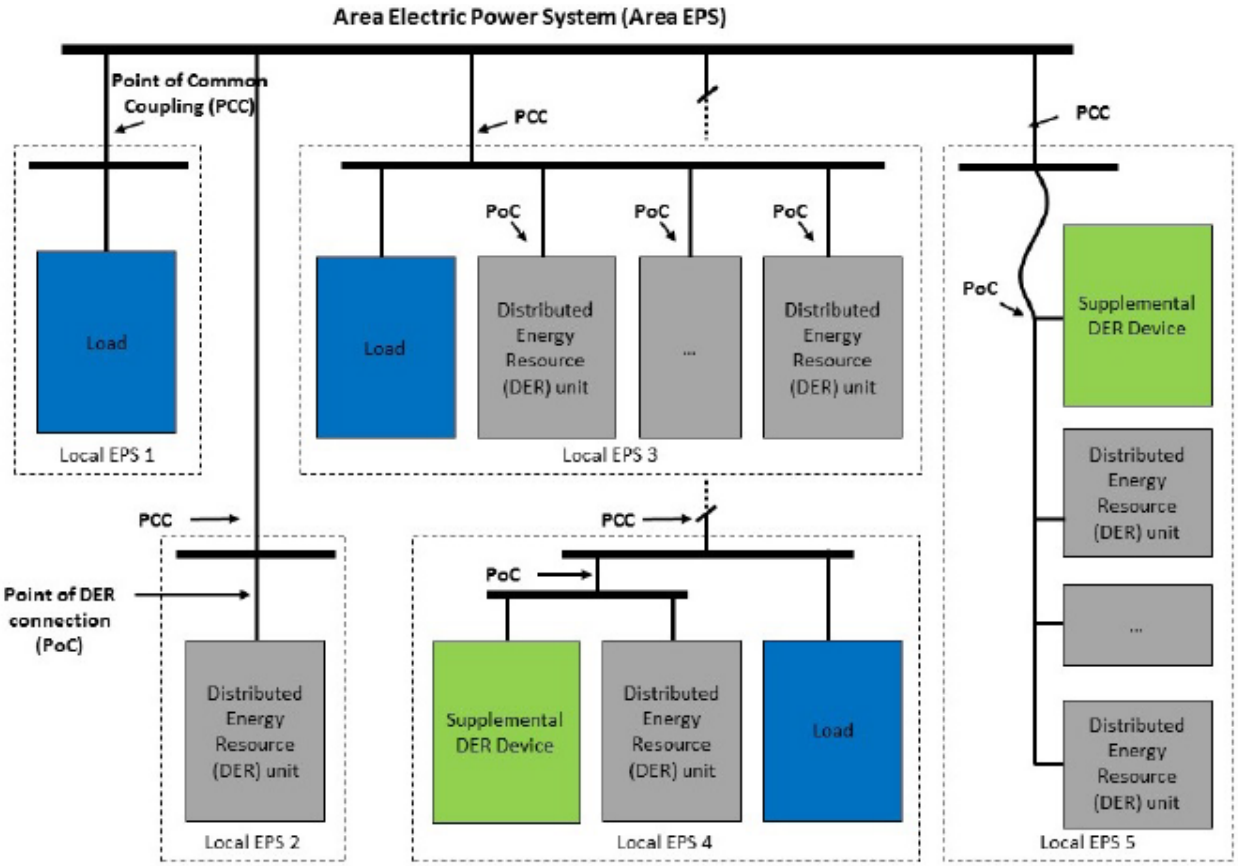


Figure 1: Point of Common Coupling and Point of DER Connection (Source: IEEE 1547)

Point of DER Connection (PoC) – When identified as the Reference Point of Applicability, the point where an individual DER is electrically connected in a Local EPS and meets the requirements of this standard exclusive of any load present in the respective part of the Local EPS (e.g. terminals of the inverter when no supplemental DER device is required.) For DER unit(s) that are not self-sufficient to meet the requirements without a supplemental DER device(s), the Point of DER Connection is the point where the requirements of this standard are met by DER in conjunction with a supplemental DER device(s) exclusive of any load present in the respective part of the Local EPS.

Queue Position – The order of a valid Interconnection Application, relative to all other pending valid Interconnection Applications, that is established based upon the date- and time- of receipt of the complete Interconnection Application as described in Section 4.7 of the Process Overview**Error! Reference source not found.**.

Reasonable Efforts – With respect to an action required to be attempted or taken by a Party under these procedures, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Reference Point of Applicability – The location, either the Point of Common Coupling or the Point of DER Connection, where the interconnection and interoperability performance requirements specified in IEEE 1547 apply. With mutual agreement, the Area EPS Operator and Customer may determine a point between the Point of Common Coupling and Point of DER Connection. See Minnesota Technical Requirements for more information.

Simplified Process – The procedure for evaluating an Interconnection Application for a certified inverter-based DER no larger than 20 kW that uses the screens described in the Interconnection Process – Simplified Process document. The Simplified Process includes simplified procedures.

Study Process – The procedure for evaluating an Interconnection Application that includes the scoping meeting, system impact study, and facilities study.

Transmission Owner – The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System relevant to the Interconnection.

Transmission Provider – The entity (or its designated agent) that owns, leases, controls, or operates transmission facilities used for the transmission of electricity. The term Transmission Provider includes the Transmission Owner when the Transmission Owner is separate from the Transmission Provider. The Transmission Provider may include the Independent System Operator or Regional Transmission Operator.

Transmission System – The facilities owned, leased, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service. See the Commission's July 26, 2000 Order Adopting Boundary Guidelines for Distinguishing Transmission from Generation and Distribution Assets in Docket No. E-999/CI-99-1261.

Uniform Contract – the Area EPS Operator's Agreement for Cogeneration and Small Power Production Facilities (Uniform Contract) that may be applied to all qualifying new and existing interconnections between the Area EPS Operator and an DER system having capacity less than 40 kilowatts.

Upgrades – The required additions and modifications to the Area EPS Operator's Transmission or Distribution System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

Attachment II: Description and Costs of the Distributed Energy Resource, Interconnection Facilities, and Metering Equipment

Equipment, including the Distribution Energy Resource, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer or the Area EPS Operator. The Area EPS Operator will provide a good faith estimate itemized cost, including administrative overheads, of its Interconnection Facilities and metering equipment, and a good faith estimate itemized cost of the annual operation and maintenance expenses associated with the Interconnection Facilities and metering equipment.

Attachment III: One-line Diagram Depicting the Distributed Energy Resource, Interconnection Facilities, and Metering Equipment, and Upgrades

Attachment IV: Milestones

The Milestones in line (1) below may be a calendar date. All other dates in this Attachment IV may be the number of Business Days from the calendar date in line (1) or from the completion of a different Milestone described in a specific number line. Similarly, the anticipated In-Service Date may be based on the number of Business Days from the completion of a specified line number.

In-Service Date: _____

Critical milestones and responsibilities as agreed to by the Parties:

	Milestone/Anticipated Date	**Responsible Party**
(1)		
(2)		
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
(10)		
(11)		
(12)		
(13)		

Agreed to by:

Area EPS Operator _____ Date _____

Transmission Owner
(If Applicable) _____ Date _____

Interconnection
Customer _____ Date _____

Attachment V: Additional Operating and Maintenance Requirements for the Area EPS Operator's Distribution System and Affected Systems Need to Support the Interconnection Customer's Needs

The Area EPS Operator shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the Area EPS Operator's Distribution System. Additional operating and maintenance requirements for an Affected System needed to support the Interconnection Customer's needs may be addressed in a separate agreement described in Section 14.6.

Attachment VI: Area EPS Operator's Description of Distribution and Network Upgrades and Good Faith Estimates of Upgrade Costs

The Area EPS Operator shall describe Distribution and Network Upgrades and provide an itemized good faith estimate of the costs, including administrative overheads, of the Upgrade and annual operations and maintenance expenses associated with such Upgrades. The Area EPS Operator shall functionalize Upgrade costs and annual expenses as either transmission or distribution related. Additional Distribution or Network Upgrades required for an Affected System may be addressed in a separate agreement as described in Section 14.6.

Attachment VII: Assignment of Interconnection Agreement

This is an Assignment of Interconnection Agreement ("Agreement").

There is an Interconnection Agreement, including any and all Attachments thereto including any and all amendments ("Agreement") by and between _____ _____, a municipal utility existing under the laws of the State of Minnesota, ("Area EPS Operator"), and _____, ("Assignor") originally signed by the Area EPS Operator on _____ for a Distributed Energy Resource (DER) described as follows:

DER System Information

Type of DER System: _____

Capacity Rating of System (AC): _____

Limited Capacity Rating (AC): _____

Address of DER System: _____

_____

The Assignor intends to convey its interest in the above-referenced DER to _____ _____ ("Assignee"), and the Assignor intends to assign the Agreement to the Assignee.

Upon the execution of this Assignment by the Assignor, Assignee and the Area EPS Operator, agree as follows:

1. **Capitalized Terms**. Capitalized terms used but not defined herein shall have the meanings set forth in the Agreement.

2. **Consent to Assignment**. The Assignor hereby irrevocably assigns the Agreement in all respects to the Assignee and the Assignee accepts the assignment thereof in all respects.

3. **Amendment to Agreement**. The Area EPS Operator consents to this assignment and, as assigned, the Agreement is hereby amended so that wherever the name of the Assignor

is used therein it shall mean the Assignee. It is further agreed that all terms and conditions of the Agreement, as amended by this Assignment, shall remain in full force and effect.

4. **Payments by Area EPS Operator**. Any and all payments made by Area EPS Operator under the Agreement to either the Assignor or the Assignee shall be deemed to have been made to both and shall discharge the Area EPS Operator from any further liability with regard to said payment.

5. **Financial Obligations of Assignor and Assignee**. Any and all financial liability, including but not limited to amounts due, from the Interconnection Customer to the Area EPS Operator, occurring or accruing under the Agreement on or before the date of the signature of the Area EPS Operator to this Assignment shall be deemed to be the obligation of both the Assignor and Assignee, and the Area EPS Operator may recover any such amounts jointly and severally from the Assignor and Assignee.

6. **Contact information**. The following information updates and replaces the designated information as set forth on page 1 of the Agreement, and in Section 28.1, 28.2, 28.3 and 28.4 of the Agreement.

Page 1 Interconnection Customer Information

Interconnection Customer: _____

Attention: _____

Address: _____

_____

Phone: _____

Email: _____

28.1 General Notices. Interconnection Customer Information

Interconnection Customer: _____

Attention: _____

Address: _____

_____

Phone: _____

Email: _____

28.2 Billing and Payment Notices. Interconnection Customer Information

Interconnection Customer: _____

Attention: _____

Address: _____

_____

Phone: _____

Email: _____

28.3 Alternative Forms of Notices. Interconnection Customer Information

Interconnection Customer: _____

Attention: _____

Address: _____

_____

Phone: _____

Email: _____

28.4 Designated Operating Representative. Interconnection Customer Information

Interconnection Customer: _____

Attention: _____

Address: _____

_____

Phone: _____

Email: _____

7. **Signatures.** Facsimile or electronic signatures, or signatures to this Assignment sent electronically, shall have the same effect as original signatures. Photocopies, or electronically stored versions of this Assignment, shall have the same validity as the original.

The Area EPS Operator, Assignor, and Assignee have executed this Assignment as of the dates as set forth below.

Assignor

[Insert legal name of Assignor]

_____

Signed: _____

Name (Printed): _____

Title: _____

Date: _____

Assignee

[Insert legal name of Assignee]

_____

Signed: _____

Name (Printed): _____

Title: _____

Date: _____

Area EPS Operator

[Insert legal name of Area EPS Operator]

_____

Signed: _____

Name (Printed): _____

Title: _____

Date: _____

ROCHESTER
PUBLIC UTILITIES
WE PLEDGE, WE DELIVER

Rules

Governing the Interconnection of

Cogeneration and Small Power Production Facilities

With

Rochester Public Utilities

Version	Date	Comment
0	3/27/2018	Originally approved by RPU Board
1	5/21/2019	Minor modifications approved 05/21/2019
2	10/25/2022	Modifications approved 10/25/2022

Part A. DEFINITIONS

Subpart 1. Applicability. For purposes of these rules, the following terms have the meanings given them below.

Subp. 2. Average retail utility energy rate. "Average retail utility energy rate" means, for any class of utility customer, the quotient of the total annual class revenue from sales of electricity minus the annual revenue resulting from fixed charges, divided by the annual class kilowatt-hour sales. For purposes of determining the "average retail utility energy rate," the utility may consider a retail demand rate as a fixed charge and may exclude such annual revenue from the calculation. The computation shall use data from the most recent 12- month period available.

Subp. 3. Backup power. "Backup power" means electric energy or capacity supplied by the utility to replace energy ordinarily generated by a qualifying facility's own generation equipment during an unscheduled outage of the facility.

Subp. 4. Capacity. "Capacity" means the capability to produce, transmit, or deliver electric energy and is determined using the aggregate nameplate ratings of all qualifying systems located on the customer side of the point of common coupling. The nameplate ratings of each qualifying system are the maximum alternating current capacity values at the point of DER coupling that could be measured in a 15-minute interval period.

Subp. 5. Capacity costs. "Capacity costs" means the costs associated with providing the capability to deliver energy. The utility's capacity costs consist of the capital costs of facilities from the utility and the utility's wholesale provider used to generate, transmit, and distribute electricity and the fixed operating and maintenance costs of these facilities.

Subp. 6. Customer. "Customer" means the person or entity named on the utility electric bill for the premises.

Subp. 7. Energy. "Energy" means electric energy, measured in kilowatt-hours.

Subp. 8. Energy costs. "Energy costs" means the variable costs associated with the production of electric energy. They consist of fuel costs and variable operating and maintenance expenses.

Subp. 9. Firm power. "Firm power" means energy delivered by the qualifying facility to the utility with at least a 65 percent on-peak capacity factor in the month. The capacity factor is based upon the qualifying facility's maximum metered capacity delivered to the utility during the on-peak hours for the month.

Subp. 10. Governing body. "Governing body" means Rochester Utility Board

Subp. 11. Interconnection costs. "Interconnection costs" means the reasonable costs of connecting, switching, metering, transmission, distribution, safety provisions, and administrative costs incurred by the utility that are directly related to installing and maintaining the physical facilities necessary to permit interconnected operations with a qualifying facility. Costs are considered interconnection costs only to the extent that they exceed the costs the utility would incur in selling electricity to the customer as a non-generating customer.

Subp. 12. Interruptible power. "Interruptible power" means electric energy or capacity supplied by the utility to a customer subject to interruption under the provisions of the utility's tariff applicable to the retail class of customers to which the customer would belong irrespective of their ability to generate electricity.

Subp. 13. Maintenance power. "Maintenance power" means electric energy or capacity supplied by the utility during scheduled outages of a qualifying facility.

Subp. 14. On-peak hours. "On-peak hours" means either those hours formally designated by the utility as on-peak for ratemaking purposes or those hours for which its typical loads are at least 85 percent of its average maximum monthly loads.

Subp. 15. Point of common coupling. "Point of common coupling" means the point where a qualifying facility's generation system, including the point of generator output, is connected to the utility's electric power grid.

Subp. 16. Point of distributed energy resource connection. "Point of distributed energy resource connection" means the point where a qualifying facility's generation system, including the point of generator output, is connected to the customer's electric system and meets the current definition of IEEE 1547.

Subp. 17. Purchase. "Purchase" means the purchase by the utility of electric energy or capacity or both from a customer with a qualifying facility.

Subp. 18. Qualifying facility. "Qualifying facility" means a cogeneration or small power production facility which satisfies the conditions established in Code of Federal Regulations, title 18, part 292. The initial operation date or initial installation date of a cogeneration or small power production facility must not prevent the facility from being considered a qualifying facility for the purposes of this chapter if it otherwise satisfies all stated conditions.

Subp. 19. Sale. "Sale" means the sale of electric energy or capacity or both by the utility to a customer with a qualifying facility.

Subp. 20a. Standby charge. "Standby charge" means the charge imposed by the utility upon a customer with a qualifying facility for the recovery of costs for the provision of standby services necessary to make electricity service available to the customer.

Subp. 20b. Standby service. "Standby service" means supplemental or backup electric service or power provided by the utility that provides reliability to customers who generate all or a portion of their electricity needs from a qualifying facility greater than 40 kW when the customer's own ability to generate will not be sufficient to meet the customer's need while the customer remains connected to the distribution system.

Subp. 21. Supplementary power. "Supplementary power" means electric energy or capacity supplied by the utility which is regularly used by a customer with a qualifying facility in addition to that which the facility generates itself.

Subp. 22. System emergency. "System emergency" means a condition on the utility's system which is imminently likely to result in significant disruption of service to customers or to endanger life or property.

Subp. 23. Utility. "Utility" means The City of Rochester MN acting through its Rochester Public Utilities Board a municipal utility under Minnesota law (Rochester Public Utilities)

Part B. SCOPE AND PURPOSE

The purpose of these rules is to implement certain provisions of Minnesota Statutes Section 216B.164; the Public Utility Regulatory Policies Act of 1978, United States Code, title 16, §824a-3; and the Federal Energy Regulatory Commission regulations, Code of Federal Regulations, title 18, part 292. These rules shall be applied in accordance with their intent to give the maximum possible encouragement to cogeneration and small power production consistent with protection of the utility's ratepayers and the public.

Part C. FILING REQUIREMENTS

The utility shall file for annual review and approval by the governing body, a cogeneration and small power production tariff containing schedules 1 – 3

SCHEDULE 1.

Schedule 1 shall contain the calculation of the average retail utility energy rates for each utility customer class.

SCHEDULE 2.

Schedule 2 shall contain the rates at which the utility purchases energy and capacity. If the utility has more than one wholesale supplier, schedule 2 shall contain the rates of that supplier from which purchases may first be avoided.

SCHEDULE 3.

Schedule 3 shall contain or indicate by reference to a publicly available document the utility's interconnection process, or "distributed generation tariff" adopted in compliance with Minnesota Statutes Section 216B.1611, subd. 3(2), including standard contract forms to be used with customers interconnecting qualifying facilities as well as general technical interconnection and interoperability requirements.

The utility shall also adopt technical specifications with utility-specific safety standards, technical requirements for distributed energy resource systems, required operating procedures for interconnected operations, and the functions to be performed by any control and protective apparatus.

Part D. AVAILABILITY OF FILINGS

All filings shall be maintained at the utility's general office and any other offices of the utility where rate tariffs are kept. The filings shall be made available for public inspection during normal business hours. The utility shall supply the current year's distributed generation rates, interconnection procedures and application form on the utility website, if practicable, or at the utility office.

Part E. REPORTING REQUIREMENTS

The utility shall report to the governing body for its review and approval an annual report including information in subparts 1-3. The utility shall also comply with other federal and state reporting of distributed generation to federal and state agencies expressly required by statute.

Subpart 1. Summary of average retail utility energy rate. A summary of the qualifying facilities that are currently served under average retail utility energy rate.

Subp. 2. Other qualifying facilities. A summary of the qualifying facilities that are not currently served under average retail utility energy rate.

Subp. 3. Wheeling. A summary of the wheeling undertaken with respect to qualifying facilities.

Part F. PURCHASE AND CONTRACT REQUIREMENTS

Subpart 1. Requirement to purchase. The utility shall purchase energy and capacity from any customer who offer to sell energy and capacity from a qualifying facility to the utility and agrees to the conditions in these rules.

Subp. 2. Written contract. A written contract shall be executed between a customer seeking to interconnect a qualifying facility and the utility.

Part G. EXCLUSIVE SERVICE RIGHT RETAINED

The utility reserves its right to be the exclusive provider of electric service to all present and future customers in its service area as provided for in Minnesota Statutes, Sections 216B.40-44. The utility, therefore, refuses permission to interconnect or to continue to purchase energy produced from a facility not owned or leased at a fixed periodic payment amount by the electric utility account holder for the premise upon which the facility is located, unless that right is explicitly waived in writing by the utility for the specified facility.

Part H. ELECTRICAL CODE COMPLIANCE

Subpart 1. Compliance; standards. The interconnection between the qualifying facility and the utility must comply with the requirements in the most recently published edition of the National Electrical Safety Code issued by the Institute of Electrical and Electronics Engineers. The interconnection is subject to subparts 2 and 3.

Subp. 2. Interconnection. A customer with a qualifying facility is responsible for complying with all applicable local, state, and federal codes, including building codes, the National Electrical Code (NEC), the National Electrical Safety Code (NESC), and noise and emissions standards. The utility shall require proof that the qualifying facility is in compliance with the NEC before the interconnection is made. The customer seeking to interconnect a qualifying facility must obtain installation approval from an electrical inspector recognized by the Minnesota State Board of Electricity.

Subp. 3. Generation system. A qualifying facility's generation system and installation must comply with the American National Standards Institute/Institute of Electrical and Electronics Engineers (ANSI/IEEE) standards applicable to the installation.

Part I. RESPONSIBILITY FOR APPARATUS

A customer seeking to interconnect a qualifying facility, without cost to the utility, must furnish, install, operate, and maintain in good order and repair any apparatus the qualifying facility

needs in order to operate in accordance with schedule 3.

Part J. TYPES OF POWER TO BE OFFERED; STANDBY SERVICE

Subpart 1. Service to be offered. The utility shall offer maintenance, interruptible, supplementary, and backup power to a customer seeking to interconnect a qualifying facility upon request.

Subp. 2. Standby service. The utility shall offer a customer seeking to interconnect a qualifying facility standby power or service at the utility's applicable standby rate schedule.

Part K. DISCONTINUING SALES DURING EMERGENCY

The utility may discontinue sales to a customer with an interconnected qualifying facility during a system emergency if the discontinuance and recommencement of service is not discriminatory.

Part L. RATES FOR UTILITY SALES TO A CUSTOMER WITH AN INTERCONNECTED QUALIFYING FACILITY

Rates for sales to a customer with a qualifying facility are governed by the applicable tariff for the class of electric utility customers to which the customer belongs or would belong were they not a customer with an interconnected qualifying facility. Such rates are not guaranteed and may change from time to time at the discretion of the utility.

Part M. STANDARD RATES FOR PURCHASES FROM QUALIFYING FACILITIES

Subpart 1. Qualifying facilities with 100-kilowatt capacity or less. For qualifying facilities with capacity of 100 kilowatts or less, standard purchase rates apply. The utility shall make available four types of standard rates, described in parts M, N, O, and P. A customer interconnecting a qualifying facility with a capacity of 100 kilowatts or less must choose interconnection under one of these rates, and must specify their choice in the written contract required in part V. Any net credit to a customer for their qualifying facility must, at their option, be credited to their account with the utility or returned by check or comparable electronic payment service within 15 days of the billing date. The option chosen must be specified in the written contract required in part V. A customer with an interconnected qualifying facility remains responsible for any monthly service charges and demand charges specified in the tariff under which they consume electricity from the utility.

Subp. 2. Qualifying facilities over 100-kilowatt capacity. A customer interconnecting a qualifying facility with more than 100-kilowatt capacity has the option to negotiate a contract with the utility or, if they commit to provide firm power, be compensated under standard rates.

Subp. 3. Grid access charge. A customer with an interconnected qualifying facility shall be assessed a monthly grid access charge to recover the fixed costs not already paid by the customer through the customer's existing billing arrangement. The additional charge shall be reasonable and appropriate for the class of customer based on the most recent cost of service study defining the grid access charge. The cost-of-service study for the grid access charge shall be made available for review by the customer of the utility upon request.

Part N. AVERAGE RETAIL UTILITY ENERGY RATE

Subpart 1. Applicability. The average retail utility energy rate is available only to customers interconnecting qualifying facilities with capacity of less than 40 kilowatts who choose not to offer electric power for sale on either a time-of-day basis, a simultaneous purchase and sale basis or roll-over credit basis.

Subp. 2. Method of billing. The utility shall bill the customer with an interconnected qualifying facility for the excess of energy supplied by the utility above energy supplied by the qualifying facility during each billing period according to the utility's applicable retail rate schedule.

Subp. 3. Additional calculations for billing. When the energy generated by the qualifying facility exceeds that supplied by the utility to the customer at the same site during the same billing period, the utility shall compensate the customer for the excess energy at the average retail utility energy rate.

Part O. SIMULTANEOUS PURCHASE AND SALE BILLING RATE

Subpart 1. Applicability. The simultaneous purchase and sale rate is available only to customers with qualifying facilities with capacity of less than 40 kilowatts who choose not to offer electric power for sale on average retail utility energy rate basis, time-of-day basis or roll- over credit basis.

Subp. 2. Method of billing. A customer with a qualifying facility must be billed for all energy and capacity they consume during a billing period according to the utility's applicable retail rate schedule.

Subp. 3. Compensation to a customer with a qualifying facility; energy purchase. The utility shall purchase all energy which is made available to it by the qualifying facility. At the option of the customer, the qualifying facility's entire generation may be deemed to be made available to the utility. Compensation to the customer must be the energy rate shown on schedule 2.

Subp. 4. Compensation to a customer with a qualifying facility; capacity purchase. If a customer with a qualifying facility provides firm power to the utility, the capacity component must be the utility's net annual avoided capacity cost per kilowatt-hour averaged over all hours shown on schedule 2, divided by the number of hours in the billing period. If the qualifying facility does not provide firm power to the utility, no capacity component may be included in the compensation paid to the customer.

Part P. TIME-OF-DAY PURCHASE RATES

Subpart 1. Applicability. Time-of-day rates are required for customers interconnecting qualifying facilities with capacity of 40 kilowatts or more and less than or equal to 100 kilowatts, and they are optional for customers interconnecting qualifying facilities with capacity less than 40 kilowatts. Time-of-day rates are also optional for customers interconnecting qualifying facilities with capacity greater than 100 kilowatts if these qualifying facilities provide firm power.

