



GRAND RAPIDS PUBLIC UTILITIES COMMISSION REGULAR WORK SESSION MEETING AGENDA

Tuesday, November 29, 2022

8:00 AM

CALL TO ORDER: Pursuant to due notice and call thereof, a Special Meeting of the Grand Rapids Public Utilities Commission will be held on Tuesday, November 29, 2022 at 8:00 AM in the conference room of the Public Works/Public Utilities Service Center at 500 SE 4th Street, Grand Rapids, Minnesota.

CALL OF ROLL:

BUSINESS:

1. Consider a motion to approve \$203,898.56 of verified claims for October and November 2022.
2. Rate Study Discussion – Part 2
3. Review 2023 Proposed Operations and Capital Budgets

ADJOURNMENT:

The next Regular Meeting of the Commission is scheduled for Wednesday, December 14, 2022 at 4:00 PM in the conference room of the Public Works/Public Utilities Service Center at 500 SE 4th Street.

The next Regular Work Session is scheduled for Wednesday, January 25, 2023 at 8:00 AM in the conference room of the Public Works/Public Utilities Service Center at 500 SE 4th Street.



GRAND RAPIDS PUBLIC UTILITIES COMMISSION AGENDA ITEM

AGENDA DATE: November 29, 2022

AGENDA ITEM: Consider a motion to approve \$203,898.56 of verified claims for October and November 2022.

PREPARED BY: Jean Lane, Business Services Manager

BACKGROUND:

See attached check registers:

Computer check register \$203,898.56

Manual check register \$-0-

Total \$203,898.56

RECOMMENDATION:

Consider a motion to approve \$203,898.56 of verified claims for October and November 2022.

Grand Rapids Public Utilities
Accounts Payable
October/November 2022
(Meeting Date: 11/29/2022)

Item 1.

NAME	AMOUNT	NAME	AMOUNT
Acheson Tire	788.76	Napa Auto Parts	31.88
Amaril Uniform	3,968.95	Nextera	618.04
APG Media	678.77	North Central Laboratories	439.62
Aramark	212.96	Northeast Technical Services	9,787.33
Automation Direct	180.00	Northern Drug Screening	214.00
Burgraff's	125.50	Northern Horizons Solway	8,972.07
CarQuest	6.54	Northland Portables	126.75
Central McGowan	610.00	Public Utilities	5,485.68
C N A Surety	250.00	Rapids Radio	1,472.50
Cogsdale	1,050.00	Rapids Welding	38.56
Coles	387.53	RCB Collections	634.28
Compass Minerals	3,921.32	Resco	371.40
Core & Main	10,566.81	RMB Environmental Lab	786.27
Dakota Supply Group	5,684.68	Sandstroms	139.83
Davis Petroleum	3,387.52	S E H	493.75
Fastenal	3,743.51	Thousand Lakes Production	240.00
Figgins Truck & Trailer	10,921.39	TNT Construction	39,756.10
Flow Measurement	701.00	VC3	5,256.50
Frontier Energy	3,483.27	Viking Electric	951.41
Further	99.00	Water Conservation Services	8,200.00
Grainger	3,538.11	Wesco	8,188.40
Hawkins	6,045.82	WUSZ-FM	420.00
Hawkinson Construction	18,333.27	Xerox	260.06
Hawkinson Sand & Gravel	119.35	Ziegler	3,237.18
Herc-U-Lift	341.46		
Industrial Lubricant	528.12	Energy Efficiency Rebate:	
Innovative	103.32	Beaty, David	150.00
Jamar Service	4,404.52	Forst, Neal	70.00
L&M	42.86	ISD 318	1,429.92
Latvala Lumbar	22.95	Ploetz, Amber	55.00
Macqueen Equipment	8,308.87	Rapids Brewery	1,013.93
Martin's Snowplow	131.28		
McMaster-Carr	6,579.16		
Mielke Electric Works	3,342.50		
Minnesota Municipal Utilities	2,449.00		

203,898.56



GRAND RAPIDS PUBLIC UTILITIES COMMISSION AGENDA ITEM

AGENDA DATE: November 29, 2022
AGENDA ITEM: Rate Study Discussion – Part 2
PREPARED BY: Julie Kennedy, General Manager

BACKGROUND:

Rate Study Discussion – Draft Final Report. Discussion at this meeting will focus on the projected financial conditions at existing rates, the cost of service results, rate recommendations, and financial conditions at projected rates.

RECOMMENDATION:

Discussion only. Anticipated action item at December 14 Regular Meeting.

November 29, 2022

Grand Rapids Public Utilities Commission
500 SE 4th Street
Grand Rapids, MN 55744

Subject: Electric, Water and Domestic Wastewater Rate Studies

Commission Members:

Dave Berg Consulting, LLC has undertaken a study of the retail rates GRPUC charges its customers for electric, water and domestic wastewater service. Reports have been provided for each utility summarizing the analyses undertaken and the resulting recommendations for changes to the existing rates.

The first year (2023) rate recommendations result in a reduction in average electric bills of 6.5% and increases of 10% for water and 5% for domestic wastewater. Table 1 below summarizes the combined impact on an average residential customer’s combined monthly bills utilizing 700 kWh electric and 3000 gallons for water and wastewater. As shown, the total monthly bill for 2023 is reduced by \$2.06 or 1.5%.

Table 1
2023 Residential Bill Impact

Utility	Current	2023	Increase (\$)	Increase (%)
Electric (700 kWh)	\$88.61	\$83.34	(\$5.27)	(5.9%)
Water (3000 gallons)	20.04	22.05	2.01	10.0%
Wastewater (3000 gallons)	<u>24.34</u>	<u>25.54</u>	<u>1.20</u>	<u>4.9%</u>
Total	\$132.99	\$130.93	(\$2.06)	(1.5%)

Table 2 below summarizes the combined impact on an average commercial customer’s combined monthly bills utilizing 2000 kWh electric and 17,000 gallons for water and wastewater. As shown, the total monthly bill for 2023 is reduced by \$2.75 or 0.6%.

Dedicated to providing personal service to consumer-owned utilities

Table 2
2023 Commercial Bill Impact

Utility	Current	2023	Increase (\$)	Increase (%)
Electric (2000 kWh)	\$262.51	\$247.46	(\$15.05)	(5.7%)
Water (17,000 gallons)	68.69	77.38	8.69	12.7%
Wastewater (17,000 gallons)	<u>94.32</u>	<u>97.83</u>	<u>3.51</u>	<u>3.7%</u>
Total	\$425.52	\$422.77	(\$2.75)	(0.6%)

Table 3 shows the combined end-of-year reserves for all three utilities assuming implementation of the recommended rate adjustments.

Table 3
Projected EOY Cash Reserves
Proposed Rates

Utility	2022	2023	2024	2025	2026	2027
Electric	\$4,118,902	\$4,492,526	\$4,726,758	\$4,910,742	\$4,957,575	\$4,990,807
Water	280,237	1,025,670	577,164	234,045	(145,995)	(119,038)
Wastewater	<u>178,992</u>	<u>(689,700)</u>	<u>619,768</u>	<u>(21,990)</u>	<u>(391,611)</u>	<u>(917,842)</u>
Total	\$4,578,131	\$4,828,496	\$5,923,691	\$5,122,797	\$4,419,969	\$3,953,928

Each report contains more detailed information regarding the recommendations for each utility. Thank you for the opportunity to be of service to GRPUC through the conduct of this study.

Sincerely,

Dave Berg Consulting, LLC

David A. Berg, PE
Principal



Item 2.

Information For Your Records

BILL DATE	Apr 3, 2012	
TOTAL AMOUNT DUE BY	Apr 24, 2012	\$93.66
AMOUNT PAYABLE AFTER DUE DATE		\$95.06
Total Electric Charges		\$74.78
Total Lighting Charges		\$20.21
Total Miscellaneous Charges		-\$1.43
Current Amount Due		\$93.66
Prior Amount Due		\$0.00
Total Amount Due		\$93.66



Electric, Water and Domestic Wastewater Cost of Service and Rate Design Studies

Grand Rapids Public Utilities Commission

David A. Berg, PE
Principal – Dave Berg Consulting
Nov. 29, 2022



A Review of Where We Are

Operating Results at Existing Rates

Table 2-3
Projected Operating Results
Existing Rates

Year	2022	2023	2024	2025	2026	2027
Operating Revenues	\$19,061,765	\$18,448,198	\$18,977,138	\$19,515,558	\$20,064,303	\$20,624,106
Less Operating Expenses	(15,133,717)	(16,471,822)	(17,535,707)	(18,642,543)	(19,600,947)	(20,298,209)
Less Non -Operating Expenses	<u>(1,075,942)</u>	<u>(1,045,042)</u>	<u>(1,044,661)</u>	<u>(1,047,838)</u>	<u>(1,047,100)</u>	<u>(1,065,454)</u>
Net Income	2,852,105	931,335	396,769	(174,823)	(583,744)	(739,557)
Net Income as Percent of Revenues	15.0%	5.0%	2.1%	-0.9%	-2.9%	-3.6%

Water

Table 2-3
Projected Operating Results
Existing Rates

Year	2022	2023	2024	2025	2026	2027
Operating Revenues	\$1,917,471	\$1,935,782	\$1,955,944	\$1,976,291	\$1,996,965	\$2,017,865
Less Operating Expenses	(1,857,320)	(1,924,009)	(2,188,640)	(2,309,776)	(2,422,246)	(2,536,321)
Less Non -Operating Expenses	<u>(58,171)</u>	<u>(69,105)</u>	<u>(293,836)</u>	<u>(288,518)</u>	<u>(279,975)</u>	<u>(274,149)</u>
Net Income	\$1,980	\$(57,332)	\$(526,532)	\$(622,003)	\$(705,257)	\$(792,605)
Net Income as Percent of Revenues	0.1%	-3.0%	-26.9%	-31.5%	-35.3%	-39.3%

Table 2-3
Projected Operating Results
Existing Rates

Year	2022	2023	2024	2025	2026	2027
Operating Revenues	\$1,857,414	\$1,875,029	\$1,892,336	\$1,909,774	\$1,927,476	\$1,945,311
Less Operating Expenses	(1,739,764)	(1,925,685)	(1,685,572)	(1,751,177)	(1,817,935)	(1,892,360)
Less Non -Operating Expenses	<u>(81,595)</u>	<u>(86,371)</u>	<u>(162,550)</u>	<u>(168,633)</u>	<u>(160,547)</u>	<u>(155,261)</u>
Net Income	36,054	(137,027)	44,213	(10,037)	(51,006)	(102,310)
Net Income as Percent of Revenues	1.9%	-7.3%	2.3%	-0.5%	-2.6%	-5.3%

Cash Reserves at Existing Rates

Electric

Table 2-4
Projected Cash Reserves
Existing Rates

Year	2022	2023	2024	2025	2026	2027
Beginning Balance	\$1,520,146	\$4,118,902	\$4,521,158	\$4,755,960	\$4,495,451	\$3,990,969
Plus Net Income	2,852,105	931,335	396,769	(174,823)	(583,744)	(739,557)
Less Capital Improvements	(950,607)	(1,176,840)	(929,440)	(883,440)	(884,440)	(886,440)
Less ERP Proj Costs	-	(80,833)	-	-	-	-
Plus Deprec/Amort	910,382	942,069	981,297	1,012,278	1,041,726	1,071,208
Less Debt Principal	(135,100)	(135,450)	(135,800)	(136,500)	-	-
Less LCP Payment	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>
Ending Balance	\$4,118,902	\$4,521,158	\$4,755,960	\$4,495,451	\$3,990,969	\$3,358,155
As a percent of revenue	21.6%	24.5%	25.1%	23.0%	19.9%	16.3%

**Table 2-3
Projected Cash Reserves-Water
Existing Rates**

Year	2022	2023	2024	2025	2026	2027
Beginning Balance	\$1,087,187	\$178,992	\$(858,321)	\$92,587	\$(1,121,727)	\$(2,305,049)
Plus Net Income	1,980	(57,332)	(526,532)	(622,003)	(705,257)	(792,605)
Less Capital Improvements	(452,761)	(6,005,500)	(1,363,575)	(973,580)	(912,511)	(1,274,000)
Less ERP Project Costs	-	(80,833)	-	-	-	-
Plus Depreciation	332,035	347,127	547,310	592,763	625,216	654,633
Plus State Grants	-	-	2,500,000	-	-	-
Plus Available Bond Funds	-	4,850,000	-	-	-	-
Less Existing Debt Principal	(789,450)	(90,775)	(94,100)	(94,250)	(68,250)	(71,500)
Less New Debt Principal	-	-	<u>(112,195)</u>	<u>(117,244)</u>	<u>(122,520)</u>	<u>(128,033)</u>
Ending Balance	\$178,992	\$(858,321)	\$92,587	\$(1,121,727)	\$(2,305,049)	\$(3,916,555)
Reserves as % of Operating Revenue	9.3%	-44.3%	4.7%	-56.8%	-115.4%	-194.1%

Domestic Wastewater

Table 2-3
Projected Cash Reserves
Existing Rates

Year	2022	2023	2024	2025	2026	2027
Beginning Balance	\$904,673	\$280,237	\$933,198	\$296,946	\$(336,782)	\$(1,118,796)
Plus Net Income	36,054	(137,027)	44,213	(10,037)	(51,006)	(102,310)
Less Capital Improvements	(344,289)	(1,097,350)	(735,067)	(697,100)	(849,435)	(528,000)
Less ERP Project Costs	-	(80,833)	-	-	-	-
Plus Depreciation/Amortization	237,213	248,690	285,268	309,770	333,007	361,321
Plus Available Bond Funds	-	1,900,000	-	-	-	-
Less Existing Debt Principal	(553,414)	(180,519)	(185,788)	(189,464)	(165,572)	(171,094)
Less New Debt Principal	-	-	<u>(44,878)</u>	<u>(46,898)</u>	<u>(49,008)</u>	<u>(51,213)</u>
Ending Balance	\$280,237	\$933,198	\$296,946	\$(336,782)	\$(1,118,796)	\$(1,610,092)
Reserves as % of Operating Revenue	15.1%	49.8%	15.7%	-17.6%	-58.0%	-82.8%

Combined End of Year Reserves – Existing Rates

	2022	2023	2024
Electric	\$ 4,118,902	\$ 4,521,158	\$ 4,755,960
Water	178,992	(858,321)	92,587
Domestic WW	280,237	933,198	296,946
Total	<u>\$ 4,578,131</u>	<u>\$ 4,596,034</u>	<u>\$ 5,145,493</u>
	2025	2026	2027
Electric	\$ 4,495,451	\$ 3,990,969	\$ 3,358,155
Water	(1,121,727)	(2,305,049)	(3,916,555)
Domestic WW	(336,782)	(1,118,796)	(1,610,092)
Total	<u>\$ 3,036,941</u>	<u>\$ 567,123</u>	<u>\$ (2,168,492)</u>

Cost of Service

**Table 3-3
Cost of Service Results
Comparison of % Cost and Revenues
2021 Test Year**

Customer Classification	Allocated Cost to Serve	Revenues	Increase/ (Decrease)
Residential	32.5%	34.1%	-4.8%
Commercial	17.6%	18.0%	-2.2%
Demand & Energy	36.1%	35.4%	2.0%
Industrial	9.7%	9.3%	3.8%
Load Management	3.0%	2.0%	53.3%
Lighting	<u>1.1%</u>	<u>1.2%</u>	<u>-7.8%</u>
Total	100.0%	100.0%	0.0%

**Table 3-3
Water Cost of Service Results
Comparison of % Cost and Revenues
2021 Test Year**

Customer Classification	Allocated Cost to Serve	Revenues	Increase/ (Decrease)
Residential	37.5%	38.3%	-2.1%
Commercial	41.3%	34.8%	18.6%
Industrial	8.8%	10.1%	-13.3%
Multi - Family	9.9%	14.4%	-31.4%
LaPrairie	2.6%	2.4%	7.0%
Total	100.0%	100.0%	0.0%

Domestic Wastewater LaPrairie and Cohasset

**Table 3-1
LaPrairie and Cohasset**

Item	GRPUC Total	Cohasset	LaPrairie
System Investment	\$ 5,649,642	\$427,588	\$7,695
3% Depreciation	\$169,489	\$12,828	\$231
2% Interest	\$112,993	\$8,552	\$154
5% O&M	<u>\$282,482</u>	<u>\$21,379</u>	<u>\$385</u>
Total Fixed Cost	\$564,964	\$42,759	\$769
Sales	304,606	47,055	10,701
Fixed Cost/Unit	\$1.85	\$0.91	\$0.07
Cost Reduction/Unit	n/a	\$0.95	\$1.78
Current Commodity Rate	\$4.44	\$2.75	\$2.65
Current Reduction	n/a	\$1.69	\$1.79

Rate Recommendations

Overall Recommendations

- **Electric**
 - Redesign purchased power adjustment to reflect new MP contract
 - Results in overall 6.5% decrease in 2023
- **Water**
 - Annual increases of 10% per year
- **Domestic Wastewater**
 - Annual increases of 5%

Residential Bill Impact

2023 Residential Bill Impact

Utility	Current	2023	Increase (\$)	Increase (%)
Electric (700 kWh)	\$88.61	\$83.34	(\$5.27)	(5.9%)
Water (3000 gallons)	20.04	22.05	2.01	10.0%
Wastewater (3000 gallons)	<u>24.34</u>	<u>25.54</u>	<u>1.20</u>	<u>4.9%</u>
Total	\$132.99	\$130.93	(\$2.06)	(1.5%)

Commercial Bill Impact

2023 Commercial Bill Impact

Utility	Current	2023	Increase (\$)	Increase (%)
Electric (2000 kWh)	\$262.51	\$247.46	(\$15.05)	(5.7%)
Water (17,000 gallons)	68.69	77.38	8.69	12.7%
Wastewater (17,000 gallons)	<u>94.32</u>	<u>97.83</u>	<u>3.51</u>	<u>3.7%</u>
Total	\$425.52	\$422.77	(\$2.75)	(0.6%)

Combined Reserve Funds

Projected EOY Cash Reserves Proposed Rates

Utility	2022	2023	2024	2025	2026	2027
Electric	\$4,118,902	\$4,492,526	\$4,726,758	\$4,910,742	\$4,957,575	\$4,990,807
Water	280,237	1,025,670	577,164	234,045	(145,995)	(119,038)
Wastewater	<u>178,992</u>	<u>(689,700)</u>	<u>619,768</u>	<u>(21,990)</u>	<u>(391,611)</u>	<u>(917,842)</u>
Total	\$4,578,131	\$4,828,496	\$5,923,691	\$5,122,797	\$4,419,969	\$3,953,928

Rate Recommendations - Electric

Electric

- **Redesign purchased power adjustment to reflect new MP contract**
- **Results in overall 6.5% decrease in 2023**
- **Changes to Load Management and EV Charging Rates**

Load Management Rates

Table 4-2
Load Management Energy Rates
(\$/kWh)

Customer Groups	Current Rate	Proposed 2023	Proposed 2024	Proposed 2025
Off Peak Heat/Cool	0.0648	0.0699	0.0750	0.0800
Storage Heat	0.0545	0.0630	0.0715	0.0800

EV Charging Rates

Table 4-3
EV Charging Rate

Item	GRPUC Existing Rate	GRPUC Proposed Rate
Customer charge	\$4.10/mo. – existing cust \$26.00/mo – stand alone	\$4.10/mo. – existing cust \$26.00/mo – stand alone
On-peak Energy ⁽¹⁾	\$0.1515/kWh	\$0.1612/kWh
Off-peak Energy	\$0.0422/kWh	\$0.055/kWh

(1) On-peak – 8 a.m. to 10 p.m. Monday through Friday

Table 4-4
Projected Operating Results
Proposed Rates

Year	2022	2023	2024	2025	2026	2027
Operating Revenues	\$19,061,765	\$18,419,566	\$18,977,138	\$19,960,632	\$20,607,360	\$21,270,933
Less Operating Expenses	(15,133,717)	(16,471,822)	(17,535,707)	(18,642,543)	(19,600,947)	(20,298,209)
Less Non -Operating Expenses	<u>(1,075,942)</u>	<u>(1,045,042)</u>	<u>(1,045,230)</u>	<u>(1,048,419)</u>	<u>(1,038,842)</u>	<u>(1,046,235)</u>
Net Income	2,852,105	902,702	396,200	269,670	(32,429)	(73,511)
Net Income as Percent of Revenues	15.0%	4.9%	2.1%	1.4%	-0.2%	-0.3%

Projected Cash Reserves at Proposed Rates

Item 2.

Table 4-5
Projected Cash Reserves
Proposed Rates

Year	2022	2023	2024	2025	2026	2027
Beginning Balance	\$1,520,146	\$4,118,902	\$4,492,526	\$4,726,758	\$4,910,742	\$4,957,575
Plus Net Income	2,852,105	902,702	396,200	269,670	(32,429)	(73,511)
Less Capital Improvements	(950,607)	(1,176,840)	(929,440)	(883,440)	(884,440)	(886,440)
Less ERP Proj Costs	-	(80,833)	-	-	-	-
Plus Deprec/Amort	910,382	942,069	981,297	1,012,278	1,041,726	1,071,208
Less Debt Principal	(135,100)	(135,450)	(135,800)	(136,500)	-	-
Less LCP Payment	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>
Ending Balance	\$4,118,902	\$4,492,526	\$4,726,758	\$4,910,742	\$4,957,575	\$4,990,807
As a percent of revenue	21.6%	24.4%	24.9%	24.6%	24.1%	23.5%

Neighboring Utilities – Residential Comparison

Table 4-9
Monthly Bill Comparison
Residential Rates

Monthly Consumption kWh	GRPUC existing	GRPUC 2023 Proposed	LCP Existing	Brainerd Existing	MP Existing	MP Interim
300	\$41.64	\$39.38	\$84.09	\$44.69	\$49.26	\$51.68
700	88.61	83.34	140.21	82.61	102.53	107.42
1000	127.68	120.16	182.30	111.05	142.49	149.22
1250	160.24	150.83	217.38	134.75	175.79	184.05
1500	192.80	181.51	252.45	158.45	209.09	218.89

Time-of-Use Considerations

Table 4-10
Example TOU Rate
Residential

Item	Rate
Customer charge	\$10.25/mo.
On-peak Energy ⁽¹⁾	\$0.1612/kWh
Off-peak Energy	\$0.0806/kWh

(1) On-peak – 8 a.m. to 8 p.m. Monday through Friday

Large Transformer - Residential

Table 4-11
Increased Transformation Charge
 Residential

Item	Value
Installed Cost (25 kVa)	\$10,756
Annual Fixed Costs as % of Cost	
Depreciation	3%
Interest	4%
O&M	1%
Total	8%
Annual Fixed Cost (25 kVa)	\$860
Annual Fixed Cost/kVa	\$34.42
Monthly Fixed Cost/kVa	\$2.87

Electric Bottom Line

- **Total Electric 2027 cash reserves increase by \$1.6 million**
- **New PPAC passes through more MISO transmission costs which are outside GRPUC control**

Rate Recommendations - Water

Water

- Annual increases of **10%** per year
- Some cost-of-service adjustments

Cost-of-Service Adjustments

Table 4-1
Average Annual Rate Increases

Customer Class	Avg Increase
Residential	10.0%
Commercial	12.5%
Industrial	8.1%
Multi-Family	4.7%
LaPrairie	10.4%
Total System	10.0%

Projected Operating Results at Proposed Rates

Item 2.

Table 4-2
Projected Operating Results
Proposed Rates

Year	2022	2023	2024	2025	2026	2027
Operating Revenues	\$1,917,471	\$2,104,403	\$2,314,504	\$2,548,847	\$2,810,666	\$3,103,141
Less Operating Expenses	(1,857,320)	(1,924,009)	(2,188,640)	(2,309,776)	(2,422,246)	(2,536,321)
Less Non -Operating Expenses	<u>(58,171)</u>	<u>(69,105)</u>	<u>(293,836)</u>	<u>(288,518)</u>	<u>(279,975)</u>	<u>(274,149)</u>
Net Income	\$1,980	\$111,289	\$(167,972)	\$(49,447)	\$108,444	\$292,670
Net Income as Percent of Revenues	0.1%	5.3%	-7.3%	-1.9%	3.9%	9.4%

Projected Cash Reserves at Proposed Rates

Table 4-3
Projected Cash Reserves
Proposed Rates

Year	2022	2023	2024	2025	2026	2027
Beginning Balance	\$1,087,187	\$178,992	\$(689,700)	\$619,768	\$(21,990)	\$(391,611)
Plus Net Income	1,980	111,289	(167,972)	(49,447)	108,444	292,670
Less Capital Improvements	(452,761)	(6,005,500)	(1,363,575)	(973,580)	(912,511)	(1,274,000)
Less ERP Project Costs	-	(80,833)	-	-	-	-
Plus Depreciation	332,035	347,127	547,310	592,763	625,216	654,633
Plus State Grants	-	-	2,500,000	-	-	-
Plus Available Bond Funds	-	4,850,000	-	-	-	-
Less Existing Debt Principal	(789,450)	(90,775)	(94,100)	(94,250)	(68,250)	(71,500)
Less New Debt Principal	-	-	<u>(112,195)</u>	<u>(117,244)</u>	<u>(122,520)</u>	<u>(128,033)</u>
Ending Balance	\$178,992	\$(689,700)	\$619,768	\$(21,990)	\$(391,611)	\$(917,842)
Reserves as % of Operating Revenue	9.3%	-32.8%	26.8%	-0.9%	-13.9%	-29.6%

Residential Bill Impact

Table 4-4
Monthly Water Bill Comparisons

Residential Usage (gallons)	2,000	3,000	6,000
Current Rate	\$16.25	\$20.04	\$33.39
2023 Proposed	17.88	22.05	36.74
2024 Proposed	19.67	24.26	40.43
2025 Proposed	21.64	26.69	44.48
2026 Proposed	23.81	29.37	48.95
2027 Proposed	26.20	32.32	53.86

Water Bottom Line

- **Total Water 2027 cash reserves increase by \$3 million**

Rate Recommendations – Domestic Wastewater

Domestic Wastewater

- Annual increases of 5% per year
- New water meter size based customer charges

Monthly Customer Charges

- **Current monthly customer charges**
 - **All City Customers - \$11.02**
 - **All Rural Customers - \$12.04**
 - **LaPrairie - \$11.73**
 - **Cohasset - \$12.14**

Customer Charges

Customer Charges	Current	2023	2024	2025	2026	2027
		Proposed	Proposed	Proposed	Proposed	Proposed
Residential/Commercial/Industrial	Rate	Rate	Rate	Rate	Rate	Rate
5/8-3/4 inch	n/a	11.50	12.00	12.60	13.30	14.00
1 inch	n/a	13.00	15.00	17.00	19.00	21.00
1 1/4 inch	n/a	15.00	17.00	19.00	21.50	24.00
1 1/2 inch	n/a	17.00	20.00	23.00	26.00	29.00
2 inch	n/a	20.00	25.00	30.00	40.00	50.00
3 inch	n/a	25.00	30.00	35.00	45.00	55.00
4 inch	n/a	35.00	45.00	55.00	65.00	75.00
6 inch	n/a	50.00	60.00	70.00	75.00	85.00

Projected Operating Results at Proposed Rates

Item 2.