Subp. 2. Method of billing. The interconnecting customer must be billed for all energy and capacity

they consume during each billing period according to the utility's applicable retail rate schedule.

Subp. 3. Compensation to qualifying facility; energy purchases. The utility shall purchase all energy which is made available to it by the qualifying facility. Compensation to the interconnecting customer must be the energy rate shown on schedule 2.

Subp. 4. Compensation to qualifying facility; capacity purchases. If the qualifying facility provides firm power to the utility, the capacity component must be the capacity cost per kilowatt shown on schedule 2 divided by the number of on-peak hours in the billing period. The capacity component applies only to deliveries during on-peak hours. If the qualifying facility does not provide firm power to the utility, no capacity component may be included in the compensation paid to the interconnecting customer.

Part Q. ROLL-OVER CREDIT PURCHASE RATES

Subpart 1. Applicability. The roll-over credit rate is available only to interconnecting customers with qualifying facilities with capacity of less than 40 kilowatts who choose not to offer electric power for sale on average retail utility energy rate basis, time-of-day basis or simultaneous purchase and sale basis.

Subp. 2. Method of billing. The utility shall bill the interconnecting customer for the excess of energy supplied by the utility above energy supplied by the qualifying facility during each billing period according to the utility's applicable retail rate schedule.

Subp. 3. Additional calculations for billing. When the energy generated by the qualifying facility exceeds that supplied by the utility during a billing period, the utility shall apply the excess kilowatt hours as a credit to the next billing period kilowatt hour usage. Excess kilowatt hours that are not offset in the next billing period shall continue to be rolled over to the next consecutive billing period. Any excess kilowatt hours rolled over that are remaining at the end of each calendar year shall cancel with no additional compensation.

Part R. CONTRACTS NEGOTIATED BY CUSTOMER

An interconnecting customer with a qualifying facility with capacity greater than 100 kilowatts must negotiate a contract with the utility setting the applicable rates for payments to the customer of avoided capacity and energy costs.

Subpart 1. Amount of capacity payments. The interconnecting customer who negotiates a contract under part R must be entitled to the full avoided capacity costs of the utility. The amount of capacity payments will be determined by the utility and the utility's wholesale power provider.

Subp. 2. Full avoided energy costs. The interconnecting customer who negotiates a contract under part R must be entitled to the full avoided energy costs of the utility. The costs must be adjusted as appropriate to reflect line losses.

Part S. WHEELING

Interconnecting customers with qualifying facilities with capacity of 30 kilowatts or greater that are interconnected to the utility's distribution system who choose to sell the output of the qualifying

facility to any other utility, must pay any appropriate wheeling charges to the utility. Within 15 days of receiving payment from the utility ultimately receiving the qualifying facility's output, the utility shall pay the interconnecting customer the payment less the charges it has incurred and its own reasonable wheeling costs.

Part T. NOTIFICATION TO CUSTOMERS

Subpart 1. Contents of written notice. Following each annual review and approval by the utility of the cogeneration rate tariffs the utility shall furnish in the monthly newsletter or similar mailing, written notice to each of its customers that the utility is obligated to interconnect with and purchase electricity from cogenerators and small power producers.

Subp. 2. Availability of information. The utility shall make available to all interested persons upon request, the interconnection process and requirements adopted by the utility, pertinent rate schedules and sample contractual agreements.

Part U. DISPUTE RESOLUTION

In case of a dispute between a utility and a customer interconnecting a qualifying facility or an impasse in negotiations between them, either party may petition the governing body to determine the issue.

Part V. INTERCONNECTION CONTRACTS

Subpart 1. Interconnection standards. The utility shall provide a customer applying for interconnection with a copy of, or electronic link to, the utility's adopted interconnection process and requirements.

Subp. 2. Existing contracts. Any existing interconnection contract executed between the utility and a customer interconnecting a qualifying facility with capacity of less than 40 kilowatts remains in force until terminated by mutual agreement of the parties or as otherwise specified in the contract. The governing body has assumed all dispute responsibilities as listed in existing interconnection contracts. Disputes are resolved in accordance with Part T.

Subp. 3. Renewable energy credits; ownership. Generators own all renewable energy credits unless other ownership is expressly provided for by a contract between a generator and the utility.

Part W. UNIFORM CONTRACT

The form for uniform contract form shown in subpart 1shall be used between the utility and a qualifying facility having less than 40 kilowatts of capacity.

Subpart 1. Uniform Contract for Cogeneration and Small Power Production Facilities. (See attached contract form.)

UNIFORM CONTRACT FOR COGENERATION AND SMALL POWER PRODUCTION FACILITIES

THIS CONTRACT is entered into _____, ___, by the City or Rochester, acting by and through its Rochester Public Utilities Board a municipal utility under Minnesota law (hereafter called Utility), (hereafter called Utility") and _____ (hereafter called "Customer").

RECITALS

The Customer has installed electric generating facilities, consisting of _____ (Description of facilities), rated at ____kilowatts AC of electricity, on property located at _____.

The Customer is an electric service recipient named on a service account of the Utility.

The Customer is prepared to generate electricity in parallel with the Utility.

The Customer's electric generating facilities meet the requirements of the Rules Governing Cogeneration and Small Power Production Facilities adopted by the Utility and any technical standards for interconnection the Utility has established that are authorized by those rules.

The Utility is obligated under federal and Minnesota law to accommodate interconnection with the Customer’s facilities and to purchase electricity offered for sale by the Customer from those facilities.

A contract between the Customer and the Utility is required for operation of facilities interconnected with the Utility system.

AGREEMENTS

The Customer and the Utility agree:

1. The Utility will sell electricity to the Customer under the rate schedule in force for the class of customer to which the Customer belongs.

2. The Utility will buy electricity from the Customer under the current rate schedule filed with the city council or city-appointed governing body of the Utility. The Customer elects the rate schedule category hereinafter indicated:

____ a. Average retail utility energy rate.

- Facilities capacity must be less than 40 kW.

____ b. Simultaneous purchase and sale billing rate.

- Facilities capacity must be less than 40 kW.

____ c. Roll-over credits.

- Facilities capacity must be less than 40 kW.

____ d. Time-of-day purchase rates.

- Facilities capacity must be 40 kW or more and less than or equal to 100 kW.

A copy of the presently approved rate schedule is attached to this contract.

3. The rates for sales and purchases of electricity may change over the time this contract is in force, due to actions of the Utility or the State of Minnesota, and the Customer and the Utility agree that sales and purchases will be made under the rates in effect each month during the time this contract is in force.

4. The Utility will compute the charges and payments for purchases and sales for each billing period. Any net credit to the Customer, other than kilowatt-hour credits under clause 2(c), will be made under one of the following options as chosen by the Customer.

____ a. Credit to the Customer's account with the Utility.
____ b. Paid by check or electronic payment service to the Customer within fifteen (15) days of the billing date.

5. Renewable energy credits associated with generation from the facility are owned by:
_____.

6. The Customer must operate their electric generating facilities within any rules, regulations, and policies adopted by the Utility not prohibited by the rules governing cogeneration and small power production facilities on the Utility's system which provide reasonable technical connection and operating specifications for the facilities and are consistent with the Minnesota Public Utilities Commission's rules adopted under Minnesota Statutes §216B.164, subdivision 6.

7. The Customer will not enter into an arrangement whereby electricity from the generating facilities will be sold to an end user in violation of the Utility's exclusive right to provide electric service in its service area under Minnesota Statutes, Section 216B.37-44.

8. The Customer will operate their electric generating facilities so that they conform to the national, state, and local electric and safety codes, and the Customer will be responsible for the costs of conformance.

9. The Customer is responsible for the actual, reasonable costs of interconnection which are estimated to be $_____. The Customer will pay the Utility in this way:

_____

_____.

10. The Customer will give the Utility reasonable access to its property and electric generating facilities if the configuration of those facilities does not permit disconnection or testing from the Utility 's side of the interconnection. If the Utility enters the Customer's property, the Utility will remain responsible for its personnel.

11. The Utility may stop providing electricity to the Customer during a system emergency. The Utility will not discriminate against the Customer when it stops providing electricity or when it resumes providing electricity.

12. The Utility may stop purchasing electricity from the Customer when necessary for the Utility to construct, install, maintain, repair, replace, remove, investigate, or inspect any equipment or facilities within its electric system. The Utility may stop purchasing electricity from the Customer in the event the generating facilities listed in this contract are documented to be causing power quality, safety or reliability issues to the Utility's electric distribution system.

The Utility will notify the Customer in this way before it stops purchasing electricity:

_____

_____.

13. The Customer will keep in force general liability insurance against personal or property damage due to the installation, interconnection, and operation of its electric generating facilities. The amount of insurance coverage will be $ _____. (The amount must be consistent with requirements for like-sized facilities under the interconnection process or distributed generation tariff adopted by the Utility pursuant to Minnesota Statutes §216B.1611, subdivision 3, clause 2.)

14. The Customer and the Utility agree to attempt to resolve all disputes arising hereunder promptly and in a good faith manner.

15. The city council or city-appointed body governing the Utility has authority to consider and determine disputes, if any, that arise under this contract in

accordance with procedures in the rules it adopts implementing Minnesota Statutes Section 216B.164, pursuant to subdivision 9 thereunder.

16. This contract becomes effective as soon as it is signed by the Customer and the Utility. This contract will remain in force until either the Customer or the Utility gives written notice to the other that the contract is canceled. This contract will be canceled thirty (30) days after notice is given. If the listed electric generating facilities are not interconnected to the Utility's distribution system within twelve months of the contract being signed by the Customer and the Utility, the contract terminates. The Customer and the Utility may delay termination by mutual agreement.

17. Neither the Customer nor the Utility will be considered in default as to any obligation if the Customer or the Utility is prevented from fulfilling the obligation due to an act of nature, labor disturbance, act of public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, an order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or other cause beyond the Customer's or Utility's control. However, the Customer or Utility whose performance under this contract is hindered by such an event shall make all reasonable efforts to perform its obligations.

18. This contract can only be amended or modified by mutual agreement in writing signed by the Customer and the Utility.

19. The Customer must notify the Utility prior to any change in the electric generating facilities' capacity size or generating technology according to the interconnection process adopted by the Utility.

20. Termination of this contract is allowed (i) by the Customer at any time without restriction; (ii) by Mutual Agreement between the Utility and the Customer; (iii) upon abandonment or removal of electric generating facilities by the Customer; (iv) by the Utility if the electric generating facilities are continuously non-operational for any twelve (12) consecutive month period; (v) by the Utility if the Customer fails to comply with applicable interconnection design requirements or fails to remedy a violation of the interconnection process; or (vi) by the Utility upon breach of this contract by the Customer unless cured with notice of cure received by the Utility prior to termination.

21. In the event this contract is terminated, the Utility shall have the rights to disconnect its facilities or direct the Customer to disconnect its generating facilities.

22. This contract shall continue in effect after termination to the extent necessary to allow either the Utility or the Customer to fulfill rights or obligations that arose under the contract.

23. Transfer of ownership of the generating facilities shall require the new owners and the Utility to execute a new contract. Upon the execution of a new contract with the new owners this contract shall be terminated.

24. The Customer and the Utility shall at all times indemnify, defend, and save each other harmless from any and all damages, losses, claims, including claims and actions relating to injury or death of any person or damage to property, costs and expenses, reasonable attorneys' fees and court costs, arising out of or resulting from the Customer's or the Utility's performance of its obligations under this contract, except to the extent that such damages, losses or claims were caused by the negligence or intentional acts of the Customer or the Utility.

25. The Utility and the Customer will each be responsible for their own acts or omissions and the results thereof to the extent authorized by law and shall not be responsible for the acts or omissions of any others and the results thereof.

26. The Customer's and the Utility's liability to each other for failure to perform their obligations under this contract shall be limited to the amount of direct damage actually occurred. In no event, shall the Customer or the Utility be liable to each other for any punitive, incidental, indirect, special, or consequential damages of any kind whatsoever, including for loss of business opportunity or profits, regardless of whether such damages were foreseen.

27. The Utility does not give any warranty, expressed or implied, to the adequacy, safety, or other characteristics of the Customer's interconnected system.

28. This contract contains all the agreements made between the Customer and the Utility. The Customer and Utility are not responsible for any agreements other than those stated in this contract.

THE CUSTOMER AND THE UTILITY HAVE READ THIS CONTRACT AND AGREE TO BE BOUND BY ITS TERMS. AS EVIDENCE OF THEIR AGREEMENT, THEY HAVE EACH SIGNED THIS CONTRACT BELOW ON THE DATE LISTED BY SIGNER.

CUSTOMER	**UTILITY**
By: _____	By: _____
Printed Name: _____	Printed Name: _____
DATE: _____	DATE: _____

SCHEDULE 1 – RULES GOVERNING COGENERATION AND SMALL POWER PRODUCTION

	2021 (rates used in 2022)	2020 (rates used in 2021)	
RESIDENTIAL			
Total revenues	$ 56,798,846.74	$ 55,698,487.48	
Less fixed revenues (customer charge)	$11,557,474.02	$ 11,440,328.10	
Net revenues	$45,241,372.69	$ 44,258,159.38	
kWh	381,177,301	373,658,257	
Average retail energy rate	**$ 0.11869**	**$ 0.11845**	.21%
COMMERCIAL			
SGS			
Total revenues	$ 18,077,447.74	$ 17,927,217.14	
Less fixed revenues (customer charge)	$ 2,323,707.42	$ 2,312,420.76	
Net revenues	$ 15,753,740.32	$ 15,614,796.38	
kWh	133,506,305	132,836,085	
Average retail energy rate	**$ 0.11800**	**$ 0.11755**	.38%
MGS			
Total revenues	$ 40,326,710.21	$ 38,431,853.70	
Less fixed revenues (customer charge)	-	-	
Net revenues	$ 40,326,710.21	$ 38,431,853.70	
kWh	362,868,187	342,701,397	
Average retail energy rate	**$ 0.11113**	**$ 0.11214**	-.90%
LGS			
Total revenues	$ 16,813,643.38	$ 16,868,994.96	
Less fixed revenues (customer charge)	-	-	
Net revenues	$ 16,813,643.38	$ 16,868,994.96	
kWh	166,042,701	170,480,572	
Average retail energy rate	**$ 0.10126**	**$ 0.09895**	2.34%
INDUSTRIAL			
Total revenues	$ 9,596,902.34	$ 10,244,298.41	
Less fixed revenues (customer charge)	-	-	
Net revenues	$ 9,596,902.34	$ 10,244,298.41	
kWh	85,274,812	94,217,932	
Average retail energy rate	**$ 0.11254**	**$ 0.10873**	3.51%

Approved by Rochester Public Utility Board: *March 30, 2022*
Effective Date: *April 1, 2022*

~~SCHEDULE 4 – AVERAGE INCREMENTAL COST~~

SCHEDULE 2 – AVERAGE INCREMENTAL COST

(RPU Board approved Schedule 4 on March 22, 2022)

Estimated Marginal Energy Costs ($/MWh)						
		2022	2023	2024	2025	2026
Summer	**On Peak**	**44.87**	**37.74**	**38.48**	**36.08**	**35.93**
	Off Peak	31.40	24.37	25.77	25.64	26.58
	All Hours	37.59	30.52	31.62	30.44	30.88
Winter	**On Peak**	56.22	43.99	42.68	42.67	42.19
	Off Peak	41.15	31.89	32.10	30.87	31.78
	All Hours	48.08	37.46	36.96	36.30	36.57
Annual	**On Peak**	50.54	40.87	40.58	39.37	39.06
	Off Peak	36.27	28.13	28.94	28.26	29.18
	All Hours	42.84	33.99	34.29	33.37	33.73
Annual # hours on-peak:						

Description of season and on-peak and off-peak periods	
Summer:	April through September
Winter:	October through March
On-peak period:	6 am to 10 pm Monday through Friday except holiday (New Years, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day)
Off-peak period:	All other hours

Estimated Marginal Energy Costs

The estimated system average incremental energy costs are calculated by seasonal peak and off-peak periods for each of the next five years. For each seasonal period, system incremental energy costs are averaged during system daily peak hours, system daily off-peak hours, and all hours in the season. The energy costs are increased by a factor equal to 50 percent of the line losses.

The energy needs of Rochester Public Utilities (RPU) are served through its membership in Southern Minnesota Municipal Power Agency (SMMPA). SMMPA, in turn, is a member of the Midcontinent ISO (MISO). As a result, the municipal's incremental energy cost is equivalent to the MISO hourly Locational Marginal Price (LMP). Actual hourly LMP will vary significantly based on several parameters such as weather, energy demand, and generation availability. The table above represents a forecast of the MISO hourly LMP values averaged over each specific time period at the MISO Minnesota Hub.

Capacity Costs

SMMPA, RPU's wholesale supplier, has neither planned generating facility additions nor planned additional capacity purchases, other than from qualifying facilities, thus SMMPA and RPU are deemed to have no avoidable capacity costs.

SCHEDULE 3

Rules Governing the Interconnection of Cogeneration and Small Power Production Facilities with Rochester Public Utilities, List of documents

The following documents are publically available and document Rochester Public Utilities electric interconnection process for Distributed Energy Resources. This is not a list of all documents related and required for interconnection but the major ones.

1) Minnesota Municipal Interconnection Process (M-MIP) Booklet #1 – Process Overview
2) Minnesota Municipal Interconnection Process (M-MIP) Booklet #2 – Simplified Process
3) Minnesota Municipal Interconnection Process (M-MIP) Booklet #3 – Fast Track Process
4) Minnesota Municipal Interconnection Process (M-MIP) Booklet #4 – Study Process
5) Pre-Application Report
6) Interconnection Application
7) Minnesota Municipal Interconnection Process (M-MIP) - System Impact Study Agreement
8) Minnesota Municipal Interconnection Process (M-MIP) – Facilities Study Agreement
9) Minnesota Municipal Interconnection Process (M-MIP) – Transmission System Impact Study Agreement
10) Minnesota Municipal Interconnection Process - Minnesota Municipal Interconnection Agreement
11) Schedule 1, 2, and 3
12) Rochester Public Utilities - Rules Governing the Interconnection of Cogeneration and Small Power Production Facilities with Rochester Public Utilities
13) Rochester Public Utilities - Technical Specification Manual (TSM)
14) State of Minnesota - Technical Interconnection & Interoperability Requirements (TIRR)

ROCHESTER PUBLIC UTILITIES
WE PLEDGE, WE DELIVER

RESOLUTION

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to Adopt the MMUA updated process and rules documents with an effective date of November 11, 2022, and authorize staff to make minor changes and corrections to these documents as needed with approval of the General Manager.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 25th day of October, 2022.

_____

President

_____

Secretary

FOR BOARD ACTION

Agenda Item # **(ID # 15050)** **Meeting Date: 10/25/2022**

SUBJECT: 2023 Insurance Renewals

PREPARED BY: Deb Donahue

ITEM DESCRIPTION:

Listed below are the recommended insurance quotations for obtaining general liability, commercial automotive, excess liability and all risk property insurance coverage for the period November 1, 2022 - October 31, 2023.

COMMERCIAL AUTO AND GENERAL LIABILITY INSURANCE:

Management recommends maintaining the same structure of coverage for our mobile equipment and general liability insurance, having the League of Minnesota Cities Insurance Trust (LMCIT) provide the primary coverage with an annual aggregate claim limit of $3M. The deductible remains at $50,000 aggregate with $25,000 per occurrence for all lines. (Open meeting law defense, public officials E&O, employment liability, etc...) In 2021, RPU received a **dividend from the League of $47,579**. The League distributes dividends back to its members based on premiums and incurred losses for all years of membership. Includes additional Cyber coverage for Data Security Breach claims of $2M per occurrence with a $3M annual aggregate for 3rd party liability and up to $500K for 1st party expenses.

EXCESS LIABILITY INSURANCE:

Management recommends continuing with AEGIS to provide blanket liability coverage with limits ranging from $ 1,000,000 up to $ 20,000,000 per occurrence. Also includes $20M terrorism liability coverage for 3rd party damages.

ALL RISK PROPERTY INSURANCE:

After experiencing significant rate increases in 2019 and 2020 due to utility industry market changes, we transitioned our property and equipment coverage to more regional carriers in 2021. Interactions with the new inspectors and underwriters have been positive, resulting in a smooth transition. Property replacement values continue to increase for 2023 due to projected inflation of real estate values and construction costs. We also added the new Distributed Energy Resource (DER) control facility at the 10MW solar location.

The League of Minnesota Cities Insurance Trust provides coverage for all of the non-generation facilities such as the service center, well houses, water towers, and substations. This is a blanket policy with $100,000 deductible.

Starr Technical Risks Agency, Inc. provides coverage for the generation facilities at Westside and Silver Lake. $500,000 deductible with $150,000,000 limit for any one occurrence, including terrorism coverage.

FOR BOARD ACTION

Agenda Item # **(ID # 15050)** **Meeting Date: 10/25/2022**

Travelers Boiler & Machinery provides equipment breakdown coverage for all generation assets excluding the Hydro dam. Premium quote includes coverage for GT1 after the unit overhaul project was completed and released back into the MISO market in late August. $1,000,000 deductible with a limit of $100,000,000 per breakdown.

Management recommends continuing with the current property and equipment coverage with the three carriers - League of MN Cities, Starr Tech and Travelers, as described above.

2022-23 Premium Summary:

$ 163,737	LMCIT commercial auto and general liability
$ 405,069	AEGIS excess liability
$ 74,539	LMCIT non-generation facilities
$ 278,900	Starr Tech generation facilities
$ 265,212	Traveler's equipment breakdown
$1,187,457	**TOTAL** (overall increase of 10.4% from 2021-22)

UTILITY BOARD ACTION REQUESTED:

Management recommends that the Board approve the attached resolution for all insurance coverage renewals for 2022-23.

ROCHESTER PUBLIC UTILITIES
WE PLEDGE, WE DELIVER

RESOLUTION

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve the 2022-23 annual insurance renewals with North Risk Partners and the League of Minnesota Cities Insurance Trust in the amount of $1,187,457.00..

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 25th day of October, 2022.