Table 3-2
Projected Operating Results
Proposed Rates

Year	2022	2023	2024	2025	2026	2027
Operating Revenues	\$1,857,414	\$1,967,502	\$2,080,082	\$2,200,382	\$2,329,451	\$2,463,563
Less Operating Expenses	(1,739,764)	(1,925,685)	(1,685,572)	(1,751,177)	(1,817,935)	(1,892,360)
Less Non -Operating Expenses	<u>(81,595)</u>	<u>(86,371)</u>	<u>(162,550)</u>	<u>(168,633)</u>	<u>(160,547)</u>	<u>(155,261)</u>
Net Income	36,054	(44,554)	231,959	280,572	350,969	415,942
Net Income as Percent of Revenues	1.9%	-2.3%	11.2%	12.8%	15.1%	16.9%

Table 3-3
Projected Cash Reserves
Proposed Rates

Year	2022	2023	2024	2025	2026	2027
Beginning Balance	\$904,673	\$280,237	\$1,025,670	\$577,164	\$234,045	\$(145,995)
Plus Net Income	36,054	(44,554)	231,959	280,572	350,969	415,942
Less Capital Improvements	(344,289)	(1,097,350)	(735,067)	(697,100)	(849,435)	(528,000)
Less ERP Project Costs	-	(80,833)	-	-	-	-
Plus Depreciation/Amortization	237,213	248,690	285,268	309,770	333,007	361,321
Plus Available Bond Funds	-	1,900,000	-	-	-	-
Less Existing Debt Principal	(553,414)	(180,519)	(185,788)	(189,464)	(165,572)	(171,094)
Less New Debt Principal	-	-	<u>(44,878)</u>	<u>(46,898)</u>	<u>(49,008)</u>	<u>(51,213)</u>
Ending Balance	\$280,237	\$1,025,670	\$577,164	\$234,045	\$(145,995)	\$(119,038)
Reserves as % of Operating Revenue	15.1%	52.1%	27.7%	10.6%	-6.3%	-4.8%

Residential Bill Impact

Table 3-4
Monthly Wastewater Bill Comparisons

Residential Usage (gallons)	2,000	3,000	6,000
Current Rate	\$19.90	\$24.34	\$37.66
2023 Proposed	20.86	25.54	39.58
2024 Proposed	21.88	26.82	41.64
2025 Proposed	22.98	28.17	43.74
2026 Proposed	24.16	29.59	45.88
2027 Proposed	25.36	31.04	48.08

Domestic Wastewater Bottom Line

- **Total Domestic Wastewater 2027 cash reserves increase by \$1.5 million**

Blandin Wastewater Treatment Billing

- **Blandin pays its calculated share of WW treatment plant costs**
- **Current monthly billing is very detailed and time consuming**
- **Recommending new billing process**
 - Annual estimate of Blandin costs
 - Monthly bill = annual cost divided by 12
 - End of year detailed reconciliation of estimate vs. actual
 - Difference between estimate and actual included in first 6 monthly bills of succeeding year

Before and After Reserves

Combined End of Year Reserves – Existing Rates

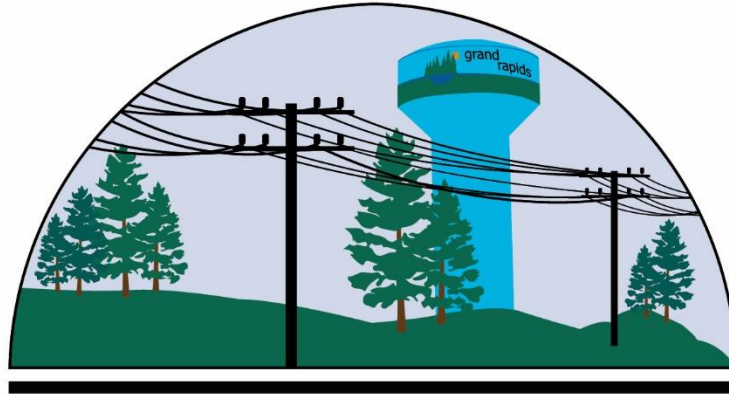
	2022	2023	2024
Electric	\$ 4,118,902	\$ 4,521,158	\$ 4,755,960
Water	178,992	(858,321)	92,587
Domestic WW	280,237	933,198	296,946
Total	<u>\$ 4,578,131</u>	<u>\$ 4,596,034</u>	<u>\$ 5,145,493</u>
	2025	2026	2027
Electric	\$ 4,495,451	\$ 3,990,969	\$ 3,358,155
Water	(1,121,727)	(2,305,049)	(3,916,555)
Domestic WW	(336,782)	(1,118,796)	(1,610,092)
Total	<u>\$ 3,036,941</u>	<u>\$ 567,123</u>	<u>\$ (2,168,492)</u>

Combined Reserve Funds – Proposed Rates

Projected EOY Cash Reserves Proposed Rates

Utility	2022	2023	2024	2025	2026	2027
Electric	\$4,118,902	\$4,492,526	\$4,726,758	\$4,910,742	\$4,957,575	\$4,990,807
Water	280,237	1,025,670	577,164	234,045	(145,995)	(119,038)
Wastewater	<u>178,992</u>	<u>(689,700)</u>	<u>619,768</u>	<u>(21,990)</u>	<u>(391,611)</u>	<u>(917,842)</u>
Total	\$4,578,131	\$4,828,496	\$5,923,691	\$5,122,797	\$4,419,969	\$3,953,928

Questions/Discussion



**GRAND RAPIDS
PUBLIC UTILITIES**
Service is Our Nature

**DOMESTIC WASTEWATER RATE
DESIGN STUDY**

Draft Report

November 23, 2022



REPORT OUTLINE

Cover Letter

Section 1 - Introduction

Section 2 – Projected Operating Results – Existing Rates

Section 3 – Proposed Rates

November 29, 2022

Grand Rapids Public Utilities Commission
500 SE 4th Street
Grand Rapids, MN 55744

Subject: Domestic Wastewater Rate Study

Commission Members:

Dave Berg Consulting, LLC has undertaken a study of the retail rates GRPUC charges its customers for domestic wastewater services. This report summarizes the analysis undertaken and the resulting recommendations for changes to the existing rates.

Based on the financial needs of the domestic wastewater utility for the projected study period of 2023-2027, I am recommending annual 5% increases in overall wastewater rates each year. Additional rate design recommendations are presented in Section 3 of the report.

Thank you for the opportunity to be of service to GRPUC through the conduct of this study. I wish to express my appreciation for the valuable assistance I received from GRPUC staff relative to the execution of this study.

Sincerely,

Dave Berg Consulting, LLC

David A. Berg, PE
Principal

Section 1

Introduction

The City of Grand Rapids, MN owns a municipal utility providing service to approximately 3,200 retail wastewater customers and wholesale service to 2 neighboring communities (LaPrairie and Cohasset). The wastewater utility is operated under the direction of the Grand Rapids Public Utilities Commission (GRPUC). This report has been prepared by Dave Berg Consulting, LLC to examine the rates and charges for domestic wastewater services in Grand Rapids. This study does not address wastewater treatment services to Blandin. The study includes projected operating results for 2022-2027 (Study Period). As a result of the analyses undertaken and reported on herein, wastewater rate recommendations have been developed for implementation by GRPUC.

Section 2

Projected Operating Results

Existing Rates

The rates charged for domestic wastewater service by GRPUC, combined with other operating and non-operating revenues, must be sufficient to meet the cost of providing services to GRPUC's customers. This is necessary to ensure the long-term financial health of the GRPUC domestic wastewater utility. The cost of providing utility service consists of normal operating expenses for domestic wastewater systems, customer and A&G functions, system depreciation expenses, capital improvements and other non-operating expenses.

An analysis of the operating results for the GRPUC domestic wastewater utility during the 2022-2027 Study Period has been performed assuming the current retail rates and charges remain in effect through the Study Period. This analysis has been done to determine the overall need, if any, for additional revenue through rates to meet projected revenue requirements. The analyses and assumptions utilized in these projections are explained below.

Estimated Revenues – Existing Rates

Operating Revenues

GRPUC provides domestic wastewater services to residential, commercial and industrial customers. It also provides wholesale service to the communities of La Prairie and Cohasset. Total sales to GRPUC customers for the Study Period are assumed to increase by 1% each year through the Study Period.

Section 2

Exhibit 2-A is a summarized listing of GRPUC's historical and projected domestic wastewater operating results at existing rates. The historical and projected revenues from sales to different groups of customers are included as part of Utility Revenues. Utility revenues also include fees from septage haulers.

Other Operating Revenues

GRPUC also receives other miscellaneous operating revenue from other normal operating procedures. These other operating revenues include service connections, permit fees, merchandise and jobbing, jetting services, maintenance services, and other miscellaneous operating revenues. These revenues are also included in the Total Operating Revenues in Exhibit 2-A.

Revenue Requirements

Operating Expenses

Operating expenses for the domestic wastewater system are shown in Exhibit 2-A. Projections of operating expenses are based on budgeted amounts provided by GRPUC.

Depreciation

GRPUC has annual depreciation costs associated with domestic wastewater system investments. Depreciation during the Study Period is based on budgeted GRPUC amounts. Depreciation is a funded non-cash expense that generates monies available for annual capital improvements, debt principal payments and reserves.

Projected Operating Results – Existing Rates

Non-operating Income (Expenses)

GRPUC's non-operating income and expenses are associated with penalties, interest expenses, bond fees, and costs and revenues associated with the combined service center.

Capital Improvements

GRPUC makes annual capital investments in its domestic wastewater system. The domestic wastewater utility also pays a share of improvements to the combined service center. The combined capital improvements for the domestic wastewater utility are shown in Table 2-1 below.

Table 2-1
Capital Improvements

Capital Item	2022	2023	2024	2025	2026	2027
Wastewater Capital	\$333,289	\$1,027,300	\$720,067	\$694,100	\$846,435	\$525,000
Service Center Capital	<u>\$10,975</u>	<u>\$70,050</u>	<u>\$15,000</u>	<u>\$3,000</u>	<u>\$3,000</u>	<u>\$3,000</u>
Total	\$344,289	\$1,097,350	\$735,067	\$697,100	\$849,435	\$528,000

Debt Service

GRPUC had a large debt issue partially payable by the domestic wastewater utility that was paid in full in February of 2022. The domestic wastewater utility is also responsible for payment of a portion of two General Obligation bonds issued in 2021 and a Clean Water Revolving fund from 2009. Additionally, it is estimated that \$2.0 million in new debt will be issued in late 2023 to support ongoing capital improvements. Table 2-2 summarizes the current and planned debt service for the domestic wastewater utility.

Section 2

Table 2-2
Annual Debt Service

Item	2022	2023	2024	2025	2026	2027
Current Interest	\$36,434	\$36,410	\$20,957	\$27,378	\$22,670	\$17,806
Current Principal	\$553,414	\$180,519	\$185,788	\$189,464	\$165,572	\$171,094
Planned Interest	-	-	\$90,000	\$87,980	\$85,870	\$83,665
Planned Principal	-	-	<u>\$48,878</u>	<u>\$46,898</u>	<u>\$49,008</u>	<u>\$51,213</u>
Total Debt	\$589,848	\$216,929	\$341,623	\$351,720	\$323,121	\$323,778

Projected Operating Results – Existing Rates

Based on the assumptions outlined above, the resulting projected operating results assuming continued application of the existing retail rates are summarized below in Table 2-3. A summary presentation of the historical and projected operating results is also shown in Exhibit 2-A

Projected Operating Results – Existing Rates

Table 2-3
Projected Operating Results
Existing Rates

Year	2022	2023	2024	2025	2026	2027
Operating Revenues	\$1,857,414	\$1,875,029	\$1,892,336	\$1,909,774	\$1,927,476	\$1,945,311
Less Operating Expenses	(1,739,764)	(1,925,685)	(1,685,572)	(1,751,177)	(1,817,935)	(1,892,360)
Less Non -Operating Expenses	<u>(81,595)</u>	<u>(86,371)</u>	<u>(162,550)</u>	<u>(168,633)</u>	<u>(160,547)</u>	<u>(155,261)</u>
Net Income	36,054	(137,027)	44,213	(10,037)	(51,006)	(102,310)
Net Income as Percent of Revenues	1.9%	-7.3%	2.3%	-0.5%	-2.6%	-5.3%

Cash Reserves

A summary of the impact of the projected operating results on GRPUC's cash reserves for the Study Period is shown at the end of Exhibit 2-A and in Table 2-3 below.

As shown below, under existing retail rates and estimated revenue requirements over the Study Period, the cash reserves for the domestic wastewater utility are projected to decrease from \$900,000 to **negative** \$1.6 million by the end of the Study Period. As a percentage of operating revenues, reserves are projected to decrease from 49% to **negative** 83% during the Study Period.

Section 2

Table 2-3
Projected Cash Reserves
Existing Rates

Year	2022	2023	2024	2025	2026	2027
Beginning Balance	\$904,673	\$280,237	\$933,198	\$296,946	\$(336,782)	\$(1,118,796)
Plus Net Income	36,054	(137,027)	44,213	(10,037)	(51,006)	(102,310)
Less Capital Improvements	(344,289)	(1,097,350)	(735,067)	(697,100)	(849,435)	(528,000)
Less ERP Project Costs	-	(80,833)	-	-	-	-
Plus Depreciation/Amortization	237,213	248,690	285,268	309,770	333,007	361,321
Plus Available Bond Funds	-	1,900,000	-	-	-	-
Less Existing Debt Principal	(553,414)	(180,519)	(185,788)	(189,464)	(165,572)	(171,094)
Less New Debt Principal	-	-	<u>(44,878)</u>	<u>(46,898)</u>	<u>(49,008)</u>	<u>(51,213)</u>
Ending Balance	\$280,237	\$933,198	\$296,946	\$(336,782)	\$(1,118,796)	\$(1,610,092)
Reserves as % of Operating Revenue	15.1%	49.8%	15.7%	-17.6%	-58.0%	-82.8%

**Grand Rapids Public Utilities Commission
Domestic Wastewater Operating Results at Existing Rates**

	Historical					Projected					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
OPERATING REVENUES											
Utility Revenues											
City	\$ 1,400,265	\$ 1,451,844	\$ 1,526,688	\$ 1,470,730	\$ 1,552,917	\$ 1,572,118	\$ 1,588,171	\$ 1,603,998	\$ 1,619,941	\$ 1,636,133	\$ 1,652,443
Rural	148,245	140,786	148,936	145,720	137,664	149,071	150,633	152,113	153,609	155,119	156,644
Septage haulers	85,508	101,253	111,071	154,531	155,932	124,335	124,335	124,335	124,335	124,335	124,335
Total Utility Revenues	\$ 1,634,018	\$ 1,693,883	\$ 1,786,695	\$ 1,770,981	\$ 1,846,513	\$ 1,845,524	\$ 1,863,139	\$ 1,880,446	\$ 1,897,884	\$ 1,915,586	\$ 1,933,421
Other Operating Revenues											
Other	\$ 26,582	\$ 30,448	\$ 15,928	\$ 24,298	\$ 18,094	\$ 11,890	\$ 11,890	\$ 11,890	\$ 11,890	\$ 11,890	\$ 11,890
Penalties	5,247	5,625	5,492	1,157	1,676	-	-	-	-	-	-
Total Operating Revenues	\$ 1,665,847	\$ 1,729,956	\$ 1,808,115	\$ 1,796,436	\$ 1,866,283	\$ 1,857,414	\$ 1,875,029	\$ 1,892,336	\$ 1,909,774	\$ 1,927,476	\$ 1,945,311
OPERATING EXPENSES											
Collection											
Operations											
Supervision and engineering	\$ 35,092	\$ 30,099	\$ 26,323	\$ 26,143	\$ 25,032	\$ 25,902	\$ 26,679	\$ 28,012	\$ 29,413	\$ 30,884	\$ 32,428
Crew personnel						132,696	136,677	143,511	150,686	158,220	166,132
Records						2,700	2,835	2,920	3,008	3,098	3,191
Inspections	19,908	11,122	640	330	1,012	1,000	1,050	1,082	1,114	1,147	1,182
Thawing mains & services						500	525	541	557	574	591
Locating expense	1,090	-	9,136	9,877	10,100	14,000	14,420	15,141	15,898	16,693	17,528
Service on customer premises	9,928	72	359	424	556	700	721	757	795	835	876
Mapping	1,644	18,809	28,554	30,779	30,810	28,680	29,540	31,017	32,568	34,197	35,907
Small tools	2,326	1,070	488	919	2,059	1,200	1,260	1,298	1,337	1,377	1,418
Safety	2,948	3,709	2,042	3,467	4,076	6,000	6,300	6,489	6,684	6,884	7,091
Seminar/training	25	6,632	7,600	1,262	5,659	6,300	6,615	6,813	7,018	7,228	7,445
Uniforms expense						200	210	216	223	230	236
Miscellaneous meetings						150	158	162	167	172	177
Other	2,443	97	69	87	95	-	-	-	-	-	-
Stores	13,335	2,583	85	3,056	5,400	2,761	2,899	2,986	3,076	3,168	3,263
Power purchased	2,037	13,654	14,397	14,327	15,439	14,465	15,188	15,644	16,113	16,597	17,095
Maintenance											
Lift stations	39,114	48,596	40,003	38,225	94,555	33,000	34,650	35,690	36,760	37,863	38,999
Mains	38,848	41,583	34,383	81,457	74,472	284,968	412,466	124,840	128,585	132,443	136,416
Services	6,653	3,497	5,685	7,323	4,733	8,400	8,820	9,085	9,357	9,638	9,927
Miscellaneous	1,592	3,535	195	330	6,897	-	3,600	3,708	3,819	3,934	4,052
Total Collection Expenses	\$ 176,983	\$ 185,058	\$ 169,959	\$ 218,006	\$ 280,895	\$ 563,621	\$ 704,613	\$ 429,912	\$ 447,178	\$ 465,180	\$ 483,952
Domestic Wastewater Treatment											
Domestic plant	\$ 71,997	\$ 98,442	\$ 88,623	\$ 80,610	\$ 88,786	79,763	83,788	86,359	89,012	91,752	94,581
Domestic portion of sec plant/serv center	452,935	445,364	431,736	433,422	464,234	496,756	496,756	496,756	496,756	496,756	496,756
Domestic portion of sludge disposal	-	-	-	-	-	44,000	44,000	44,000	44,000	44,000	44,000
Total Domestic Plant Expenses	\$ 524,932	\$ 543,806	\$ 520,359	\$ 514,032	\$ 553,020	\$ 620,519	\$ 624,544	\$ 627,115	\$ 629,769	\$ 632,508	\$ 635,337
Other Operating Expenses											
Customer accounts expense	\$ 67,549	\$ 69,584	\$ 75,564	\$ 65,153	\$ 96,181	\$ 69,762	\$ 73,767	\$ 77,982	\$ 82,440	\$ 87,152	\$ 92,135
Truck expense - operation						3,600	0	0	0	0	0
Administrative and general	232,836	233,050	242,805	209,342	263,013	245,048	274,072	265,295	282,021	300,087	319,614
Depreciation - wastewater collection	127,333	139,524	142,340	190,015	236,713	236,713	248,190	284,768	309,270	332,507	360,821
Depreciation - other	16,395	16,519	15,984	17,288	17,727	-	-	-	-	-	-
Amortization - intangibles	5,948	5,868	5,457	4,786	4,852	500	500	500	500	500	500
Service center	22,098	17,749	21,258	18,027	20,514	-	-	-	-	-	-
Total Other Operating Expenses	\$ 472,159	\$ 482,294	\$ 503,408	\$ 504,611	\$ 639,000	\$ 555,624	\$ 596,528	\$ 628,546	\$ 674,231	\$ 720,246	\$ 773,071
Total Operating Expenses	\$ 1,174,074	\$ 1,211,158	\$ 1,193,726	\$ 1,236,649	\$ 1,472,915	\$ 1,739,764	\$ 1,925,685	\$ 1,685,572	\$ 1,751,177	\$ 1,817,935	\$ 1,892,360

Grand Rapids Public Utilities Commission
Domestic Wastewater Operating Results at Existing Rates

	Historical					Projected					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
NET OPERATING INCOME	\$ 491,773	\$ 518,798	\$ 614,389	\$ 559,787	\$ 393,368	\$ 117,649	\$ (50,656)	\$ 206,764	\$ 158,596	\$ 109,541	\$ 52,951
NON-OPERATING INCOME (EXPENSES)											
Gain (loss) on property disposition	\$ 3,000	\$ (94,827)	\$ 5,000	\$ -	\$ 27,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties	-	-	-	-	-	12,297	11,600	11,600	11,600	11,600	11,600
Interest expense	(20,134)	(18,979)	(18,078)	(16,107)	(17,471)	(36,434)	(36,410)	(20,957)	(27,378)	(22,670)	(17,806)
Less new debt interest	-	-	-	-	-	-	-	(90,000)	(87,980)	(85,870)	(83,665)
Interest expense customer deposits	-	-	-	-	-	(1,160)	(1,160)	(1,160)	(1,160)	(1,160)	(1,160)
Bond fees	(183)	(324)	(285)	(605)	(233)	(500)	(500)	(500)	(500)	(500)	(500)
Amortization of debt premiums and discounts	(146)	(146)	(146)	(146)	(146)	-	-	-	-	-	-
Amortization of regulatory asset	(374)	(374)	(374)	(374)	(1,016)	-	-	-	-	-	-
Lease revenues combined service center	20,927	2,983	5,845	4,794	3,266	5,113	3,600	3,600	3,600	3,600	3,600
CSC Bldg & Grounds Expenses	-	-	-	-	-	(60,910)	(63,501)	(65,133)	(66,815)	(65,546)	(67,330)
Total Non-Operating Revenues (Expenses)	\$ 3,090	\$ (111,667)	\$ (8,038)	\$ (12,438)	\$ 11,900	\$ (81,595)	\$ (86,371)	\$ (162,550)	\$ (168,633)	\$ (160,547)	\$ (155,261)
NET INCOME	\$ 494,863	\$ 407,131	\$ 606,351	\$ 547,349	\$ 405,268	\$ 36,054	\$ (137,027)	\$ 44,213	\$ (10,037)	\$ (51,006)	\$ (102,310)
as a percent of Operating Revenues	29.7%	23.5%	33.5%	30.5%	21.7%	1.9%	-7.3%	2.3%	-0.5%	-2.6%	-5.3%
CASH RESERVES											
Beginning of Year						\$ 904,673	\$ 280,237	\$ 933,198	\$ 296,946	\$ (336,782)	\$ (1,118,796)
Plus Net Income						36,054	(137,027)	44,213	(10,037)	(51,006)	(102,310)
Less Capital Improvements						(344,289)	(1,097,350)	(735,067)	(697,100)	(849,435)	(528,000)
Less ERP Project Costs						-	(80,833)	-	-	-	-
Plus Depreciation/Amortization						237,213	248,690	285,268	309,770	333,007	361,321
Plus Available Bond Funds						-	1,900,000	-	-	-	-
Less Debt Service Principal						(553,414)	(180,519)	(185,788)	(189,464)	(165,572)	(171,094)
Less New Debt Principal (1)						-	-	(44,878)	(46,898)	(49,008)	(51,213)
End of Year					\$ 904,673	\$ 280,237	\$ 933,198	\$ 296,946	\$ (336,782)	\$ (1,118,796)	\$ (1,610,092)
As a percent of revenue					48.5%	15.1%	49.8%	15.7%	-17.6%	-58.0%	-82.8%

(1) Assumes \$2.0 million bond issue in late 2023.

Section 3

Proposed Rates

Changes to rates are generally based on the overall need for revenues to fund operating expenses and maintain adequate cash reserve balance. The projected operating results at existing rates as presented in Section 2 of this report outline the overall revenue needs of the domestic wastewater utility. Those projections plus additional factors described below have been considered in developing the proposed rates summarized in this section of the report.

Proposed Rates

Revenue Needs

In Section 2, it shows that GRPUC's projected annual change in domestic wastewater net income, assuming continuation of the existing retail rates, declines from 1.9% of revenue in 2022 to **negative** 5.3% of revenue in 2027. Additionally, it also shows GRPUC's projected cash reserves decline from \$900,000 to **negative** \$1.6 million by the end of the Study Period. Based on these projected results, annual rate increases of 5% for each year 2023-2027 are recommended.

Recommended Rates

Exhibit 3-A shows the existing and recommended rates for domestic wastewater for each year from 2023-2027. Specific rate recommendations are outlined below.

Customer Charges

Under the current domestic wastewater rate structure, all customers pay a monthly customer charge ranging from \$11.02 per month to \$12.14 per month. There is no

Section 3

variation in customer charges for larger customers vs. smaller customers. GRPUC existing water rates differentiate monthly customer charges based on meter/service size. It is recommended that the domestic wastewater customer charges be based on the same meter/service sizes as each customer has for water service. In Exhibit 3-A a new series of customer charges based on size are summarized at the bottom of the exhibit.

LaPrairie and Cohasset

GRPUC provides wastewater service to the neighboring communities of LaPrairie and Cohasset. These communities are wholesale wastewater customers, they have their own collection systems and deliver wastewater to the GRPUC system for treatment. The current rates paid by these communities are lower than rates paid by GRPUC's regular retail customers to reflect the fact that they do not require use of entire GRPUC collection system to deliver their wastewater for treatment. An analysis has been undertaken to examine the discount for these communities as compared to the existing Residential commodity rate. Based on information provided by GRPUC staff, an estimate of the wastewater collection system dedicated to GRPUC retail customers and to LaPrairie and Cohasset was made. The System Investment in Table 3-1 shows these values. Based on annual values of 3% depreciation, 2% interest and 5% O&M, the total annual fixed cost for each entity was calculated. This fixed cost divided by sales results in the allocated fixed cost per unit for each group. A comparison of the LaPrairie and Cohasset values to the GRPUC value arrives at a cost-based reduction in commodity cost for each community. This cost-based reduction is an indication of how much lower the commodity rate could be for LaPrairie and Cohasset based their allocated system usage. A comparison of the cost-based reduction to the actual commodity rate reduction shows that LaPrairie's current rate reduction of \$1.79/unit is very close to the calculated cost-based reduction of \$1.78/unit. For Cohasset, their current rate reduction of \$1.69/unit exceeds the cost-based reduction of \$0.95/unit. To reflect this analysis, the rate increases for Cohasset exceed the LaPrairie and overall increases as presented in Exhibit 3-A.

Proposed Rates

**Table 3-1
LaPrairie and Cohasset**

Item	GRPUC Total	Cohasset	LaPrairie
System Investment	\$ 5,649,642	\$427,588	\$7,695
3% Depreciation	\$169,489	\$12,828	\$231
2% Interest	\$112,993	\$8,552	\$154
5% O&M	<u>\$282,482</u>	<u>\$21,379</u>	<u>\$385</u>
Total Fixed Cost	\$564,964	\$42,759	\$769
Sales	304,606	47,055	10,701
Fixed Cost/Unit	\$1.85	\$0.91	\$0.07
Cost Reduction/Unit	n/a	\$0.95	\$1.78
Current Commodity Rate	\$4.44	\$2.75	\$2.65
Current Reduction	n/a	\$1.69	\$1.79

Projected Operating Results – Proposed Rates

Based on the proposed rates outlined above, the resulting projected operating results are summarized below in Table 3-2. A summary presentation of the operating results is shown in Exhibit 3-B.

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Table 3-2
Projected Operating Results
Proposed Rates

Year	2022	2023	2024	2025	2026	2027
Operating Revenues	\$1,857,414	\$1,967,502	\$2,080,082	\$2,200,382	\$2,329,451	\$2,463,563
Less Operating Expenses	(1,739,764)	(1,925,685)	(1,685,572)	(1,751,177)	(1,817,935)	(1,892,360)
Less Non -Operating Expenses	<u>(81,595)</u>	<u>(86,371)</u>	<u>(162,550)</u>	<u>(168,633)</u>	<u>(160,547)</u>	<u>(155,261)</u>
Net Income	36,054	(44,554)	231,959	280,572	350,969	415,942
Net Income as Percent of Revenues	1.9%	-2.3%	11.2%	12.8%	15.1%	16.9%

Cash Reserves

A summary of the impact of the projected operating results with the proposed rate adjustments on GRPUC's cash reserves for the Study Period is shown at the end of Exhibit 3-B and in Table 3-3 below. As shown below, with the recommended increases, the reserve levels reach negative 4.8% of operating revenue in 2027.

Proposed Rates

Table 3-3
Projected Cash Reserves
Proposed Rates

Year	2022	2023	2024	2025	2026	2027
Beginning Balance	\$904,673	\$280,237	\$1,025,670	\$577,164	\$234,045	\$(145,995)
Plus Net Income	36,054	(44,554)	231,959	280,572	350,969	415,942
Less Capital Improvements	(344,289)	(1,097,350)	(735,067)	(697,100)	(849,435)	(528,000)
Less ERP Project Costs	-	(80,833)	-	-	-	-
Plus Depreciation/Amortization	237,213	248,690	285,268	309,770	333,007	361,321
Plus Available Bond Funds	-	1,900,000	-	-	-	-
Less Existing Debt Principal	(553,414)	(180,519)	(185,788)	(189,464)	(165,572)	(171,094)
Less New Debt Principal	-	-	<u>(44,878)</u>	<u>(46,898)</u>	<u>(49,008)</u>	<u>(51,213)</u>
Ending Balance	\$280,237	\$1,025,670	\$577,164	\$234,045	\$(145,995)	\$(119,038)
Reserves as % of Operating Revenue	15.1%	52.1%	27.7%	10.6%	-6.3%	-4.8%

Residential Bill Impact

Table 4-4 below summarizes the impact on monthly bills for different size residential customers. An average GRPUC residential customer consumes approximately 3000 gallons per month. For that average size customer, the first year bill increase is \$1.20 per month. For all customer usages shown, the annual increases are between 4.8% and 5.2% through 2027.

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Table 3-4
Monthly Wastewater Bill Comparisons

Residential Usage (gallons)	2,000	3,000	6,000
Current Rate	\$19.90	\$24.34	\$37.66
2023 Proposed	20.86	25.54	39.58
2024 Proposed	21.88	26.82	41.64
2025 Proposed	22.98	28.17	43.74
2026 Proposed	24.16	29.59	45.88
2027 Proposed	25.36	31.04	48.08

Blandin Wastewater Treatment Billing

GRPUC bills its largest customer, Blandin, for Blandin's direct use of the GRPUC wastewater treatment facility for treating its industrial wastewater stream. Blandin is billed monthly for its share of actual wastewater treatment plant operating expenses. Analysis and creation of this monthly bill is a labor intensive activity for GRPUC billing personnel. It is recommended that GRPUC engage in discussions with Blandin to simplify this billing process. At the beginning of each year, GRPUC and Blandin would estimate and agree to a flat monthly payment by Blandin for estimated treatment services. At the end of the year, GRPUC would detail the actual costs for the year and present to Blandin for review. If the total estimated payments by Blandin exceed actual annual costs, GRPUC would issue a credit to Blandin the overpayment. If the estimated payments are less than the actual costs, Blandin would pay GRPUC for the total underpayment. This allows GRPUC to compile the detailed costs on an annual basis rather than on a monthly basis and Blandin would only need to review annual costs rather than monthly costs. The option also exists that for any credit owed Blandin, it could be spread over the next 6 monthly estimated bills and any under payment by Blandin could also be spread over 6 monthly bills as an additional amount owed.

Grand Rapids Public Utilities Commission
Existing and Proposed Rates

Class	Current Rate	2023 Proposed Rate	2024 Proposed Rate	2025 Proposed Rate	2026 Proposed Rate	2027 Proposed Rate
City Residential						
Customer Charge	11.02	n/a	n/a	n/a	n/a	n/a
Commodity Charge	4.44	4.68	4.94	5.19	5.43	5.68
City Commercial						
Customer Charge	11.02	n/a	n/a	n/a	n/a	n/a
Commodity Charge	4.90	4.99	5.17	5.37	5.54	5.71
City Commercial 2nd Meter						
Commodity Charge	4.90	4.99	5.17	5.37	5.54	5.71
City Commercial - Blandin Flow						
Commodity Charge	4.90	4.99	5.17	5.37	5.54	5.71
City Industrial						
Customer Charge	11.02	n/a	n/a	n/a	n/a	n/a
Commodity Charge	4.90	4.99	5.17	5.37	5.54	5.71
Rural Residential						
Customer Charge	12.04	n/a	n/a	n/a	n/a	n/a
Commodity Charge	4.90	4.99	5.17	5.37	5.54	5.71
Rural Commercial						
Customer Charge	12.04	n/a	n/a	n/a	n/a	n/a
Commodity Charge	5.36	5.45	5.63	5.83	6.00	6.17
Rural Industrial (LaPrairie)						
Customer Charge	11.73	n/a	n/a	n/a	n/a	n/a
Commodity Charge	2.65	2.75	2.88	3.02	3.17	3.33
Rural Industrial (Cohasset)						
Customer Charge	12.14	n/a	n/a	n/a	n/a	n/a
Commodity Charge	2.75	2.90	3.05	3.20	3.36	3.55
Customer Charges						
Residential/Commercial/Industrial						
5/8-3/4 inch	n/a	11.50	12.00	12.60	13.30	14.00
1 inch	n/a	13.00	15.00	17.00	19.00	21.00
1 1/4 inch	n/a	15.00	17.00	19.00	21.50	24.00
1 1/2 inch	n/a	17.00	20.00	23.00	26.00	29.00
2 inch	n/a	20.00	25.00	30.00	40.00	50.00
3 inch	n/a	25.00	30.00	35.00	45.00	55.00
4 inch	n/a	35.00	45.00	55.00	65.00	75.00
6 inch	n/a	50.00	60.00	70.00	75.00	85.00

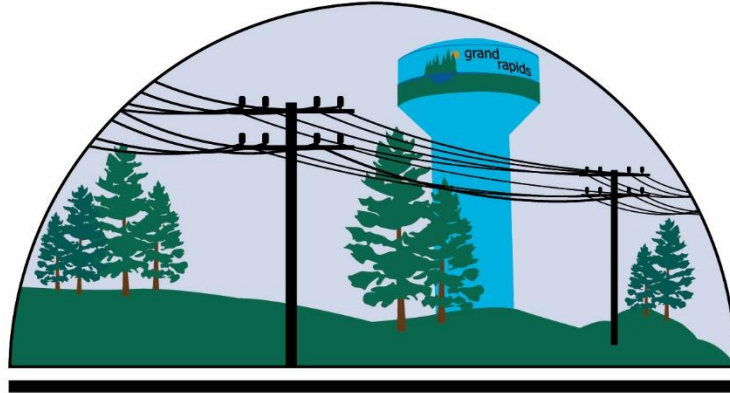
**Grand Rapids Public Utilities Commission
Domestic Wastewater Operating Results at Proposed Rates**

	Historical					Projected					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
OPERATING REVENUES											
Utility Revenues											
City	\$ 1,400,265	\$ 1,451,844	\$ 1,526,688	\$ 1,470,730	\$ 1,552,917	\$ 1,572,118	\$ 1,671,342	\$ 1,773,648	\$ 1,883,368	\$ 2,001,125	\$ 2,122,176
Rural	148,245	140,786	148,936	145,720	137,664	149,071	159,935	170,209	180,790	192,101	205,162
Septage haulers	85,508	101,253	111,071	154,531	155,932	124,335	124,335	124,335	124,335	124,335	124,335
Total Utility Revenues	\$ 1,634,018	\$ 1,693,883	\$ 1,786,695	\$ 1,770,981	\$ 1,846,513	\$ 1,845,524	\$ 1,955,612	\$ 2,068,192	\$ 2,188,492	\$ 2,317,561	\$ 2,451,673
Other Operating Revenues											
Other	\$ 26,582	\$ 30,448	\$ 15,928	\$ 24,298	\$ 18,094	\$ 11,890	\$ 11,890	\$ 11,890	\$ 11,890	\$ 11,890	\$ 11,890
Penalties	5,247	5,625	5,492	1,157	1,676	-	-	-	-	-	-
Total Operating Revenues	\$ 1,665,847	\$ 1,729,956	\$ 1,808,115	\$ 1,796,436	\$ 1,866,283	\$ 1,857,414	\$ 1,967,502	\$ 2,080,082	\$ 2,200,382	\$ 2,329,451	\$ 2,463,563
OPERATING EXPENSES											
Collection											
Operations											
Supervision and engineering	\$ 35,092	\$ 30,099	\$ 26,323	\$ 26,143	\$ 25,032	\$ 25,902	\$ 26,679	\$ 28,012	\$ 29,413	\$ 30,884	\$ 32,428
Crew personnel						132,696	136,677	143,511	150,686	158,220	166,132
Records						2,700	2,835	2,920	3,008	3,098	3,191
Inspections	19,908	11,122	640	330	1,012	1,000	1,050	1,082	1,114	1,147	1,182
Thawing mains & services						500	525	541	557	574	591
Locating expense	1,090	-	9,136	9,877	10,100	14,000	14,420	15,141	15,898	16,693	17,528
Service on customer premises	9,928	72	359	424	556	700	721	757	795	835	876
Mapping	1,644	18,809	28,554	30,779	30,810	28,680	29,540	31,017	32,568	34,197	35,907
Small tools	2,326	1,070	488	919	2,059	1,200	1,260	1,298	1,337	1,377	1,418
Safety	2,948	3,709	2,042	3,467	4,076	6,000	6,300	6,489	6,684	6,884	7,091
Seminar/training	25	6,632	7,600	1,262	5,659	6,300	6,615	6,813	7,018	7,228	7,445
Uniforms expense						200	210	216	223	230	236
Miscellaneous meetings						150	158	162	167	172	177
Other	2,443	97	69	87	95	-	-	-	-	-	-
Stores	13,335	2,583	85	3,056	5,400	2,761	2,899	2,986	3,076	3,168	3,263
Power purchased	2,037	13,654	14,397	14,327	15,439	14,465	15,188	15,644	16,113	16,597	17,095
Maintenance											
Lift stations	39,114	48,596	40,003	38,225	94,555	33,000	34,650	35,690	36,760	37,863	38,999
Mains	38,848	41,583	34,383	81,457	74,472	284,968	412,466	124,840	128,585	132,443	136,416
Services	6,653	3,497	5,685	7,323	4,733	8,400	8,820	9,085	9,357	9,638	9,927
Miscellaneous	1,592	3,535	195	330	6,897	-	3,600	3,708	3,819	3,934	4,052
Total Collection Expenses	\$ 176,983	\$ 185,058	\$ 169,959	\$ 218,006	\$ 280,895	\$ 563,621	\$ 704,613	\$ 429,912	\$ 447,178	\$ 465,180	\$ 483,952
Domestic Wastewater Treatment											
Domestic plant	\$ 71,997	\$ 98,442	\$ 88,623	\$ 80,610	\$ 88,786	79,763	83,788	86,359	89,012	91,752	94,581
Domestic portion of sec plant/serv center	452,935	445,364	431,736	433,422	464,234	496,756	496,756	496,756	496,756	496,756	496,756
Domestic portion of sludge disposal	-	-	-	-	-	44,000	44,000	44,000	44,000	44,000	44,000
Total Domestic Plant Expenses	\$ 524,932	\$ 543,806	\$ 520,359	\$ 514,032	\$ 553,020	\$ 620,519	\$ 624,544	\$ 627,115	\$ 629,769	\$ 632,508	\$ 635,337
Other Operating Expenses											
Customer accounts expense	\$ 67,549	\$ 69,584	\$ 75,564	\$ 65,153	\$ 96,181	\$ 69,762	\$ 73,767	\$ 77,982	\$ 82,440	\$ 87,152	\$ 92,135
Truck expense - operation						3,600	0	0	0	0	0
Administrative and general	232,836	233,050	242,805	209,342	263,013	245,048	274,072	265,295	282,021	300,087	319,614
Depreciation - wastewater collection	127,333	139,524	142,340	190,015	236,713	236,713	248,190	284,768	309,270	332,507	360,821
Depreciation - other	16,395	16,519	15,984	17,288	17,727	-	-	-	-	-	-
Amortization - intangibles	5,948	5,868	5,457	4,786	4,852	500	500	500	500	500	500
Service center	22,098	17,749	21,258	18,027	20,514	-	-	-	-	-	-
Total Other Operating Expenses	\$ 472,159	\$ 482,294	\$ 503,408	\$ 504,611	\$ 639,000	\$ 555,624	\$ 596,528	\$ 628,546	\$ 674,231	\$ 720,246	\$ 773,071
Total Operating Expenses	\$ 1,174,074	\$ 1,211,158	\$ 1,193,726	\$ 1,236,649	\$ 1,472,915	\$ 1,739,764	\$ 1,925,685	\$ 1,685,572	\$ 1,751,177	\$ 1,817,935	\$ 1,892,360

**Grand Rapids Public Utilities Commission
Domestic Wastewater Operating Results at Proposed Rates**

	Historical					Projected					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
NET OPERATING INCOME	\$ 491,773	\$ 518,798	\$ 614,389	\$ 559,787	\$ 393,368	\$ 117,649	\$ 41,817	\$ 394,509	\$ 449,205	\$ 511,516	\$ 571,203
NON-OPERATING INCOME (EXPENSES)											
Gain (loss) on property disposition	\$ 3,000	\$ (94,827)	\$ 5,000	\$ -	\$ 27,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties	-	-	-	-	-	12,297	11,600	11,600	11,600	11,600	11,600
Interest expense	(20,134)	(18,979)	(18,078)	(16,107)	(17,471)	(36,434)	(36,410)	(20,957)	(27,378)	(22,670)	(17,806)
Less new debt interest	-	-	-	-	-	-	-	(90,000)	(87,980)	(85,870)	(83,665)
Interest expense customer deposits	-	-	-	-	-	(1,160)	(1,160)	(1,160)	(1,160)	(1,160)	(1,160)
Bond fees	(183)	(324)	(285)	(605)	(233)	(500)	(500)	(500)	(500)	(500)	(500)
Amortization of debt premiums and discounts	(146)	(146)	(146)	(146)	(146)	-	-	-	-	-	-
Amortization of regulatory asset	(374)	(374)	(374)	(374)	(1,016)	-	-	-	-	-	-
Lease revenues combined service center	20,927	2,983	5,845	4,794	3,266	5,113	3,600	3,600	3,600	3,600	3,600
CSC Bldg & Grounds Expenses	-	-	-	-	-	(60,910)	(63,501)	(65,133)	(66,815)	(65,546)	(67,330)
Total Non-Operating Revenues (Expenses)	\$ 3,090	\$ (111,667)	\$ (8,038)	\$ (12,438)	\$ 11,900	\$ (81,595)	\$ (86,371)	\$ (162,550)	\$ (168,633)	\$ (160,547)	\$ (155,261)
NET INCOME	\$ 494,863	\$ 407,131	\$ 606,351	\$ 547,349	\$ 405,268	\$ 36,054	\$ (44,554)	\$ 231,959	\$ 280,572	\$ 350,969	\$ 415,942
as a percent of Operating Revenues	29.7%	23.5%	33.5%	30.5%	21.7%	1.9%	-2.3%	11.2%	12.8%	15.1%	16.9%
CASH RESERVES											
Beginning of Year						\$ 904,673	\$ 280,237	\$ 1,025,670	\$ 577,164	\$ 234,045	\$ (145,995)
Plus Net Income						36,054	(44,554)	231,959	280,572	350,969	415,942
Less Capital Improvements						(344,289)	(1,097,350)	(735,067)	(697,100)	(849,435)	(528,000)
Less ERP Project Costs						-	(80,833)	-	-	-	-
Plus Depreciation/Amortization						237,213	248,690	285,268	309,770	333,007	361,321
Plus Available Bond Funds						-	1,900,000	-	-	-	-
Less Debt Service Principal						(553,414)	(180,519)	(185,788)	(189,464)	(165,572)	(171,094)
Less New Debt Principal (1)						-	-	(44,878)	(46,898)	(49,008)	(51,213)
End of Year					\$ 904,673	\$ 280,237	\$ 1,025,670	\$ 577,164	\$ 234,045	\$ (145,995)	\$ (119,038)
As a percent of revenue					48.5%	15.1%	52.1%	27.7%	10.6%	-6.3%	-4.8%

(1) Assumes \$2.0 million bond issue in late 2023.



**GRAND RAPIDS
PUBLIC UTILITIES**
Service is Our Nature

**WATER COST OF SERVICE AND RATE
DESIGN STUDY**

Draft Report

November 23, 2022



REPORT OUTLINE

Cover Letter

Section 1 - Introduction

Section 2 – Projected Operating Results – Existing Rates

Section 3 – Cost of Service

Section 4 – Proposed Rates

November 29, 2022

Grand Rapids Public Utilities Commission
500 SE 4th Street
Grand Rapids, MN 55744

Subject: Water Rate Study

Commission Members:

Dave Berg Consulting, LLC has undertaken a study of the retail rates GRPUC charges its customers for water service. This report summarizes the analyses undertaken and the resulting recommendations for changes to the existing rates.

Based on the financial needs of the water utility for the projected study period of 2023-2027, I am recommending annual 10% increases in overall water rates each year. Based on the cost-of-service analysis, certain classes of customers will experience increases more than average and others will experience increases less than average. Section 4 of the report summarizes the recommendations in detail.

Thank you for the opportunity to be of service to GRPUC through the conduct of this study. I wish to express my appreciation for the valuable assistance I received from GRPUC staff relative to the execution of this study.

Sincerely,

Dave Berg Consulting, LLC

David A. Berg, PE
Principal

Section 1

Introduction

The City of Grand Rapids, MN owns a municipal utility providing service to approximately 3,300 water customers. The water utility operates under the direction of the Grand Rapids Public Utilities Commission (GRPUC). This report has been prepared by Dave Berg Consulting, LLC to examine the rates and charges for water services in Grand Rapids. The study includes an examination of the allocated cost of service based on 2021 utility operations (Test Year). It also includes projected operating results for 2022-2027 (Study Period). As a result of the analyses undertaken and reported on herein, water rate recommendations have been developed for implementation by GRPUC.

Section 2

Projected Operating Results Existing Rates

The rates charged for water services by GRPUC, combined with other operating and non-operating revenues, must be sufficient to meet the cost of providing services to GRPUC's customers. This is necessary to ensure the long-term financial health of the GRPUC water utility. The cost of providing utility service consists of normal operating expenses for water systems, customer and A&G functions, system depreciation expenses, capital improvements and other non-operating expenses.

An analysis of the operating results for the GRPUC water utility during the 2022-2027 Study Period has been performed assuming the current rates and charges remain in effect through the Study Period. This analysis has been done to determine the overall need, if any, for additional revenue through rates to meet projected revenue requirements. The analyses and assumptions utilized in these projections are explained below.

Estimated Revenues – Existing Rates

Operating Revenues

GRPUC provides water services to residential, commercial and industrial customers as well as to the City of La Prairie on a wholesale basis. Total sales to GRPUC customers for the Study Period are assumed to increase 1% per year above current sales levels.

Exhibit 2-A is a summarized listing of GRPUC's historical and projected water operating results at existing rates. The historical and projected revenues from sales of water to different groups of customers are included as part of Utility Revenues.

Section 2

Other Operating Revenues

GRPUC also receives other miscellaneous operating revenue from other normal operating procedures. These other operating revenues include service connections, permit fees, thawing service, merchandizing and jobbing, antenna rent and other miscellaneous operating revenues. These revenues are also included in the Operating Revenues in Exhibit 2-A.

Revenue Requirements

Operating Expenses

Operating expenses for the water utility are shown in Exhibit 2-A. Projections of operating expenses are based on budgeted amounts provided by GRPUC.

Depreciation

GRPUC has annual depreciation costs associated with water system investments. Depreciation during the Study Period is based on budgeted GRPUC amounts. Depreciation is a funded non-cash expense that generates monies available for annual capital improvements, debt principal payments and reserves.

Non-operating Income (Expenses)

GRPUC's non-operating income and expenses are associated with penalties, interest expenses, and costs and revenues associated with the combined service center.

Capital Improvements

GRPUC makes annual capital investments in its water system. The water utility also pays a share of improvements to the combined service center. The combined capital improvements for the water utility are shown in Table 2-1 below.

Projected Operating Results – Existing Rates

Table 2-1
Capital Improvements

Capital Item	2022	2023	2024	2025	2026	2027
Water Capital	\$439,160	\$5,912,100	\$1,343,575	\$969,580	\$908,511	\$1,270,000
Service Center Capital	<u>\$13,601</u>	<u>\$93,400</u>	<u>\$20,000</u>	<u>\$4,000</u>	<u>\$4,000</u>	<u>\$4,000</u>
Total	\$452,761	\$6,005,500	\$1,363,575	\$973,580	\$912,511	\$1,274,000

Debt Service

GRPUC had a large debt issue partially payable by the water utility that was paid in full in February of 2022. The water utility is also responsible for payment of a portion of two General Obligation bonds issued in 2021. Additionally, it is estimated that \$5.0 million in new debt will be issued in late 2023 to support ongoing capital improvements. Table 2-2 summarizes the current and planned debt service for the water utility.

Table 2-2
Annual Debt Service

Item	2022	2023	2024	2025	2026	2027
Current Interest	\$12,818	\$18,964	\$17,063	\$15,113	\$13,114	\$11,018
Current Principal	\$789,450	\$90,775	\$94,100	\$94,250	\$68,250	\$71,500
Planned Interest	-	-	\$225,000	\$219,951	\$214,675	\$209,162
Planned Principal	-	-	<u>\$112,195</u>	<u>\$117,244</u>	<u>\$122,520</u>	<u>\$128,033</u>
Total Debt	\$802,268	\$109,739	\$448,358	\$446,558	\$418,559	\$419,713

Section 2

Projected Operating Results – Existing Rates

Based on the assumptions outlined above, the resulting projected operating results assuming continued application of the existing retail rates are summarized below in Table 2-3. A summary presentation of the historical and projected operating results is also shown in Exhibit 2-A.

Table 2-3
Projected Operating Results
Existing Rates

Year	2022	2023	2024	2025	2026	2027
Operating Revenues	\$1,917,471	\$1,935,782	\$1,955,944	\$1,976,291	\$1,996,965	\$2,017,865
Less Operating Expenses	(1,857,320)	(1,924,009)	(2,188,640)	(2,309,776)	(2,422,246)	(2,536,321)
Less Non -Operating Expenses	<u>(58,171)</u>	<u>(69,105)</u>	<u>(293,836)</u>	<u>(288,518)</u>	<u>(279,975)</u>	<u>(274,149)</u>
Net Income	\$1,980	\$(57,332)	\$(526,532)	\$(622,003)	\$(705,257)	\$(792,605)
Net Income as Percent of Revenues	0.1%	-3.0%	-26.9%	-31.5%	-35.3%	-39.3%

Cash Reserves

A summary of the impact of the projected operating results on GRPUC's cash reserves for the Study Period is shown at the end of Exhibit 2-A and in Table 2-4 below.

As shown below, under existing retail rates and estimated revenue requirements over the Study Period, the cash reserves for the water utility are projected to decrease from \$1.1 million to **negative** \$3.9 million by the end of the Study Period. As a percentage of operating revenues, reserves are projected to decrease from 58% to **negative** 19% during the Study Period. The cash reserve analysis also includes the assumption of securing \$2.5 million in state grants for water capital projects.