_____

President

_____

Secretary

FOR BOARD ACTION

Agenda Item # **(ID # 15061)** **Meeting Date: 10/25/2022**

SUBJECT: RPU Index of Board Policies

PREPARED BY: Christina Bailey

ITEM DESCRIPTION:

UTILITY BOARD ACTION REQUESTED:

ROCHESTER PUBLIC UTILITIES		
INDEX OF BOARD POLICIES		
	REVISION DATE	FOCUS AREA / STAFF LIAISON
BOARD		
1. Mission Statement	6/26/2012	Policy / Mark Kotschevar
2. Responsibilities and Functions	3/27/2012	Policy / Mark Kotschevar
3. Relationship with the Common Council	2/28/2012	Policy / Mark Kotschevar
4. Board Organization	3/27/2018	Policy / Mark Kotschevar
5. Board Procedures	9/27/2022	Policy / Mark Kotschevar
6. Delegation of Authority/Relationship with Management	7/24/2018	Policy / Mark Kotschevar
7. Member Attendance at Conferences and Meetings	12/18/2018	Policy / Mark Kotschevar
8. Board Member Expenses	12/18/2018	Policy / Mark Kotschevar
9. Conflict of Interest	DELETED	N/A
10. Alcohol and Illegal Drugs	DELETED	N/A
11. Worker Safety	3/27/2012	Policy / Mark Kotschevar
CUSTOMER		
12. Customer Relations	4/30/2019	Ops & Admin / Krista Boston
13. Public Information and Outreach	4/30/2019	Communications / Steven Nyhus
14. Application for Service	7/1/2016	Ops & Admin / Scott Nickels
15. Electric Utility Line Extension Policy	3/28/2017	Finance / Peter Hogan
16. Billing, Credit and Collections Policy	4/26/2022	Finance / Peter Hogan
17. Electric Service Availability	10/29/2019	Ops & Admin / Scott Nickels
18. Water and Electric Metering	6/26/2018	Ops & Admin / Scott Nickels
19. Adjustment of Utility Services Billed	6/29/2021	Finance / Peter Hogan
20. Rates	7/25/2017	Finance / Peter Hogan
21. Involuntary Disconnection	9/28/2021	Communications / Steven Nyhus
ADMINISTRATIVE		
22. Acquisition and Disposal of Interest in Real Property	12/19/2017	Ops & Admin / Scott Nickels
23. Electric Utility Cash Reserve Policy	1/28/2020	Finance / Peter Hogan
24. Water Utility Cash Reserve Policy	1/28/2020	Finance / Peter Hogan
25. Charitable Contributions	6/25/2019	Communications / Steven Nyhus
26. Utility Compliance	10/24/2017	Communications / Steven Nyhus
27. Contribution in Lieu of Taxes	6/29/1999	Finance / Peter Hogan
28. Joint-Use of Infrastructure and Land Rights	3/30/2021	Ops & Admin / Scott Nickels
29. Customer Data Management Policy	3/22/2022	Communications / Steven Nyhus
30. Life Support	9/24/2019	Communications / Steven Nyhus
31. Electric Utility Undergrounding Policy	9/29/2020	Ops & Admin / Scott Nickels
Red - Currently being worked on		
Yellow - Will be scheduled for revision		
Marked for deletion		

FOR BOARD ACTION

Agenda Item # **(ID # 15062)** **Meeting Date: 10/25/2022**

SUBJECT: Division Reports & Metrics - October 2022

PREPARED BY: Christina Bailey

ITEM DESCRIPTION:

UTILITY BOARD ACTION REQUESTED:

Division Reports & Metrics October 2022

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

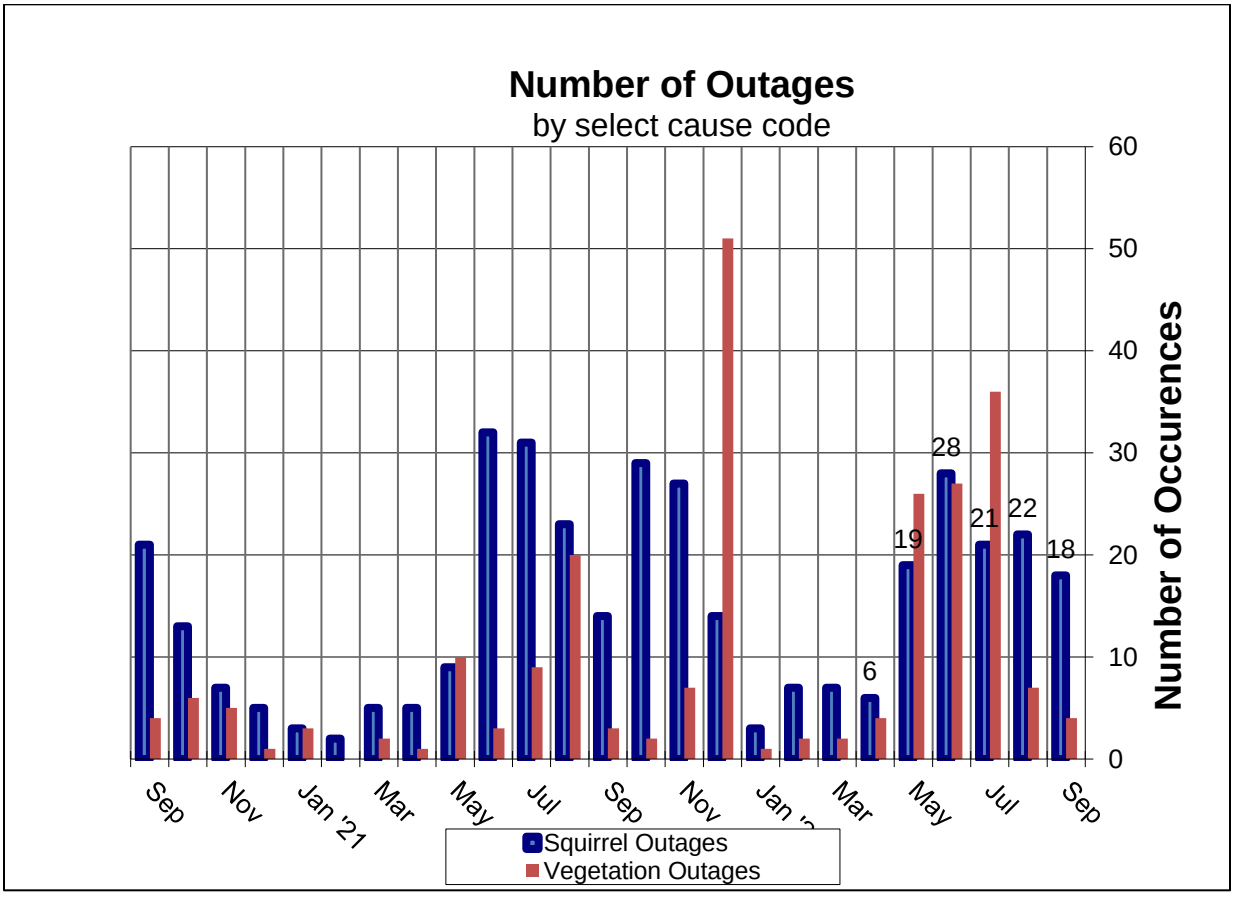
Division Reports & Metrics
October 2022

CORE SERVICES

Electric Utility:

1. **Electric Outage Calculations for the month and year to date (September 2022 Data)**
   - a. Reliability = 99.99759% — Year-to-date Reliability = 99.99287%
   - b. 921 Customers affected by Outages — Year-to-date Customers affected by Outages = 28,991
   - c. SAIDI = 1.04 min — Year-to-date SAIDI = 3.16 min
   - d. CAIDI = 60.98 min — Year-to-date CAIDI = 59.86 min

2. **Electric Utility Operations – T&D, Engineering, System Ops, GIS, Tech Services**:
   - The AMI Request for Proposals were released to vendors. Evaluations of proposal responses to begin in October 2022 by RPU Subject Matter Experts.
   - Construction finalized on the Valley High Solar Farm. Commissioning to begin in October.
   - Reliability statistics were improved due to mild weather in September.



Summary of individual electrical outages (greater than 200 customers–Sep 2022 data)

# Customers	Date	Duration	Cause
None			

Summary of aggregated incident types (greater than 200 customers – Sep 2022 data)

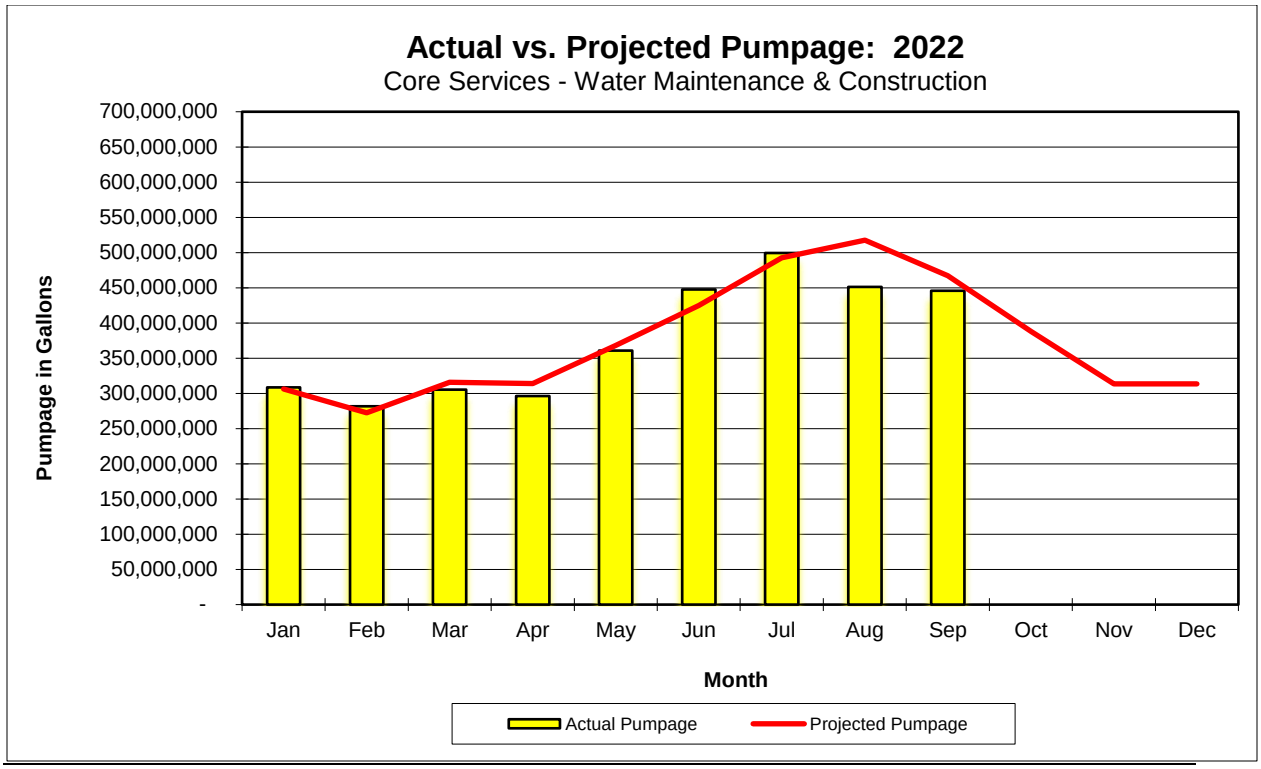
# Customers	Total # of Incidents	Cause
433	18	Animals
251	4	Vegetation

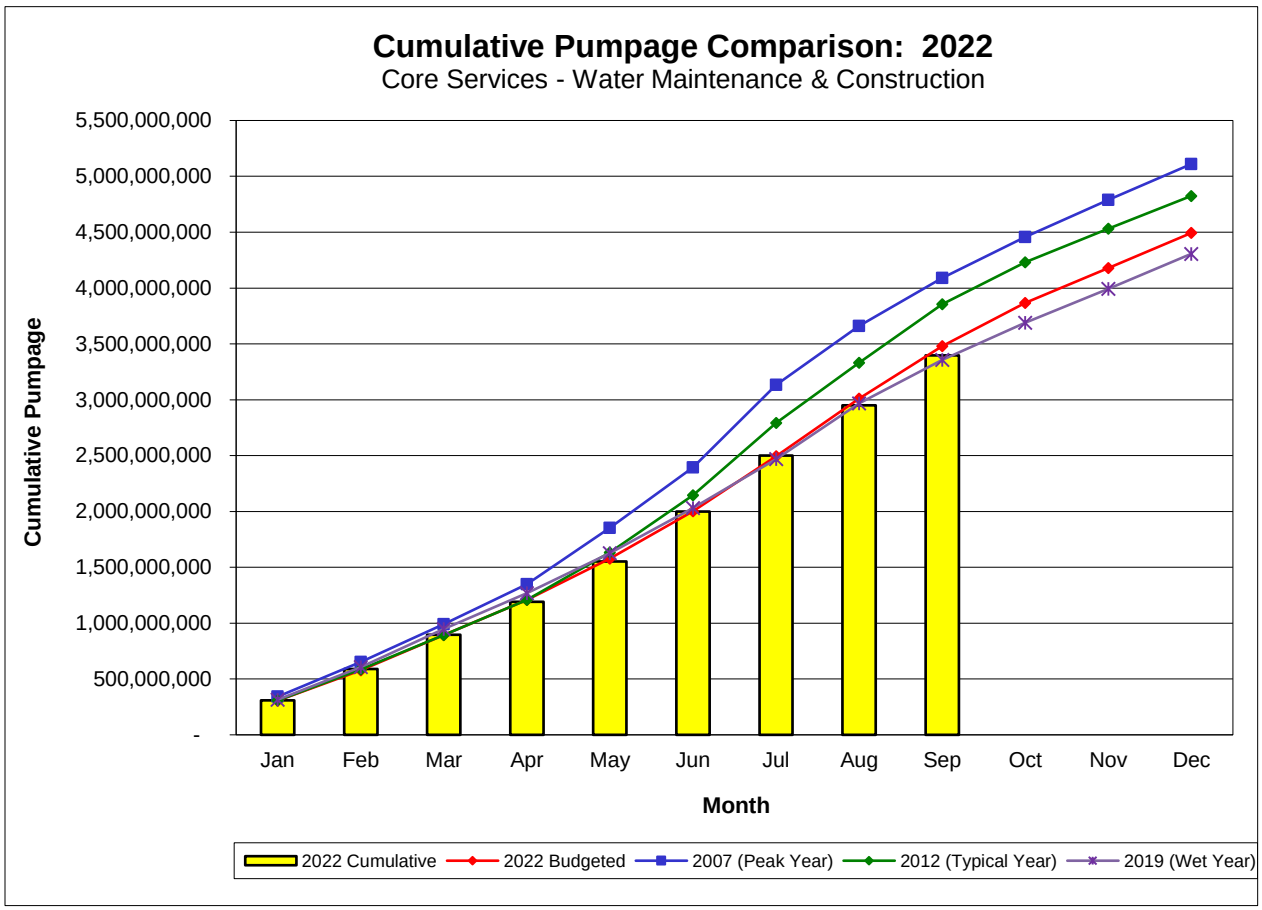
Water Utility:

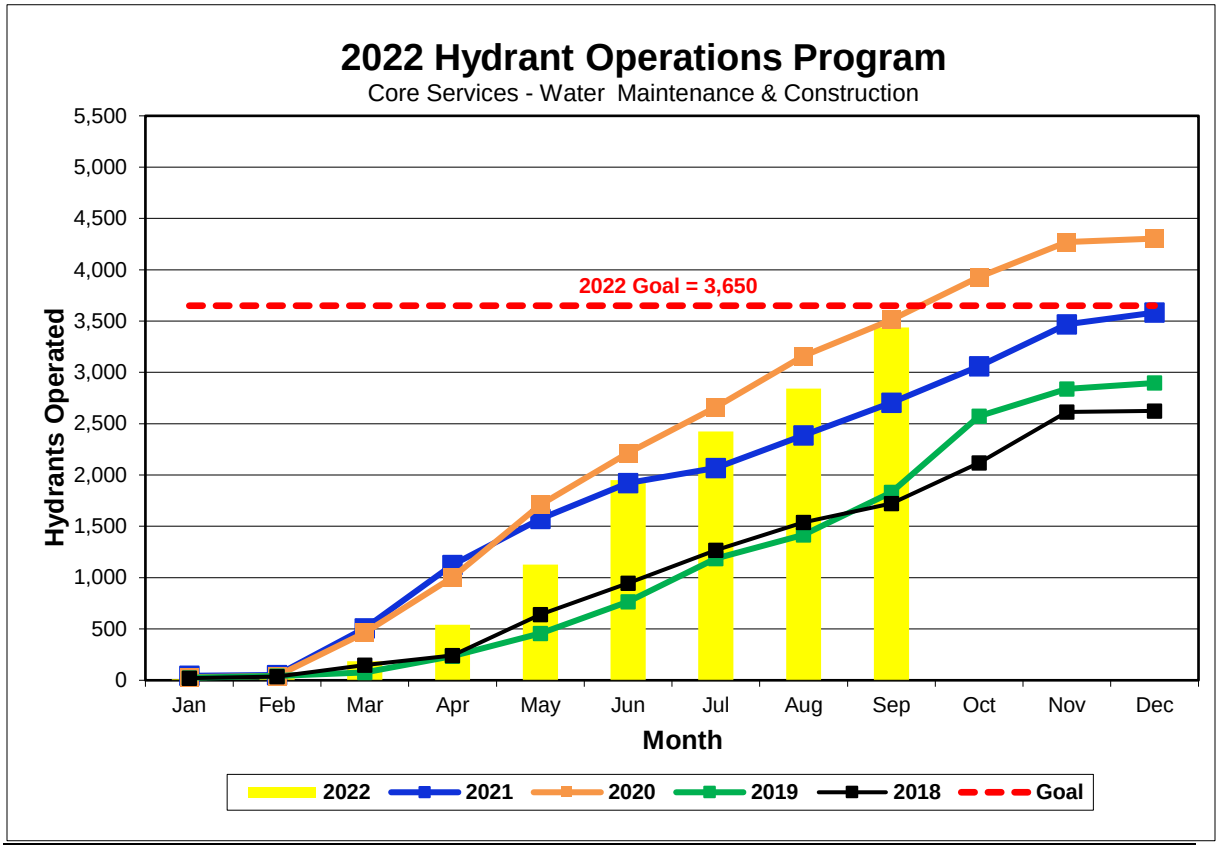
1. **Water Outage Calculations for the month and year to date (September 2022 data):**

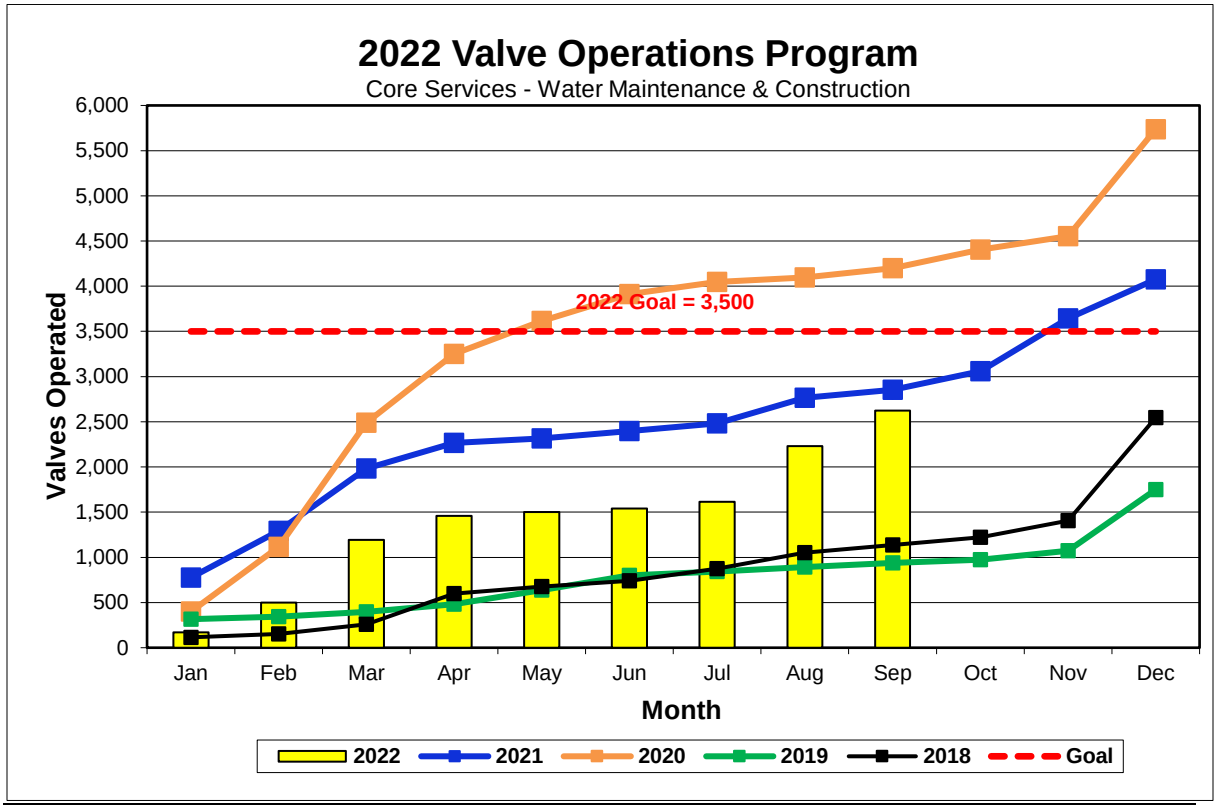
a.	Reliability = 99.99956475%	Year-to-date Reliability = 99.99906740%
b.	69 Customers Affected by Outages	Year-to-date Customers Affected by Outages = 1,213
c.	129.3Customer Outage Hours	Year-to-date Customer Outage Hours = 2,537.3
d.	SAIDI = 0.2	Year-to-date SAIDI = 3.7
e.	CAIDI = 112.5	Year-to-date CAIDI = 125.5

- Performed 2,021 Gopher State water utility locates during the month for a total of 10,674 for the year. (August Data, September not yet available)
- Repaired water distribution system failures or maintenance at the following locations during the month. :
  - 4404 4th STNW – (Water Main Break) – 9/1
  - 1416 6th ST SW – (Water Main Break) – 9/19









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
October 2022

1. Safety

TRAINING	Total Required Enrollments	Completions as of 9/30/2022	Percent Complete
September 2022	730	730	100%
Calendar Year to 9/30/2022	5159	5159	100%

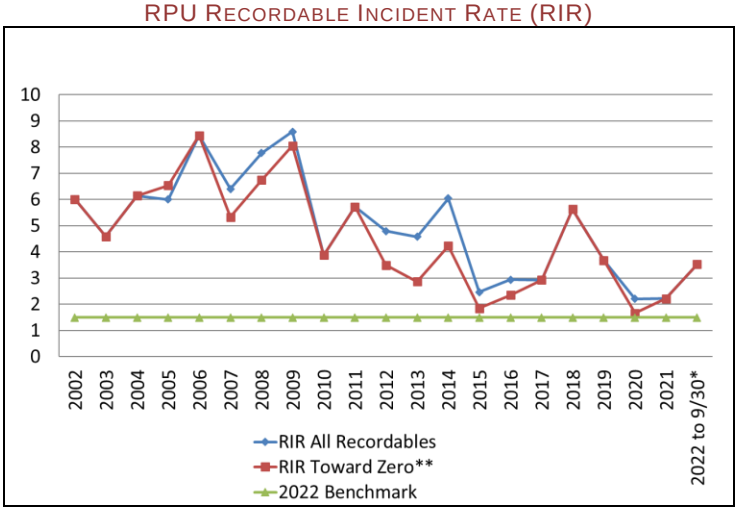
SAFETY TEAMS	Total Members	Members Attending	Percent Attending
September 2022	21	18	85.7%
Calendar Year to 9/30/2022	242	194	80.1%

INCIDENTS	Reports Submitted	OSHA Cases[1]	RPU RIR[2]	BLS RIR[3]
September 2022	1	1	--	--
Calendar Year to 9/30/2022	18	4	3.58	1.5

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

21 of RPU's 24 departments are recordable injury free in 2022
208 of RPU's 213 employees are recordable injury free in 2022

RPU RECORDABLE INCIDENT RATE (RIR)



2022 OSHA Recordable Case Detail				
Work Area	**Incident Date**	**Description**	**Primary Reason it's a Recordable**	**Corrective Action**
T&D	2/15/2022	Slipped stepping into van falling onto shoulder and knee (L)	Restricted Work Days	Posted/trained on slip falls while entering vehicles
Tech Services	5/12/2022	Felt popping sensation in shoulder and elbow (L) while installing scaffold plank	Lost Workdays	Reevaluating how task is performed
Water	5/17/2022	Pain in shoulder (L) due to fall while exiting well house	Restricted Work Days	Evaluating trip/fall incidents. Training
Water	6/12/2022	Tripped and fell into well house wall causing pain in shoulder and arm (R)	Medical attention beyond first aid	Cautioned about distracted walking
Water	9/29/2002	Curb box wrench slipped while in use causing pain in back, ribs and right side of body	Restricted Work Days	Reevaluating tools and work practice

SAFETY INITIATIVES

1. Completed Revising First Aid kit inventory with a new vendor.
2. Completed first physical evacuation drill since COVID.
3. RPU Safety Staff continue to provide safety oversite at Marion Road Substation construction project.

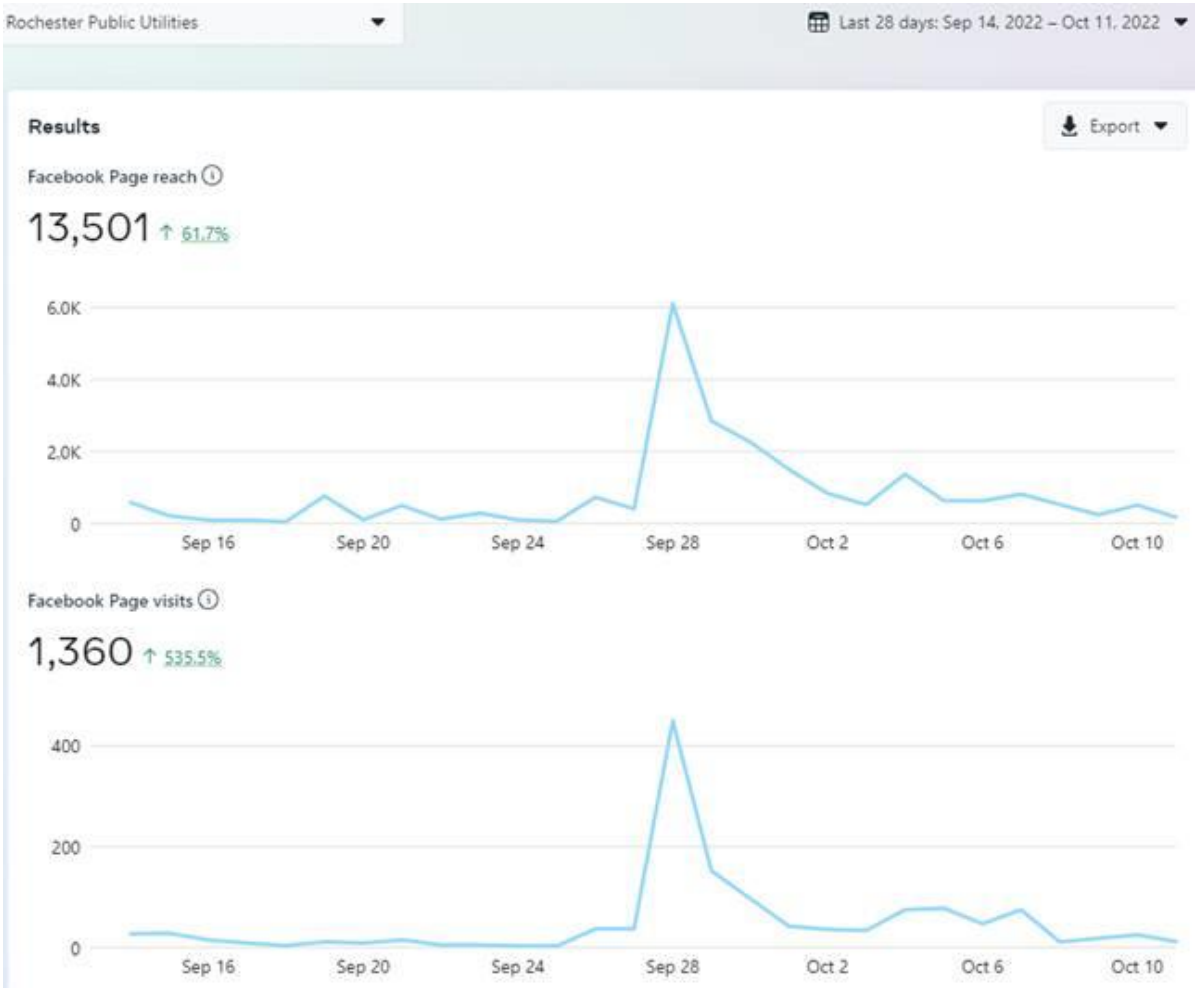
2. Environmental & Regulatory Affairs

- On September 28th, slug testing was completed on the monitoring wells at Well 16. A slug test is a particular type of aquifer test where water is quickly added or removed from the groundwater well and the change in hydraulic head is monitored to determine the aquifer characteristics. RPU recently completed converting Well 16 into four monitoring wells below the Jordan aquifer.

- On October 6th, Todd Osweiler presented at the Lake Zumbro Improvement Association fall meeting informing the group on the Lake Zumbro 4 foot fall drawdown starting on October 23rd.

3. Communications

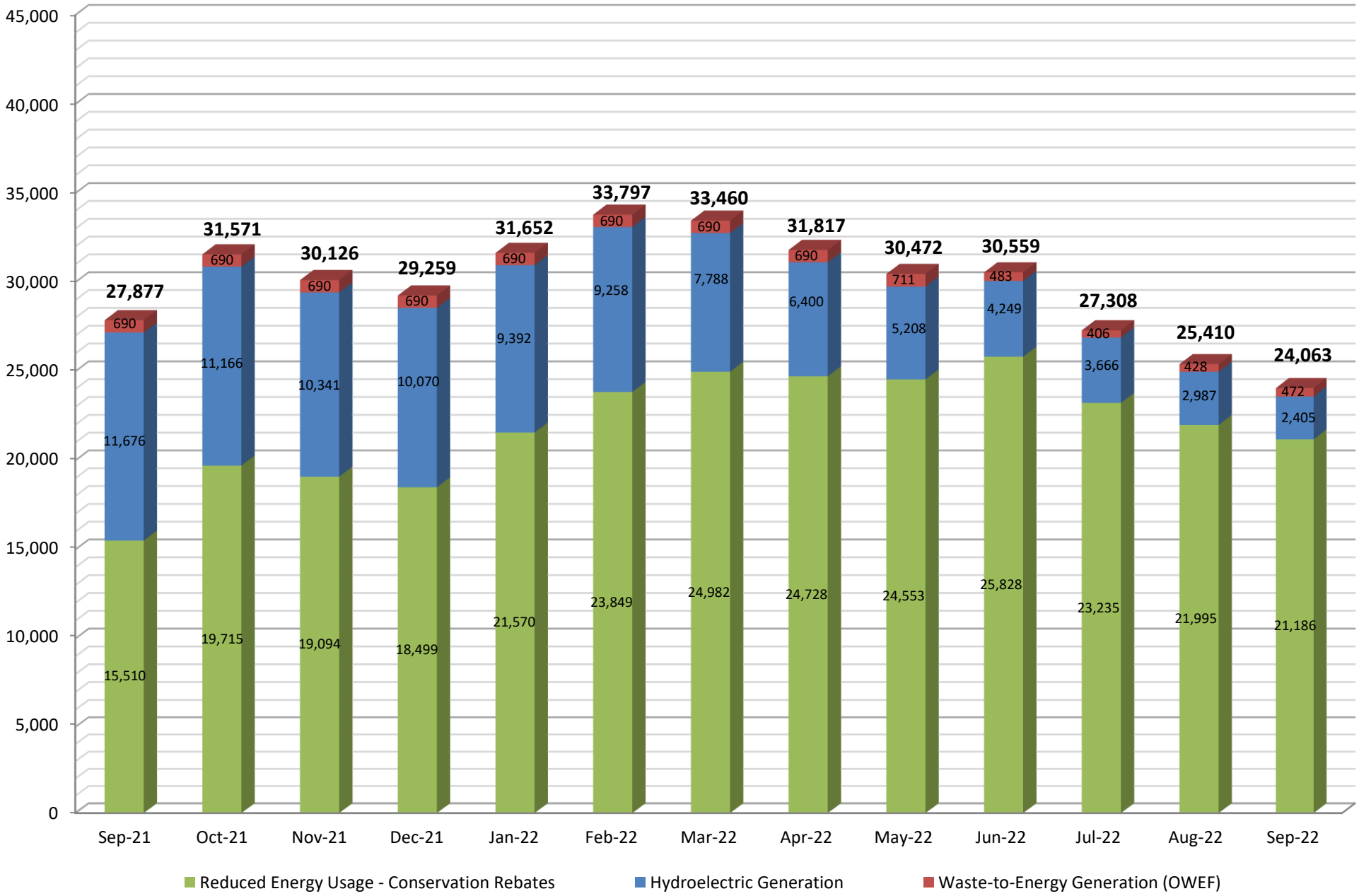
- RPU celebrated Public Power Week October 2-8th and promoted the benefits of being a public power provider in Rochester.
- RPU Water Operations was featured in the latest edition of Municipal Sewer and Water Magazine.
- RPU had lineworkers at Spark (formerly the Children's Museum) for their People in Your Neighborhood week, which also happened to be during Public Power Week.



RPU Environmental Stewardship Metric

Tons CO_2 Saved

(12 Month Rolling Sum)



POWER RESOURCES MANAGEMENT

OCTOBER 2022

1. In September, RPU continued to bid GT2 and WES into the MISO day-ahead and real-time markets. GT2 and WES are also capable of participating in the ancillary services market. WES was on outage for three weeks for annual maintenance.

    a. Ancillary Service Market – Supplemental Reserves
        i. Cleared DA
            1. GT2 – 12 days
            2. WES – 30 days
        ii. Deployment YTD
            1. GT2 – 1
            2. WES – 0

    b. Dispatched by MISO

i. GT1 –	1 times	YTD 1 times
ii. GT2 –	9 times	YTD 64 times
iii. WES –	6 times	YTD 156 times

    c. Hours of Operation

i. GT1 –	5 hours	YTD 10 hours
ii. GT2 –	46 hours	YTD 366 hours
iii. WES –	33 hours	YTD 1,233 hours

    d. Electricity Generated

i. GT1 –	87 MWh	YTD 189 MWh
ii. GT2 –	833 MWh	YTD 10,284 MWh
iii. WES –	1,117 MWh	YTD 40,881 MWh

    e. Forced Outage

i. GT1 –	0 hours	YTD 0 hours
ii. GT2 –	0 hours	YTD 198 hours
iii. WES –	0 hours	YTD 0 hours

2. MISO market Real Time Price averaged $54.66/MWh and Day Ahead Price averaged $57.17/MWh.

CUSTOMER RELATIONS

(Contact Center and Utility Programs and Services, Commercial and Residential)

Stakeholder Engagement, Forums, and Meetings

1. Utility Programs and Services participated in the October Commercial Builders Council Membership meeting. Maria Serbus with Grounded Evolution presented on the topic of finding balance in the workplace.

2. On October 27, Utility Programs and Services will participate in a presentation hosted by Fresh Energy titled: "The IRA and You, Consumers, Decarbonization, and the IRA".

3. A Utility Programs and Services staff member attended the Virtual Peaker Client Forum Tuesday, September 27-29. The forum is an opportunity for clients and Virtual Peaker to share upcoming roadmap items, software changes, provide input, and network with other utilities.

4. Leadership from Customer Relations attended the Harris National Technical Conference and attended several technical and policy oriented sessions supporting customer service, introduction of new products and acknowledgment of RPU's status as a new customer. Technical topics included methods to configure screens, understand the strategies to manage AMI configuration and ways to build new reports and dashboards.

Opportunities for Customers

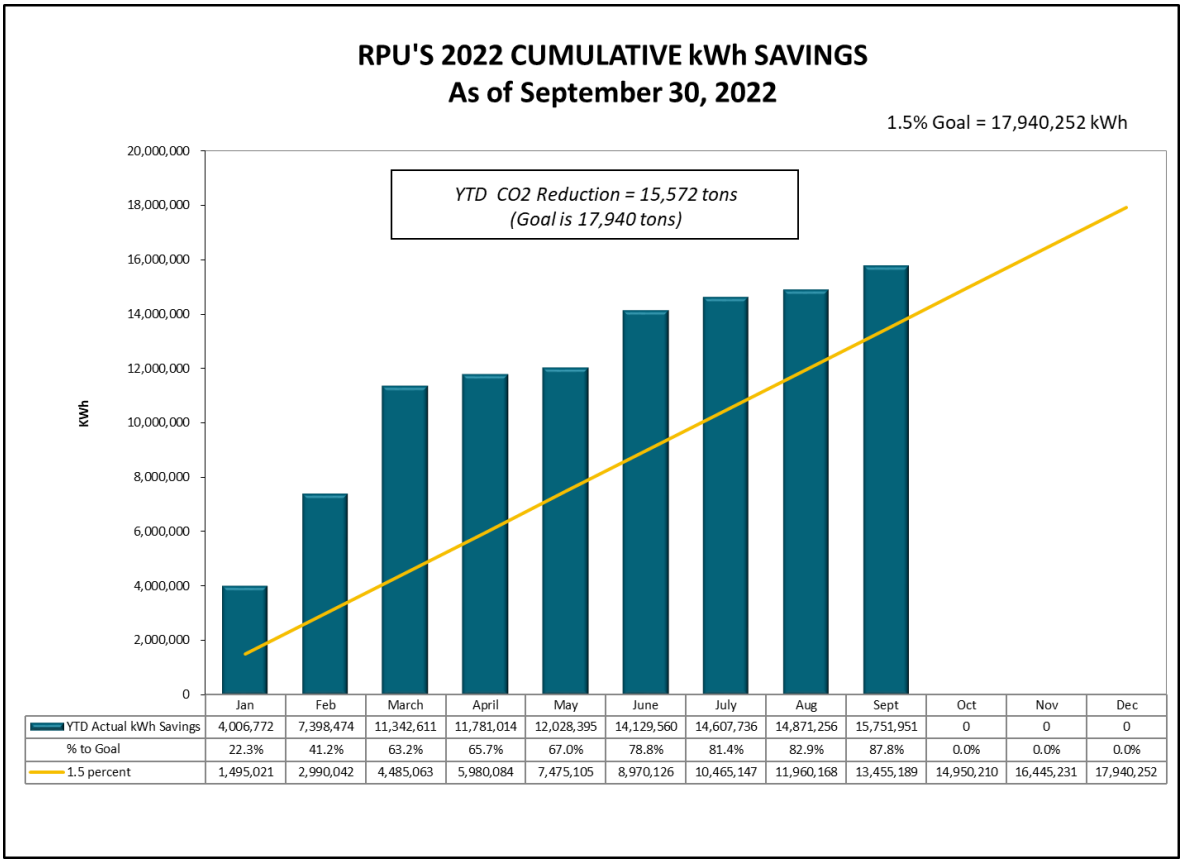
1. The 2022 Be Bright ENERGY STAR® LED Lighting Campaign runs from October 1 to November 30. Our residential electric customers are eligible for reduced pricing on ENERGY STAR® qualified LED light bulbs. We collaborated again with local Rochester retailers to offer the discounted LED bulbs.

2. On October 5, RPU and Minnesota Energy Resources collaborated on a one-day community weatherization event at Willow Ridge, a manufactured home park. We distributed free do-it-yourself weatherization kits that included LED bulbs from RPU. We also handed out Halloween bags filled with goodies to the children in attendance.

3. RPU hosted a class titled “Solar Energy for Your Home or Business?” through Community Education on Saturday, October 8. We had 36 people registered for the class.

4. Customer Care continues to manage the higher volume of contacts and payments related to disconnects and reconnects that led up to the end of the Cold Weather Rule, which began on October 1st and will end April 30th. The goal continues to be to connect customers to benefits assistance through federal, state and county funded programs.

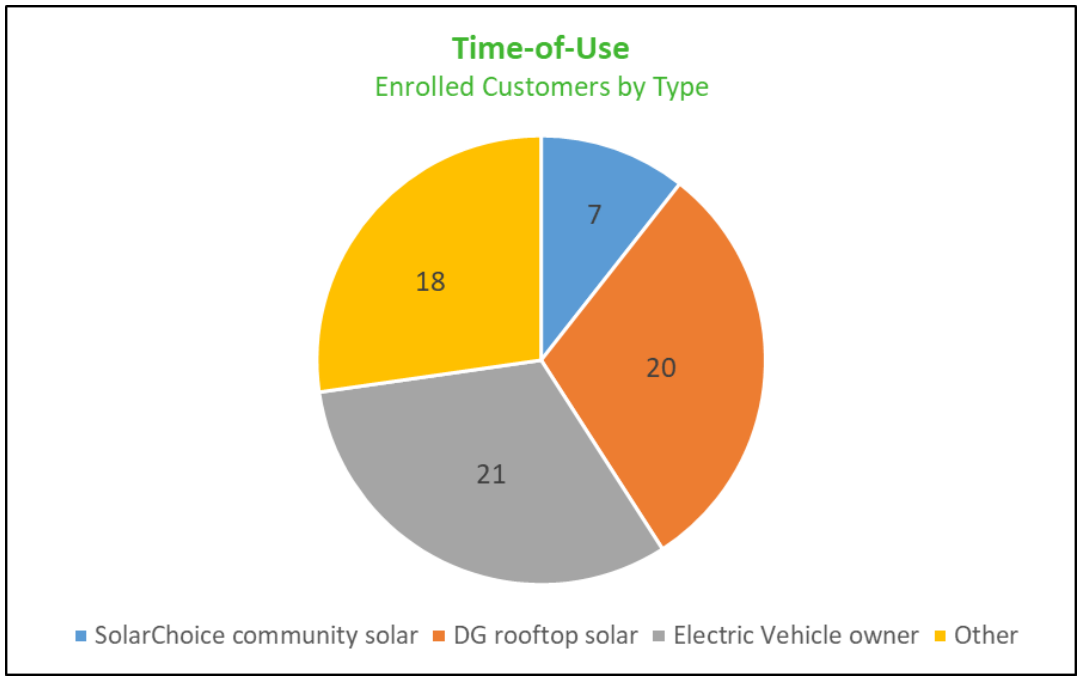
5. Customer Care and Collections continue to make outreach calls to customers with past due balances on their accounts. The intent is to be proactive and connect these customers with outside resources for financial assistance. During the month of September, 653 customers were called.



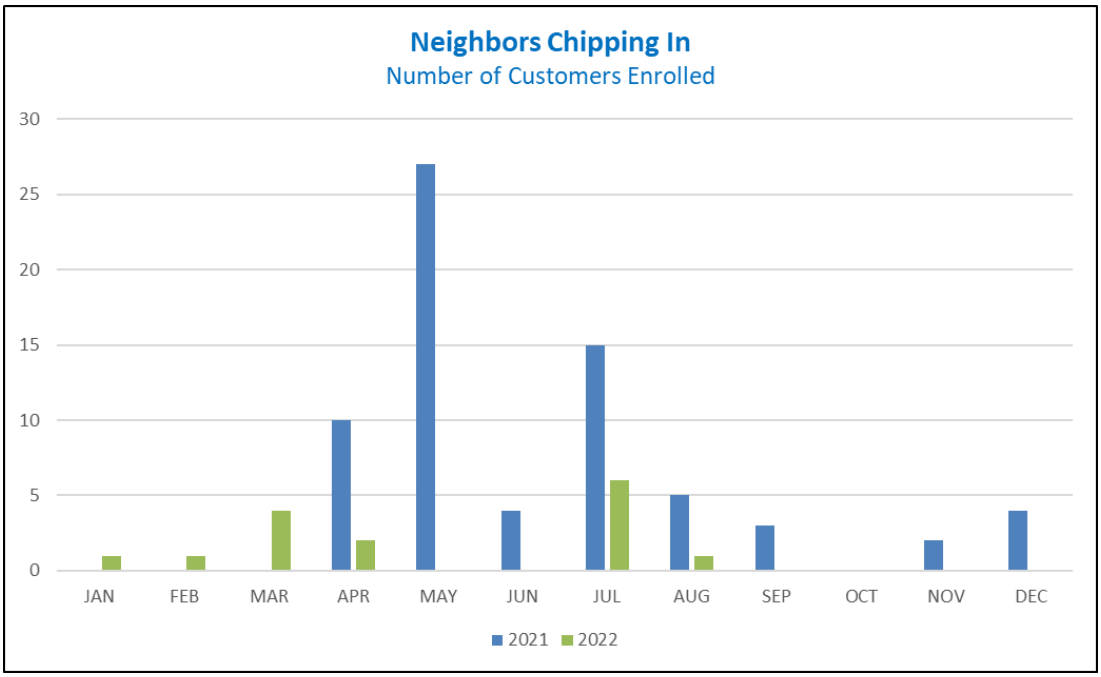
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
YTD Actual kWh Savings	4,006,772	7,398,474	11,342,611	11,781,014	12,028,395	14,129,560	14,607,736	14,871,256	15,751,951	0	0	0
% to Goal	22.3%	41.2%	63.2%	65.7%	67.0%	78.8%	81.4%	82.9%	87.8%	0.0%	0.0%	0.0%
1.5 percent	1,495,021	2,990,042	4,485,063	5,980,084	7,475,105	8,970,126	10,465,147	11,960,168	13,455,189	14,950,210	16,445,231	17,940,252

- YTD Savings: 15,751,951 kWh
- Percent to kWh Goal: 88%

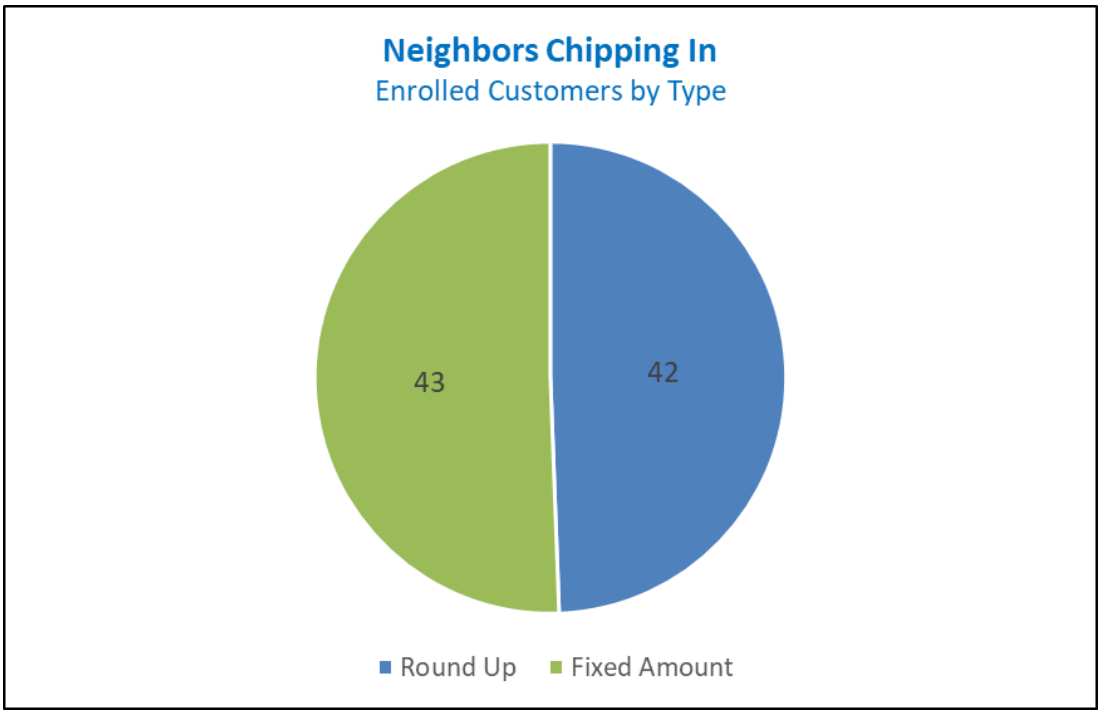
- Total Customers Enrolled: 66
  - 2021 = 1
  - 2021 = 60
  - 2022 = 5



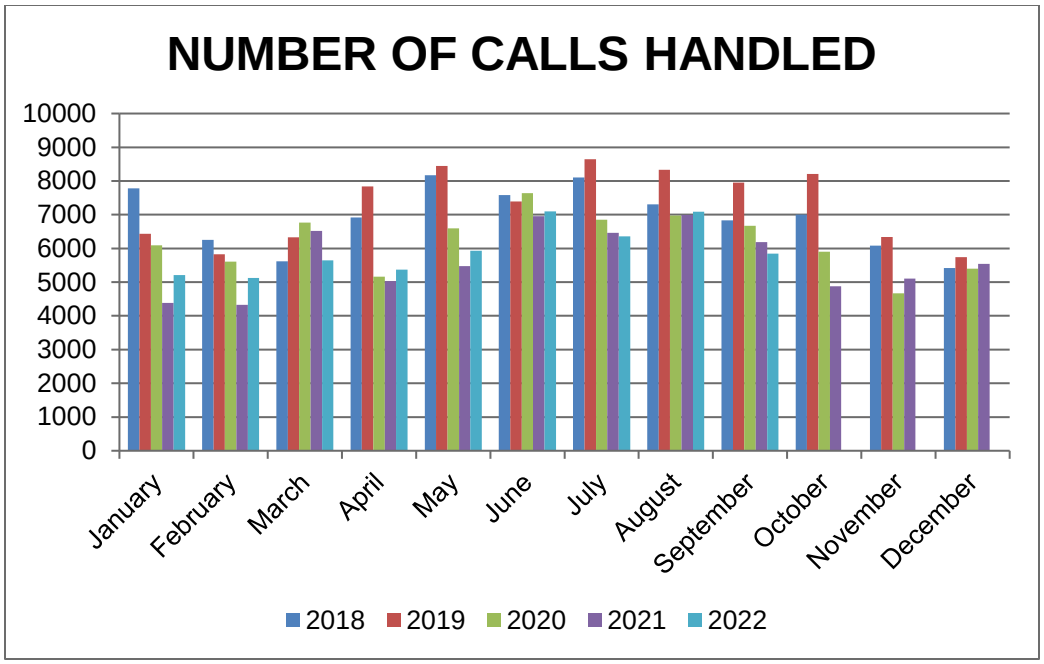
- Total Customers Enrolled: 66
  - SolarChoice = 7
  - Solar = 20
  - Electric Vehicle = 21
  - Regular Residential (Other) = 18



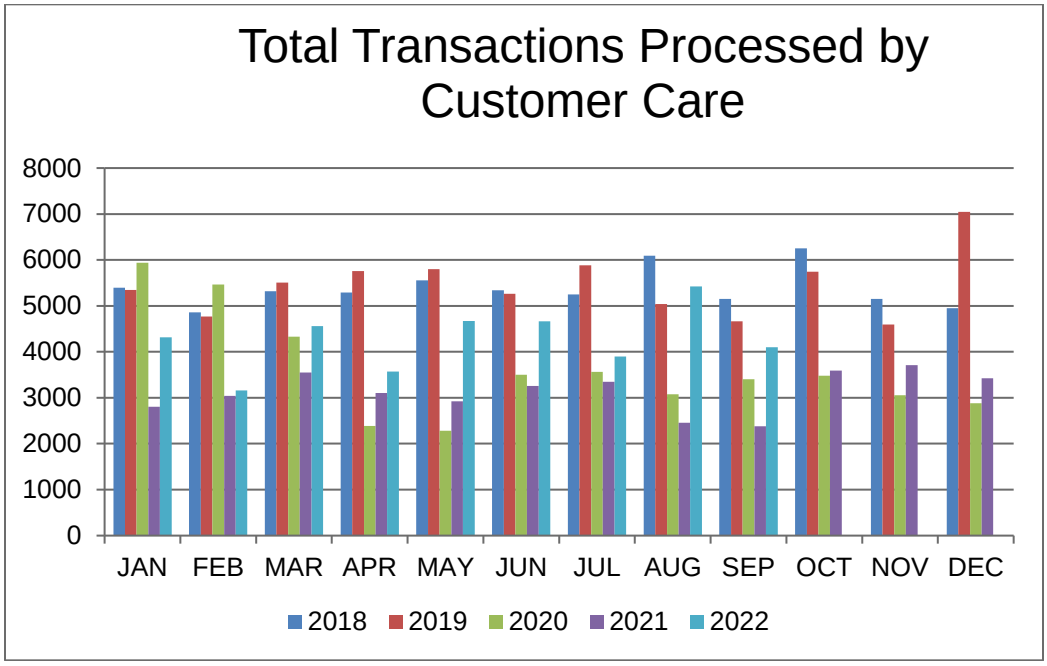
- Total Customers Enrolled: 85
  - 2021 = 70
  - 2022 = 15