Projected Operating Results – Existing Rates

Table 2-3
Projected Cash Reserves-Water
Existing Rates

Year	2022	2023	2024	2025	2026	2027
Beginning Balance	\$1,087,187	\$178,992	\$(858,321)	\$92,587	\$(1,121,727)	\$(2,305,049)
Plus Net Income	1,980	(57,332)	(526,532)	(622,003)	(705,257)	(792,605)
Less Capital Improvements	(452,761)	(6,005,500)	(1,363,575)	(973,580)	(912,511)	(1,274,000)
Less ERP Project Costs	-	(80,833)	-	-	-	-
Plus Depreciation	332,035	347,127	547,310	592,763	625,216	654,633
Plus State Grants	-	-	2,500,000	-	-	-
Plus Available Bond Funds	-	4,850,000	-	-	-	-
Less Existing Debt Principal	(789,450)	(90,775)	(94,100)	(94,250)	(68,250)	(71,500)
Less New Debt Principal	-	-	<u>(112,195)</u>	<u>(117,244)</u>	<u>(122,520)</u>	<u>(128,033)</u>
Ending Balance	\$178,992	\$(858,321)	\$92,587	\$(1,121,727)	\$(2,305,049)	\$(3,916,555)
Reserves as % of Operating Revenue	9.3%	-44.3%	4.7%	-56.8%	-115.4%	-194.1%

**Grand Rapids Public Utilities Commission
Water Operating Results at Existing Rates**

	Historical					Projected					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
OPERATING REVENUES											
Utility Revenues											
City sales	\$ 1,465,307	\$ 1,453,122	\$ 1,543,505	\$ 1,531,862	\$ 1,633,096	\$ 1,626,338	\$ 1,639,058	\$ 1,653,714	\$ 1,668,448	\$ 1,683,400	\$ 1,698,467
Rural sales	34,796	30,816	34,744	35,249	37,877	38,616	39,156	39,511	39,870	40,233	40,599
Total Utility Revenues	\$ 1,500,103	\$ 1,483,938	\$ 1,578,249	\$ 1,567,111	\$ 1,670,973	\$ 1,664,954	\$ 1,678,214	\$ 1,693,225	\$ 1,708,318	\$ 1,723,633	\$ 1,739,066
Other Operating Revenues											
Miscellaneous service	\$ 184,560	\$ 219,813	\$ 247,799	\$ 209,774	\$ 213,862	\$ 252,517	\$ 257,568	\$ 262,719	\$ 267,973	\$ 273,332	\$ 278,799
Penalties	5,307	5,564	5,492	1,157	1,676	-	-	-	-	-	-
Total Operating Revenues	\$ 1,689,970	\$ 1,709,315	\$ 1,831,540	\$ 1,778,042	\$ 1,886,511	\$ 1,917,471	\$ 1,935,782	\$ 1,955,944	\$ 1,976,291	\$ 1,996,965	\$ 2,017,865
OPERATING EXPENSES											
Production											
Operations											
Supervision and engineering	\$ -	\$ 5,468	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operators wages	141,248	144,538	152,676	158,636	161,855	182,512	187,987	197,387	207,256	217,619	228,500
Water treatment expense	91,516	96,407	89,041	111,014	114,019	101,460	106,533	109,729	113,021	116,411	119,904
Station Supplies and Expenses						2,325	2,441	2,514	2,590	2,668	2,748
Permits and Fees						3,900	4,095	4,218	4,344	4,475	4,609
Miscellaneous Production Expense						15,000	15,750	16,223	16,709	17,210	17,727
Power purchased	164,487	167,067	169,964	168,760	195,190	166,570	174,899	180,145	185,550	191,116	196,850
Other	18,360	16,251	22,818	18,573	26,250	-	-	-	-	-	-
Maintenance											
Supervision	15,232	8,404	209	-	-	-	-	-	-	-	-
WTP buildings and grounds	13,609	7,904	10,565	6,761	17,906	18,600	19,530	20,116	20,719	21,341	21,981
WTP HVAC System						1,000	1,050	1,082	1,114	1,147	1,182
Wellhouses						4,500	4,725	4,867	5,013	5,163	5,318
Wellhead protection						1,000	1,050	1,082	1,114	1,147	1,182
Wells, pumps, mains	4,150	3,678	4,577	6,009	14,353	2,400	2,520	2,596	2,673	2,754	2,836
Maintenance of WTP equipment	37,707	32,868	40,549	62,363	51,511	60,490	66,015	67,995	70,035	72,136	74,300
Maintenance of SCADA System						8,040	11,442	8,785	9,049	9,320	9,600
Underground Clearwell						5,500	5,775	5,948	6,127	6,310	6,500
DCS	7,154	7,037	7,922	6,954	8,183	-	-	-	-	-	-
Inspections	9,231	6,975	10,594	4,630	2,381	3,504	8,679	8,940	9,208	9,484	9,769
Total Production Expenses	\$ 502,694	\$ 496,597	\$ 508,915	\$ 543,700	\$ 591,648	\$ 576,801	\$ 612,491	\$ 631,625	\$ 654,522	\$ 678,303	\$ 703,004
Distribution											
Operations											
Supervision and engineering	\$ 17,899	\$ 10,045	\$ 27,437	\$ 29,361	\$ 43,108	38,593	39,751	41,738	43,825	46,016	48,317
Records	17,561	13,282	4,714	10,527	1,275	4,800	5,040	5,191	5,347	5,507	5,673
Inspections	1,289	-	619	6,325	11,359	9,000	17,950	18,489	19,043	19,614	20,203
Thaw and flush hydrants, etc.	376	10,005	18,499	4,932	8,054	11,700	12,285	12,654	13,033	13,424	13,827
Locating expense	-	-	15,686	21,105	13,630	21,000	21,630	22,712	23,847	25,039	26,291
Service on customer premises	6,195	8,841	21,008	7,372	46,238	21,996	22,656	23,789	24,978	26,227	27,538
Mapping	10,459	18,877	28,554	30,799	30,810	34,272	35,300	37,065	38,918	40,864	42,908
Small tools	2,672	2,440	1,665	3,412	3,465	2,400	6,920	2,728	2,809	2,894	2,981
Safety	3,674	9,408	5,683	9,000	14,826	16,500	16,995	17,845	18,737	19,674	20,658
Seminar/training	18,907	20,102	19,287	14,211	20,365	19,200	19,776	20,765	21,803	22,893	24,038
Uniforms Expense						300	315	324	334	344	355
Other	(4,253)	139	79	57	378	-	-	-	-	-	-
Stores	12,323	12,905	837	15,074	24,983	14,255	14,683	15,417	16,188	16,997	17,847
Maintenance											
Towers and tanks	57,562	50,438	3,076	8,573	16,669	5,000	5,250	5,408	5,570	5,737	5,909
Elevated Tank Control System						2,400	2,520	2,596	2,673	2,754	2,836

**Grand Rapids Public Utilities Commission
Water Operating Results at Existing Rates**

	Historical					Projected					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Booster Pump						2,130	2,237	2,304	2,373	2,444	2,517
Booster station	106	372	705	303	2,563	500	525	541	557	574	591
Mains and hydrants	128,861	182,080	108,480	138,680	93,945	232,000	200,000	206,000	212,180	218,545	225,102
Services	25,327	10,046	18,326	9,019	43,923	46,000	29,925	30,823	31,747	32,700	33,681
Meters	4,621	5,249	(367)	(2,553)	8,584	2,400	6,972	7,321	7,687	8,071	8,475
Other	10,042	3,060	472	147	5,320	-	-	-	-	-	-
Total Distribution Expenses	\$ 313,621	\$ 357,289	\$ 274,760	\$ 306,344	\$ 389,495	\$ 484,446	\$ 460,729	\$ 473,706	\$ 491,650	\$ 510,319	\$ 529,745
Other Operating Expenses											
Customer accounts expense	\$ 90,247	\$ 92,884	\$ 101,017	\$ 88,418	\$ 122,931	\$ 91,935	\$ 94,710	\$ 99,428	\$ 104,382	\$ 109,584	\$ 115,044
Administrative and general	322,604	336,698	330,815	320,734	335,912	372,103	408,953	436,570	466,459	498,825	533,895
Depreciation - water	272,370	293,004	305,680	325,827	331,343	331,035	346,127	546,310	591,763	624,216	654,633
Depreciation - other	16,395	16,519	15,984	17,288	17,727	-	-	-	-	-	-
Amortization - intangibles	5,948	5,868	5,457	4,786	4,852	1,000	1,000	1,000	1,000	1,000	-
Service center	22,098	17,749	21,258	18,027	20,513	-	-	-	-	-	-
Total Other Operating Expenses	\$ 729,662	\$ 762,722	\$ 780,211	\$ 775,080	\$ 833,278	\$ 796,073	\$ 850,789	\$ 1,083,309	\$ 1,163,604	\$ 1,233,624	\$ 1,303,572
Total Operating Expenses	\$ 1,545,977	\$ 1,616,608	\$ 1,563,886	\$ 1,625,124	\$ 1,814,421	\$ 1,857,320	\$ 1,924,009	\$ 2,188,640	\$ 2,309,776	\$ 2,422,246	\$ 2,536,321
NET OPERATING INCOME	\$ 143,993	\$ 92,707	\$ 267,654	\$ 152,918	\$ 72,090	\$ 60,151	\$ 11,773	\$ (232,696)	\$ (333,485)	\$ (425,281)	\$ (518,456)
NON-OPERATING INCOME (EXPENSES)											
Gain (loss) on property disposition	\$ 3,000	\$ -	\$ (105,172)	\$ 1,125	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties	-	-	-	-	-	12,085	11,400	11,400	11,400	11,400	11,400
Bond fees	(342)	(606)	(533)	(1,132)	(992)	(500)	(500)	(500)	(500)	(500)	(500)
Amortization of debt premiums and discounts	(271)	(271)	(271)	(974)	(974)	-	-	-	-	-	-
Amortization of regulatory asset	(703)	(703)	(703)	-	(642)	-	-	-	-	-	-
Interest expense - customer deposits	(4,347)	(4,208)	(1,295)	-	-	(1,140)	(1,140)	(1,140)	(1,140)	(1,140)	(1,140)
Interest expense - existing debt	(34,300)	(32,639)	(31,242)	(28,771)	(28,643)	(12,818)	(18,964)	(17,063)	(15,113)	(13,114)	(11,018)
Interest expense - new debt (1)	-	-	-	-	-	-	-	(225,000)	(219,951)	(214,675)	(209,162)
Lease revenues combined service center	20,927	2,983	5,845	4,794	3,265	5,113	3,600	3,600	3,600	3,600	3,600
CSC Building/Grounds expenses	-	-	-	-	-	(60,910)	(63,501)	(65,133)	(66,815)	(65,546)	(67,330)
Total Non-Operating Revenues (Expenses)	\$ (16,036)	\$ (35,444)	\$ (133,371)	\$ (24,958)	\$ (27,986)	\$ (58,171)	\$ (69,105)	\$ (293,836)	\$ (288,518)	\$ (279,975)	\$ (274,149)
NET INCOME	\$ 127,957	\$ 57,263	\$ 134,283	\$ 127,960	\$ 44,104	\$ 1,980	\$ (57,332)	\$ (526,532)	\$ (622,003)	\$ (705,257)	\$ (792,605)
as a percent of Operating Revenues	7.6%	3.4%	7.3%	7.2%	2.3%	0.1%	-3.0%	-26.9%	-31.5%	-35.3%	-39.3%
CASH RESERVES											
Beginning of Year						\$ 1,087,187	\$ 178,992	\$ (858,321)	\$ 92,587	\$ (1,121,727)	\$ (2,305,049)
Plus Net Income						1,980	(57,332)	(526,532)	(622,003)	(705,257)	(792,605)
Less Capital Improvements						(452,761)	(6,005,500)	(1,363,575)	(973,580)	(912,511)	(1,274,000)
Less ERP Project Costs						-	(80,833)	-	-	-	-
Plus Depreciation						332,035	347,127	547,310	592,763	625,216	654,633
Plus State Grant Funds						-	-	2,500,000	-	-	-
Plus Available Bond Funds						-	4,850,000	-	-	-	-
Less Debt Service Principal						(789,450)	(90,775)	(94,100)	(94,250)	(68,250)	(71,500)
Less New Debt Principal (1)						-	-	(112,195)	(117,244)	(122,520)	(128,033)
End of Year					\$ 1,087,187	\$ 178,992	\$ (858,321)	\$ 92,587	\$ (1,121,727)	\$ (2,305,049)	\$ (3,916,555)
As a percent of revenue					57.6%	9.3%	-44.3%	4.7%	-56.8%	-115.4%	-194.1%

(1) Assumes \$5.0 million bond issue in late FY 2023

Section 3

Cost-of-Service

A cost-of-service analysis was performed to determine the allocated cost to serve each of GRPUC's customer classes within the water utility. Customer classes exist, in part, because the cost to serve different kinds of customers varies. The cost-of-service analysis for water has been performed on a 2021 'Test Year' based on budgeted 2021 financials, operations and sales. The results of the cost-of-service study give an indication of the degree of revenue recovery warranted for each class of customers. A comparison of the allocated cost to serve a class of customers and the actual revenues received from that class is taken into consideration during rate design.

Functionalization of Costs

GRPUC's Test Year water revenue requirements have been divided into four functional categories. These categories are described below.

Production – costs associated with GRPUC's source of supply, pumping and water treatment.

Distribution – distribution expenses are related to the GRPUC system for delivering water to GRPUC customers over the local pipeline system.

Customer – these costs are fixed costs associated with the service facilities utilized to deliver water directly to customers. They also include items such as meter reading, billing, collections and customer service.

Revenue – revenue related costs include certain non-operating revenues and utility margin.

Section 3

Table 3-1 below summarizes the functional water costs for the 2021 Test Year. The detailed cost functions are shown in Exhibit 3-A.

Table 3-1
Functional Water Costs
2021 Test Year

Component	Revenue Requirement
Production	\$851,304
Distribution	720,585
Customer	197,470
Revenue	<u>(29,186)</u>
Total	\$1,740,172

Classification of Costs

GRPUC's Test Year revenue requirements have been divided into distinct cost classifications. The water cost classifications are described below.

Demand Related – demand related costs are costs required to meet the overall maximum demand on the system. Demand related costs are predominately associated with facility fixed costs.

Commodity Related – commodity costs tend to vary with the annual quantity of water produced.

Customer Related – costs related to serving, metering and billing of individual customers.

Revenue Related – revenue related costs vary by the amount of revenue received by the utility or are associated with other operating and non-operating revenues.

Exhibits 3-B through 3-D show the detailed classification of revenue requirements within the production, distribution and customer functions.

Cost-of-Service

Allocation of Costs

Based on an analysis of customer class service characteristics, the classified costs summarized above were allocated to the major GRPUC customer classes. Allocation of costs was performed on a fully-distributed, embedded cost allocation basis. Specific allocation factors were utilized in each of the cost classification categories as described below. Exhibit 3-E contains a summary of the development of the various allocation factors.

Demand Allocations

Allocation of water production demand costs are based on each class' contribution to the utility's system peak day usage. The allocation of the distribution demand costs is based on the peak hour usage of each individual class.

Commodity Allocations

Each class' share of test year commodity requirements was used to allocate commodity related costs.

Customer Facilities Allocations

The customer facilities allocator was used to allocate costs associated with the physical facilities required to serve individual customers. For the customer facility allocators, weighted customer allocation factor was developed based on the average equivalent meter size for the customers in each class. Weighting factors are developed to represent the difference in service configurations between customer classifications. For instance, a larger customer facility is required for a single industrial demand customer than for a single residential customer.

Section 3

Customer Service Allocations

The customer service allocator is for allocation of costs associated with customer service – meter reading, billing, collections and customer inquiries. As with the customer facilities allocators, weighted customer service allocators are developed to represent the different levels of customer service required by different size customers.

Revenue Allocations

Revenue related costs were allocated based on each class' share of total demand, commodity, customer facility and customer service costs.

Cost of Service Results

Based on the classifications and allocations described above, the estimated cost to serve each major class of customers for the 2021 Test Year was determined. Exhibit 3-F presents this analysis in detail. Table 3-2 below summarizes the total allocated costs for each class compared to the total revenues received from the class during 2021.

Cost-of-Service

Table 3-2
Water Cost of Service Results
Comparison of Cost and Revenues
2021 Test Year

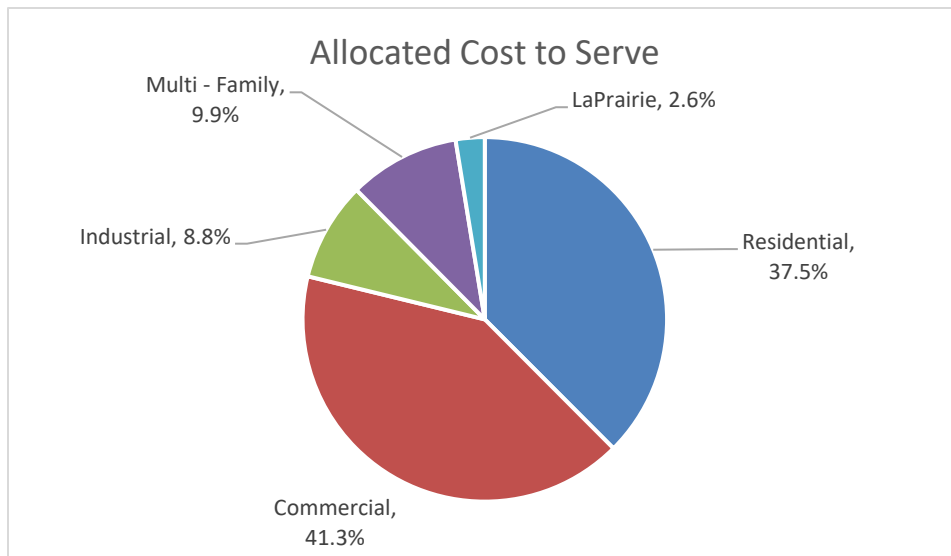
Customer Classification	Allocated Cost to Serve	Revenues
Residential	\$652,911	\$666,661
Commercial	\$718,359	\$605,610
Industrial	\$152,648	\$176,054
Multi - Family	\$171,470	\$249,974
LaPrairie	<u>\$44,785</u>	<u>\$41,873</u>
Total	\$1,740,172	\$1,740,172

The revenue requirements and revenues as allocated to each class and summarized above are shown on a total dollar basis. Table 3-3 below makes the comparison based on percentages of total cost to serve and total revenues. The charts following Table 3-3 show a graphical comparison between allocated cost to serve and revenues as a percentage of the totals. The percentage increase/(decrease) in each class' revenue shown below is the adjustment necessary to produce revenues from each class in accordance with the allocated cost to serve. The percentage adjustments do not represent the recommended change in each class' rates. The cost-of-service results are one item for consideration in rate design. It is important to note also that the adjustments shown in the table below would not change the total revenue received by the utility and are not indicative of overall revenue needs of the utility going forward. Recommendations regarding rate design are included in Section 4 of this report.

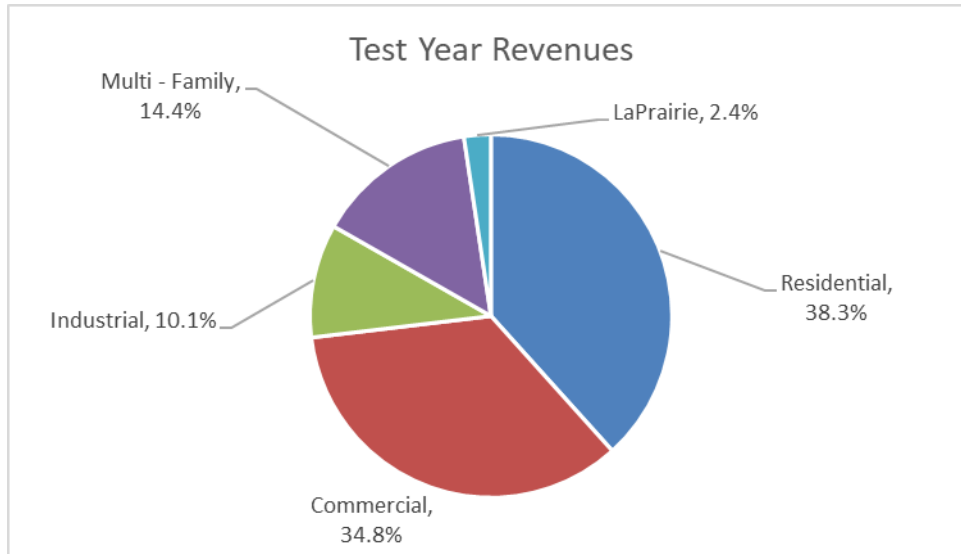
Section 3

**Table 3-3
Water Cost of Service Results
Comparison of % Cost and Revenues
2021 Test Year**

Customer Classification	Allocated Cost to Serve	Revenues	Increase/ (Decrease)
Residential	37.5%	38.3%	-2.1%
Commercial	41.3%	34.8%	18.6%
Industrial	8.8%	10.1%	-13.3%
Multi - Family	9.9%	14.4%	-31.4%
LaPrairie	<u>2.6%</u>	<u>2.4%</u>	<u>7.0%</u>
Total	100.0%	100.0%	0.0%



Cost-of-Service



As indicated above, GRPUC's existing class revenues do not exactly match the allocated cost to serve each class. Cost based rates are one of several goals in establishing rates. The relationship between allocated costs and revenues for each class should be considered, in addition to other rate related goals, in developing recommended rates.

Grand Rapids Public Utilities Commission
Functionalization of 2021 Test Year Revenue Requirements

	2021	<u>Production</u>	<u>Distribution</u>	<u>Customer</u>	<u>Revenue</u>	<u>Classification Basis</u>
REVENUE REQUIREMENT	<u>Test Year</u>					
OPERATING EXPENSES						
Production Operation						
WTP Operators Wages	127,657	127,657	-	-	-	100% production
WTP Operators Wages - OT	34,198	34,198	-	-	-	100% production
Other Operating Wages	-	-	-	-	-	100% production
Water Treatment Expense	114,018	114,018	-	-	-	100% production
Heating Fuel	-	-	-	-	-	100% production
Station Supplies and Expenses	4,031	4,031	-	-	-	100% production
Permits and Fees	3,893	3,893	-	-	-	100% production
Miscellaneous Production Expense	18,326	18,326	-	-	-	100% production
Power Purchased	195,190	195,190	-	-	-	100% production
Total Operation	497,314	497,314	-	-	-	
Production Maintenance						
WTP Buildings and Grounds	17,851	17,851	-	-	-	100% production
WTP HVAC System	54	54	-	-	-	100% production
Wellhouses	6,272	6,272	-	-	-	100% production
Wellhead Protection	-	-	-	-	-	100% production
Wells, Pumps and Mains	8,081	8,081	-	-	-	100% production
Maintenance of WTP Equipment	51,510	51,510	-	-	-	100% production
Maintenance of SCADA System - WTP	8,183	8,183	-	-	-	100% production
Underground Clearwell	-	-	-	-	-	100% production
Maintenance Inspections - WTP	2,381	2,381	-	-	-	100% production
Total Maintenance	94,333	94,333	-	-	-	
Distribution Operation						
Supervision and Engineering	43,108	-	43,108	-	-	100% distribution
Records (Mapping-Meters-Valves)	1,275	-	1,275	-	-	100% distribution
Maintenance Inspections	11,359	-	11,359	-	-	100% distribution
Thaw/Flush Hydrants, Mains, Services	8,054	-	8,054	-	-	100% distribution
Locating Expense	13,630	-	13,630	-	-	100% distribution
Service on Customer Premises	46,238	-	46,238	-	-	100% distribution
Mapping Expense	30,810	-	30,810	-	-	100% distribution
Small Tools Expense	3,465	-	3,465	-	-	100% distribution
Safety Expense	14,826	-	14,826	-	-	100% distribution
Seminar/Training Expense	20,365	-	20,365	-	-	100% distribution
Uniforms Expense	378	-	378	-	-	100% distribution
Miscellaneous Meetings	-	-	-	-	-	NA
Rentals	2	-	2	-	-	100% distribution
Stores Expense (Labor)	24,981	-	24,981	-	-	100% distribution
Total Distribution Operation	218,492	-	218,492	-	-	
Distribution Maintenance						
Towers and Tanks	16,298	-	16,298	-	-	100% distribution
Elevated Tank Control System	371	-	371	-	-	100% distribution
Booster Pump (21st St SW)	2,538	-	2,538	-	-	100% distribution
Booster Station	25	-	25	-	-	100% distribution
Mains and Hydrants	93,944	-	93,944	-	-	100% distribution
Services	43,923	-	43,923	-	-	100% distribution
Meters and Meter Installations	6,396	-	6,396	-	-	100% distribution
Miscellaneous Distribution Expense	5,320	-	5,320	-	-	100% distribution
Total Distribution Maintenance	168,816	-	168,816	-	-	
Other						
Truck Expense - Operation	(2,658)	-	(2,658)	-	-	100% distribution
Total Other	(2,658)	-	(2,658)	-	-	
Customer Accounting						
Supervision	26,434	-	-	26,434	-	100% customer
Meter Reading	2,426	-	-	2,426	-	100% customer
Customer Billing and Accounting	95,918	-	-	95,918	-	100% customer
Collecting Expense	-	-	-	-	-	NA

Grand Rapids Public Utilities Commission
Functionalization of 2021 Test Year Revenue Requirements

REVENUE REQUIREMENT	2021	<u>Production</u>	<u>Distribution</u>	<u>Customer</u>	<u>Revenue</u>	<u>Classification Basis</u>
	<u>Test Year</u>					
Miscellaneous Expense	(1,847)	-	-	(1,847)	-	100% customer
Miscellaneous Customer Information	-	-	-	-	-	NA
Total Customer Accounting	122,931	-	-	122,931	-	
Administrative and General Expenses						
Administrative & General Salaries	57,101	28,196	15,790	13,115	-	labor
Commissioner Salaries	2,680	1,324	741	616	-	labor
City Treasurer Salary	165	81	46	38	-	labor
General Office Supplies and Phone	8,407	4,151	2,325	1,931	-	labor
Accounting Outside Service	6,594	3,256	1,823	1,514	-	labor
Data Processing Outside Service	24,036	11,869	6,647	5,521	-	labor
Legal Outside Service	3,741	1,847	1,035	859	-	labor
Engineering Outside Service	3,400	1,679	940	781	-	labor
Other Outside Service	229	113	63	52	-	labor
Fiber Optic Outside Service	-	-	-	-	-	NA
Insurance - Fire	6,166	1,668	4,498	-	-	plant in service
Insurance - Liability	4,096	1,108	2,988	-	-	plant in service
Insurance - Worker's Compensation	11,369	5,614	3,144	2,611	-	labor
Insurance - Worker's Comp Deductible	-	-	-	-	-	NA
Insurance - Auto	572	155	417	-	-	plant in service
Insurance - Miscellaneous	539	146	393	-	-	plant in service
Insurance Claims - Injuries & Damages	9,980	4,928	2,760	2,292	-	labor
Insurance - Group Health	114,281	56,430	31,603	26,248	-	labor
Insurance - Group Health Co-insurance	-	-	-	-	-	NA
Insurance - Group Health HSA funding	27,980	13,816	7,737	6,426	-	labor
Insurance - Group Life	1,009	498	279	232	-	labor
Employee Assistance Programs	-	-	-	-	-	NA
Insurance - Group Dental	5,888	2,907	1,628	1,352	-	labor
Insurance - Third Party Admin Costs	276	136	76	63	-	labor
FICA	-	-	-	-	-	NA
PERA	(45,566)	(22,500)	(12,601)	(10,466)	-	labor
Paid Time Off	80,058	39,531	22,139	18,388	-	labor
Extended Illness Benefit	8,287	4,092	2,292	1,903	-	labor
Short-Term Disability Payments	-	-	-	-	-	NA
Disability Insurance	2,871	1,418	794	659	-	labor
Unemployment Compensation	-	-	-	-	-	NA
Lump Sum Payments	-	-	-	-	-	NA
Miscellaneous General Expense	(1,170)	(578)	(324)	(269)	-	labor
Maintenance of General Plant	2,922	1,443	808	671	-	labor
Total Administrative and General	335,909	163,327	98,043	74,539	-	
Depreciation	331,343	89,624	241,718	-	-	plant in service
Amortization	974	263	710	-	-	plant in service
Total Operating Expenses	1,767,453	844,861	725,122	197,470	-	

Grand Rapids Public Utilities Commission
Functionalization of 2021 Test Year Revenue Requirements

REVENUE REQUIREMENT	2021 <u>Test Year</u>	<u>Production</u>	<u>Distribution</u>	<u>Customer</u>	<u>Revenue</u>	<u>Classification Basis</u>
Non Operating Revenues (Expenses)						
Interest expense	(22,826)	(6,174)	(16,652)	-	-	plant in service
Bond fees - long term debt	(992)	(268)	(724)	-	-	plant in service
Total Non-Operating Revenues (Expenses)	(23,819)	(6,443)	(17,376)	-	-	
Other Operating Revenues (Expenses)						
Service Connections	20,953	-	20,953	-	-	100% distribution
Permit Fees	1,680	-	-	-	1,680	100% revenue
Thawing Service	960	-	960	-	-	100% distribution
Water Shutoff Fees	-	-	-	-	-	NA
Merchandising and Jobbing (Net)	1,285	-	-	-	1,285	100% revenue
City of Grand Rapids Jobbing (Net)	-	-	-	-	-	NA
City of LaPrairie Jobbing (Net)	2,437	-	-	-	2,437	100% revenue
Equipment Rental Revenue	-	-	-	-	-	NA
Service Center	(20,513)	-	-	-	(20,513)	100% revenue
Lease revenues combined service center	3,265	-	-	-	3,265	100% revenue
Antenna Rental Revenue	194,341	-	-	-	194,341	100% revenue
Miscellaneous Income	11,988	-	-	-	11,988	100% revenue
Total Other Operating Revenues	216,395	-	21,913	-	194,482	
Margin	165,296	-	-	-	165,296	100% revenue
Total Revenue Requirement	\$ 1,740,172	\$ 851,304	\$ 720,585	\$ 197,470	\$ (29,186)	

**Grand Rapids Public Utilities Commission
2021 Test Year Water Production Classification**

	2021			
REVENUE REQUIREMENT	<u>Test Year</u>	<u>Demand</u>	<u>Commodity</u>	<u>Classification Basis</u>
OPERATING EXPENSES				
Production Operation				
WTP Operators Wages	127,657	127,657	-	100% demand
WTP Operators Wages - OT	34,198	34,198	-	100% demand
Other Operating Wages	-	-	-	100% demand
Water Treatment Expense	114,018	-	114,018	100% commodity
Heating Fuel	-	-	-	NA
Station Supplies and Expenses	4,031	4,031	-	100% demand
Permits and Fees	3,893	3,893	-	100% demand
Miscellaneous Production Expense	18,326	18,326	-	100% demand
Power Purchased	<u>195,190</u>	<u>-</u>	<u>195,190</u>	100% commodity
Total Operation	497,314	188,106	309,208	
Production Maintenance				
WTP Buildings and Grounds	17,851	17,851	-	100% demand
WTP HVAC System	54	54	-	100% demand
Wellhouses	6,272	6,272	-	100% demand
Wellhead Protection	-	-	-	100% demand
Wells, Pumps and Mains	8,081	8,081	-	100% demand
Maintenance of WTP Equipment	51,510	-	51,510	100% commodity
Maintenance of SCADA System - WTP	8,183	8,183	-	100% demand
Underground Clearwell	-	-	-	NA
Maintenance Inspections - WTP	<u>2,381</u>	<u>2,381</u>	<u>-</u>	100% demand
Total Maintenance	94,333	42,822	51,510	
Distribution Operation				
Supervision and Engineering	-	-	-	NA
Records (Mapping-Meters-Valves)	-	-	-	NA
Maintenance Inspections	-	-	-	NA
Thaw/Flush Hydrants, Mains, Services	-	-	-	NA
Locating Expense	-	-	-	NA
Service on Customer Premises	-	-	-	NA
Mapping Expense	-	-	-	NA
Small Tools Expense	-	-	-	NA
Safety Expense	-	-	-	NA
Seminar/Training Expense	-	-	-	NA
Uniforms Expense	-	-	-	NA
Miscellaneous Meetings	-	-	-	NA
Rentals	-	-	-	NA
Stores Expense (Labor)	<u>-</u>	<u>-</u>	<u>-</u>	NA
Total Distribution Operation	-	-	-	
Distribution Maintenance				
Towers and Tanks	-	-	-	NA
Elevated Tank Control System	-	-	-	NA
Booster Pump (21st St SW)	-	-	-	NA
Booster Station	-	-	-	NA
Mains and Hydrants	-	-	-	NA

Grand Rapids Public Utilities Commission
2021 Test Year Water Production Classification

	2021			
REVENUE REQUIREMENT	<u>Test Year</u>	<u>Demand</u>	<u>Commodity</u>	<u>Classification Basis</u>
Services	-	-	-	NA
Meters and Meter Installations	-	-	-	NA
Miscellaneous Distribution Expense	-	-	-	NA
Total Distribution Maintenance	-	-	-	
Other				
Truck Expense - Operation	-	-	-	NA
Total Other	-	-	-	
Customer Accounting				
Supervision	-	-	-	NA
Meter Reading	-	-	-	NA
Customer Billing and Accounting	-	-	-	NA
Collecting Expense	-	-	-	NA
Miscellaneous Expense	-	-	-	NA
Miscellaneous Customer Information	-	-	-	NA
Total Customer Accounting	-	-	-	
Administrative and General Expenses				
Administrative & General Salaries	28,196	28,196	-	100% demand
Commissioner Salaries	1,324	1,324	-	100% demand
City Treasurer Salary	81	81	-	100% demand
General Office Supplies and Phone	4,151	4,151	-	100% demand
Accounting Outside Service	3,256	3,256	-	100% demand
Data Processing Outside Service	11,869	11,869	-	100% demand
Legal Outside Service	1,847	1,847	-	100% demand
Engineering Outside Service	1,679	1,679	-	100% demand
Other Outside Service	113	113	-	100% demand
Fiber Optic Outside Service	-	-	-	NA
Insurance - Fire	1,668	1,668	-	100% demand
Insurance - Liability	1,108	1,108	-	100% demand
Insurance - Worker's Compensation	5,614	5,614	-	100% demand
Insurance - Worker's Comp Deductible	-	-	-	NA
Insurance - Auto	155	155	-	100% demand
Insurance - Miscellaneous	146	146	-	100% demand
Insurance Claims - Injuries & Damages	4,928	4,928	-	100% demand
Insurance - Group Health	56,430	56,430	-	100% demand
Insurance - Group Health Co-insurance	-	-	-	NA
Insurance - Group Health HSA funding	13,816	13,816	-	100% demand
Insurance - Group Life	498	498	-	100% demand
Employee Assistance Programs	-	-	-	NA
Insurance - Group Dental	2,907	2,907	-	100% demand
Insurance - Third Party Admin Costs	136	136	-	100% demand
FICA	-	-	-	NA
PERA	(22,500)	(22,500)	-	100% demand
Paid Time Off	39,531	39,531	-	100% demand
Extended Illness Benefit	4,092	4,092	-	100% demand
Short-Term Disability Payments	-	-	-	NA

**Grand Rapids Public Utilities Commission
2021 Test Year Water Production Classification**

	2021			
REVENUE REQUIREMENT	<u>Test Year</u>	<u>Demand</u>	<u>Commodity</u>	<u>Classification Basis</u>
Disability Insurance	1,418	1,418	-	100% demand
Unemployment Compensation	-	-	-	NA
Lump Sum Payments	-	-	-	NA
Miscellaneous General Expense	(578)	(578)	-	100% demand
Maintenance of General Plant	1,443	1,443	-	100% demand
Total Administrative and General	163,327	163,327	-	
 Depreciation	 89,624	 89,624	 -	 100% demand
Amortization	263	263	-	100% demand
Total Operating Expenses	844,861	484,143	360,719	
 Non Operating Revenues (Expenses)				
Interest expense	(6,174)	(6,174)	-	100% demand
Bond fees - long term debt	(268)	(268)	-	100% demand
Total Non-Operating Revenues (Expenses)	(6,443)	(6,443)	-	
 Other Operating Revenues (Expenses)				
Service Connections	-	-	-	NA
Permit Fees	-	-	-	NA
Thawing Service	-	-	-	NA
Water Shutoff Fees	-	-	-	NA
Merchandising and Jobbing (Net)	-	-	-	NA
City of Grand Rapids Jobbing (Net)	-	-	-	NA
City of LaPrairie Jobbing (Net)	-	-	-	NA
Equipment Rental Revenue	-	-	-	NA
Service Center	-	-	-	NA
Lease revenues combined service center	-	-	-	NA
Antenna Rental Revenue	-	-	-	NA
Miscellaneous Income	-	-	-	NA
Total Other Operating Revenues	-	-	-	
 Margin	 -	 -	 -	 NA
 Total Revenue Requirement	 \$ 851,304	 \$ 490,586	 \$ 360,719	

Grand Rapids Public Utilities Commission
2021 Test Year Distribution Classification

	<u>2021</u>	<u>Demand</u>	<u>Customer</u>	<u>Classification Basis</u>
REVENUE REQUIREMENT	<u>Test Year</u>		<u>Facilities</u>	
OPERATING EXPENSES				
Production Operation				
WTP Operators Wages	-	-	-	NA
WTP Operators Wages - OT	-	-	-	NA
Other Operating Wages	-	-	-	NA
Water Treatment Expense	-	-	-	NA
Heating Fuel	-	-	-	NA
Station Supplies and Expenses	-	-	-	NA
Permits and Fees	-	-	-	NA
Miscellaneous Production Expense	-	-	-	NA
Power Purchased	-	-	-	NA
Total Operation	-	-	-	
Production Maintenance				
WTP Buildings and Grounds	-	-	-	NA
WTP HVAC System	-	-	-	NA
Wellhouses	-	-	-	NA
Wellhead Protection	-	-	-	NA
Wells, Pumps and Mains	-	-	-	NA
Maintenance of WTP Equipment	-	-	-	NA
Maintenance of SCADA System - WTP	-	-	-	NA
Underground Clearwell	-	-	-	NA
Maintenance Inspections - WTP	-	-	-	NA
Total Maintenance	-	-	-	
Distribution Operation				
Supervision and Engineering	43,108	43,108	-	100% Dist demand
Records (Mapping-Meters-Valves)	1,275	1,275	-	100% Dist demand
Maintenance Inspections	11,359	11,359	-	100% Dist demand
Thaw/Flush Hydrants, Mains, Services	8,054	5,674	2,380	Dist/Cust split
Locating Expense	13,630	-	13,630	100% Cust facilities
Service on Customer Premises	46,238	-	46,238	100% Cust facilities
Mapping Expense	30,810	30,810	-	100% Dist demand
Small Tools Expense	3,465	3,465	-	100% Dist demand
Safety Expense	14,826	14,826	-	100% Dist demand
Seminar/Training Expense	20,365	20,365	-	100% Dist demand
Uniforms Expense	378	378	-	100% Dist demand
Miscellaneous Meetings	-	-	-	NA
Rentals	2	2	-	100% Dist demand
Stores Expense (Labor)	24,981	24,981	-	100% Dist demand
Total Distribution Operation	218,492	156,244	62,248	
Distribution Maintenance				
Towers and Tanks	16,298	16,298	-	100% Dist demand
Elevated Tank Control System	371	371	-	100% Dist demand
Booster Pump (21st St SW)	2,538	2,538	-	100% Dist demand
Booster Station	25	25	-	100% Dist demand
Mains and Hydrants	93,944	66,179	27,766	Dist/Cust split
Services	43,923	-	43,923	100% Cust facilities

**Grand Rapids Public Utilities Commission
2021 Test Year Distribution Classification**

	<u>2021</u> <u>Test Year</u>	<u>Demand</u>	<u>Customer</u> <u>Facilities</u>	<u>Classification Basis</u>
REVENUE REQUIREMENT				
Meters and Meter Installations	6,396	-	6,396	100% Cust facilities
Miscellaneous Distribution Expense	5,320	5,320	-	100% Dist demand
Total Distribution Maintenance	168,816	90,731	78,085	
Other				
Truck Expense - Operation	(2,658)	(1,872)	(786)	Dist/Cust split
Total Other	(2,658)	(1,872)	(786)	
Customer Accounting				
Supervision	-	-	-	NA
Meter Reading	-	-	-	NA
Customer Billing and Accounting	-	-	-	NA
Collecting Expense	-	-	-	NA
Miscellaneous Expense	-	-	-	NA
Miscellaneous Customer Information	-	-	-	NA
Total Customer Accounting	-	-	-	
Administrative and General Expenses				
Administrative & General Salaries	15,790	11,610	4,180	labor
Commissioner Salaries	741	545	196	labor
City Treasurer Salary	46	34	12	labor
General Office Supplies and Phone	2,325	1,709	615	labor
Accounting Outside Service	1,823	1,285	539	Dist/Cust split
Data Processing Outside Service	6,647	4,682	1,964	Dist/Cust split
Legal Outside Service	1,035	729	306	Dist/Cust split
Engineering Outside Service	940	662	278	Dist/Cust split
Other Outside Service	63	45	19	Dist/Cust split
Fiber Optic Outside Service	-	-	-	NA
Insurance - Fire	4,498	3,169	1,329	Dist/Cust split
Insurance - Liability	2,988	2,105	883	Dist/Cust split
Insurance - Worker's Compensation	3,144	2,312	832	labor
Insurance - Worker's Comp Deductible	-	-	-	labor
Insurance - Auto	417	307	111	labor
Insurance - Miscellaneous	393	289	104	labor
Insurance Claims - Injuries & Damages	2,760	2,029	731	labor
Insurance - Group Health	31,603	23,236	8,366	labor
Insurance - Group Health Co-insurance	-	-	-	labor
Insurance - Group Health HSA funding	7,737	5,689	2,048	labor
Insurance - Group Life	279	205	74	labor
Employee Assistance Programs	-	-	-	labor
Insurance - Group Dental	1,628	1,197	431	labor
Insurance - Third Party Admin Costs	76	56	20	labor
FICA	-	-	-	NA
PERA	(12,601)	(9,265)	(3,336)	labor
Paid Time Off	22,139	16,278	5,861	labor
Extended Illness Benefit	2,292	1,685	607	labor
Short-Term Disability Payments	-	-	-	NA
Disability Insurance	794	584	210	labor
Unemployment Compensation	-	-	-	NA

Grand Rapids Public Utilities Commission
2021 Test Year Distribution Classification

	2021 <u>Test Year</u>	<u>Demand</u>	<u>Customer Facilities</u>	<u>Classification Basis</u>
REVENUE REQUIREMENT				
Lump Sum Payments	-	-	-	NA
Miscellaneous General Expense	(324)	(228)	(96)	Dist/Cust split
Maintenance of General Plant	808	569	239	Dist/Cust split
Total Administrative and General	98,043	71,518	26,525	
Depreciation	241,718	170,278	71,441	Dist/Cust split
Amortization	710	500	210	Dist/Cust split
Total Operating Expenses	725,122	487,398	237,723	
Non Operating Revenues (Expenses)				
Interest expense	(16,652)	(11,731)	(4,922)	Dist/Cust split
Bond fees - long term debt	(724)	(510)	(214)	Dist/Cust split
Total Non-Operating Revenues (Expenses)	(17,376)	(12,240)	(5,136)	
Other Operating Revenues (Expenses)				
Service Connections	20,953	-	20,953	100% Cust facilities
Permit Fees	-	-	-	NA
Thawing Service	960	-	960	100% Cust facilities
Water Shutoff Fees	-	-	-	NA
Merchandising and Jobbing (Net)	-	-	-	NA
City of Grand Rapids Jobbing (Net)	-	-	-	NA
City of LaPrairie Jobbing (Net)	-	-	-	NA
Equipment Rental Revenue	-	-	-	NA
Service Center	-	-	-	NA
Lease revenues combined service center	-	-	-	NA
Antenna Rental Revenue	-	-	-	NA
Miscellaneous Income	-	-	-	NA
Total Other Operating Revenues	21,913	-	21,913	
Margin	-	-	-	NA
Total Revenue Requirement	\$ 720,585	\$ 499,639	\$ 220,946	

Grand Rapids Public Utilities Commission
2021 Test Year Customer Classification

REVENUE REQUIREMENT	2021 <u>Test Year</u>	<u>Customer</u>	<u>Classification Basis</u>
OPERATING EXPENSES			
Production Operation			
WTP Operators Wages	-	-	100% Customer
WTP Operators Wages - OT	-	-	100% Customer
Other Operating Wages	-	-	100% Customer
Water Treatment Expense	-	-	100% Customer
Heating Fuel	-	-	100% Customer
Station Supplies and Expenses	-	-	100% Customer
Permits and Fees	-	-	100% Customer
Miscellaneous Production Expense	-	-	100% Customer
Power Purchased	-	-	100% Customer
	-	-	
Total Operation	-	-	
Production Maintenance			
WTP Buildings and Grounds	-	-	100% Customer
WTP HVAC System	-	-	100% Customer
Wellhouses	-	-	100% Customer
Wellhead Protection	-	-	100% Customer
Wells, Pumps and Mains	-	-	100% Customer
Maintenance of WTP Equipment	-	-	100% Customer
Maintenance of SCADA System - WTP	-	-	100% Customer
Underground Clearwell	-	-	100% Customer
Maintenance Inspections - WTP	-	-	100% Customer
	-	-	
Total Maintenance	-	-	
Distribution Operation			
Supervision and Engineering	-	-	100% Customer
Records (Mapping-Meters-Valves)	-	-	100% Customer
Maintenance Inspections	-	-	100% Customer
Thaw/Flush Hydrants, Mains, Services	-	-	100% Customer
Locating Expense	-	-	100% Customer
Service on Customer Premises	-	-	100% Customer
Mapping Expense	-	-	100% Customer
Small Tools Expense	-	-	100% Customer
Safety Expense	-	-	100% Customer
Seminar/Training Expense	-	-	100% Customer
Uniforms Expense	-	-	100% Customer
Miscellaneous Meetings	-	-	100% Customer
Rentals	-	-	100% Customer
Stores Expense (Labor)	-	-	100% Customer
	-	-	
Total Distribution Operation	-	-	
Distribution Maintenance			
Towers and Tanks	-	-	100% Customer
Elevated Tank Control System	-	-	100% Customer

Grand Rapids Public Utilities Commission 2021 Test Year Customer Classification

	2021		
REVENUE REQUIREMENT	<u>Test Year</u>	<u>Customer</u>	<u>Classification Basis</u>
Booster Pump (21st St SW)	-	-	100% Customer
Booster Station	-	-	100% Customer
Mains and Hydrants	-	-	100% Customer
Services	-	-	100% Customer
Meters and Meter Installations	-	-	100% Customer
Miscellaneous Distribution Expense	-	-	100% Customer
Total Distribution Maintenance	-	-	
Other			
Truck Expense - Operation	-	-	100% Customer
Total Other	-	-	
Customer Accounting			
Supervision	26,434	26,434	100% Customer
Meter Reading	2,426	2,426	100% Customer
Customer Billing and Accounting	95,918	95,918	100% Customer
Collecting Expense	-	-	100% Customer
Miscellaneous Expense	(1,847)	(1,847)	100% Customer
Miscellaneous Customer Information	-	-	100% Customer
Total Customer Accounting	122,931	122,931	
Administrative and General Expenses			
Administrative & General Salaries	13,115	13,115	100% Customer
Commissioner Salaries	616	616	100% Customer
City Treasurer Salary	38	38	100% Customer
General Office Supplies and Phone	1,931	1,931	100% Customer
Accounting Outside Service	1,514	1,514	100% Customer
Data Processing Outside Service	5,521	5,521	100% Customer
Legal Outside Service	859	859	100% Customer
Engineering Outside Service	781	781	100% Customer
Other Outside Service	52	52	100% Customer
Fiber Optic Outside Service	-	-	100% Customer
Insurance - Fire	-	-	100% Customer
Insurance - Liability	-	-	100% Customer
Insurance - Worker's Compensation	2,611	2,611	100% Customer
Insurance - Worker's Comp Deductible	-	-	100% Customer
Insurance - Auto	-	-	100% Customer
Insurance - Miscellaneous	-	-	100% Customer
Insurance Claims - Injuries & Damages	2,292	2,292	100% Customer
Insurance - Group Health	26,248	26,248	100% Customer
Insurance - Group Health Co-insurance	-	-	100% Customer
Insurance - Group Health HSA funding	6,426	6,426	100% Customer
Insurance - Group Life	232	232	100% Customer
Employee Assistance Programs	-	-	100% Customer
Insurance - Group Dental	1,352	1,352	100% Customer

**Grand Rapids Public Utilities Commission
2021 Test Year Customer Classification**

REVENUE REQUIREMENT	2021 <u>Test Year</u>	<u>Customer</u>	<u>Classification Basis</u>
Insurance - Third Party Admin Costs	63	63	100% Customer
FICA	-	-	100% Customer
PERA	(10,466)	(10,466)	100% Customer
Paid Time Off	18,388	18,388	100% Customer
Extended Illness Benefit	1,903	1,903	100% Customer
Short-Term Disability Payments	-	-	100% Customer
Disability Insurance	659	659	100% Customer
Unemployment Compensation	-	-	100% Customer
Lump Sum Payments	-	-	100% Customer
Miscellaneous General Expense	(269)	(269)	100% Customer
Maintenance of General Plant	<u>671</u>	<u>671</u>	100% Customer
Total Administrative and General	74,539	74,539	
Depreciation	-	-	100% Customer
Amortization	-	-	100% Customer
Total Operating Expenses	197,470	197,470	
Non Operating Revenues (Expenses)			
Interest expense	-	-	100% Customer
Bond fees - long term debt	<u>-</u>	<u>-</u>	100% Customer
Total Non-Operating Revenues (Expenses)	-	-	
Other Operating Revenues (Expenses)			
Service Connections	-	-	100% Customer
Permit Fees	-	-	100% Customer
Thawing Service	-	-	100% Customer
Water Shutoff Fees	-	-	100% Customer
Merchandising and Jobbing (Net)	-	-	100% Customer
City of Grand Rapids Jobbing (Net)	-	-	100% Customer
City of LaPrairie Jobbing (Net)	-	-	100% Customer
Equipment Rental Revenue	-	-	100% Customer
Service Center	-	-	100% Customer
Lease revenues combined service center	-	-	100% Customer
Antenna Rental Revenue	-	-	100% Customer
Miscellaneous Income	<u>-</u>	<u>-</u>	100% Customer
Total Other Operating Revenues	-	-	
Margin	-	-	100% Customer
Total Revenue Requirement	\$ 197,470	\$ 197,470	

Grand Rapids Public Utilities Commission 2021 Test Year Allocation Factors

	<u>Total</u>	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>	<u>Multi - Family</u>	<u>LaPrairie</u>
Demand Allocation Factors						
System Peak Day - gallons	1,533	449	731	146	167	40
SPD	100.0%	29.3%	47.7%	9.5%	10.9%	2.6%
Class Peak Day - gallons	1,884	573	731	332	167	83
CPD	100.0%	30.4%	38.8%	17.6%	8.8%	4.4%
Class Peak Hour - gallons	131	50	53	10	14	4
CPH	100.0%	37.9%	40.4%	7.7%	10.9%	3.1%
Energy Allocation Factors						
Commodity - gallons	324,695	100,617	128,988	44,479	40,187	10,424
C	100.0%	31.0%	39.7%	13.7%	12.4%	3.2%
Customers						
Number of Customers	3,287	2,581	582	6	116	2
Equivalent Meter Weight		1.005	4.338	29.667	2.500	46.3
Customer Service Weight		1.0	2.0	50.0	2.0	20.0
Equivalent Meters						
Weighted Number of Cust	5,680	2,595	2,525	178	290	93
EM	100.0%	45.7%	44.5%	3.1%	5.1%	1.6%
Customer Service Allocation Factor						
Weighted Number of Cust	4,317	2,581	1,164	300	232	40
CS	100.0%	59.8%	27.0%	6.9%	5.4%	0.9%
Revenue Allocator						
Sum of Other Rev Reqs	1,769,358	663,861	730,408	155,208	174,346	45,536
R	100.0%	37.5%	41.3%	8.8%	9.9%	2.6%

Grand Rapids Public Utilities Commission 2021 Test Year Allocation of Revenue Requirements

	<u>Total</u>	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>	<u>Multi - Family</u>	<u>LaPrairie</u>	<u>Allocation Factor</u>
<u>Plant</u>							
Demand	490,586	143,741	233,956	46,751	53,295	12,842	SPD
Commodity	360,719	111,780	143,299	49,414	44,646	11,580	C
Total Power Supply	851,304	255,521	377,255	96,165	97,941	24,423	
<u>Distribution</u>							
Demand	499,639	189,353	201,692	38,396	54,512	15,685	CPH
Customer Facilities	220,946	100,926	98,216	6,924	11,281	3,598	EM
Total Distribution	720,585	290,279	299,909	45,320	65,793	19,284	
<u>Customer</u>							
Customer Service	197,470	118,061	53,244	13,723	10,612	1,830	CS
Total Customer Facility	197,470	118,061	53,244	13,723	10,612	1,830	
<u>Revenue</u>							
Other Operating Revenue	(194,482)	(72,970)	(80,284)	(17,060)	(19,164)	(5,005)	R
Margin	165,296	62,019	68,236	14,500	16,288	4,254	R
Total Revenue	(29,186)	(10,951)	(12,048)	(2,560)	(2,876)	(751)	
Total Revenue Requirements	1,740,172	652,911	718,359	152,648	171,470	44,785	
Total Revenues	1,740,172	666,661	605,610	176,054	249,974	41,873	
Percent Revenue Requirements	100.0%	37.5%	41.3%	8.8%	9.9%	2.6%	
Percent Revenues	100.0%	38.3%	34.8%	10.1%	14.4%	2.4%	
Percent Change	0.0%	-2.1%	18.6%	-13.3%	-31.4%	7.0%	
Revenue Req/unit	5.359	6.489	5.569	3.432	4.267	4.296	
Revenue/unit	5.359	6.626	4.695	3.958	6.220	4.017	

Section 4

Proposed Rates

Changes to rates are generally based on the overall need for revenues and results of the cost-of-service analyses. The projected operating results at existing rates as presented in Section 2 of this report outline the overall revenue needs of the water utility. Section 3 summarizes the cost-of-service results. These factors have been considered in developing the proposed rates summarized in this section of the report.