- Total Customers Enrolled: 85
  - Round Up = 42
  - Fixed Amount = 43



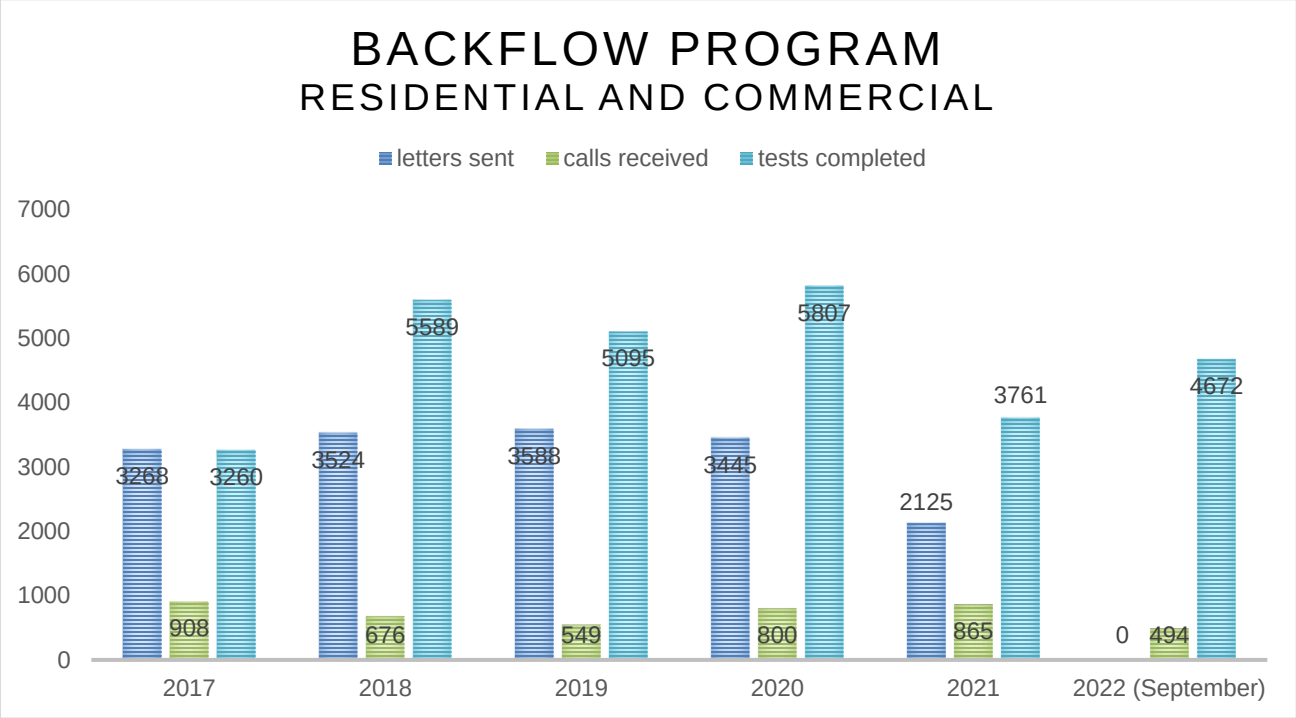
- Total Number of Calls: 5,842(graphed above)



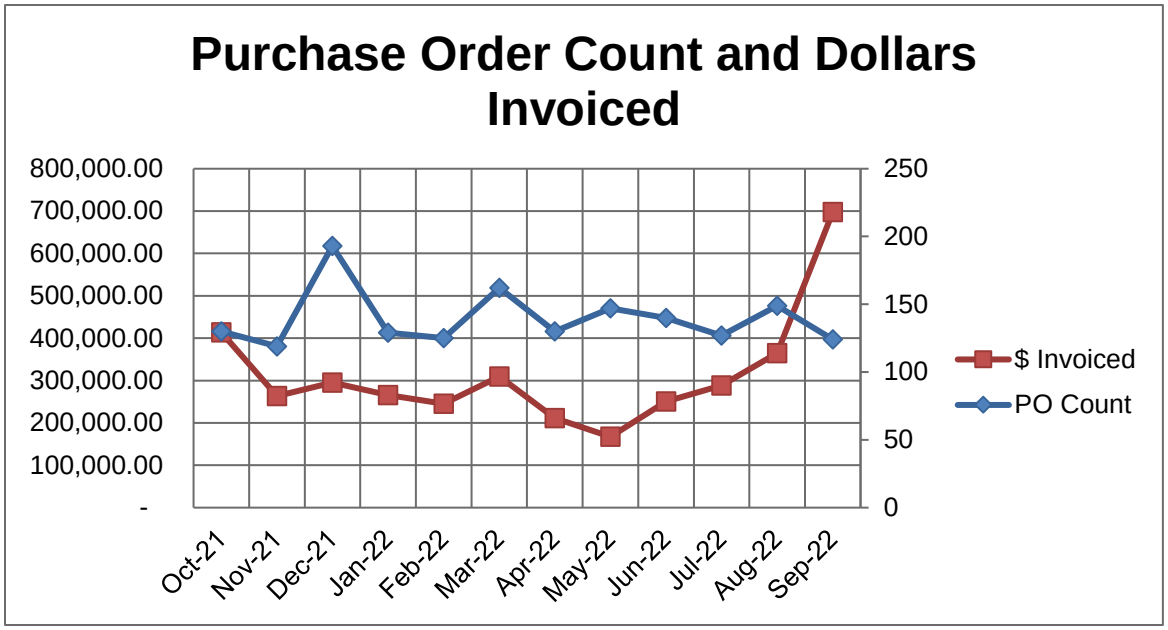
- Total Number in Dollars Processed by Representatives: $1,848,745 (graphed above)
- Total Number of Transactions Processed by Representatives: 4,099

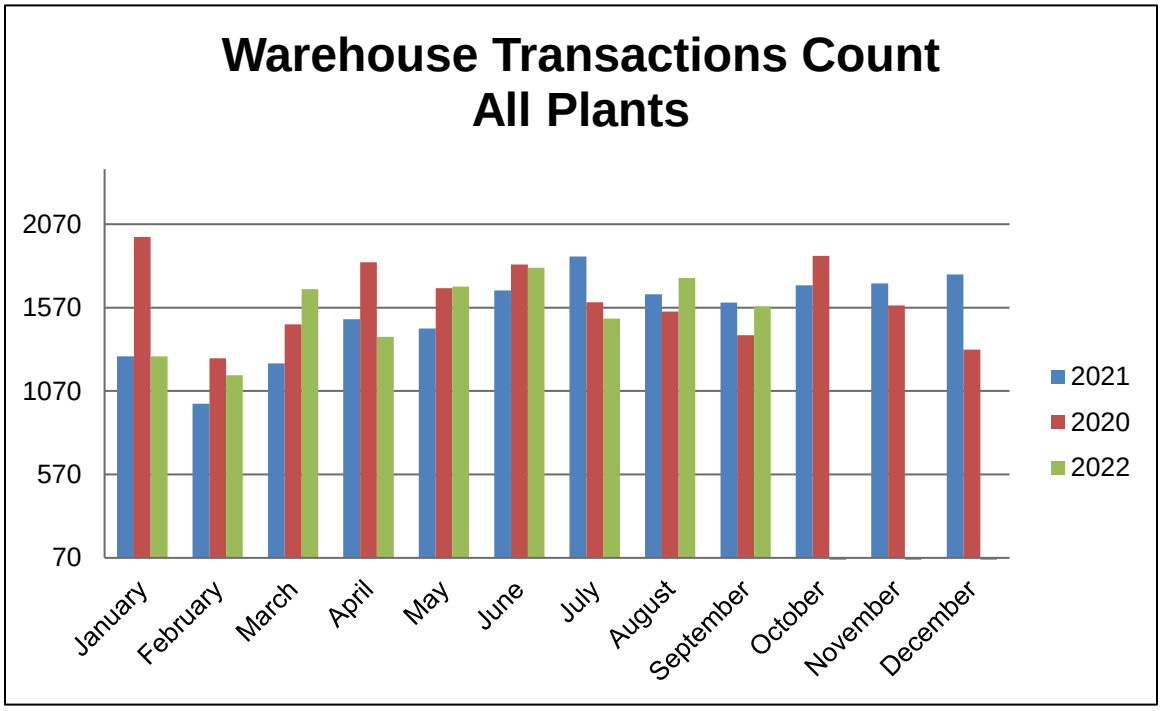
CORPORATE SERVICES

1. **Business Services:**
   - Payroll/HR – Coordinated the onboarding of three full time employee and one coop employee.
   - Completed the insurance renewal application process.
   - Completed third quarter NERC/CIP user audit.
   - Renewed NERC/CIP annual Cyber Security training contract.
   - Completed review of pole attachments, sent letters and updated internal database.



- **Purchasing and Materials Management:**
  - Active-Invitation for Bid (IFB) Service Center Renovation
  - Active-IFB Power Line Tree Clearance





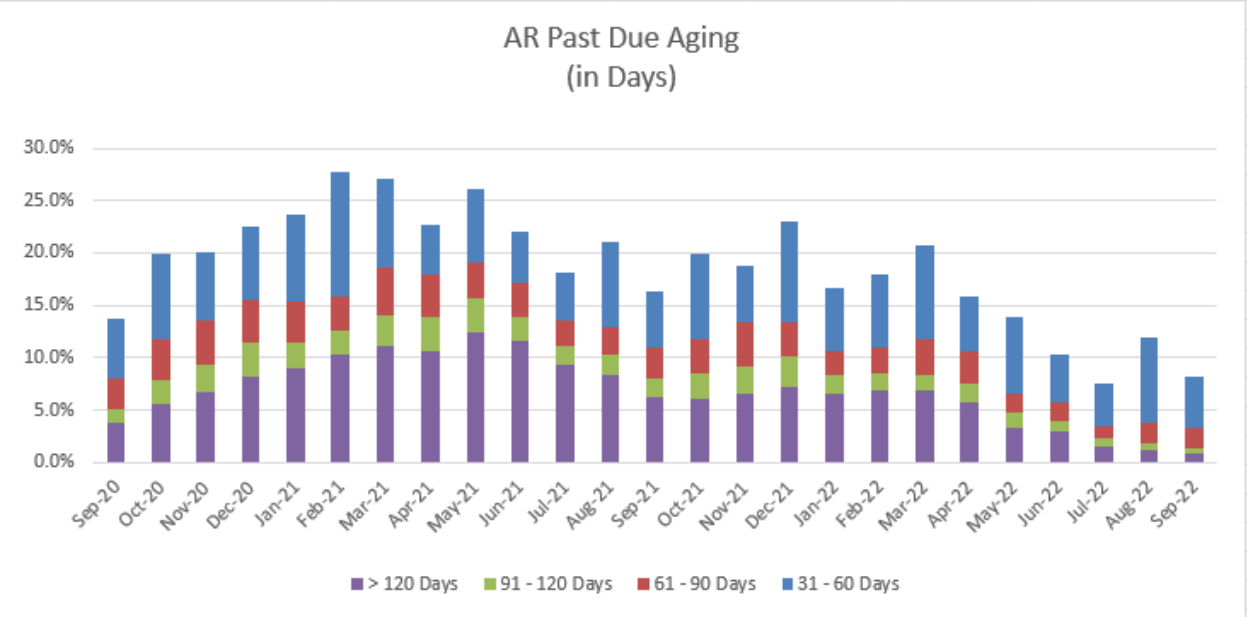
2. **Information Technology:**
   General
   - Phone system technical upgrade is completed. Continue to work on new E911 capability that was added as part of this project to comply with 911 location reporting for remote users.
3. **Finance and Accounting:**
   General
   - Budget Process – Public comment is welcomed at the October and November Board meetings on the current proposed 2023 budget. Public notice of the proposed changes was published on October 8, 2022. A request to approve the 2023

recommended budgets and proposed 2023 rates will be made of the Board at the November Board meeting and December 5, 2022, Council meeting.

- The Cold Weather Protection period began on October 1, 2022. We are not currently disconnecting residential customers for nonpayment of their bills. Customers are required to enter into a payment arrangement to maintain this protection. Notices are sent to customers to inform them of the requirements needed to qualify for cold weather protection. With Energy and Water assistance funds available October 1, the Collections and Customer Care teams continue to work closely with customers to get them to apply for assistance if eligible. This includes sending proactive notifications, outreach calls and emails.
- In addition to the additional Energy Assistance Funds of just over $250,000 received in last month, an additional $75 per qualified customer totaling $92,000 was received as well, and credited to qualified customers' accounts.

4. Financial Results:

In the graph below, we show the breakdown of the percentage of the total past due balances as a percent of the total accounts receivable (AR). The overall trend has returned to pre pandemic levels as we have returned to normal operations and disconnection of service for nonpayment. The AR aging reflect the additional $250K and $92K of assistance payment received during September.



Note: Budget numbers are compared to the Board approved 2022 budget, which is adjusted for 2021 approved capital project not completed in 2021 and carried over to 2022.

The ($4,249) variance in the Electric Utility Change in Net Position is due to $4,699K less in capital contributions related primarily to the timing of expenditures for the Marion Road Substation project. This number has minimal impact on cash from operations as it is a payment by a third party related to the ongoing substation project.

(In Thousands)	Current Month			Year to Date		
	Actual	Budget	Variance	Actual	Budget	Variance
Revenue - Electric	$ 15,131	$ 14,805	$ 326	$ 127,198	$ 123,441	$ 3,757
Revenue - Water	1,045	1,008	37	8,440	8,324	116
Change in Net Position - Electric	3,557	7,806	(4,249)	14,104	13,907	197
Change in Net Position - Water	281	161	120	1,531	820	711

ROCHESTER PUBLIC UTILITIES
WE PLEDGE, WE DELIVER

TO: **Jeremy Sutton, Director of Power Resources**

FROM: **Tina Livingston, Senior Financial Analyst**

SUBJECT: **LOAD FORECAST SUMMARY FOR 2022**

	SYSTEM ENERGY			PEAK SYSTEM DATA		
MONTH	**ACTUAL MWH**	**FORECAST MWH**	**% DIFF**	**ACTUAL MW**	**FORECAST MW**	**% DIFF**
JAN	102,220	99,814	2.4%	170.3	171.2	-0.5%
FEB	90,277	91,964	-1.8%	180.1	170.1	5.9%
MAR	91,268	88,426	3.2%	150.9	146.6	2.9%
APR	84,733	104,335	-18.8%	146.4	194.0	-24.5%
MAY	92,943	95,645	-2.8%	235.1	199.2	18.0%
JUN	104,970	106,599	-1.5%	267.0	236.3	13.0%
JUL	117,635	123,195	-4.5%	252.2	272.7	-7.5%
AUG	112,224	119,686	-6.2%	249.1	251.9	-1.1%
SEP	95,870	106,293	-9.8%		233.4	
OCT					169.2	
NOV					167.1	
DEC					176.1	
YTD	**892,142**	**935,957**	**-4.7**			

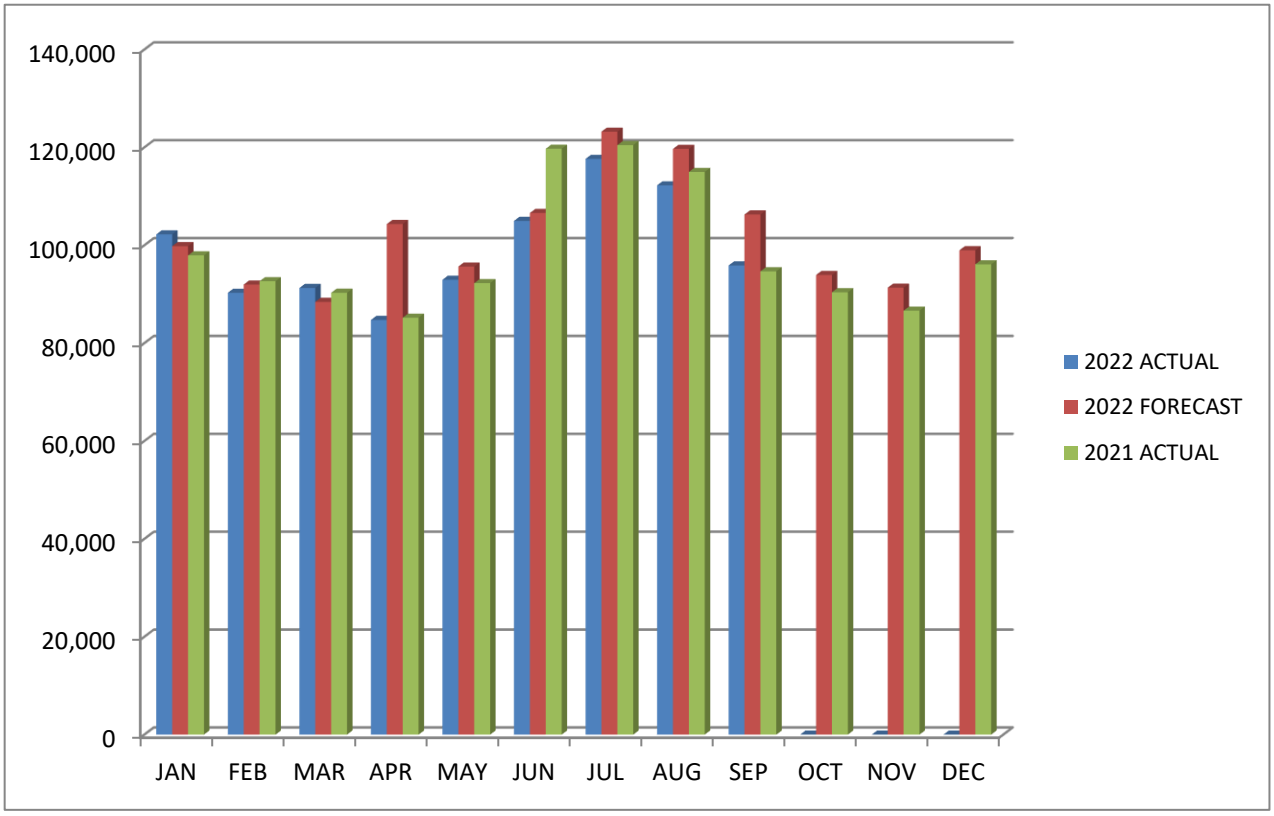
HISTORICAL SYSTEM PEAK 292.1 MW 07/20/2011

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

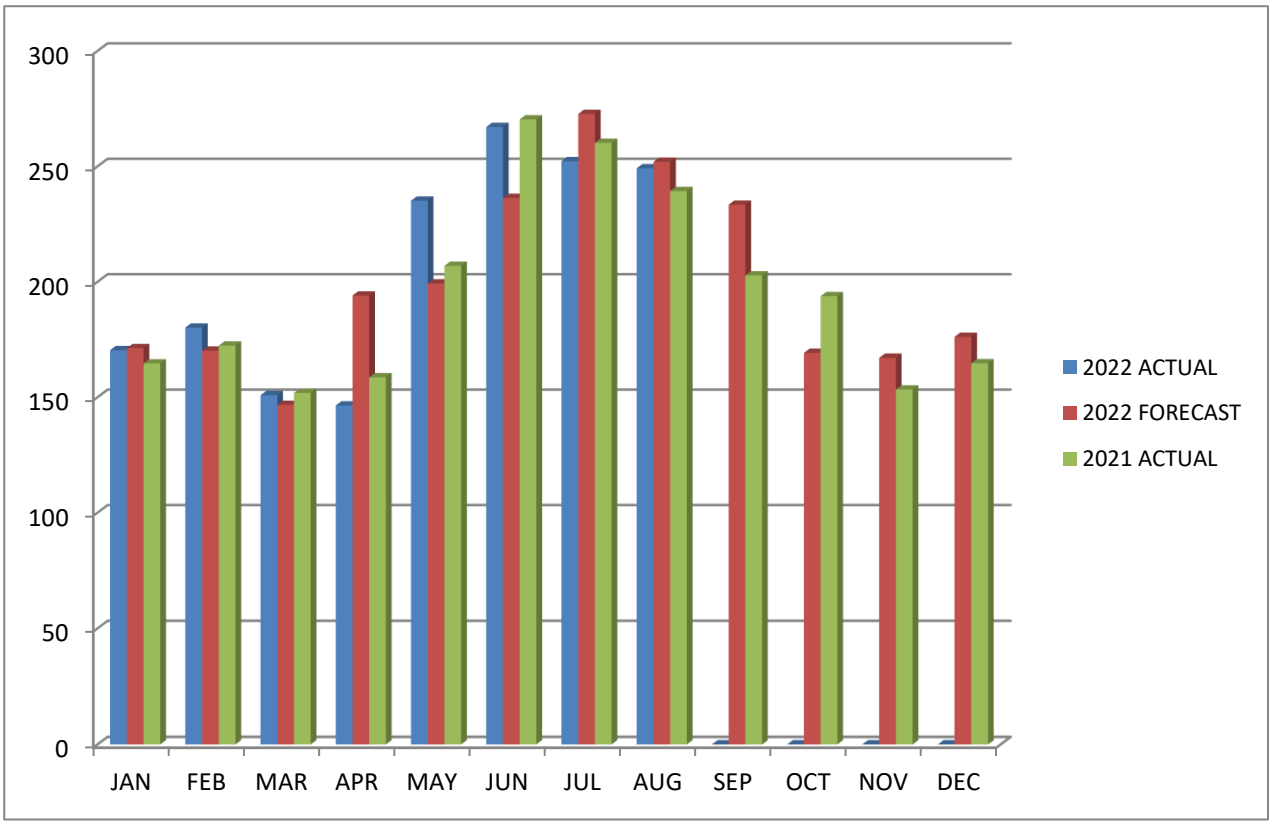
Attachment: Division Reports October 2022 (15062 : Division Reports & Metrics - October 2022)

2022 YTD SYSTEM REQUIREMENTS

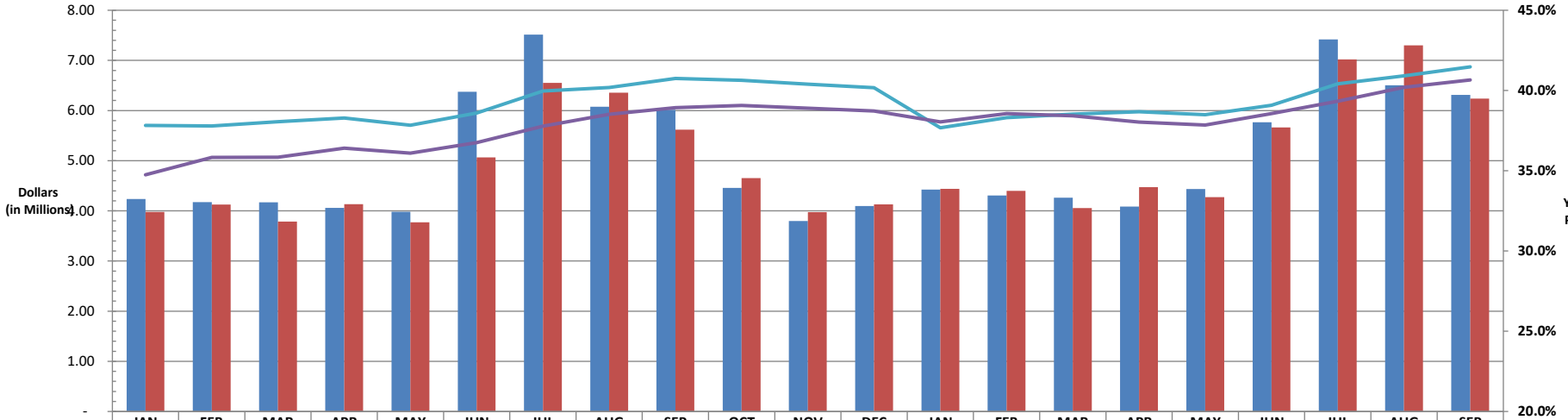
Energy Required for the Month (MWH)



Peak Demand for the Month (MW)

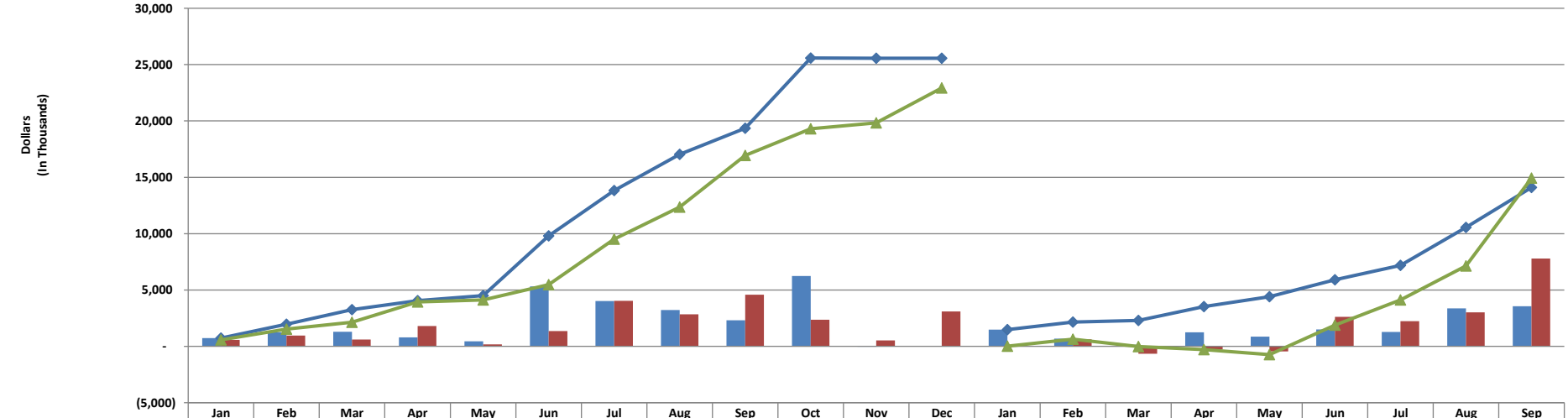


2021 - 2022 Retail Gross Margin - Electric Utility



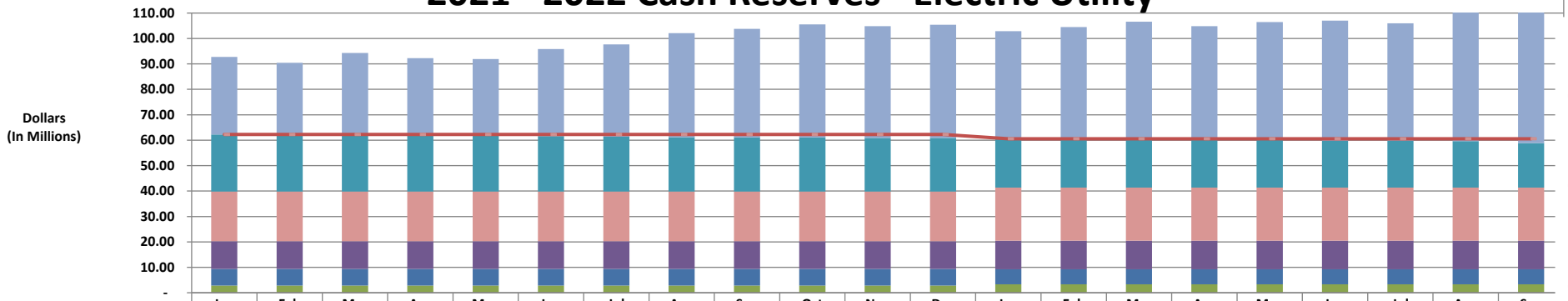
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
GM - Actual	4.24	4.17	4.17	4.06	3.98	6.37	7.52	6.08	6.01	4.46	3.80	4.10	4.43	4.31	4.26	4.09	4.44	5.77	7.42	6.50	6.31
GM - Budget	3.98	4.13	3.79	4.13	3.77	5.07	6.55	6.36	5.62	4.65	3.97	4.13	4.44	4.40	4.06	4.47	4.27	5.67	7.02	7.30	6.24
GM % YTD - Actual	37.8%	37.8%	38.1%	38.3%	37.8%	38.6%	40.0%	40.2%	40.8%	40.6%	40.4%	40.2%	37.7%	38.3%	38.5%	38.7%	38.5%	39.1%	40.4%	40.9%	41.5%
GM % YTD - Budget	34.7%	35.8%	35.8%	36.4%	36.1%	36.8%	37.8%	38.5%	38.9%	39.1%	38.9%	38.7%	38.0%	38.6%	38.4%	38.0%	37.9%	38.6%	39.3%	40.2%	40.7%