Proposed Rates

Revenue Needs

In Section 2, it shows that GRPUC's projected annual change in water net income, assuming continuation of the existing retail rates, decreases from 0.1% in 2022 to **negative** 39.3% in 2027. GRPUC's projected cash reserves decline from \$1.1 million to **negative** \$3.9 million by the end of the Study Period. For the water utility, a series of annual 10% rate increases are recommended for 2023 through 2027.

Cost of Service Considerations

The results of the water cost-of-service analysis in Section 3 indicate that there are subsidies from Multi-Family and Industrial customers to Commercial customers and the City LaPrairie. Rate increases for different groups of customers vary based on the cost-of-service results. Table 4-1 shows the average rate increases by customer class and for the total system through the Study Period.

Section 4

Table 4-1
Average Annual Rate Increases

Customer Class	Avg Increase
Residential	10.0%
Commercial	12.5%
Industrial	8.1%
Multi-Family	4.7%
LaPrairie	10.4%
Total System	10.0%

Recommended Rates

Exhibit 4-A shows the existing and recommended water rates by customer class for each year from 2023-2027.

Projected Operating Results – Proposed Rates

Based on the proposed rates outlined above, the resulting projected operating results are summarized below in Table 4-2. A summary presentation of the operating results is shown in Exhibit 4-B.

Proposed Rates

Table 4-2
Projected Operating Results
Proposed Rates

Year	2022	2023	2024	2025	2026	2027
Operating Revenues	\$1,917,471	\$2,104,403	\$2,314,504	\$2,548,847	\$2,810,666	\$3,103,141
Less Operating Expenses	(1,857,320)	(1,924,009)	(2,188,640)	(2,309,776)	(2,422,246)	(2,536,321)
Less Non -Operating Expenses	<u>(58,171)</u>	<u>(69,105)</u>	<u>(293,836)</u>	<u>(288,518)</u>	<u>(279,975)</u>	<u>(274,149)</u>
Net Income	\$1,980	\$111,289	\$(167,972)	\$(49,447)	\$108,444	\$292,670
Net Income as Percent of Revenues	0.1%	5.3%	-7.3%	-1.9%	3.9%	9.4%

Cash Reserves

A summary of the impact of the projected operating results with the proposed rate adjustments on GRPUC's cash reserves for the Study Period is shown at the end of Exhibit 4-B and in Table 4-3 below. As shown below, with the recommended increases, the reserve levels in 2027 increase from **negative** 194% of operating revenue to **negative** 14% of operating revenue. This represents an increase of \$3.5 million.

Section 4

Table 4-3
Projected Cash Reserves
Proposed Rates

Year	2022	2023	2024	2025	2026	2027
Beginning Balance	\$1,087,187	\$178,992	\$(689,700)	\$619,768	\$(21,990)	\$(391,611)
Plus Net Income	1,980	111,289	(167,972)	(49,447)	108,444	292,670
Less Capital Improvements	(452,761)	(6,005,500)	(1,363,575)	(973,580)	(912,511)	(1,274,000)
Less ERP Project Costs	-	(80,833)	-	-	-	-
Plus Depreciation	332,035	347,127	547,310	592,763	625,216	654,633
Plus State Grants	-	-	2,500,000	-	-	-
Plus Available Bond Funds	-	4,850,000	-	-	-	-
Less Existing Debt Principal	(789,450)	(90,775)	(94,100)	(94,250)	(68,250)	(71,500)
Less New Debt Principal	-	-	<u>(112,195)</u>	<u>(117,244)</u>	<u>(122,520)</u>	<u>(128,033)</u>
Ending Balance	\$178,992	\$(689,700)	\$619,768	\$(21,990)	\$(391,611)	\$(917,842)
Reserves as % of Operating Revenue	9.3%	-32.8%	26.8%	-0.9%	-13.9%	-29.6%

Proposed Rates

Residential Bill Impact

Table 4-4 below summarizes the impact on monthly bills for different size residential customers. An average GRPUC residential customer consumes approximately 3000 gallons per month. For that average size customer, the first year bill increase is \$2.01 per month. For all customer usages shown, the annual increases are 10% through 2027.

Table 4-4
Monthly Water Bill Comparisons

Residential Usage (gallons)	2,000	3,000	6,000
Current Rate	\$16.25	\$20.04	\$33.39
2023 Proposed	17.88	22.05	36.74
2024 Proposed	19.67	24.26	40.43
2025 Proposed	21.64	26.69	44.48
2026 Proposed	23.81	29.37	48.95
2027 Proposed	26.20	32.32	53.86

Grand Rapids Public Utilities Commission
Existing and Proposed Rates

Exhibit Item 2.

Class	Current Rate	2023 Proposed Rate	2024 Proposed Rate	2025 Proposed Rate	2026 Proposed Rate	2027 Proposed Rate
Customer Charges						
Residential/Commercial/Industrial						
5/8-3/4 inch	8.67	9.54	10.49	11.54	12.69	13.96
1 inch	12.08	13.29	14.62	16.08	17.69	19.46
1 1/4 inch	13.87	15.26	16.79	18.47	20.32	22.35
1 1/2 inch	15.54	17.10	18.81	20.69	22.76	25.04
2 inch	25.12	27.63	30.39	33.43	36.77	40.45
3 inch	95.13	104.64	115.10	126.61	139.27	153.20
4 inch	121.01	133.11	146.42	161.06	177.17	194.89
6 inch	181.58	199.74	219.71	241.68	265.85	292.44
Multi-Family						
Unit Charge	5.20	5.46	5.73	6.02	6.32	6.64
Customer charge	3.47	3.82	4.20	4.62	5.08	5.59
Commodity Charges						
Residential						
0-4,000	3.79	4.17	4.59	5.05	5.56	6.12
4,000-8,000	4.78	5.26	5.79	6.37	7.01	7.71
8,000-30,000	5.99	6.59	7.25	7.98	8.78	9.66
over 30,000	9.57	10.53	11.58	12.74	14.01	15.41
Commercial						
0-40,000	3.33	3.77	4.27	4.84	5.48	6.21
40,000-400,000	4.11	4.66	5.28	5.98	6.78	7.68
over 400,000	5.25	5.95	6.74	7.64	8.66	9.81
Industrial						
0-400,000	3.33	3.60	3.89	4.20	4.54	4.90
over 400,000	4.11	4.44	4.80	5.18	5.59	6.04
Multi-Family						
0-4,000 per unit	3.79	3.98	4.18	4.39	4.61	4.84
4,000-8,000 per unit	4.78	5.02	5.27	5.53	5.81	6.10
8,000-30,000 per unit	5.99	6.29	6.60	6.93	7.28	7.64
over 30,000 per unit	9.57	10.05	10.55	11.08	11.63	12.21
Rural Industrial (LaPrairie)						
0-400,000	3.33	3.68	4.07	4.50	4.97	5.49
over 400,000	4.11	4.54	5.02	5.55	6.13	6.77

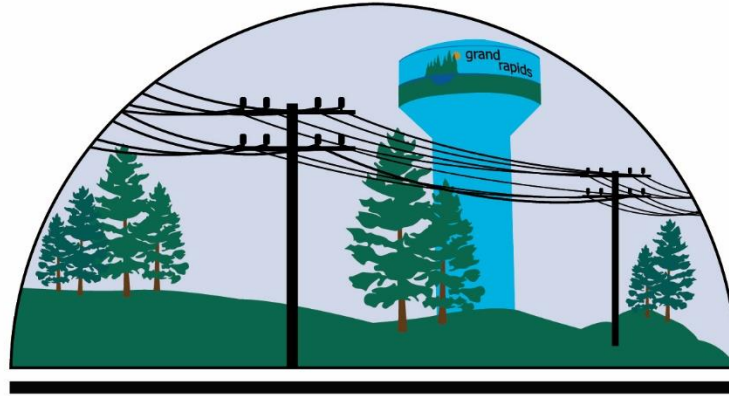
**Grand Rapids Public Utilities Commission
Water Operating Results at Proposed Rates**

	Historical					Projected					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
OPERATING REVENUES											
Utility Revenues											
City sales	\$ 1,465,307	\$ 1,453,122	\$ 1,543,505	\$ 1,531,862	\$ 1,633,096	\$ 1,626,338	\$ 1,803,592	\$ 2,003,554	\$ 2,227,090	\$ 2,477,411	\$ 2,757,578
Rural sales	34,796	30,816	34,744	35,249	37,877	38,616	43,243	48,231	53,784	59,923	66,764
Total Utility Revenues	\$ 1,500,103	\$ 1,483,938	\$ 1,578,249	\$ 1,567,111	\$ 1,670,973	\$ 1,664,954	\$ 1,846,835	\$ 2,051,785	\$ 2,280,874	\$ 2,537,334	\$ 2,824,342
Other Operating Revenues											
Miscellaneous service	\$ 184,560	\$ 219,813	\$ 247,799	\$ 209,774	\$ 213,862	\$ 252,517	\$ 257,568	\$ 262,719	\$ 267,973	\$ 273,332	\$ 278,799
Penalties	5,307	5,564	5,492	1,157	1,676	-	-	-	-	-	-
Total Operating Revenues	\$ 1,689,970	\$ 1,709,315	\$ 1,831,540	\$ 1,778,042	\$ 1,886,511	\$ 1,917,471	\$ 2,104,403	\$ 2,314,504	\$ 2,548,847	\$ 2,810,666	\$ 3,103,141
OPERATING EXPENSES											
Production											
Operations											
Supervision and engineering	\$ -	\$ 5,468	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operators wages	141,248	144,538	152,676	158,636	161,855	182,512	187,987	197,387	207,256	217,619	228,500
Water treatment expense	91,516	96,407	89,041	111,014	114,019	101,460	106,533	109,729	113,021	116,411	119,904
Station Supplies and Expenses						2,325	2,441	2,514	2,590	2,668	2,748
Permits and Fees						3,900	4,095	4,218	4,344	4,475	4,609
Miscellaneous Production Expense						15,000	15,750	16,223	16,709	17,210	17,727
Power purchased	164,487	167,067	169,964	168,760	195,190	166,570	174,899	180,145	185,550	191,116	196,850
Other	18,360	16,251	22,818	18,573	26,250	-	-	-	-	-	-
Maintenance											
Supervision	15,232	8,404	209	-	-	-	-	-	-	-	-
WTP buildings and grounds	13,609	7,904	10,565	6,761	17,906	18,600	19,530	20,116	20,719	21,341	21,981
WTP HVAC System						1,000	1,050	1,082	1,114	1,147	1,182
Wellhouses						4,500	4,725	4,867	5,013	5,163	5,318
Wellhead protection						1,000	1,050	1,082	1,114	1,147	1,182
Wells, pumps, mains	4,150	3,678	4,577	6,009	14,353	2,400	2,520	2,596	2,673	2,754	2,836
Maintenance of WTP equipment	37,707	32,868	40,549	62,363	51,511	60,490	66,015	67,995	70,035	72,136	74,300
Maintenance of SCADA System						8,040	11,442	8,785	9,049	9,320	9,600
Underground Clearwell						5,500	5,775	5,948	6,127	6,310	6,500
DCS	7,154	7,037	7,922	6,954	8,183	-	-	-	-	-	-
Inspections	9,231	6,975	10,594	4,630	2,381	3,504	6,679	8,940	9,208	9,484	9,769
Total Production Expenses	\$ 502,694	\$ 496,597	\$ 508,915	\$ 543,700	\$ 591,648	\$ 576,801	\$ 612,491	\$ 631,625	\$ 654,522	\$ 678,303	\$ 703,004
Distribution											
Operations											
Supervision and engineering	\$ 17,899	\$ 10,045	\$ 27,437	\$ 29,361	\$ 43,108	38,593	39,751	41,738	43,825	46,016	48,317
Records	17,561	13,282	4,714	10,527	1,275	4,800	5,040	5,191	5,347	5,507	5,673
Inspections	1,289	-	619	6,325	11,359	9,000	17,950	18,489	19,043	19,614	20,203
Thaw and flush hydrants, etc.	376	10,005	18,499	4,932	8,054	11,700	12,285	12,654	13,033	13,424	13,827
Locating expense	-	-	15,686	21,105	13,630	21,000	21,630	22,712	23,847	25,039	26,291
Service on customer premises	6,195	8,841	21,008	7,372	46,238	21,996	22,656	23,789	24,978	26,227	27,538
Mapping	10,459	18,877	28,554	30,799	30,810	34,272	35,300	37,065	38,918	40,864	42,908
Small tools	2,672	2,440	1,665	3,412	3,465	2,400	6,920	2,728	2,809	2,894	2,981
Safety	3,674	9,408	5,683	9,000	14,826	16,500	16,995	17,845	18,737	19,674	20,658
Seminar/training	18,907	20,102	19,287	14,211	20,365	19,200	19,776	20,765	21,803	22,893	24,038
Uniforms Expense						300	315	324	334	344	355
Other	(4,253)	139	79	57	378	-	-	-	-	-	-
Stores	12,323	12,905	837	15,074	24,983	14,255	14,683	15,417	16,188	16,997	17,847
Maintenance											
Towers and tanks	57,562	50,438	3,076	8,573	16,669	5,000	5,250	5,408	5,570	5,737	5,909
Elevated Tank Control System						2,400	2,520	2,596	2,673	2,754	2,836

**Grand Rapids Public Utilities Commission
Water Operating Results at Proposed Rates**

	Historical					Projected					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Booster Pump						2,130	2,237	2,304	2,373	2,444	2,517
Booster station	106	372	705	303	2,563	500	525	541	557	574	591
Mains and hydrants	128,861	182,080	108,480	138,680	93,945	232,000	200,000	206,000	212,180	218,545	225,102
Services	25,327	10,046	18,326	9,019	43,923	46,000	29,925	30,823	31,747	32,700	33,681
Meters	4,621	5,249	(367)	(2,553)	8,584	2,400	6,972	7,321	7,687	8,071	8,475
Other	10,042	3,060	472	147	5,320	-	-	-	-	-	-
Total Distribution Expenses	\$ 313,621	\$ 357,289	\$ 274,760	\$ 306,344	\$ 389,495	\$ 484,446	\$ 460,729	\$ 473,706	\$ 491,650	\$ 510,319	\$ 529,745
Other Operating Expenses											
Customer accounts expense	\$ 90,247	\$ 92,884	\$ 101,017	\$ 88,418	\$ 122,931	\$ 91,935	\$ 94,710	\$ 99,428	\$ 104,382	\$ 109,584	\$ 115,044
Administrative and general	322,604	336,698	330,815	320,734	335,912	372,103	408,953	436,570	466,459	498,825	533,895
Depreciation - water	272,370	293,004	305,680	325,827	331,343	331,035	346,127	546,310	591,763	624,216	654,633
Depreciation - other	16,395	16,519	15,984	17,288	17,727	-	-	-	-	-	-
Amortization - intangibles	5,948	5,868	5,457	4,786	4,852	1,000	1,000	1,000	1,000	1,000	-
Service center	22,098	17,749	21,258	18,027	20,513	-	-	-	-	-	-
Total Other Operating Expenses	\$ 729,662	\$ 762,722	\$ 780,211	\$ 775,080	\$ 833,278	\$ 796,073	\$ 850,789	\$ 1,083,309	\$ 1,163,604	\$ 1,233,624	\$ 1,303,572
Total Operating Expenses	\$ 1,545,977	\$ 1,616,608	\$ 1,563,886	\$ 1,625,124	\$ 1,814,421	\$ 1,857,320	\$ 1,924,009	\$ 2,188,640	\$ 2,309,776	\$ 2,422,246	\$ 2,536,321
NET OPERATING INCOME	\$ 143,993	\$ 92,707	\$ 267,654	\$ 152,918	\$ 72,090	\$ 60,151	\$ 180,394	\$ 125,864	\$ 239,071	\$ 388,420	\$ 566,820
NON-OPERATING INCOME (EXPENSES)											
Gain (loss) on property disposition	\$ 3,000	\$ -	\$ (105,172)	\$ 1,125	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties	-	-	-	-	-	12,085	11,400	11,400	11,400	11,400	11,400
Bond fees	(342)	(606)	(533)	(1,132)	(992)	(500)	(500)	(500)	(500)	(500)	(500)
Amortization of debt premiums and discounts	(271)	(271)	(271)	(974)	(974)	-	-	-	-	-	-
Amortization of regulatory asset	(703)	(703)	(703)	-	(642)	-	-	-	-	-	-
Interest expense - customer deposits	(4,347)	(4,208)	(1,295)	-	-	(1,140)	(1,140)	(1,140)	(1,140)	(1,140)	(1,140)
Interest expense - existing debt	(34,300)	(32,639)	(31,242)	(28,771)	(28,643)	(12,818)	(18,964)	(17,063)	(15,113)	(13,114)	(11,018)
Interest expense - new debt (1)	-	-	-	-	-	-	-	(225,000)	(219,951)	(214,675)	(209,162)
Lease revenues combined service center	20,927	2,983	5,845	4,794	3,265	5,113	3,600	3,600	3,600	3,600	3,600
CSC Building/Grounds expenses	-	-	-	-	-	(60,910)	(63,501)	(65,133)	(66,815)	(65,546)	(67,330)
Total Non-Operating Revenues (Expenses)	\$ (16,036)	\$ (35,444)	\$ (133,371)	\$ (24,958)	\$ (27,986)	\$ (58,171)	\$ (69,105)	\$ (293,836)	\$ (288,518)	\$ (279,975)	\$ (274,149)
NET INCOME	\$ 127,957	\$ 57,263	\$ 134,283	\$ 127,960	\$ 44,104	\$ 1,980	\$ 111,289	\$ (167,972)	\$ (49,447)	\$ 108,444	\$ 292,670
as a percent of Operating Revenues	7.6%	3.4%	7.3%	7.2%	2.3%	0.1%	5.3%	-7.3%	-1.9%	3.9%	9.4%
CASH RESERVES											
Beginning of Year						\$ 1,087,187	\$ 178,992	\$ (689,700)	\$ 619,768	\$ (21,990)	\$ (391,611)
Plus Net Income						1,980	111,289	(167,972)	(49,447)	108,444	292,670
Less Capital Improvements						(452,761)	(6,005,500)	(1,363,575)	(973,580)	(912,511)	(1,274,000)
Less ERP Project Costs						-	(80,833)	-	-	-	-
Plus Depreciation						332,035	347,127	547,310	592,763	625,216	654,633
Plus State Grant Funds						-	-	2,500,000	-	-	-
Plus Available Bond Funds						-	4,850,000	-	-	-	-
Less Debt Service Principal						(789,450)	(90,775)	(94,100)	(94,250)	(68,250)	(71,500)
Less New Debt Principal (1)						-	-	(112,195)	(117,244)	(122,520)	(128,033)
End of Year					\$ 1,087,187	\$ 178,992	\$ (689,700)	\$ 619,768	\$ (21,990)	\$ (391,611)	\$ (917,842)
As a percent of revenue					57.6%	9.3%	-32.8%	26.8%	-0.9%	-13.9%	-29.6%

(1) Assumes \$5.0 million bond issue in late FY 2023



**GRAND RAPIDS
PUBLIC UTILITIES**
Service is Our Nature

**ELECTRIC COST OF SERVICE AND
RATE DESIGN STUDY**

Draft Report

November 23, 2022



REPORT OUTLINE

Cover Letter

Section 1 - Introduction

Section 2 – Projected Operating Results – Existing Rates

Section 3 – Cost of Service

Section 4 – Proposed Rates

November 29, 2022

Grand Rapids Public Utilities Commission

500 SE 4th Street
Grand Rapids, MN 55744

Subject: Electric Rate Study

Commission Members:

Dave Berg Consulting, LLC has undertaken a study of the retail rates GRPUC charges its customers for electric service. This report summarizes the analyses undertaken and the resulting recommendations for changes to the existing rates.

The new wholesale contract with MP which became effective 1/1/22 has a significant impact on the overall results. Based on the analyses undertaken, no significant changes in existing retail rates are recommended. A redesign of the purchased power adjustment will impact overall customer bills. Based on the new PPAC calculation, which was altered to better reflect the new wholesale contract, overall average bills for customers in 2023 will be reduced by approximately 6.5% from 2022. There are some small changes recommended for certain rates as detailed in Section 4 of the report, these are also made to reflect the new wholesale contract.

Thank you for the opportunity to be of service to GRPUC through the conduct of this study. I wish to express my appreciation for the valuable assistance I received from GRPUC staff relative to the execution of this study.

Sincerely,

Dave Berg Consulting, LLC

David A. Berg, PE
Principal

Section 1

Introduction

The City of Grand Rapids, MN owns and operates a municipal electric utility providing service to approximately 7400 residential, commercial, industrial and lighting customers. The electric utility operates under the direction of the Grand Rapids Public Utilities Commission (GRPUC). This report has been prepared by Dave Berg Consulting, LLC to examine the rates and charges for electric service in Grand Rapids. The study includes an examination of the allocated cost of service based on a 2021 'Test Year.' It also includes projected operating results for 2022-2027 (Study Period). As a result of the analyses undertaken and reported on herein, new proposed electric rates have been recommended for implementation by Grand Rapids.

Section 2

Projected Operating Results

Existing Rates

The rates charged for electric services by GRPUC, combined with other operating and non-operating revenues, must be sufficient to meet the cost of providing services to GRPUC's retail customers. This is necessary to ensure the long-term financial health of GRPUC. The cost of providing services consists of normal operating expenses such as wholesale power purchases, local distribution, customer and administrative functions, capital improvements and contributions to the City of Grand Rapids and other non-operating expenses.

An analysis of the operating results for GRPUC during the 2022-2027 Study Period has been performed assuming the current retail rates and charges remain in effect through the Study Period. This analysis has been done to determine the overall need, if any, for additional revenue through rates to meet projected revenue requirements. The analyses and assumptions utilized in these projections are explained below.

Estimated Revenues – Existing Rates

Retail Sales

GRPUC sells retail power and energy to residential, commercial, and industrial customers. The majority of these customers are located within the City of Grand Rapids, however GRPUC does serve certain residential and commercial customers in rural areas outside the City limits. GRPUC also has special rates for sales to heating and cooling, load management and security lighting classes of customers. GRPUC has been experiencing moderate growth in total retail sales to its customers. For the Study Period, 1% annual growth in total sales has been assumed after 2022. Also, the addition of an 800-kW demand billed customer has been assumed in 2023.

Section 2

GRPUC offsets certain wholesale costs through its Purchased Power Adjustment Clause (PPAC) which automatically adjusts retail electric bills based on certain adjustments on the monthly wholesale bills from Minnesota Power. These adjustments are outside GRPUC's control and difficult to predict. The PPAC ensures that the results of these variable wholesale cost adjustments are properly passed through to retail electric customers.

Exhibit 2-A is a detailed listing of GRPUC's historical and projected operating results at existing rates. The historical and projected revenues from retail sales of power and energy plus the PPAC pass-through are included at the beginning of the exhibit under Utility Revenues.

Other Operating Revenues

GRPUC also receives revenue from other normal operating procedures. These other operating revenues include certain charges made for services not based on power and energy sales. These revenues are shown in Exhibit 2-A as Other Operating Revenues. Utility Revenues combined with Other Operating Revenues result in GRPUC's Total Operating Revenues.

Revenue Requirements

Purchased Power

GRPUC purchases all of its wholesale power and energy requirements from Minnesota Power under the terms of a wholesale power contract. Purchased power is the largest single operating expense for GRPUC. In 2021 a new agreement was negotiated and signed with Minnesota Power. That contract went into effect January 1, 2022. As explained above, GRPUC makes an adjustment to its retail bills through use of a PPAC for certain wholesale power costs. The new contract impacts that calculation. In the first year of the new contract, GRPUC set the PPAC adjustment at \$0.01583/kWh. For future years in the Study Period, the PPAC was calculated utilizing the existing PPAC

Projected Operating Results – Existing Rates

formula. Table 2-1 lists the PPAC rates for each year as included in the projections. The new contract with Minnesota Power necessitates revisiting the PPAC formula, that is addressed in Section 4 of this report.

**Table 2-1
Retail PPAC**

Year	Rate (\$/kWh)
2022	0.01583
2023	0.00865
2024	0.01072
2025	0.01279
2026	0.01486
2027	0.01693

Total wholesale power cost projections are based on the rates contained in the new Minnesota Power contract.

Other Operating Expenses

GRPUC incurs other operating expenses associated with local electric system operations. Distribution operating and maintenance expenses are related to the substations, overhead and underground lines and customer facilities located in Grand Rapids. Customer accounting expenses are required for reading meters, sending and processing bills and dealing with customer inquiries. To meet state mandated requirements, GRPUC must make conservation improvement program investments with a goal of reducing electric consumption. Administrative and general expenses cover utility management, employee benefits, training and other administrative costs. Other operating expenses for the Study Period have been based on Study Period budgets provided by GRPUC.

Section 2

Depreciation

GRPUC has annual depreciation and amortization costs based on its system investments. Depreciation during the Study Period is based on existing plant in service plus an amount for new capital improvements. Depreciation is a funded non-cash expense that generates monies available for annual capital improvements, debt principal payments and reserves.

Non-operating Income (Expenses)

GRPUC's non-operating income and expenses are associated with investment income, penalties, interest expenses, and costs and revenues associated with the combined service center.

Payment in Lieu of Taxes

GRPUC makes an annual payment in lieu of taxes ('PILOT') to the City of Grand Rapids. The payment is calculated as the maximum of \$.005 per kWh sold the previous year or \$871,701. Based on this formula, the PILOT has been assumed to be a flat payment of \$871,701 per year through the Study Period.

Capital Improvements

GRPUC makes annual capital investments in its electric system. The electric utility also pays a share of improvements to the combined service center. The combined capital improvements for the electric utility are shown in Table 2-2 below.

Projected Operating Results – Existing Rates

Table 2-2
Capital Improvements

Capital Item	2022	2023	2024	2025	2026	2027
Electric Capital	\$804,968	\$873,290	\$864,440	\$870,440	\$871,440	\$873,440
Service Center Capital	<u>\$145,639</u>	<u>\$303,550</u>	<u>\$65,000</u>	<u>\$13,000</u>	<u>\$13,000</u>	<u>\$13,000</u>
Total	\$950,607	\$1,176,840	\$929,440	\$883,440	\$884,440	\$886,440

Debt Service

GRPUC has annual debt principal payments. The last payment on this debt is scheduled for 2025.

Loss of Revenue Payment to Lake Country Power

GRPUC acquired electric service territory from Lake Country Power (LCP). As part of that acquisition, the annual loss of revenue payment is made to LCP for sales to customers in those areas. The loss of revenue payment has been assumed to be approximately \$78,000 per year.

Projected Operating Results – Existing Rates

Based on the assumptions outlined above, the resulting projected operating results assuming continued application of the existing retail rates is summarized in Table 2-3. A detailed presentation of the operating results is shown in Exhibit 2-A.

Section 2

Table 2-3
Projected Operating Results
Existing Rates

Year	2022	2023	2024	2025	2026	2027
Operating Revenues	\$19,061,765	\$18,448,198	\$18,977,138	\$19,515,558	\$20,064,303	\$20,624,106
Less Operating Expenses	(15,133,717)	(16,471,822)	(17,535,707)	(18,642,543)	(19,600,947)	(20,298,209)
Less Non -Operating Expenses	<u>(1,075,942)</u>	<u>(1,045,042)</u>	<u>(1,044,661)</u>	<u>(1,047,838)</u>	<u>(1,047,100)</u>	<u>(1,065,454)</u>
Net Income	2,852,105	931,335	396,769	(174,823)	(583,744)	(739,557)
Net Income as Percent of Revenues	15.0%	5.0%	2.1%	-0.9%	-2.9%	-3.6%

Cash Reserves

A summary of the impact of the projected operating results on GRPUC's cash reserves is shown at the end of Exhibit 2-A and in Table 2-4 below. A projected strong net income in 2022 is projected to increase the cash balance from \$1.5 million to \$4.0 million (21.2% of operating revenues) at the end of 2022. For 2023 through 2027 the cash balance is projected to decrease annually to \$3.4 million or 16.3 percent of operating revenues.

Projected Operating Results – Existing Rates

Table 2-4
Projected Cash Reserves
Existing Rates

Year	2022	2023	2024	2025	2026	2027
Beginning Balance	\$1,520,146	\$4,118,902	\$4,521,158	\$4,755,960	\$4,495,451	\$3,990,969
Plus Net Income	2,852,105	931,335	396,769	(174,823)	(583,744)	(739,557)
Less Capital Improvements	(950,607)	(1,176,840)	(929,440)	(883,440)	(884,440)	(886,440)
Less ERP Proj Costs	-	(80,833)	-	-	-	-
Plus Deprec/Amort	910,382	942,069	981,297	1,012,278	1,041,726	1,071,208
Less Debt Principal	(135,100)	(135,450)	(135,800)	(136,500)	-	-
Less LCP Payment	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>
Ending Balance	\$4,118,902	\$4,521,158	\$4,755,960	\$4,495,451	\$3,990,969	\$3,358,155
As a percent of revenue	21.6%	24.5%	25.1%	23.0%	19.9%	16.3%

**Grand Rapids Public Utilities Commission
Electric Operating Results at Existing Rates**

	Historical					Projected					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
OPERATING REVENUES											
Utility Revenues											
City residential	\$ 3,496,976	\$ 3,848,068	\$ 3,821,527	\$ 4,142,608	\$ 4,311,259	\$ 4,485,931	\$ 4,571,803	\$ 4,631,250	\$ 4,691,535	\$ 4,752,623	\$ 4,814,576
City commercial and demand & energy	9,790,884	9,051,114	9,189,588	8,874,782	9,411,411	9,880,460	10,394,294	10,510,369	10,628,022	10,747,276	10,868,611
Rural residential	1,023,159	1,136,791	1,125,900	1,182,228	1,213,463	1,251,841	1,261,106	1,261,114	1,261,114	1,261,114	1,261,114
Rural commercial and demand & energy	544,806	569,994	583,743	563,487	626,763	639,013	643,016	643,097	643,097	643,097	643,097
Security lighting	57,566	55,300	56,412	60,075	61,567	61,371	60,994	60,994	60,994	60,994	60,994
Total Retail Sales	\$ 14,913,391	\$ 14,661,267	\$ 14,777,170	\$ 14,823,180	\$ 15,624,463	\$ 16,318,615	\$ 16,931,212	\$ 17,106,824	\$ 17,284,762	\$ 17,465,103	\$ 17,648,392
Purchased power adjustment passthrough	693,130	612,842	436,847	400,954	2,401,457	2,631,811	1,405,647	1,758,975	2,119,457	2,487,860	2,864,374
Total Utility Revenues	\$ 15,606,521	\$ 15,274,109	\$ 15,214,017	\$ 15,224,134	\$ 18,025,920	\$ 18,950,426	\$ 18,336,859	\$ 18,865,799	\$ 19,404,219	\$ 19,952,964	\$ 20,512,767
Other Operating Revenues											
Pole rentals	\$ 16,715	\$ -	\$ 38,624	\$ 21,416	\$ 23,577	\$ 21,000	\$ 21,000	\$ 21,000	\$ 21,000	\$ 21,000	\$ 21,000
Other	176,275	95,315	119,168	75,804	148,569	90,339	90,339	90,339	90,339	90,339	90,339
Penalties	49,752	49,954	46,823	9,869	14,294	-	-	-	-	-	-
Total Operating Revenues	\$ 15,849,263	\$ 15,419,378	\$ 15,418,632	\$ 15,331,223	\$ 18,212,360	\$ 19,061,765	\$ 18,448,198	\$ 18,977,138	\$ 19,515,558	\$ 20,064,303	\$ 20,624,106
OPERATING EXPENSES											
Purchased Power	\$ 10,991,941	\$ 11,169,489	\$ 11,336,920	\$ 11,069,792	\$ 13,611,143	\$ 11,807,430	\$ 12,931,589	\$ 13,831,851	\$ 14,777,844	\$ 15,568,697	\$ 16,178,333
Distribution Operations											
Supervision and engineering	\$ 75,537	\$ 83,435	\$ 88,122	\$ 89,308	\$ 88,820	\$ 90,495	\$ 93,210	\$ 97,870	\$ 102,764	\$ 107,902	\$ 113,297
Crew Personnel						230,683	237,603	249,483	261,958	275,055	288,808
Substations	14,410	6,480	6,373	5,580	6,334	6,614	6,944	7,153	7,367	7,588	7,816
Overhead and underground lines	122,256	57,556	147,490	91,108	366,055	9,000	9,450	9,734	10,026	10,326	10,636
Locating Expense						48,000	50,400	51,912	53,469	55,073	56,726
Meters	103,488	21,751	74,041	79,910	75,208	-	-	-	-	-	-
Customer installations	43,143	21,941	14,714	13,129	22,802	-	-	-	-	-	-
Mapping	81,756	67,602	57,115	34,139	47,363	-	-	-	-	-	-
Small tools	31,520	22,379	15,027	17,833	30,801	28,000	29,400	30,282	31,190	32,126	33,090
Safety	21,887	18,731	12,098	29,396	30,613	17,000	17,850	18,386	18,937	19,505	20,090
Seminar/training	41,493	12,554	12,617	11,590	11,401	12,000	12,600	12,978	13,367	13,768	14,181
Uniforms Expense						11,000	11,550	11,897	12,253	12,621	13,000
Rentals						3,164	3,322	3,422	3,525	3,621	3,739
Stores	81,237	97,862	126,094	95,509	155,224	55,849	57,524	60,401	63,421	66,592	69,921
Distribution Maintenance											
Supervision and engineering	75,537	83,326	88,121	89,128	88,780	90,309	93,018	97,669	102,552	107,680	113,064
Crew Personnel						158,000	162,740	170,877	179,421	188,392	197,811
Locating expense	-	-	11,871	15,769	37,924	-	-	-	-	-	-
Substations	24,965	58,720	73,803	55,319	52,509	60,335	63,352	65,252	67,210	69,226	71,303
Overhead lines	139,379	122,630	177,900	174,777	236,987	22,000	23,100	23,793	24,507	25,242	25,999
Overhead Lines - Tree Trimming						80,000	150,000	154,500	159,135	163,909	80,000
Underground lines	93,839	56,368	43,292	98,188	22,259	16,000	16,800	17,304	17,823	18,358	18,909
Underground Lines - Locating						-	-	-	-	-	-
Line transformers	3,506	-	6,914	778	-	2,500	2,625	2,704	2,785	2,869	2,955
Security Lighting	284	4,375	-	1,173	5,047	-	-	-	-	-	-
Street lighting	-	-	-	2,158	-	-	-	-	-	-	-
Meters	1,320	11,890	2,316	4,168	42,513	500	525	541	557	574	591
Other	43,995	12,127	57,645	7,031	5,922	-	-	-	-	-	-
Total Distribution Expenses	\$ 999,552	\$ 759,727	\$ 1,015,553	\$ 915,991	\$ 1,326,562	\$ 941,448	\$ 1,042,014	\$ 1,086,156	\$ 1,132,267	\$ 1,180,437	\$ 1,141,937

**Grand Rapids Public Utilities Commission
Electric Operating Results at Existing Rates**

	Historical					Projected					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Other Operating Expenses											
Customer accounts expense	\$ 327,351	\$ 357,952	\$ 347,475	\$ 297,957	\$ 436,018	\$ 340,422	\$ 356,860	\$ 368,167	\$ 379,842	\$ 391,900	\$ 404,352
Conservation Improvement						119,701	119,701	119,701	119,701	119,701	119,701
Administrative and general	1,084,608	1,153,457	1,066,753	1,145,209	1,125,105	1,014,334	1,079,589	1,148,535	1,220,610	1,298,485	1,382,678
Depreciation - electric	909,967	881,083	879,575	1,123,497	933,748	908,137	939,824	979,052	1,010,033	1,039,481	1,068,962
Depreciation - other	98,367	99,113	95,904	103,727	106,360	-	-	-	-	-	-
Amortization - intangibles	50,025	49,995	47,935	43,533	45,181	2,245	2,245	2,245	2,245	2,245	2,245
Amortization - other	13,696	13,696	34,338	34,337	34,337	-	-	-	-	-	-
Service center	132,588	106,494	127,550	108,160	123,085	-	-	-	-	-	-
Total Other Operating Expenses	\$ 2,616,602	\$ 2,661,790	\$ 2,599,530	\$ 2,856,420	\$ 2,803,834	\$ 2,384,839	\$ 2,498,219	\$ 2,617,700	\$ 2,732,432	\$ 2,851,812	\$ 2,977,939
Total Operating Expenses	\$ 14,608,095	\$ 14,591,006	\$ 14,952,003	\$ 14,842,203	\$ 17,741,539	\$ 15,133,717	\$ 16,471,822	\$ 17,535,707	\$ 18,642,543	\$ 19,600,947	\$ 20,298,209
NET OPERATING INCOME	\$ 1,241,168	\$ 828,372	\$ 466,629	\$ 489,020	\$ 470,821	\$ 3,928,047	\$ 1,976,376	\$ 1,441,431	\$ 873,015	\$ 463,356	\$ 325,897
NON-OPERATING INCOME (EXPENSES)											
Investment income	\$ 38,310	\$ 26,473	\$ 50,825	\$ 30,745	\$ 15,667	\$ 30,225	\$ 81,897	\$ 89,895	\$ 94,564	\$ 89,384	\$ 79,354
Penalties	-	-	-	-	-	28,622	27,000	27,000	27,000	27,000	27,000
Gain (loss) on property disposition	(407,122)	4,474	11,650	(21,351)	(29,861)	-	-	-	-	-	-
Interest expense	(27,648)	(24,199)	(21,223)	-	(2,996)	(2,700)	(2,700)	(2,700)	(2,700)	(2,700)	(2,700)
Lease revenues combined service center	125,563	17,900	35,071	28,763	19,593	23,858	16,800	16,800	16,800	16,800	16,800
CSC Building/Grounds expenses	-	-	-	-	-	(284,247)	(296,339)	(303,956)	(311,802)	(305,883)	(314,207)
Grant revenue	-	-	-	145,672	84,329	-	-	-	-	-	-
City land improvements	-	-	-	-	(393,640)	-	-	-	-	-	-
Payment in lieu of taxes	(872,898)	(876,832)	(871,916)	(873,537)	(882,288)	(871,701)	(871,701)	(871,701)	(871,701)	(871,701)	(871,701)
Total Non-Operating Revenues (Expenses)	\$ (1,143,795)	\$ (852,184)	\$ (795,593)	\$ (689,708)	\$ (1,189,196)	\$ (1,075,942)	\$ (1,045,042)	\$ (1,044,661)	\$ (1,047,838)	\$ (1,047,100)	\$ (1,065,454)
NET INCOME	\$ 97,373	\$ (23,812)	\$ (328,964)	\$ (200,688)	\$ (718,375)	\$ 2,852,105	\$ 931,335	\$ 396,769	\$ (174,823)	\$ (583,744)	\$ (739,557)
as a percent of Operating Revenues	0.6%	-0.2%	-2.1%	-1.3%	-3.9%	15.0%	5.0%	2.1%	-0.9%	-2.9%	-3.6%
CASH RESERVES											
Beginning of Year						\$ 1,520,146	\$ 4,118,902	\$ 4,521,158	\$ 4,755,960	\$ 4,495,451	\$ 3,990,969
Plus Net Income						2,852,105	931,335	396,769	(174,823)	(583,744)	(739,557)
Less Capital Improvements						(950,607)	(1,176,840)	(929,440)	(883,440)	(884,440)	(886,440)
Less ERP Project Costs						-	(80,833)	-	-	-	-
Plus Depreciation/Amortization						910,382	942,069	981,297	1,012,278	1,041,726	1,071,208
Less Debt Service Principal						(135,100)	(135,450)	(135,800)	(136,500)	-	-
Less Loss of Revenue Payment to LCP						(78,024)	(78,024)	(78,024)	(78,024)	(78,024)	(78,024)
End of Year					\$ 1,520,146	\$ 4,118,902	\$ 4,521,158	\$ 4,755,960	\$ 4,495,451	\$ 3,990,969	\$ 3,358,155
As a percent of revenue					8.3%	21.6%	24.5%	25.1%	23.0%	19.9%	16.3%

Section 3

Cost-of-Service

A cost-of-service analysis was performed to determine the allocated cost to serve each of GRPUC's customer classes. Customer classes exist, in part, because the cost to serve various kinds of customers varies. The cost-of-service analysis has been performed on a 2021 'Test Year' based on actual 2021 financials, sales and purchases. The results of the cost-of-service study give an indication of the degree of revenue recovery warranted for each class of customers. A comparison of the allocated cost to serve a class of customers and the actual revenues received from that class is taken into consideration during rate design. The resulting unbundled cost analysis for each class is also useful as a basis for considering specific rate component levels in each class.

Functionalization of Costs

GRPUC's Test Year electric revenue requirements have been divided into four functional categories. These categories are described below.

Power Supply – the power supply function is related to the cost of GRPUC purchases from Minnesota Power and transmission expenses through MISO.

Distribution – distribution expenses are related to the GRPUC system for delivering power and energy to GRPUC customers. They include substation and distribution system costs.

Customer – these costs are fixed costs associated with the service facilities utilized to deliver electric power and energy directly to customers. They also include items such as meter reading, billing, collections and customer service.

Revenue – revenue related costs include certain non-operating revenues and utility margin.

Section 3

Table 3-1 below summarizes the functional electric costs for the adjusted 2021 Test Year. The detailed cost functions are shown in Exhibit 3-A.

Test Year Adjustments – GRPUC entered a new power purchase agreement with Minnesota Power effective 1/1/22. The power supply revenue requirement has been adjusted to represent 2021 wholesale billing units assuming the new 2022 wholesale rate structure.

Table 3-1
Functional Electric Costs
2021 Test Year

Component	Revenue Requirement
Power Supply (Modified)	\$11,444,987
Distribution	2,701,144
Customer	781,695
Revenue	<u>2,758,886</u>
Total	<u>\$17,686,712</u>

Classification of Costs

Within each function, the revenue requirements have been divided into distinct cost classifications. These cost classifications are described below.

Demand Related – demand related costs are fixed costs that do not vary with hourly energy consumption. Demand related costs are required to meet the overall demand of the system as expressed in kW.

Energy Related – energy related costs vary based on hourly consumption in kWh.

Cost-of-Service

Customer Related – costs related to serving, metering and billing of individual customers.

Revenue Related – revenue related costs vary by the amount of revenue received by the utility.

Exhibits 3-B through 3-D show the detailed classification of revenue requirements within the power supply, distribution and customer functions.

Allocation of Costs

Based on an analysis of customer class service characteristics derived from GRPUC AMI metering data, the classified costs summarized above were allocated to the major GRPUC customer classes. Allocation of costs was performed on a fully-distributed, embedded cost allocation basis. Specific allocation factors were utilized in each of the cost classification categories as described below. Exhibit 3-E contains a summary of the development of the various allocation factors.

Demand Allocations

Customer class demands on a system can be reflected in various ways. Two primary demand allocation types were utilized in this analysis. Coincident peaks represent a class' share of the overall system peak. GRPUC is billed monthly by MP based on the overall system peak. A 12 CP method, reflecting each class' contribution to each month's system peak, was employed for allocating the demand portion of the MP wholesale bill and MISO transmission charges. Non-coincident peaks reflect a class maximum demand regardless of when it occurs. The non-coincident peak is an indication of the amount of fixed local system required to serve individual groups of customers. A 1 NCP method, an estimate of each class' maximum annual demand on the system, was utilized for allocating local system demand related costs.

Section 3

Energy Allocations

Each class' share of energy requirements was used to allocate energy related costs. The predominant energy related cost is the energy portion of the MP wholesale power bill.

Customer Allocations

Two separate customer allocators were utilized. A sum of maximum demands allocator was used to allocate costs associated with the physical facilities required to serve individual customers such as service transformers, service drops and meters. The sum of maximum demands represents each individual customers' individual peak, regardless of when it occurs. The customer service allocator is for allocation of costs associated with customer service – meter reading, billing, collections and customer inquiries. For the customer service allocator, a weighted customer allocation factor is developed. Weighting factors are developed to represent the difference in service configurations between customer classifications. For instance, a single industrial customer requires more customer service than a single residential customer.

Revenue Allocations

Revenue related costs were allocated based on each class' share of total demand, energy, customer facility and customer service costs.

Cost of Service Results

Based on the classifications and allocations described above, the estimated cost to serve each major class of customers for the 2021 Test Year was determined. Exhibit 3-F presents this analysis in detail. Table 3-2 below summarizes the total allocated costs for each class compared to the total revenues received from the class during 2021.

Cost-of-Service

Table 3-2
Cost of Service Results
Comparison of Cost and Revenues
2021 Test Year

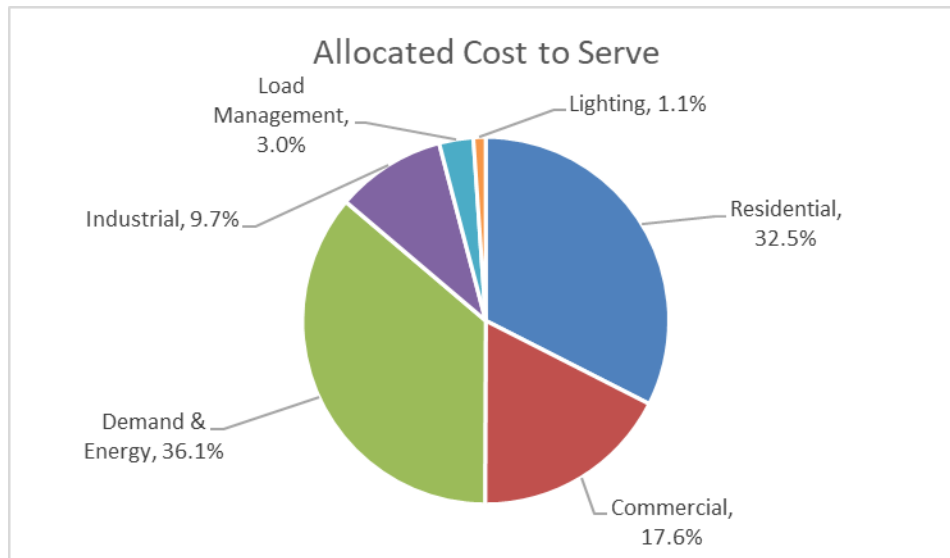
Customer Classification	Allocated Cost to Serve	Adjusted Revenues
Residential	\$5,745,628	\$6,032,191
Commercial	\$3,109,198	\$3,178,573
Demand & Energy	\$6,391,298	\$6,267,250
Industrial	\$1,716,082	\$1,653,087
Load Management	\$532,613	\$347,399
Lighting	<u>\$191,893</u>	<u>\$208,213</u>
Total	\$17,686,712	\$17,686,712

The revenue requirement as allocated to each class and summarized above is shown on a total dollars basis. Table 3-3 below makes the comparison based on percentages of total cost to serve and total revenues. The charts following Table 3-3 show a graphical comparison between allocated cost to serve and revenues as a percentage of the totals. The percentage increase/(decrease) in each class' revenue shown below is the adjustment necessary to produce revenues from each class in accordance with the allocated cost to serve. The percentage adjustments do not represent the recommended change in each class' rates. The cost-of-service results are one item for consideration in rate design. It is important to note also that the adjustments shown in the table below would not change the total revenue received by the utility and are not indicative of overall revenue needs of the utility going forward. Recommendations regarding rate design are included in Section 4 of this report. Very small classes at times do not lend themselves to the full cost-of-service analysis and the results shown, particularly for the security lights class, are often better considered separately.

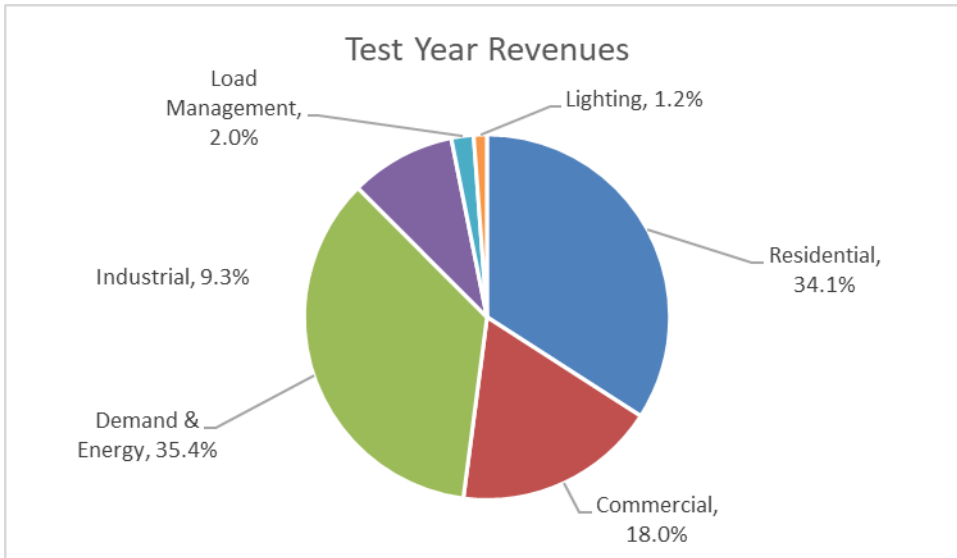
Section 3

**Table 3-3
Cost of Service Results
Comparison of % Cost and Revenues
2021 Test Year**

Customer Classification	Allocated Cost to Serve	Revenues	Increase/ (Decrease)
Residential	32.5%	34.1%	-4.8%
Commercial	17.6%	18.0%	-2.2%
Demand & Energy	36.1%	35.4%	2.0%
Industrial	9.7%	9.3%	3.8%
Load Management	3.0%	2.0%	53.3%
Lighting	<u>1.1%</u>	<u>1.2%</u>	<u>-7.8%</u>
Total	100.0%	100.0%	0.0%



Cost-of-Service



As indicated above, GRPUC’s existing class revenues do not exactly match the allocated cost to serve each class. However, for most classes the results are reasonably close (within 5%) and within an acceptable range. Cost based rates are one of several goals in establishing rates. The relationship between allocated costs and revenues for each class should be considered, in addition to other rate related goals, in developing recommended rates.