2021 - 2022 Change in Net Position - Electric Utility



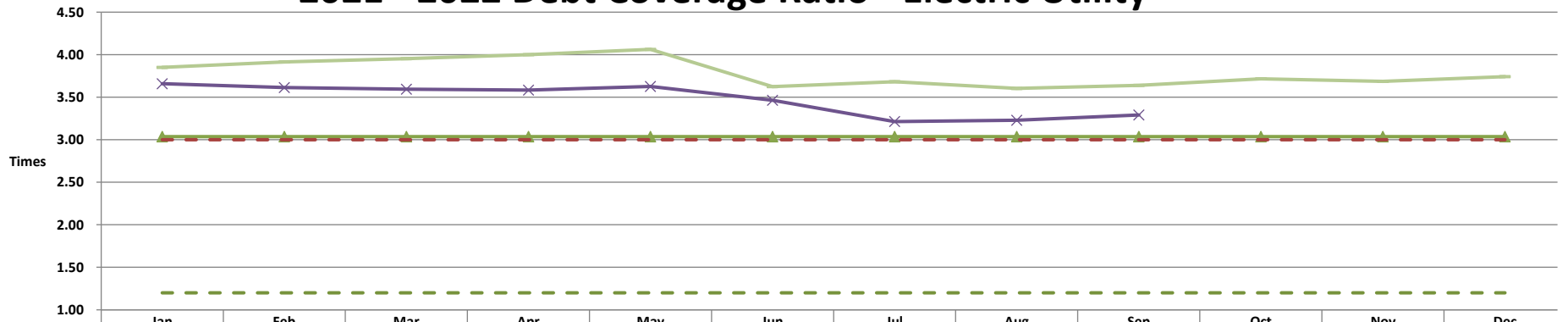
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Chg Net Position - Actual	731	1,238	1,292	796	440	5,308	4,014	3,220	2,308	6,240	(28)	0	1,475	681	140	1,235	867	1,499	1,278	3,371	3,557
Chg Net Position - Budget	579	955	597	1,805	177	1,355	4,044	2,839	4,586	2,365	524	3,100	20	620	(659)	(272)	(445)	2,610	2,237	3,020	7,795
Net Position - YTD Actual	731	1,969	3,261	4,057	4,497	9,805	13,819	17,039	19,347	25,587	25,558	25,558	1,475	2,156	2,296	3,532	4,399	5,898	7,176	10,547	14,104
Net Position - YTD Budget	579	1,534	2,131	3,936	4,113	5,468	9,512	12,351	16,937	19,301	19,825	22,924	20	640	(19)	(292)	(736)	1,874	4,111	7,131	14,926

2021 - 2022 Cash Reserves - Electric Utility



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Unreserved Cash	30.51	28.19	32.36	30.29	29.90	34.27	36.24	40.92	42.66	44.45	43.94	44.50	42.30	43.93	46.18	44.28	46.19	47.22	46.14	51.01	51.69
Capital & Major Maint	22.45	22.42	22.15	22.17	22.17	21.76	21.59	21.40	21.30	21.30	21.08	21.08	19.19	19.21	19.09	19.22	18.90	18.43	18.45	18.25	17.51
Working Funds	19.54	19.54	19.54	19.54	19.54	19.54	19.54	19.54	19.54	19.54	19.54	19.54	20.87	20.87	20.87	20.87	20.87	20.87	20.87	20.87	20.87
Contingency	10.94	10.94	10.94	10.94	10.94	10.94	10.94	10.94	10.94	10.94	10.94	10.94	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25
Clean Air Rider	6.53	6.53	6.53	6.53	6.53	6.53	6.53	6.53	6.53	6.53	6.53	6.53	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95
Spl Cap & Maj Maint	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
Total (Excluding Debt Service)	92.77	90.42	94.32	92.27	91.88	95.84	97.65	102.14	103.77	105.56	104.83	105.39	102.85	104.50	106.64	104.86	106.46	107.02	105.95	110.63	110.56
Min Reserve (Policy - Ex Debt Service)	62.26	62.26	62.26	62.26	62.26	62.26	62.26	62.26	62.26	62.26	62.26	62.26	60.55	60.55	60.55	60.55	60.55	60.55	60.55	60.55	60.55

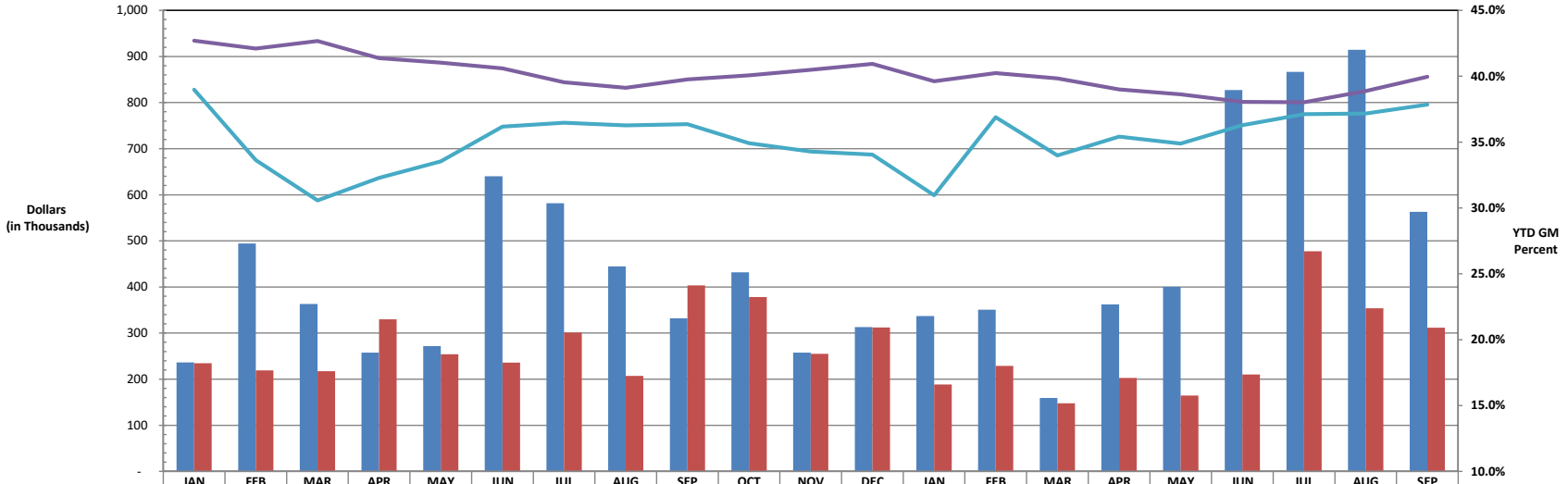
2021 - 2022 Debt Coverage Ratio - Electric Utility



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021 Actual	3.85	3.92	3.95	4.00	4.06	3.62	3.68	3.60	3.64	3.72	3.69	3.74
2022 Budget	3.04	3.04	3.04	3.04	3.04	3.04	3.04	3.04	3.04	3.04	3.04	3.04
2022 Actual	3.66	3.61	3.60	3.58	3.63	3.47	3.21	3.23	3.29			
Rating Goal	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Bond Covernant	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20

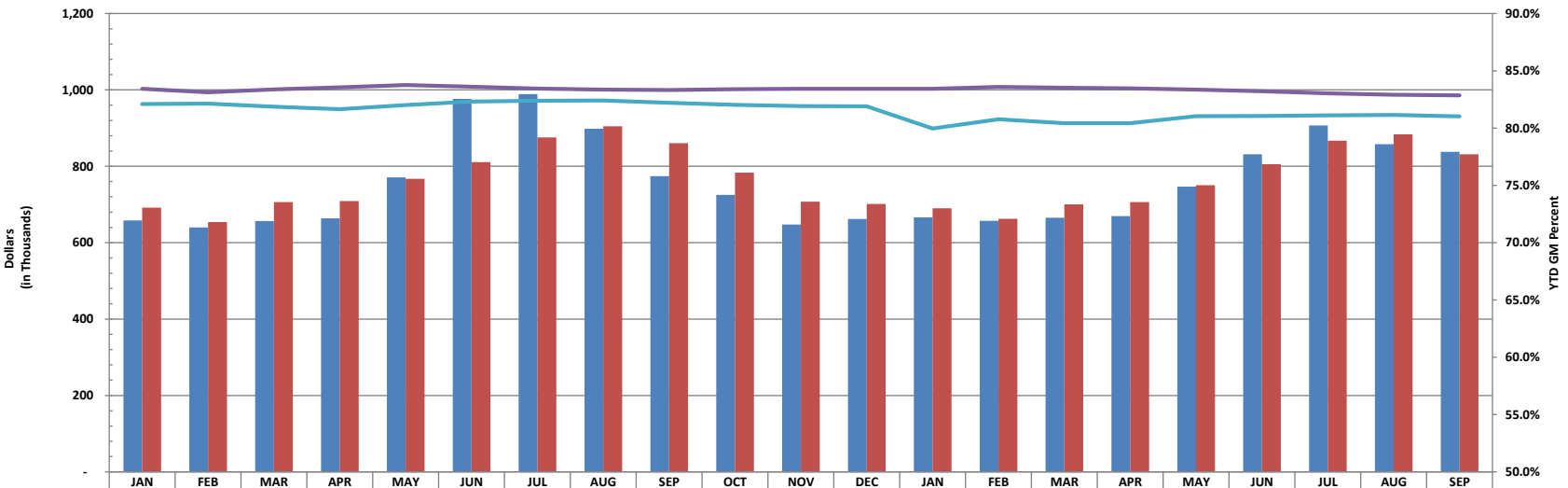
Month

2021 - 2022 Gross Margin - Steam/Wholesale Electric



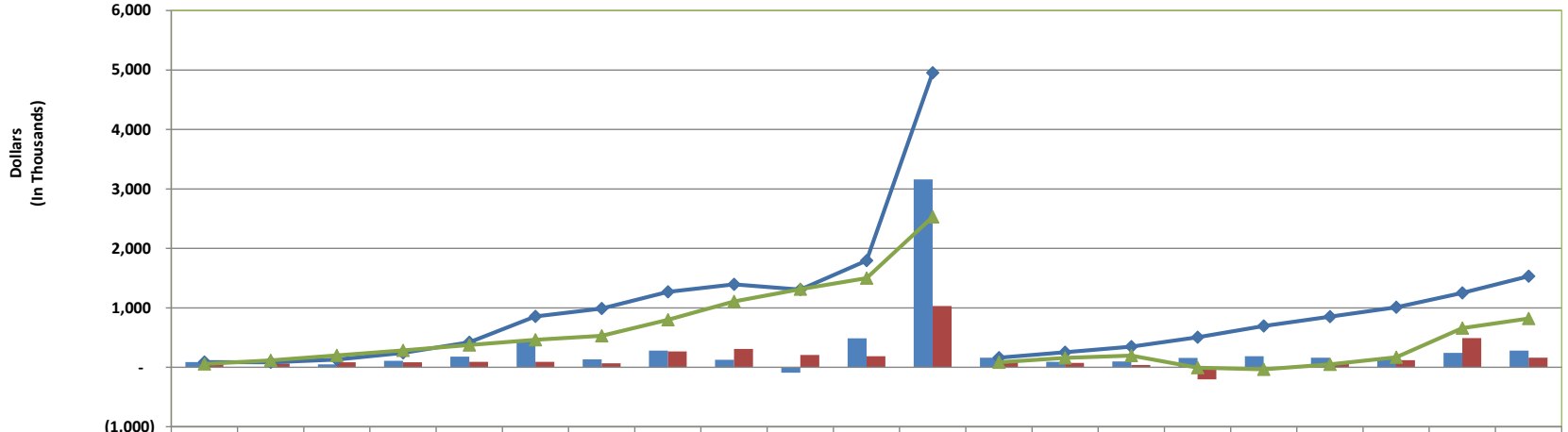
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Gross Margin - Actual	236	494	363	258	272	640	581	445	332	432	258	313	337	351	159	362	400	827	866	914	563
Gross Margin - Budget	235	219	217	330	254	236	301	207	403	378	255	312	188	229	148	202	164	210	478	354	312
Gross Margin % YTD - Actual	39.0%	33.6%	30.6%	32.3%	33.5%	36.2%	36.5%	36.3%	36.4%	34.9%	34.3%	34.0%	31.0%	36.9%	34.0%	35.4%	34.9%	36.3%	37.1%	37.2%	37.9%
Gross Margin % YTD - Budget	42.7%	42.1%	42.7%	41.4%	41.0%	40.6%	39.5%	39.1%	39.8%	40.1%	40.5%	40.9%	39.6%	40.2%	39.8%	39.0%	38.6%	38.1%	38.0%	38.9%	40.0%

2021 - 2022 Gross Margin - Water Utility



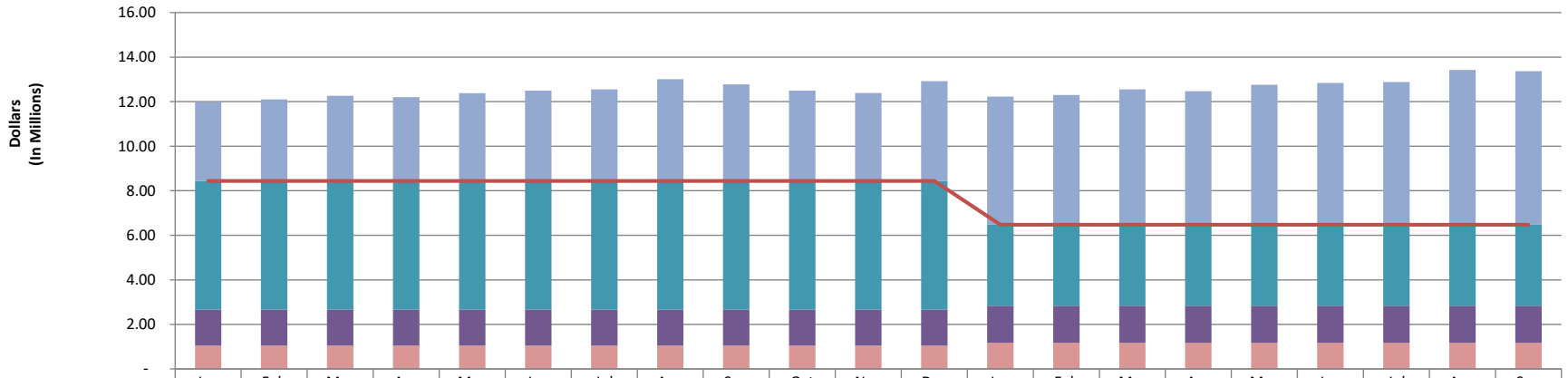
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
GM - Actual	658	640	657	664	771	977	989	898	774	725	647	662	666	657	665	669	747	832	907	858	838
GM - Budget	691	654	706	709	767	811	875	904	860	783	707	701	690	663	700	706	750	806	867	884	831
GM % YTD - Actual	82.1%	82.1%	81.9%	81.7%	82.0%	82.3%	82.4%	82.4%	82.2%	82.0%	81.9%	81.9%	80.0%	80.8%	80.4%	80.4%	81.0%	81.1%	81.1%	81.1%	81.0%
GM % YTD - Budget	83.4%	83.1%	83.4%	83.6%	83.8%	83.6%	83.4%	83.4%	83.3%	83.4%	83.4%	83.4%	83.4%	83.6%	83.5%	83.5%	83.4%	83.2%	83.0%	82.9%	82.9%

2021 - 2022 Change in Net Position - Water Utility



	Jan	Feb	Mar	Apr	Mar	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Chg Net Position - Actual	88	(5)	48	109	180	435	132	282	127	(91)	487	3,161	161	91	97	157	186	160	157	242	281
Chg Net Position - Budget	55	62	83	84	90	89	66	268	309	207	186	1,030	85	74	37	(203)	(29)	85	119	489	161
Net Position - YTD Actual	88	83	131	240	420	855	987	1,269	1,396	1,305	1,792	4,953	161	252	349	506	692	852	1,008	1,250	1,531
Net Position - YTD Budget	55	117	200	284	374	463	529	797	1,107	1,313	1,499	2,529	85	159	197	(6)	(35)	50	169	658	820

2021 - 2022 Cash Reserves - Water Utility



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Unreserved Cash	3.55	3.67	3.83	3.77	3.95	4.06	4.11	4.58	4.35	4.06	3.96	4.49	5.75	5.82	6.08	6.00	6.28	6.37	6.41	6.95	6.89
Capital & MM	5.77	5.77	5.77	5.77	5.77	5.77	5.77	5.77	5.77	5.77	5.77	5.77	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64
Contingency	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66
Working Funds	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Total	11.98	12.10	12.27	12.21	12.38	12.50	12.55	13.01	12.78	12.50	12.39	12.92	12.22	12.30	12.55	12.47	12.76	12.84	12.89	13.42	13.37
Min Reserver (Policy)	8.44	8.44	8.44	8.44	8.44	8.44	8.44	8.44	8.44	8.44	8.44	8.44	6.47	6.47	6.47	6.47	6.47	6.47	6.47	6.47	6.47

ROCHESTER PUBLIC UTILITIES

INDEX

K:\RPU\GA\FINANCIAL REPORTS\ FINANCIALS CRMO.pdf

DATE: **September 2022**

TO:

From: **Judith Anderson** **(507) 292-1217**
Controller

SUBJ: **RPU - Financial Statements**

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
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6	GRAPH - Capital Expenditures
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8	GRAPH - Cash & Temporary Investments
9	GRAPH - Changes in Net Position
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RPU - WATER UTILITY Financial Reports

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18	GRAPH - Changes in Net Position

END OF BOARD PACKET FINANCIALS

10/14/2022

ROCHESTER PUBLIC UTILITIES
STATEMENT OF NET POSITION
ELECTRIC UTILITY
September 30, 2022

	September 2022	September 2021	Difference	% Diff.	August 2022
ASSETS					
CURRENT ASSETS					
CASH & INVESTMENTS					
Unreserved Cash & Investments	51,685,947	42,660,092	9,025,855	21.2	51,007,556
BOARD RESERVED CASH & INVESTMENTS					
Clean Air Rider Reserve	5,948,601	6,529,996	(581,395)	(8.9)	5,948,60
Working Funds Reserve	20,867,000	19,537,000	1,330,000	6.8	20,867,00
Special Capital & Major Maintnce Reserve	3,300,638	2,800,818	499,820	17.8	3,300,63
Contingency Reserve	11,251,000	10,943,000	308,000	2.8	11,251,00
General Capital & Major Maintnce Reserve	17,509,424	21,296,022	(3,786,598)	(17.8)	18,252,27
Total Reserved Cash & Investments	58,876,664	61,106,836	(2,230,173)	(3.6)	59,619,51
Total Cash & Investments	110,562,611	103,766,928	6,795,682	6.5	110,627,07
Receivables & Accrued Utility Revenues	32,846,335	23,740,518	9,105,817	38.4	33,349,42
Inventory	8,807,633	6,529,184	2,278,449	34.9	8,305,88
Other Current Assets	1,416,191	1,282,110	134,081	10.5	1,462,45
RESTRICTED ASSETS					
Restricted Cash and Equivalents	8,107,139	7,695,439	411,700	5.3	6,965,97
Total Current Assets	161,739,909	143,014,179	18,725,730	13.1	160,710,81
NON-CURRENT ASSETS					
RESTRICTED ASSETS					
RESTRICTED CASH & INVESTMENTS					
Debt Service Reserve	12,108,145	12,072,991	35,155	0.3	12,090,77
Funds Held in Trust	0	0	0	0.0	
Total Restricted Cash & Investments	12,108,145	12,072,991	35,155	0.3	12,090,77
Total Restricted Assets	12,108,145	12,072,991	35,155	0.3	12,090,77
CAPITAL ASSETS					
NON-DEPRECIABLE ASSETS					
Land and Land Rights	11,264,662	11,264,662	0	0.0	11,264,66
Construction Work in Progress	25,179,499	20,462,180	4,717,319	23.1	22,368,44
Total Non-depreciable Assets	36,444,161	31,726,842	4,717,319	14.9	33,633,10
DEPRECIABLE ASSETS					
Utility Plant in Service, Net	242,900,346	243,507,532	(607,186)	(0.2)	243,947,90
Steam Assets, Net	957,311	1,251,868	(294,557)	(23.5)	981,85
Total Depreciable Assets	243,857,657	244,759,400	(901,743)	(0.4)	244,929,76
Net Capital Assets	280,301,818	276,486,242	3,815,576	1.4	278,562,86
Other Non-Current Assets	11,520,002	11,932,825	(412,822)	(3.5)	11,552,00
Total Non-Current Assets	303,929,966	300,492,057	3,437,908	1.1	302,205,64
TOTAL ASSETS	465,669,875	443,506,237	22,163,638	5.0	462,916,45
DEFERRED OUTFLOWS OF RESOURCES					
DEFERRED OUTFLOWS OF RESOURCES	7,180,058	3,637,338	3,542,720	97.4	7,388,41
TOTAL ASSETS + DEFERRED OUTFLOW RESOURCE	**472,849,933**	**447,143,575**	**25,706,358**	**5.7**	**470,304,87**
LIABILITIES					
CURRENT LIABILITIES					
Accounts Payable	13,919,865	10,865,000	3,054,865	28.1	14,727,68
Due to other funds	3,726,708	3,592,098	134,610	3.7	3,555,78
Customer Deposits	2,192,218	2,055,634	136,584	6.6	2,166,67
Compensated absences	2,040,273	1,960,666	79,607	4.1	2,046,24
Accrued Salaries & Wages	470,713	1,065,505	(594,792)	(55.8)	1,054,25
Interest Payable	2,202,973	2,301,106	(98,133)	(4.3)	1,652,22
Current Portion of Long Term Debt	7,085,000	6,515,000	570,000	8.7	7,085,00
Misc Other Current Liabilities	3,678	975	2,704	277.3	3,44
Total Current Liabilities	31,641,428	28,355,983	3,285,445	11.6	32,291,30
NON-CURRENT LIABILITIES					
Compensated absences	1,645,408	1,543,225	102,183	6.6	1,638,30
Other Non-Current Liabilities	10,112,060	14,291,386	(4,179,326)	(29.2)	10,112,06
Unearned Revenues	1,738,057	1,895,721	(157,664)	(8.3)	1,617,46
Long-Term Debt	166,411,626	174,992,965	(8,581,339)	(4.9)	166,534,87
Total Non-Current Liabilities	179,907,151	192,723,297	(12,816,146)	(6.7)	179,902,70
TOTAL LIABILITIES	211,548,579	221,079,280	(9,530,701)	(4.3)	212,194,01
DEFERRED INFLOWS OF RESOURCES					
DEFERRED INFLOWS OF RESOURCES	18,803,541	1,244,857	17,558,684	1,410.5	19,169,73
NET POSITION					
Net Investment in Capital Assets	118,392,326	106,662,985	11,729,342	11.0	117,082,53
Total Restricted Net Position	5,904,167	5,394,333	509,833	9.5	5,313,75
Unrestricted Net Position	118,201,320	112,762,120	5,439,200	4.8	116,544,83
TOTAL NET POSITION	242,497,813	224,819,438	17,678,375	7.9	238,941,12
TOTAL LIAB,DEFERRED INFLOWS,NET POSITION	**472,849,933**	**447,143,575**	**25,706,358**	**5.7**	**470,304,87**

10/14/2022

ROCHESTER PUBLIC UTILITIES

Statement of Revenues, Expenses & Changes in Net Position

September, 2022
YEAR TO DATE

	Actual YTD	Original Budget YTD	Actual to Original Budget	% Var.	Last Yr Actual YTD
SALES REVENUE					
Retail Revenue					
Electric - Residential Service	46,188,461	45,240,738	947,722	2.1	44,812,06
Electric - General & Industrial Service	66,437,647	68,809,574	(2,371,927)	(3.4)	65,284,40
Electric - Public Street & Highway Light	1,037,851	1,091,452	(53,601)	(4.9)	1,233,54
Electric - Rental Light Revenue	144,336	196,507	(52,171)	(26.5)	140,85
Electric - Interdepartmentl Service	825,035	835,412	(10,377)	(1.2)	844,25
Electric - Power Cost Adjustment	(1,722,363)	(93,986)	(1,628,377)	(1,732.6)	353,46
Electric - Clean Air Rider	1,658,481	1,643,633	14,848	0.9	1,677,79
Electric - Total Retail Revenue	114,569,447	117,723,331	(3,153,884)	(2.7)	114,346,38
Wholesale Electric Revenue					
Energy & Fuel Reimbursement	5,354,898	2,198,446	3,156,451	143.6	4,183,97
Capacity & Demand	1,332,498	338,582	993,916	293.6	360,50
Total Wholesale Electric Revenue	6,687,396	2,537,029	4,150,367	163.6	4,544,47
Steam Sales Revenue	5,941,352	3,180,845	2,760,507	86.8	5,417,30
TOTAL SALES REVENUE	127,198,195	123,441,204	3,756,991	3.0	124,308,15
COST OF REVENUE					
Purchased Power	67,054,330	69,859,869	(2,805,539)	(4.0)	67,745,14
Generation Fuel, Chemicals & Utilities	7,848,514	3,432,954	4,415,560	128.6	6,340,23
TOTAL COST OF REVENUE	74,902,845	73,292,824	1,610,021	2.2	74,085,37
GROSS MARGIN					
Retail	47,515,117	47,863,461	(348,344)	(0.7)	46,601,23
Wholesale	4,780,233	2,284,919	2,495,314	109.2	3,621,54
TOTAL GROSS MARGIN	52,295,350	50,148,381	2,146,970	4.3	50,222,78
FIXED EXPENSES					
Utilities Expense	361,538	327,599	33,939	10.4	333,18
Depreciation & Amortization	11,127,427	10,631,625	495,802	4.7	10,922,52
Salaries & Benefits	16,257,474	17,753,733	(1,496,259)	(8.4)	15,301,19
Materials, Supplies & Services	11,549,024	14,009,055	(2,460,031)	(17.6)	7,550,73
Inter-Utility Allocations	(1,424,471)	(1,396,502)	(27,969)	(2.0)	(1,416,61
TOTAL FIXED EXPENSES	37,870,993	41,325,511	(3,454,517)	(8.4)	32,691,03
Other Operating Revenue	6,330,042	7,162,002	(831,960)	(11.6)	7,628,40
NET OPERATING INCOME (LOSS)	20,754,399	15,984,872	4,769,527	29.8	25,160,15
NON-OPERATING REVENUE / (EXPENSE)					
Investment Income (Loss)	884,540	1,431,724	(547,184)	(38.2)	904,88
Interest Expense	(4,030,636)	(4,061,017)	30,380	0.7	(4,184,52
Amortization of Debt Issue Costs	(79,200)	(79,200)	0	0.0	(79,01
Miscellaneous - Net	(146,213)	(23,700)	(122,513)	(516.9)	(236,30
TOTAL NON-OPERATING REV (EXP)	(3,371,509)	(2,732,192)	(639,317)	(23.4)	(3,594,96
INCOME (LOSS) BEFORE TRANSFERS / CAPITAL CONTRIBUTIONS	**17,382,889**	**13,252,680**	**4,130,210**	**31.2**	**21,565,19**
Transfers Out	(6,722,631)	(6,910,928)	188,298	2.7	(6,519,73
Capital Contributions	3,443,402	7,565,673	(4,122,271)	(54.5)	4,301,56
CHANGE IN NET POSITION	**14,103,661**	**13,907,424**	**196,237**	**1.4**	**19,347,01**
Net Position, Beginning	228,394,152				205,472,42
NET POSITION, ENDING	**242,497,813**				**224,819,43**

	Rolling 12 Months	Planned for Curr Year
Debt Coverage Ratio	3.29	3.04

10/14/22

ROCHESTER PUBLIC UTILITIES
STATEMENT OF CASH FLOWS
ELECTRIC UTILITY
FOR
SEPTEMBER, 2022
YEAR-TO-DATE

	Actual YTD	Last Yr Actual YTD
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash Received From Customers	123,190,234	122,202,674
Cash Received From Other Revenue Sources	2,548,890	4,267,058
Cash Received From Wholesale & Steam Customer	12,083,003	9,489,183
Cash Paid for:		
Purchased Power	(66,373,068)	(67,271,387)
Operations and Maintenance	(27,735,200)	(20,366,329)
Fuel	(7,770,506)	(6,069,547)
Payment in Lieu of Taxes	(6,649,029)	(6,515,315)
Net Cash Provided by(Used in) Utility Operating Activities	29,294,324	35,736,337
Sewer, Storm Water, Sales Tax & MN Water Fee Collections		
Receipts from Customers	34,284,962	33,868,085
Remittances to Government Agencies	(33,659,275)	(33,865,380)
Net Cash Provided by(Used in) Non-Utility Operating Activities	625,687	2,705
NET CASH PROVIDED BY(USED IN) OPERATING ACTIVITIES	29,920,011	35,739,042
CASH FLOWS FROM CAPITAL & RELATED FINANCING ACTIVITIES		
Additions to Utility Plant & Other Assets	(13,215,680)	(12,597,585)
Payments related to Service Territory Acquisition	(110,855)	(87,047)
Payment on Long-Term Debt	0	3,175,000
Net Bond/Loan Receipts	0	0
Cash Paid for Interest & Commissions	(3,304,459)	(7,775,658)
NET CASH PROVIDED BY(USED IN) CAPITAL & RELATED ACTIVITIES	(16,630,994)	(17,285,290)
CASH FLOWS FROM INVESTING ACTIVITIES		
Interest Earnings on Investments	501,853	538,410
Construction Fund (Deposits)Draws	0	0
Bond Reserve Account	(7,001,134)	(5,638,065)
Escrow/Trust Account Activity	0	0
NET CASH PROVIDED BY(USED IN) INVESTING ACTIVITIES	(6,499,281)	(5,099,655)
Net Increase(Decrease) in Cash & Investments	6,789,736	13,354,097
Cash & Investments, Beginning of Period	103,772,874	90,412,832
CASH & INVESTMENTS, END OF PERIOD	**110,562,610**	**103,766,929**
Externally Restricted Funds	20,215,285	19,768,430
Grand Total	130,777,895	123,535,359

10/14/2022

ROCHESTER PUBLIC UTILITIES
PRODUCTION & SALES STATISTICS
ELECTRIC UTILITY

September, 2022

YEAR-TO-DATE

						Last Yr
		Actual YTD	**Budget YTD**	**Variance**	**% Var.**	**Actual YTD**
ENERGY SUPPLY (kWh)	***(primarily calendar month)***					
Net Generation						
IBM Diesel Generators		29,016	0	29,016	-	20,807
Lake Zumbro Hydro		9,289,276	11,125,032	(1,835,756)	(16.5)	7,269,418
Cascade Creek Gas Turbine		10,473,330	13,778,000	(3,304,670)	(24.0)	26,745,711
Westside Energy Station		40,881,345	31,822,000	9,059,345	28.5	36,121,850
Total Net Generation		60,672,967	56,725,032	3,947,935	7.0	70,157,786
Other Power Supply						
Firm Purchases		881,012,675	922,406,481	(41,393,806)	(4.5)	897,178,045
Non-Firm Purchases		2,702,455	2,426,104	276,351	11.4	4,238,249
LRP Received		0	0	0	-	0
Total Other Power Supply		883,715,130	924,832,585	(41,117,455)	(4.4)	901,416,294
TOTAL ENERGY SUPPLY		944,388,097	981,557,617	(37,169,520)	(3.8)	971,574,080
ENERGY USES (kWh)	***(primarily billing period)***					
Retail Sales	**# Custs**					
Electric - Residential Service	53,151	294,752,090	289,494,919	5,257,171	1.8	298,719,570
Electric - General Service & Industrial	5,129	561,399,002	613,029,859	(51,630,857)	(8.4)	569,751,521
Electric - Street & Highway Lighting	3	2,566,409	4,361,656	(1,795,247)	(41.2)	3,271,666
Electric - Rental Lights	n/a	575,668	649,430	(73,762)	(11.4)	615,535
Electric - Interdptmntl Service	1	5,910,256	5,593,519	316,737	5.7	6,312,134
Total Customers	58,284					
Total Retail Sales		865,203,424	913,129,383	(47,925,959)	(5.2)	878,670,426
Wholesale Sales		51,472,716	45,600,000	5,872,716	12.9	62,976,485
Company Use		3,585,263	0	3,585,263	-	1,695,808
TOTAL ENERGY USES		920,261,403	958,729,383	(38,467,980)	(4.0)	943,342,719
Lost & Unaccntd For Last 12 Months		33,619,898	2.7%			
STEAM SALES (mlbs)	***(primarily billing period)***					
Steam Sales in Mlbs		347,222	374,217	(26,995)	(7.2)	357,326

10/14/2022

ROCHESTER PUBLIC UTILITIES

PRODUCTION & SALES STATISTICS (continued)
ELECTRIC UTILITY

September, 2022

YEAR-TO-DATE

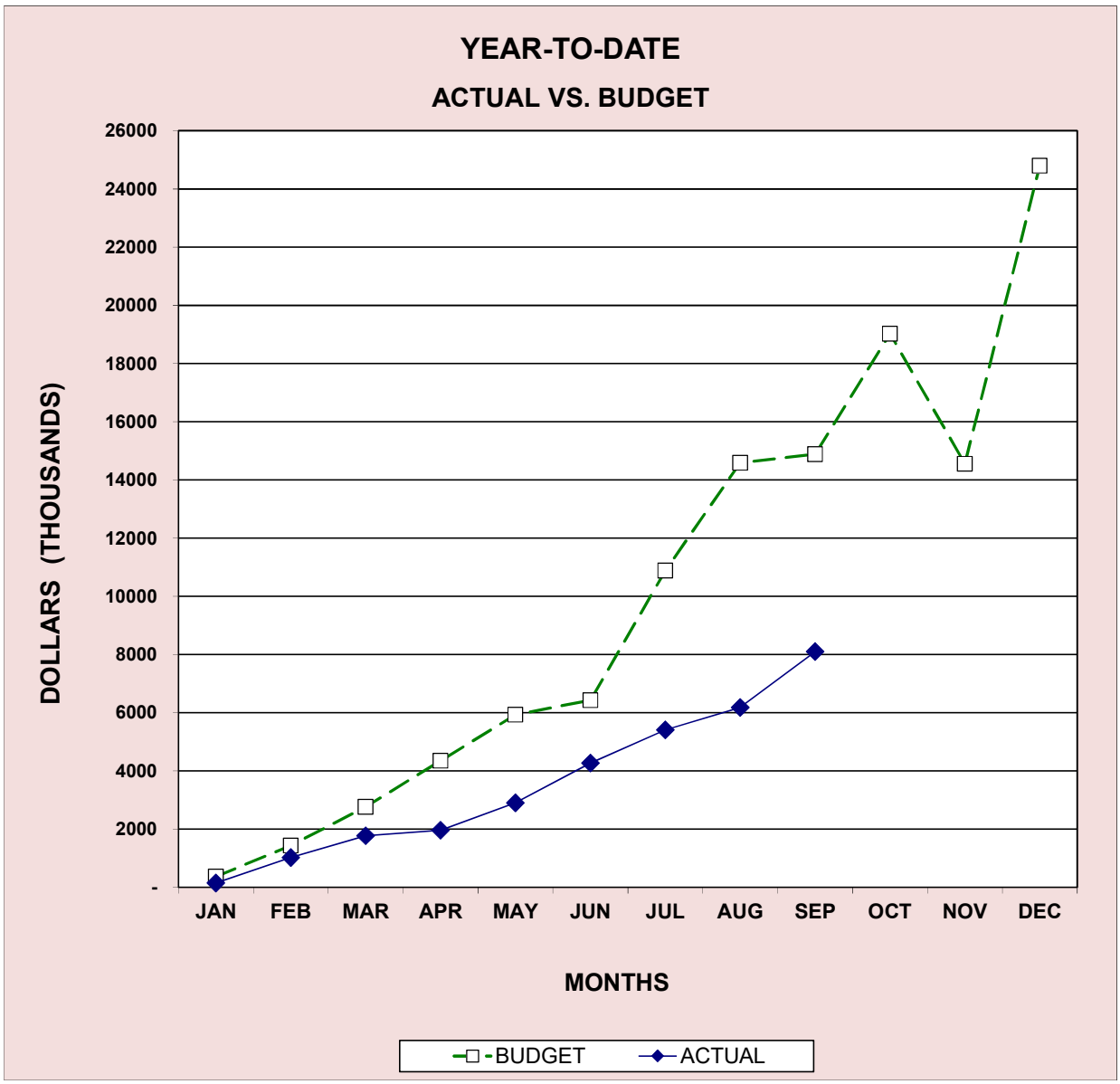
	Actual YTD		Budget YTD		Variance	% Var.	Last Yr Actual YTD	
FUEL USAGE	*(calendar month)*							
Gas Burned								
SLP	459,715	MCF	493,965	MCF	(34,250)	(6.9)	479,588	MCF
Cascade	105,765	MCF	163,642	MCF	(57,877)	(35.4)	245,668	MCF
Westside	324,992	MCF	251,392	MCF	73,600	29.3	283,376	MCF
Total Gas Burned	890,472	MCF	908,999	MCF	(18,527)	(2.0)	1,008,632	MCF
Oil Burned								
Cascade	14,415	GAL	0	GAL	14,415	-	206,143	GAL
IBM	2,279	GAL	0	GAL	2,279	-	1,713	GAL
Total Oil Burned	16,694	GAL	0	GAL	16,694	-	207,856	GAL

CAPITAL EXPENDITURES
ELECTRIC

Current Year	
ANNUAL BUDGET	24,799,405
ACTUAL YTD	8,099,158
% OF BUDGET	32.7%

September, 2022

Prior Years Ending Dec 31st		
2021	2020	2019
15,246,736	15,059,888	21,990,984
7,041,030	10,078,628	11,174,211
46.2%	66.9%	50.8%

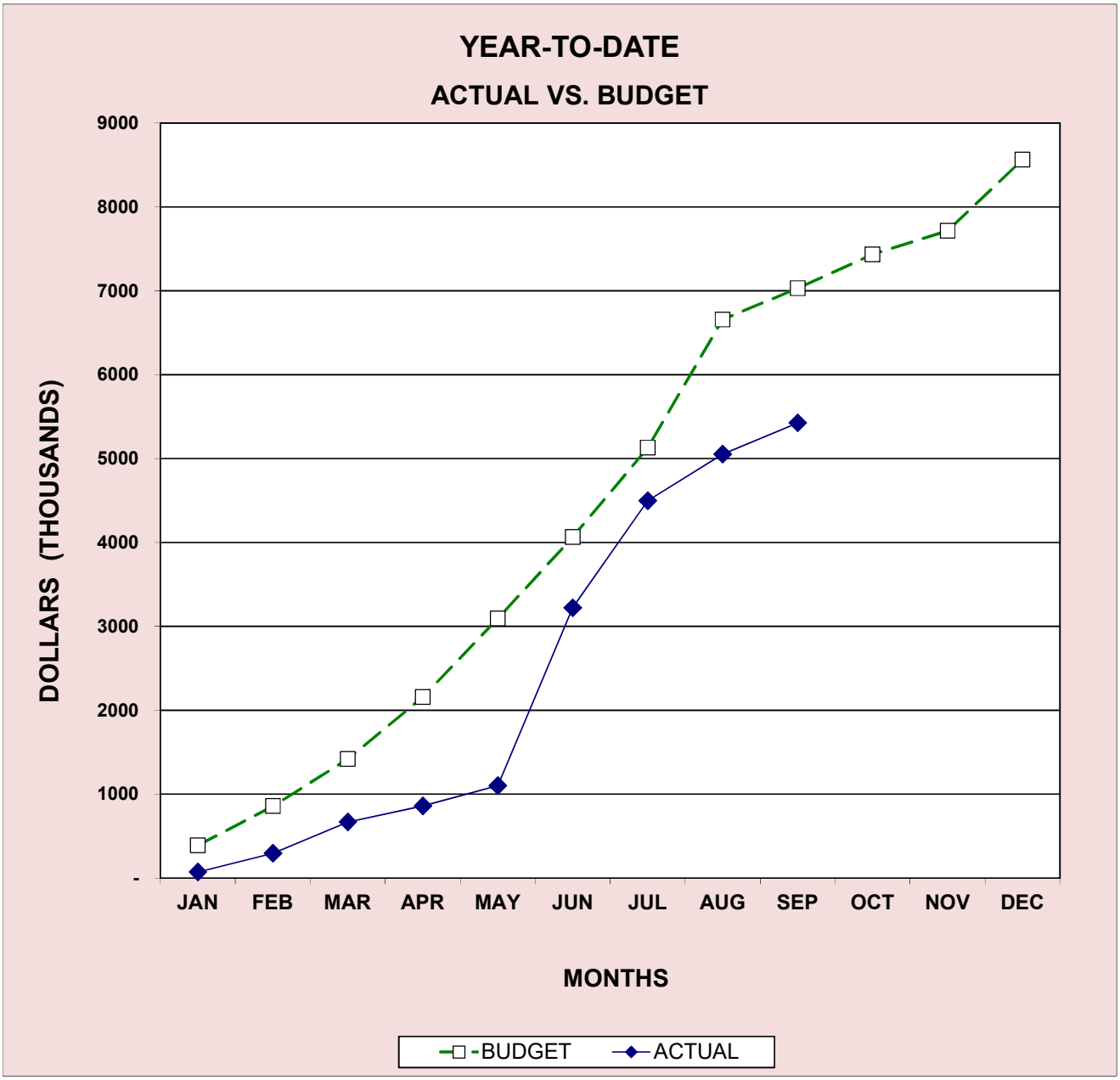


MAJOR MAINTENANCE EXPENDITURES
ELECTRIC

September, 2022

Current Year	
ANNUAL BUDGET	8,564,722
ACTUAL YTD	5,424,579
% OF BUDGET	63.3%

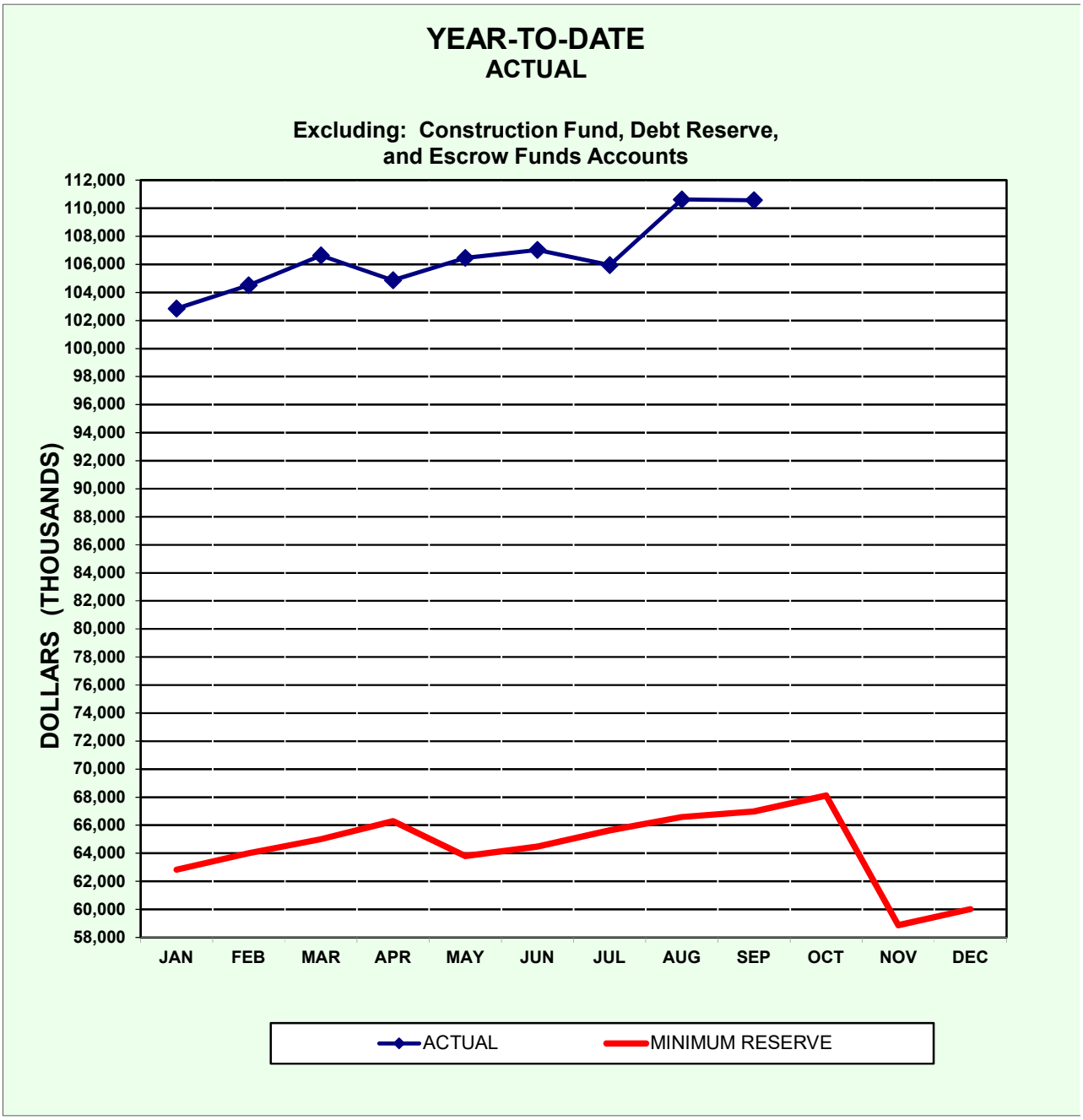
Prior Years Ending Dec 31st		
2021	2020	2019
3,815,243	4,010,088	3,353,049
3,680,535	3,111,620	2,881,017
96.5%	77.6%	85.9%



CASH AND TEMPORARY INVESTMENTS

ELECTRIC

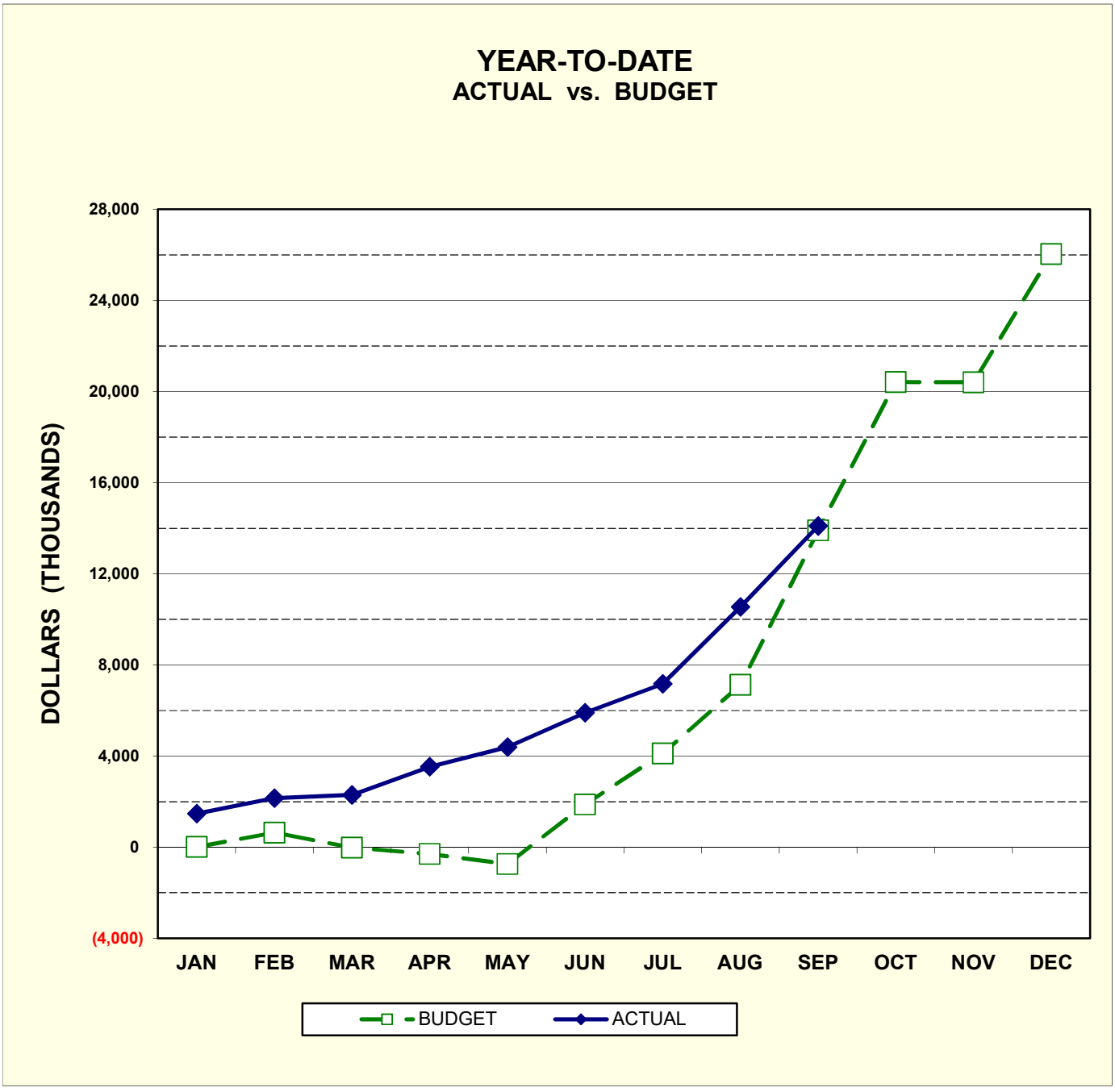
September, 2022



CHANGE IN NET POSITION

ELECTRIC

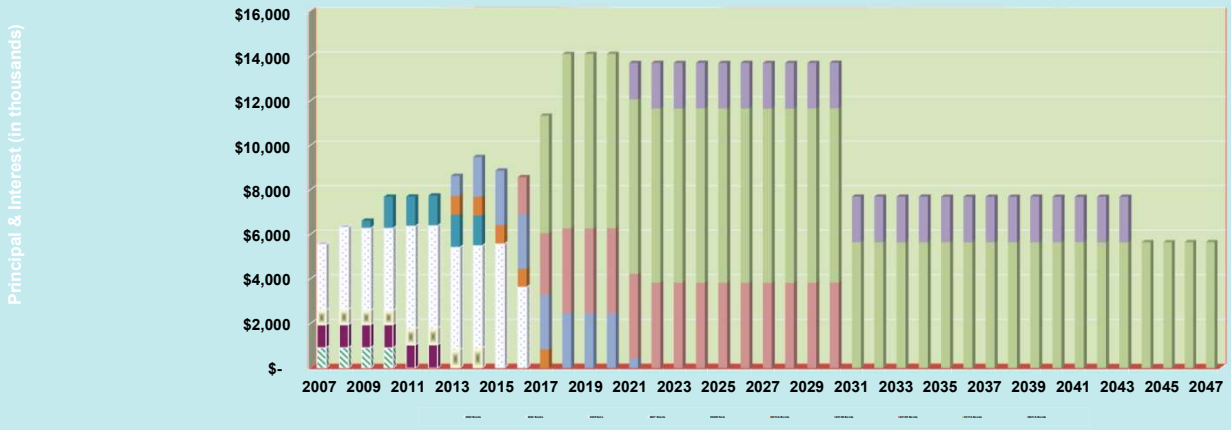
September, 2022



9/30/2022

Electric Debt Service Payments

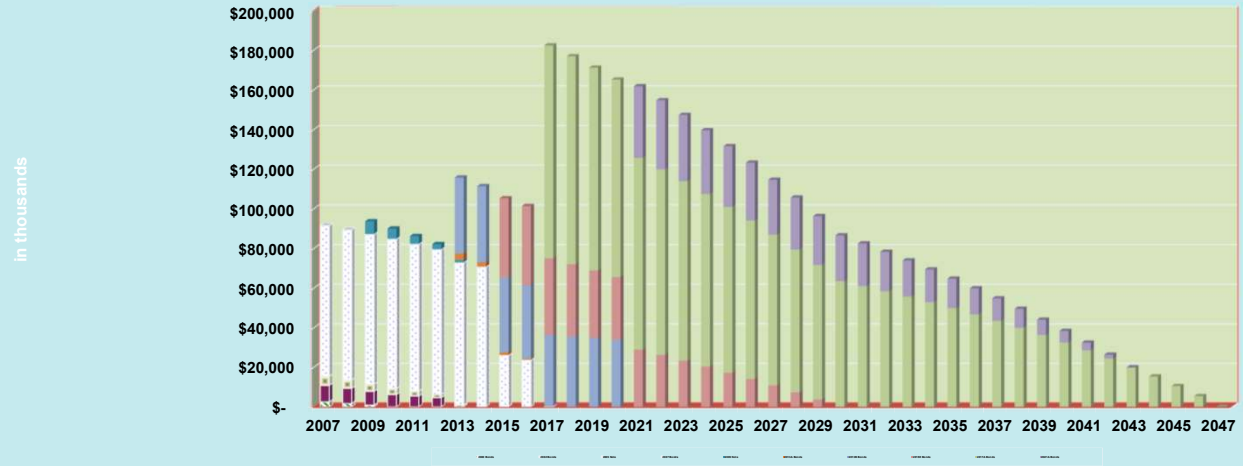
(2002 Bonds were redeemed in full on 4/1/2013; 2007C Bonds were partially redeemed on 11/17/2015 and redeemed in full on 2/15/17, 2013B Bonds were redeemed in full on 2/10/21)



9/30/2022

Electric Outstanding Debt

(as of End of Year)



10/14/2022

ROCHESTER PUBLIC UTILITIES
STATEMENT OF NET POSITION
WATER UTILITY
September 30, 2022

	September 2022	September 2021	Difference	% Diff.	August 2022
ASSETS					
CURRENT ASSETS					
CASH & INVESTMENTS					
Unreserved Cash & Investments	6,891,095	4,345,791	2,545,304	58.6	6,948,697
BOARD RESERVED CASH & INVESTMENTS					
Working Funds Reserve	1,175,000	1,045,000	130,000	12.4	1,175,000
Capital & Major Maintenance Reserve	3,635,000	5,766,000	(2,131,000)	(37.0)	3,635,000
Contingency Reserve	1,664,000	1,622,000	42,000	2.6	1,664,000
Total Reserved Cash & Investments	6,474,000	8,433,000	(1,959,000)	(23.2)	6,474,000
Total Cash & Investments	13,365,095	12,778,791	586,304	4.6	13,422,697
Receivables & Accrued Utility Revenues	1,080,046	1,154,493	(74,446)	(6.4)	942,351
Inventory	258,689	198,390	60,300	30.4	264,505
Other Current Assets	32,210	30,962	1,248	4.0	46,429
Total Current Assets	14,736,041	14,162,635	573,406	4.0	14,675,982
CAPITAL ASSETS					
NON-DEPRECIABLE ASSETS					
Land and Land Rights	677,486	677,486	0	0.0	677,486
Construction Work in Progress	6,317,504	4,077,756	2,239,748	54.9	6,216,910
Total Non-depreciable Assets	6,994,990	4,755,242	2,239,748	47.1	6,894,397
DEPRECIABLE ASSETS					
Utility Plant in Service, Net	97,186,035	95,239,618	1,946,417	2.0	97,412,538
Net Capital Assets	104,181,026	99,994,860	4,186,165	4.2	104,306,935
Total Non-Current Assets	104,181,026	99,994,860	4,186,165	4.2	104,306,935
TOTAL ASSETS	118,917,066	114,157,495	4,759,571	4.2	118,982,917
DEFERRED OUTFLOWS OF RESOURCES					
DEFERRED OUTFLOWS OF RESOURCES	723,636	221,818	501,819	226.2	748,554
TOTAL ASSETS + DEFERRED OUTLFOW RESOURCE	**119,640,703**	**114,379,313**	**5,261,390**	**4.6**	**119,731,471**
LIABILITIES					
CURRENT LIABILITIES					
Accounts Payable	189,777	431,943	(242,166)	(56.1)	356,346
Due to Other Funds	0	0	0	0.0	0
Customer Deposits	142,741	122,299	20,441	16.7	144,949
Compensated Absences	297,680	292,789	4,891	1.7	295,014
Accrued Salaries & Wages	58,849	136,837	(77,988)	(57.0)	131,909
Total Current Liabilities	689,046	983,868	(294,822)	(30.0)	928,217
NON-CURRENT LIABILITIES					
Compensated Absences	168,752	204,553	(35,801)	(17.5)	168,193
Other Non-Current Liabilities	1,335,994	1,807,972	(471,979)	(26.1)	1,335,994
Total Non-Current Liabilities	1,504,746	2,012,526	(507,780)	(25.2)	1,504,186
TOTAL LIABILITIES	2,193,792	2,996,393	(802,601)	(26.8)	2,432,403
DEFERRED INFLOWS OF RESOURCES					
DEFERRED INFLOWS OF RESOURCES	1,292,368	316,666	975,702	308.1	1,425,503
NET POSITION					
Net Investment in Capital Assets	104,181,026	99,994,860	4,186,165	4.2	104,306,935
Unrestricted Net Assets (Deficit)	11,973,517	11,071,394	902,124	8.1	11,566,630
TOTAL NET POSITION	116,154,543	111,066,254	5,088,289	4.6	115,873,565
TOTAL LIAB,DEFERRED INFLOWS,NET POSITION	**119,640,703**	**114,379,313**	**5,261,390**	**4.6**	**119,731,471**

10/14/2022

ROCHESTER PUBLIC UTILITIES

Statement of Revenues, Expenses & Changes in Net Position

WATER UTILITY

September, 2022

YEAR TO DATE

	Actual YTD	Original Budget YTD	Actual to Original Budget	% Var.	Last Yr Actual YTD
RETAIL REVENUE					
Water - Residential Service	5,000,567	4,949,573	50,993	1.0	5,138,091
Water - Commercial Service	2,493,447	2,312,050	181,397	7.8	2,473,336
Water - Industrial Service	477,760	589,388	(111,628)	(18.9)	472,121
Water - Public Fire Protection	450,279	455,191	(4,911)	(1.1)	446,734
Water - Interdepartmental Service	18,441	17,881	560	3.1	18,792
TOTAL RETAIL REVENUE	8,440,494	8,324,083	116,411	1.4	8,549,074
COST OF REVENUE					
Utilities Expense	845,916	788,491	57,425	7.3	865,785
Water Treatment Chemicals/Demin Water	126,803	94,351	32,452	34.4	94,138
Billing Fees	629,250	544,254	84,996	15.6	561,786
TOTAL COST OF REVENUE	1,601,969	1,427,096	174,873	12.3	1,521,709
GROSS MARGIN	6,838,525	6,896,987	(58,462)	(0.8)	7,027,365
FIXED EXPENSES					
Depreciation & Amortization	2,118,812	2,202,200	(83,388)	(3.8)	2,074,843
Salaries & Benefits	2,097,634	2,320,864	(223,230)	(9.6)	2,066,636
Materials, Supplies & Services	1,033,578	1,488,490	(454,912)	(30.6)	909,834
Inter-Utility Allocations	1,424,471	1,396,502	27,969	2.0	1,416,610
TOTAL FIXED EXPENSES	6,674,495	7,408,056	(733,561)	(9.9)	6,467,923
Other Operating Revenue	1,463,253	1,468,290	(5,037)	(0.3)	1,102,639
NET OPERATING INCOME (LOSS)	1,627,283	957,221	670,062	70.0	1,662,081
NON-OPERATING REVENUE / (EXPENSE)					
Investment Income (Loss)	139,560	153,465	(13,905)	(9.1)	150,084
Interest Expense	(72)	0	(72)	0.0	(252)
Miscellaneous - Net	(21,999)	0	(21,999)	0.0	(94,303)
TOTAL NON-OPERATING REV (EXP)	117,489	153,465	(35,976)	(23.4)	55,529
INCOME (LOSS) BEFORE TRANSFERS / CAPITAL CONTRIBUTIONS	**1,744,771**	**1,110,686**	**634,085**	**57.1**	**1,717,610**
Transfers Out	(311,843)	(290,955)	(20,887)	(7.2)	(321,865)
Capital Contributions	98,386	0	98,386	0.0	0
CHANGE IN NET POSITION	**1,531,314**	**819,731**	**711,584**	**86.8**	**1,395,745**
Net Position, Beginning	114,623,228				109,670,508
NET POSITION, ENDING	**116,154,543**				**111,066,254**

10/14/22

ROCHESTER PUBLIC UTILITIES
STATEMENT OF CASH FLOWS
WATER UTILITY
FOR
SEPTEMBER, 2022
YEAR-TO-DATE

	Actual YTD	Last Yr Actual YTD
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash Received From Customers	10,101,396	9,511,730
Cash Paid for:		
Operations and Maintenance	(6,169,243)	(5,787,180)
Payment in Lieu of Taxes	(296,847)	(311,409)
Net Cash Provided by(Used in) Utility Operating Activities	3,635,306	3,413,141
Sales Tax & MN Water Fee Collections		
Receipts from Customers	445,263	348,451
Remittances to Government Agencies	(453,345)	(404,835)
Net Cash Provided by(Used in) Non-Utility Operating Activities	(8,082)	(56,384)
NET CASH PROVIDED BY(USED IN) OPERATING ACTIVITIES	3,627,224	3,356,757
CASH FLOWS FROM CAPITAL & RELATED FINANCING ACTIVITIES		
Additions to Utility Plant & Other Assets	(3,304,599)	(2,703,231)
Payment on Long-Term Debt	0	0
Net Loan Receipts	0	0
Cash Paid for Interest & Commissions	0	0
NET CASH PROVIDED BY(USED IN) CAPITAL & RELATED ACTIVITIES	(3,304,599)	(2,703,231)
CASH FLOWS FROM INVESTING ACTIVITIES		
Interest Earnings on Investments	139,488	149,832
NET CASH PROVIDED BY(USED IN) INVESTING ACTIVITIES	139,488	149,832
Net Increase(Decrease) in Cash & Investments	462,113	803,358
Cash & Investments, Beginning of Period	12,902,983	11,975,432
CASH & INVESTMENTS, END OF PERIOD	13,365,096	12,778,790

10/14/2022

ROCHESTER PUBLIC UTILITIES

PRODUCTION & SALES STATISTICS
WATER UTILITY

September, 2022

YEAR-TO-DATE

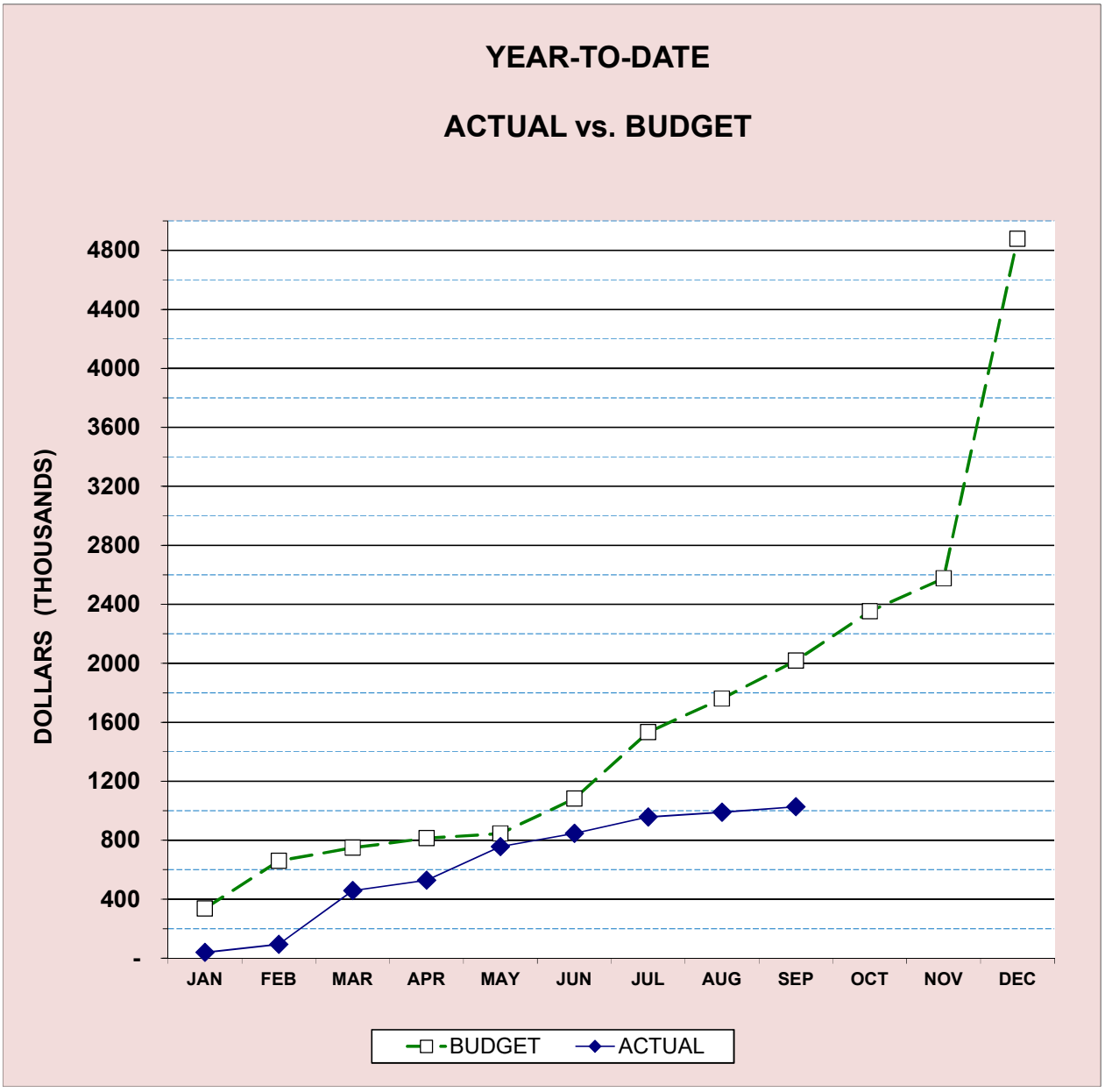
	# Custs	Actual YTD (ccf)	Budget YTD (ccf)	Variance (ccf)	% Var.	Last Yr Actual YTD
PUMPAGE	*(primarily calendar month)*					
TOTAL PUMPAGE		4,540,694	4,152,777	387,917	9.3	4,932,088
RETAIL SALES	*(primarily billing period)*					
Water - Residential Service	37,564	2,130,848	2,076,077	54,771	2.6	2,460,820
Water - Commercial Service	3,897	1,723,388	1,568,886	154,502	9.8	1,722,193
Water - Industrial Service	23	490,055	489,946	109	0.0	483,863
Water - Interdptmntl Service	1	14,471	14,792	(321)	(2.2)	15,476
Total Customers	41,485					
TOTAL RETAIL SALES		4,358,762	4,149,701	209,061	5.0	4,682,352
Lost & Unaccntd For Last 12 Months		216,039	3.7%			

CAPITAL EXPENDITURES
WATER

Current Year	
ANNUAL BUDGET	4,878,440
ACTUAL YTD	1,027,410
% OF BUDGET	21.1%

September, 2022

Prior Years Ending Dec 31st		
2021	2020	2019
6,807,825	5,917,740	4,554,317
3,548,783	2,365,830	1,689,025
52.1%	40.0%	37.1%

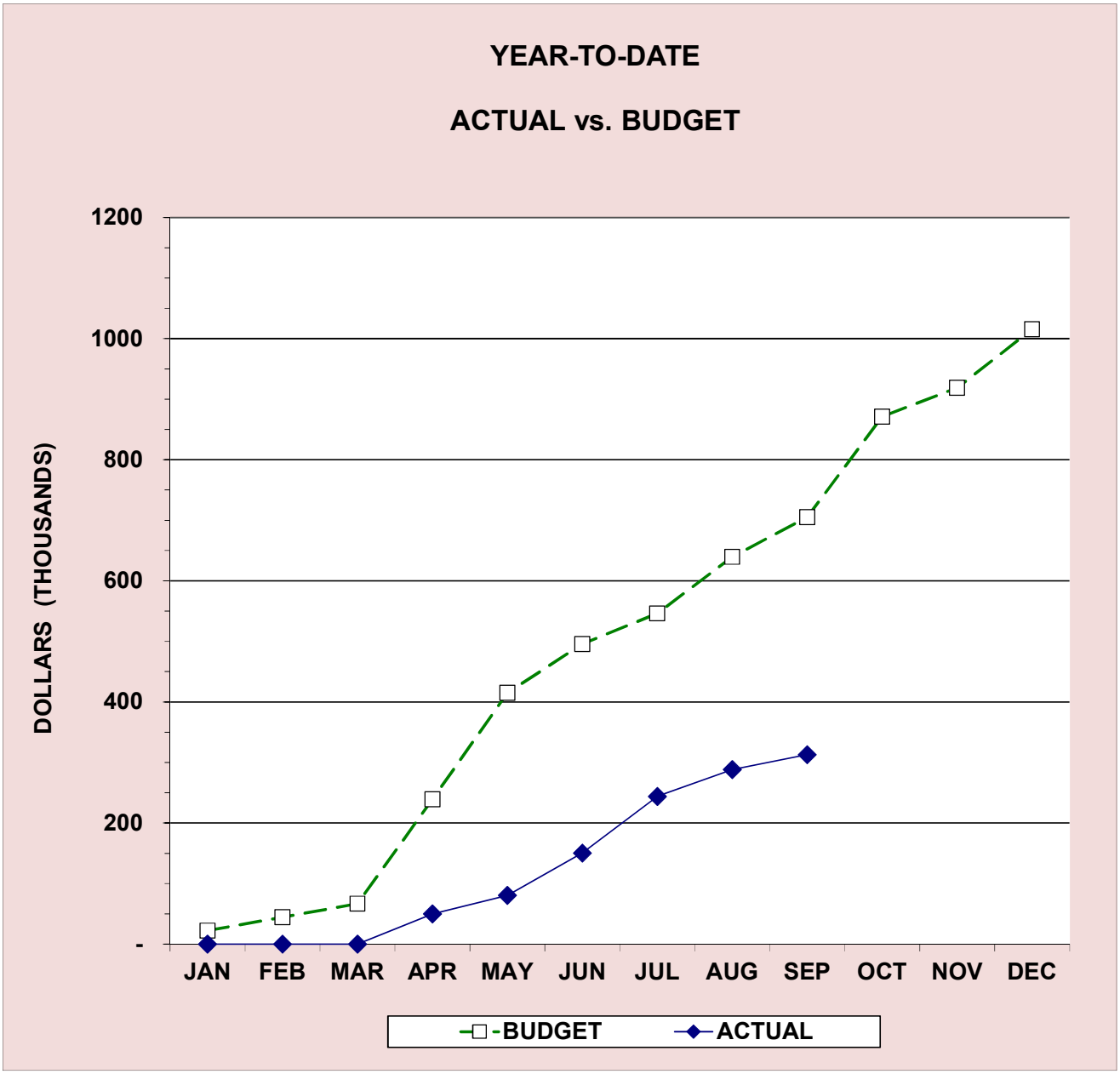


MAJOR MAINTENANCE EXPENDITURES
WATER

September, 2022

Current Year	
ANNUAL BUDGET	1,015,476
ACTUAL YTD	312,944
% OF BUDGET	30.8%

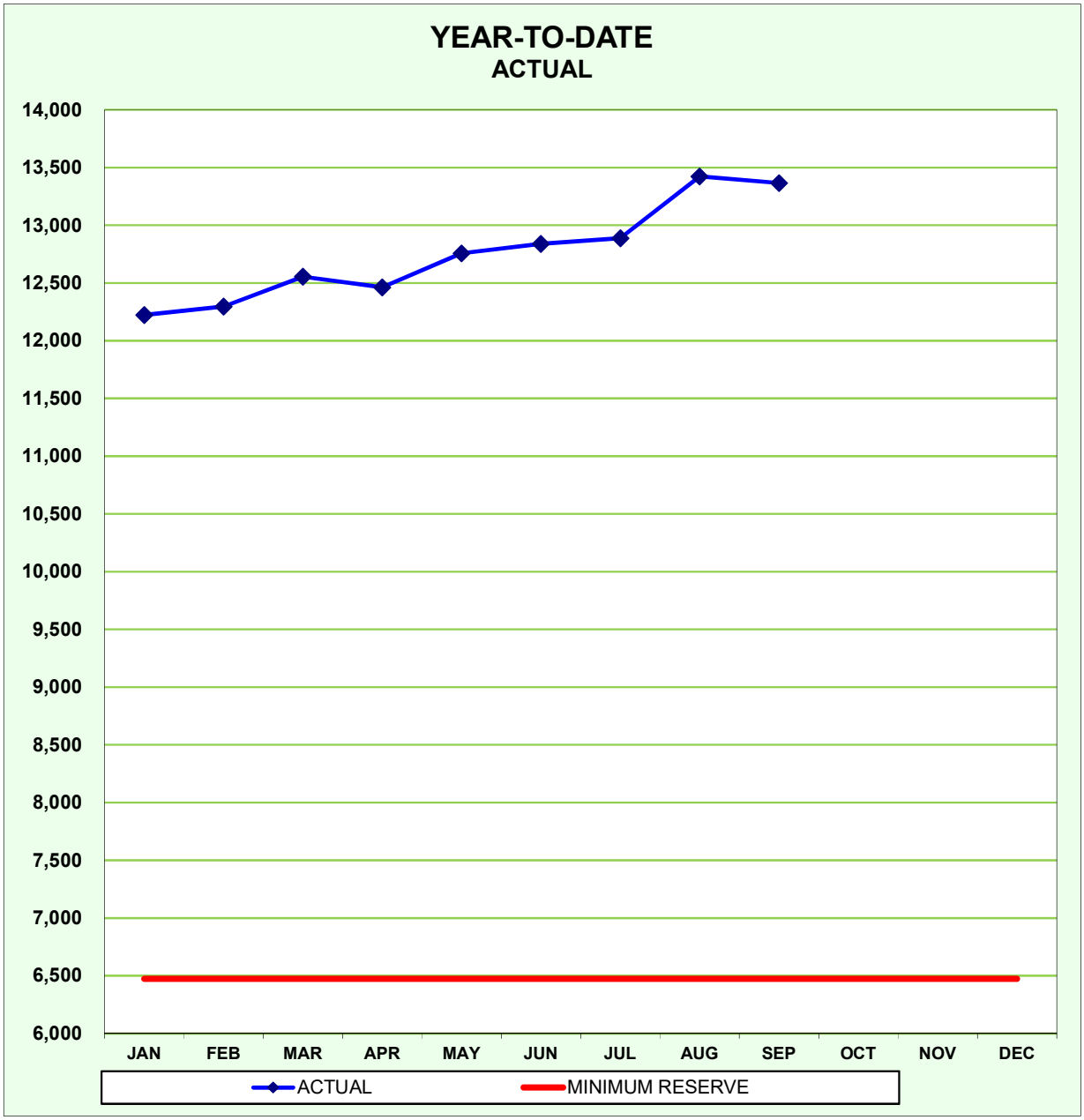
Prior Years Ending Dec 31st		
2021	2020	2019
528,408	552,500	567,500
225,087	521,228	322,751
42.6%	94.3%	56.9%



CASH AND TEMPORARY INVESTMENTS

WATER

September, 2022



CHANGE IN NET POSITION

WATER

September, 2022