Grand Rapids Public Utilities Commission
Functionalization of 2021 Test Year Revenue Requirements

REVENUE REQUIREMENT	2021 <u>Test Year</u>	<u>Power Supply</u>	<u>Distribution</u>	<u>Customer</u>	<u>Revenue</u>	<u>Classification Basis</u>
Purchased Power						
MP Purchased Power (Modified)	11,258,673	11,258,673	-	-	-	100% power supply
Operation Expenses						
Supervision and Engineering	88,820	-	88,820	-	-	100% distribution
Substations	6,334	-	6,334	-	-	100% distribution
Overhead Lines	131,601	-	131,601	-	-	100% distribution
Underground Lines	231,225	-	231,225	-	-	100% distribution
Locating Expense	37,924	-	37,924	-	-	100% distribution
Street Lighting	3,176	-	3,176	-	-	100% distribution
Security Lighting	53	-	53	-	-	100% distribution
Meters	75,208	-	75,208	-	-	100% distribution
Customer Installations	22,802	-	22,802	-	-	100% distribution
Mapping Expense	47,363	-	47,363	-	-	100% distribution
Small Tools Expense	30,801	-	30,801	-	-	100% distribution
Safety Expense	30,613	-	30,613	-	-	100% distribution
Seminar/Training Expense	11,401	-	11,401	-	-	100% distribution
Uniforms Expense	12,681	-	12,681	-	-	100% distribution
Miscellaneous Meetings	40,838	-	40,838	-	-	100% distribution
Rentals	3,118	-	3,118	-	-	100% distribution
Stores Expense	98,587	-	98,587	-	-	100% distribution
Total Operation	872,545	-	872,545	-	-	
Maintenance Expenses						
Supervision and Engineering	88,780	-	88,780	-	-	100% distribution
Substation Structures	-	-	-	-	-	NA
Substations	52,509	-	52,509	-	-	100% distribution
Overhead Lines	118,101	-	118,101	-	-	100% distribution
Overhead Lines-Tree Trimming	64,555	-	64,555	-	-	100% distribution
Underground Lines	22,120	-	22,120	-	-	100% distribution
Underground Locates	139	-	139	-	-	100% distribution
Line Transformers	-	-	-	-	-	NA
Street Lighting	-	-	-	-	-	NA
Security Lighting	5,047	-	5,047	-	-	100% distribution
Meters	42,513	-	42,513	-	-	100% distribution
Other	-	-	-	-	-	NA
Total Maintenance	393,764	-	393,764	-	-	
Other Expenses						
Truck Expense - Operation	4,485	-	4,485	-	-	100% distribution
Total Other Expenses	4,485	-	4,485	-	-	
Customer Accounting Expenses						
Supervision	85,912	-	-	85,912	-	100% customer
Meter Reading	9,872	-	-	9,872	-	100% customer
Customer Billing and Accounting	311,734	-	-	311,734	-	100% customer
Collecting Expense	50	-	-	50	-	100% customer
Uncollectible Accounts	28,450	-	-	28,450	-	100% customer
Miscellaneous Expense	-	-	-	-	-	NA
Customer Service & Information Expense	-	-	-	-	-	NA
Miscellaneous Customer Information	-	-	-	-	-	NA
Total Customer Accounting	436,018	-	-	436,018	-	
Conservation Improvement Programs						
Planning & Evaluation	14,554	14,554	-	-	-	100% power supply
Energy Star Appliance	14,797	14,797	-	-	-	100% power supply
Fluorescent LT Recycling	-	-	-	-	-	NA
Resident/Low Income Conservation	3,821	3,821	-	-	-	100% power supply
Commercial Energy Audits	36,258	36,258	-	-	-	100% power supply
Commercial Industrial Power Grade	104,880	104,880	-	-	-	100% power supply
Load Mgmt Efficiency	-	-	-	-	-	NA

Grand Rapids Public Utilities Commission
Functionalization of 2021 Test Year Revenue Requirements

REVENUE REQUIREMENT	2021 Test Year	Power Supply	Distribution	Customer	Revenue	Classification Basis
Windsense - Admin Exp	-	-	-	-	-	NA
Education	12,004	12,004	-	-	-	100% power supply
Total Conservation Improvement	186,315	186,315	-	-	-	
Administrative and General Expenses						
Administrative & General Salaries	185,594	-	108,259	77,335	-	labor
Commissioner Salaries	8,712	-	5,082	3,630	-	labor
City Treasurer Salary	462	-	269	193	-	labor
General Office Supplies	14,520	-	8,470	6,050	-	labor
Telephone Expense	14,853	-	8,664	6,189	-	labor
Accounting Outside Service	18,463	-	10,770	7,693	-	labor
Data Processing Outside Service	61,628	-	35,949	25,680	-	labor
Legal Outside Service	11,517	-	6,718	4,799	-	labor
Engineering Outside Service	-	-	-	-	-	NA
Other Outside Service	7,070	-	4,124	2,946	-	labor
Fiber Optic Outside Service	-	-	-	-	-	NA
Insurance - Fire	2,415	-	2,415	-	-	100% distribution
Insurance - Liability	26,984	-	26,984	-	-	100% distribution
Insurance - Worker's Compensation	26,125	-	15,239	10,886	-	labor
Insurance - Worker's Comp Deductible	-	-	-	-	-	NA
Insurance - Auto	3,244	-	3,244	-	-	100% distribution
Insurance - Miscellaneous	1,320	-	1,320	-	-	100% distribution
Insurance Claims - Injuries & Damages	-	-	-	-	-	NA
Insurance - Group Health	242,071	-	141,203	100,869	-	labor
Insurance - Group Health Co-insurance	-	-	-	-	-	NA
Insurance - Group Health HSA funding	66,220	-	38,627	27,593	-	labor
Insurance - Group Life	2,395	-	1,397	998	-	labor
Employee Assistance Programs	-	-	-	-	-	NA
Insurance - Group Dental	13,164	-	7,679	5,485	-	labor
Insurance - Third Party Admin Costs	864	-	504	360	-	labor
FICA	-	-	-	-	-	NA
PERA	(107,211)	-	(62,537)	(44,674)	-	labor
Deferred Compensation	-	-	-	-	-	NA
Paid Time Off	215,649	-	125,790	89,859	-	labor
Extended Illness Benefit	10,845	-	6,326	4,519	-	labor
Short-Term Disability Payments	-	-	-	-	-	NA
Insurance - Long Term Disability	10,413	-	6,074	4,339	-	labor
Unemployment Compensation	-	-	-	-	-	NA
Membership - APPA	9,606	-	-	-	9,606	100% revenue
Membership - NEMPA	4,000	-	-	-	4,000	100% revenue
Membership - MMUA	30,426	-	-	-	30,426	100% revenue
Membership - NMMEA	-	-	-	-	-	NA
Membership - Other	-	-	-	-	-	NA
Amortize Service Territory Costs	34,337	-	-	-	34,337	100% revenue
Miscellaneous General Expense	8,067	-	4,706	3,362	-	labor
Office Equip Rental & Maintenance	10,965	-	6,396	4,569	-	labor
Maintenance of General Plant	-	-	-	-	-	NA
Total Administrative and General	934,720	-	513,670	342,681	78,369	
Depreciation	1,040,108	-	1,040,108	-	-	100% distribution
Amortization	79,518	-	79,518	-	-	100% distribution
Total Operating Expenses	15,206,145	11,444,987	2,904,090	778,699	78,369	

Grand Rapids Public Utilities Commission
Functionalization of 2021 Test Year Revenue Requirements

REVENUE REQUIREMENT	2021 <u>Test Year</u>	<u>Power Supply</u>	<u>Distribution</u>	<u>Customer</u>	<u>Revenue</u>	<u>Classification Basis</u>
Non Operating Revenues (Expenses)						
Investment income	15,667	-	-	-	15,667	100% revenue
Penalties	-	-	-	-	-	NA
Gain (loss) on property disposition	(29,861)	-	-	-	(29,861)	100% revenue
Interest expense	(2,996)	-	-	(2,996)	-	100% customer
Grant revenue	84,329	-	-	-	84,329	100% revenue
City land improvements	(393,640)	-	-	-	(393,640)	100% revenue
Total Non-Operating Revenues (Expenses)	(326,501)	-	-	(2,996)	(323,505)	
Other Operating Revenues (Expenses)						
Connection Fees	66,954	-	66,954	-	-	100% distribution
Reconnection Fees	4,980	-	4,980	-	-	100% distribution
Pole rentals	23,577	-	23,577	-	-	100% distribution
23 kV Capacity Lease	35,868	-	35,868	-	-	100% distribution
Merchandising and Jobbing	(226)	-	-	-	(226)	100% revenue
City of Grand Rapids Merch/Jobbing	360	-	-	-	360	100% revenue
Street Light Revenues	9,999	-	9,999	-	-	100% distribution
Equipment Rental	-	-	-	-	-	NA
AFUDC	-	-	-	-	-	NA
Miscellaneous	94,634	-	-	-	94,634	100% revenue
Security Lights	61,567	-	61,567	-	-	100% distribution
Service Center	(123,085)	-	-	-	(123,085)	100% revenue
Lease revenues combined service center	19,593	-	-	-	19,593	100% revenue
Unusual & Extraordinary Expense	54,331	-	-	-	54,331	100% revenue
Total Other Operating Revenues	248,553	-	202,945	-	45,607	
Payment in lieu of taxes	882,288	-	-	-	882,288	100% revenue
Margin	1,520,331	-	-	-	1,520,331	100% revenue
Total Revenue Requirement	\$ 17,686,712	\$ 11,444,987	\$ 2,701,144	\$ 781,695	\$ 2,758,886	

Grand Rapids Public Utilities Commission
2021 Test Year Power Supply Classification

REVENUE REQUIREMENT	2021 <u>Test Year</u>	Power Supply <u>Demand</u>	Transmission <u>Demand</u>	<u>Energy</u>	<u>Classification Basis</u>
Purchased Power					
MP Purchased Power (Modified)	11,258,673	1,982,838	2,356,067	6,919,767	per power supply
 Operation Expenses					
Supervision and Engineering	-	-	-	-	NA
Substations	-	-	-	-	NA
Overhead Lines	-	-	-	-	NA
Underground Lines	-	-	-	-	NA
Locating Expense	-	-	-	-	NA
Street Lighting	-	-	-	-	NA
Security Lighting	-	-	-	-	NA
Meters	-	-	-	-	NA
Customer Installations	-	-	-	-	NA
Mapping Expense	-	-	-	-	NA
Small Tools Expense	-	-	-	-	NA
Safety Expense	-	-	-	-	NA
Seminar/Training Expense	-	-	-	-	NA
Uniforms Expense	-	-	-	-	NA
Miscellaneous Meetings	-	-	-	-	NA
Rentals	-	-	-	-	NA
Stores Expense	-	-	-	-	NA
<u>Total Operation</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	NA
 Maintenance Expenses					
Supervision and Engineering	-				
Substation Structures	-	-	-	-	NA
Substations	-	-	-	-	NA
Overhead Lines	-	-	-	-	NA
Overhead Lines-Tree Trimming	-	-	-	-	NA
Underground Lines	-	-	-	-	NA
Underground Locates	-	-	-	-	NA
Line Transformers	-	-	-	-	NA
Street Lighting	-	-	-	-	NA
Security Lighting	-	-	-	-	NA
Meters	-	-	-	-	NA
Other	-	-	-	-	NA
<u>Total Maintenance</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	NA
 Other Expenses					
Truck Expense - Operation	-	-	-	-	NA
<u>Total Other Expenses</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	NA
 Customer Accounting Expenses					
Supervision	-	-	-	-	NA
Meter Reading	-	-	-	-	NA
Customer Billing and Accounting	-	-	-	-	NA
Collecting Expense	-	-	-	-	NA
Uncollectible Accounts	-	-	-	-	NA
Miscellaneous Expense	-	-	-	-	NA
Customer Service & Information Expense	-	-	-	-	NA
Miscellaneous Customer Information	-	-	-	-	NA
<u>Total Customer Accounting</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	

**Grand Rapids Public Utilities Commission
2021 Test Year Power Supply Classification**

REVENUE REQUIREMENT	2021 <u>Test Year</u>	Power Supply <u>Demand</u>	Transmission <u>Demand</u>	<u>Energy</u>	<u>Classification Basis</u>
Conservation Improvement Programs					
Planning & Evaluation	14,554	-	-	14,554	100% energy
Energy Star Appliance	14,797	-	-	14,797	100% energy
Fluorescent LT Recycling	-	-	-	-	NA
Resident/Low Income Conservation	3,821	-	-	3,821	100% energy
Commercial Energy Audits	36,258	-	-	36,258	100% energy
Commercial Industrial Power Grade	104,880	-	-	104,880	100% energy
Load Mgmt Efficiency	-	-	-	-	NA
Windsense - Admin Exp	-	-	-	-	NA
Education	12,004	-	-	12,004	100% energy
Total Conservation Improvement	186,315	-	-	186,315	
Administrative and General Expenses					
Administrative & General Salaries	-	-	-	-	NA
Commissioner Salaries	-	-	-	-	NA
City Treasurer Salary	-	-	-	-	NA
General Office Supplies	-	-	-	-	NA
Telephone Expense	-	-	-	-	NA
Accounting Outside Service	-	-	-	-	NA
Data Processing Outside Service	-	-	-	-	NA
Legal Outside Service	-	-	-	-	NA
Engineering Outside Service	-	-	-	-	NA
Other Outside Service	-	-	-	-	NA
Fiber Optic Outside Service	-	-	-	-	NA
Insurance - Fire	-	-	-	-	NA
Insurance - Liability	-	-	-	-	NA
Insurance - Worker's Compensation	-	-	-	-	NA
Insurance - Worker's Comp Deductible	-	-	-	-	NA
Insurance - Auto	-	-	-	-	NA
Insurance - Miscellaneous	-	-	-	-	NA
Insurance Claims - Injuries & Damages	-	-	-	-	NA
Insurance - Group Health	-	-	-	-	NA
Insurance - Group Health Co-insurance	-	-	-	-	NA
Insurance - Group Health HSA funding	-	-	-	-	NA
Insurance - Group Life	-	-	-	-	NA
Employee Assistance Programs	-	-	-	-	NA
Insurance - Group Dental	-	-	-	-	NA
Insurance - Third Party Admin Costs	-	-	-	-	NA
FICA	-	-	-	-	NA
PERA	-	-	-	-	NA
Deferred Compensation	-	-	-	-	NA
Paid Time Off	-	-	-	-	NA
Extended Illness Benefit	-	-	-	-	NA
Short-Term Disability Payments	-	-	-	-	NA
Insurance - Long Term Disability	-	-	-	-	NA
Unemployment Compensation	-	-	-	-	NA
Membership - APPA	-	-	-	-	NA
Membership - NEMPA	-	-	-	-	NA
Membership - MMUA	-	-	-	-	NA
Membership - NMMEA	-	-	-	-	NA
Membership - Other	-	-	-	-	NA
Amortize Service Territory Costs	-	-	-	-	NA
Miscellaneous General Expense	-	-	-	-	NA
Office Equip Rental & Maintenance	-	-	-	-	NA

Grand Rapids Public Utilities Commission
2021 Test Year Power Supply Classification

	2021 <u>Test Year</u>	Power Supply <u>Demand</u>	Transmission <u>Demand</u>	<u>Energy</u>	<u>Classification Basis</u>
REVENUE REQUIREMENT					
Maintenance of General Plant	-	-	-	-	NA
Total Administrative and General	-	-	-	-	NA
Depreciation	-	-	-	-	NA
Amortization	-	-	-	-	NA
Total Operating Expenses	11,444,987	1,982,838	2,356,067	7,106,082	
Non Operating Revenues (Expenses)					
Investment income	-	-	-	-	NA
Penalties	-	-	-	-	NA
Gain (loss) on property disposition	-	-	-	-	NA
Interest expense	-	-	-	-	NA
Grant revenue	-	-	-	-	NA
City land improvements	-	-	-	-	NA
Total Non-Operating Revenues (Expenses)	-	-	-	-	NA
Other Operating Revenues (Expenses)					
Connection Fees	-	-	-	-	NA
Reconnection Fees	-	-	-	-	NA
Pole rentals	-	-	-	-	NA
23 kV Capacity Lease	-	-	-	-	NA
Merchandising and Jobbing	-	-	-	-	NA
City of Grand Rapids Merch/Jobbing	-	-	-	-	NA
Street Light Revenues	-	-	-	-	NA
Equipment Rental	-	-	-	-	NA
AFUDC	-	-	-	-	NA
Miscellaneous	-	-	-	-	NA
Security Lights	-	-	-	-	NA
Service Center	-	-	-	-	NA
Lease revenues combined service center	-	-	-	-	NA
Unusual & Extraordinary Expense	-	-	-	-	NA
Total Other Operating Revenues	-	-	-	-	
Payment in lieu of taxes	-	-	-	-	NA
Margin	-	-	-	-	NA
Total Revenue Requirement	\$ 11,444,987	\$ 1,982,838	\$ 2,356,067	\$ 7,106,082	

Grand Rapids Public Utilities Commission
2021 Test Year Distribution Classification

REVENUE REQUIREMENT	2021 <u>Test Year</u>	<u>Demand</u>	<u>Customer Facilities</u>	<u>Classification Basis</u>
Purchased Power				
MP Purchased Power (Modified)	-	-	-	NA
Operation Expenses				
Supervision and Engineering	88,820	60,851	27,969	Dist/Cust split
Substations	6,334	6,334	-	100% Dist demand
Overhead Lines	131,601	90,161	41,440	Dist/Cust split
Underground Lines	231,225	158,414	72,811	Dist/Cust split
Locating Expense	37,924	-	37,924	100% Cust facilities
Street Lighting	3,176	-	3,176	100% Cust facilities
Security Lighting	53	-	53	100% Cust facilities
Meters	75,208	-	75,208	100% Cust facilities
Customer Installations	22,802	-	22,802	100% Cust facilities
Mapping Expense	47,363	-	47,363	100% Cust facilities
Small Tools Expense	30,801	21,102	9,699	Dist/Cust split
Safety Expense	30,613	20,973	9,640	Dist/Cust split
Seminar/Training Expense	11,401	7,811	3,590	Dist/Cust split
Uniforms Expense	12,681	8,688	3,993	Dist/Cust split
Miscellaneous Meetings	40,838	27,978	12,859	Dist/Cust split
Rentals	3,118	2,136	982	Dist/Cust split
Stores Expense	98,587	67,543	31,044	Dist/Cust split
Total Operation	872,545	471,992	400,553	
Maintenance Expenses				
Supervision and Engineering	88,780	88,780	-	100% Dist demand
Substation Structures	-	-	-	NA
Substations	52,509	52,509	-	100% Dist demand
Overhead Lines	118,101	80,912	37,189	Dist/Cust split
Overhead Lines-Tree Trimming	64,555	44,228	20,328	Dist/Cust split
Underground Lines	22,120	15,155	6,965	Dist/Cust split
Underground Locates	139	-	139	100% Cust facilities
Line Transformers	-	-	-	NA
Street Lighting	-	-	-	NA
Security Lighting	5,047	-	5,047	100% Cust facilities
Meters	42,513	-	42,513	100% Cust facilities
Other	-	-	-	NA
Total Maintenance	393,764	281,583	112,181	
Other Expenses				
Truck Expense - Operation	4,485	3,073	1,412	Dist/Cust split
Total Other Expenses	4,485	3,073	1,412	
Customer Accounting Expenses				
Supervision	-	-	-	NA
Meter Reading	-	-	-	NA
Customer Billing and Accounting	-	-	-	NA
Collecting Expense	-	-	-	NA
Uncollectible Accounts	-	-	-	NA
Miscellaneous Expense	-	-	-	NA
Customer Service & Information Expense	-	-	-	NA

Grand Rapids Public Utilities Commission
2021 Test Year Distribution Classification

REVENUE REQUIREMENT	2021 <u>Test Year</u>	<u>Demand</u>	Customer <u>Facilities</u>	<u>Classification Basis</u>
Miscellaneous Customer Information	-	-	-	NA
Total Customer Accounting	-	-	-	
Conservation Improvement Programs				
Planning & Evaluation	-	-	-	NA
Energy Star Appliance	-	-	-	NA
Fluorescent LT Recycling	-	-	-	NA
Resident/Low Income Conservation	-	-	-	NA
Commercial Energy Audits	-	-	-	NA
Commercial Industrial Power Grade	-	-	-	NA
Load Mgmt Efficiency	-	-	-	NA
Windsense - Admin Exp	-	-	-	NA
Education	-	-	-	NA
Total Conservation Improvement	-	-	-	
Administrative and General Expenses				
Administrative & General Salaries	108,259	58,046	50,213	labor
Commissioner Salaries	5,082	2,725	2,357	labor
City Treasurer Salary	269	144	125	labor
General Office Supplies	8,470	4,541	3,928	labor
Telephone Expense	8,664	4,645	4,019	labor
Accounting Outside Service	10,770	7,378	3,391	Dist/Cust split
Data Processing Outside Service	35,949	24,629	11,320	Dist/Cust split
Legal Outside Service	6,718	4,603	2,115	Dist/Cust split
Engineering Outside Service	-	-	-	NA
Other Outside Service	4,124	2,825	1,299	Dist/Cust split
Fiber Optic Outside Service	-	-	-	NA
Insurance - Fire	2,415	1,654	760	Dist/Cust split
Insurance - Liability	26,984	18,487	8,497	Dist/Cust split
Insurance - Worker's Compensation	15,239	10,440	4,799	Dist/Cust split
Insurance - Worker's Comp Deductible	-	-	-	NA
Insurance - Auto	3,244	1,739	1,505	labor
Insurance - Miscellaneous	1,320	708	612	labor
Insurance Claims - Injuries & Damages	-	-	-	labor
Insurance - Group Health	141,203	75,709	65,493	labor
Insurance - Group Health Co-insurance	-	-	-	NA
Insurance - Group Health HSA funding	38,627	20,711	17,916	labor
Insurance - Group Life	1,397	749	648	labor
Employee Assistance Programs	-	-	-	NA
Insurance - Group Dental	7,679	4,117	3,562	labor
Insurance - Third Party Admin Costs	504	270	234	labor
FICA	-	-	-	labor
PERA	(62,537)	(33,531)	(29,006)	labor
Deferred Compensation	-	-	-	labor
Paid Time Off	125,790	67,446	58,345	labor
Extended Illness Benefit	6,326	3,392	2,934	labor
Short-Term Disability Payments	-	-	-	NA
Insurance - Long Term Disability	6,074	3,257	2,817	labor
Unemployment Compensation	-	-	-	NA
Membership - APPA	-	-	-	NA

Grand Rapids Public Utilities Commission
2021 Test Year Distribution Classification

	2021		Customer	
REVENUE REQUIREMENT	<u>Test Year</u>	<u>Demand</u>	<u>Facilities</u>	<u>Classification Basis</u>
Membership - NEMPA	-	-	-	NA
Membership - MMUA	-	-	-	NA
Membership - NMMEA	-	-	-	NA
Membership - Other	-	-	-	NA
Amortize Service Territory Costs	-	-	-	NA
Miscellaneous General Expense	4,706	3,224	1,482	Dist/Cust split
Office Equip Rental & Maintenance	6,396	4,382	2,014	Dist/Cust split
Maintenance of General Plant	-	-	-	NA
Total Administrative and General	513,670	292,291	221,379	
 Depreciation	 1,040,108	 712,588	 327,520	 Dist/Cust split
 Amortization	 79,518	 54,479	 25,039	 Dist/Cust split
 Total Operating Expenses	 2,904,090	 1,816,005	 1,088,085	
 Non Operating Revenues (Expenses)				
Investment income	-	-	-	NA
Penalties	-	-	-	NA
Gain (loss) on property disposition	-	-	-	NA
Interest expense	-	-	-	NA
Grant revenue	-	-	-	NA
City land improvements	-	-	-	NA
Total Non-Operating Revenues (Expenses)	-	-	-	
 Other Operating Revenues (Expenses)				
Connection Fees	66,954	-	66,954	100% Cust facilities
Reconnection Fees	4,980	-	4,980	100% Cust facilities
Pole rentals	23,577	23,577	-	100% Dist demand
23 kV Capacity Lease	35,868	35,868	-	100% Dist demand
Merchandising and Jobbing	-	-	-	NA
City of Grand Rapids Merch/Jobbing	-	-	-	NA
Street Light Revenues	9,999	-	9,999	100% Cust facilities
Equipment Rental	-	-	-	NA
AFUDC	-	-	-	NA
Miscellaneous	-	-	-	NA
Security Lights	61,567	-	61,567	100% Cust facilities
Service Center	-	-	-	NA
Lease revenues combined service center	-	-	-	NA
Unusual & Extraordinary Expense	-	-	-	NA
Total Other Operating Revenues	202,945	59,445	143,500	
 Payment in lieu of taxes	 -	 -	 -	 NA
 Margin	 -	 -	 -	 NA
 Total Revenue Requirement	 \$ 2,701,144	 \$ 1,756,560	 \$ 944,585	

Grand Rapids Public Utilities Commission
2021 Test Year Customer Classification

REVENUE REQUIREMENT	2021 <u>Test Year</u>	<u>Customer</u>	<u>Classification Basis</u>
Purchased Power			
MP Purchased Power (Modified)	-	-	NA
Operation Expenses			
Supervision and Engineering	-	-	NA
Substations	-	-	NA
Overhead Lines	-	-	NA
Underground Lines	-	-	NA
Locating Expense	-	-	NA
Street Lighting	-	-	NA
Security Lighting	-	-	NA
Meters	-	-	NA
Customer Installations	-	-	NA
Mapping Expense	-	-	NA
Small Tools Expense	-	-	NA
Safety Expense	-	-	NA
Seminar/Training Expense	-	-	NA
Uniforms Expense	-	-	NA
Miscellaneous Meetings	-	-	NA
Rentals	-	-	NA
Stores Expense	-	-	NA
Total Operation	-	-	
Maintenance Expenses			
Supervision and Engineering	-	-	NA
Substation Structures	-	-	NA
Substations	-	-	NA
Overhead Lines	-	-	NA
Overhead Lines-Tree Trimming	-	-	NA
Underground Lines	-	-	NA
Underground Locates	-	-	NA
Line Transformers	-	-	NA
Street Lighting	-	-	NA
Security Lighting	-	-	NA
Meters	-	-	NA
Other	-	-	NA
Total Maintenance	-	-	
Other Expenses			
Truck Expense - Operation	-	-	NA
Total Other Expenses	-	-	
Customer Accounting Expenses			
Supervision	85,912	85,912	100% Customer
Meter Reading	9,872	9,872	100% Customer
Customer Billing and Accounting	311,734	311,734	100% Customer
Collecting Expense	50	50	100% Customer
Uncollectible Accounts	28,450	28,450	100% Customer
Miscellaneous Expense	-	-	NA

Grand Rapids Public Utilities Commission 2021 Test Year Customer Classification

	2021 <u>Test Year</u>	<u>Customer</u>	<u>Classification Basis</u>
REVENUE REQUIREMENT			
Customer Service & Information Expense	-	-	NA
Miscellaneous Customer Information	-	-	NA
Total Customer Accounting	436,018	436,018	
Conservation Improvement Programs			
Planning & Evaluation	-	-	NA
Energy Star Appliance	-	-	NA
Fluorescent LT Recycling	-	-	NA
Resident/Low Income Conservation	-	-	NA
Commercial Energy Audits	-	-	NA
Commercial Industrial Power Grade	-	-	NA
Load Mgmt Efficiency	-	-	NA
Windsense - Admin Exp	-	-	NA
Education	-	-	NA
Total Conservation Improvement	-	-	
Administrative and General Expenses			
Administrative & General Salaries	77,335	77,335	100% Customer
Commissioner Salaries	3,630	3,630	100% Customer
City Treasurer Salary	193	193	100% Customer
General Office Supplies	6,050	6,050	100% Customer
Telephone Expense	6,189	6,189	100% Customer
Accounting Outside Service	7,693	7,693	100% Customer
Data Processing Outside Service	25,680	25,680	100% Customer
Legal Outside Service	4,799	4,799	100% Customer
Engineering Outside Service	-	-	NA
Other Outside Service	2,946	2,946	100% Customer
Fiber Optic Outside Service	-	-	NA
Insurance - Fire	-	-	NA
Insurance - Liability	-	-	NA
Insurance - Worker's Compensation	10,886	10,886	100% Customer
Insurance - Worker's Comp Deductible	-	-	NA
Insurance - Auto	-	-	NA
Insurance - Miscellaneous	-	-	NA
Insurance Claims - Injuries & Damages	-	-	NA
Insurance - Group Health	100,869	100,869	100% Customer
Insurance - Group Health Co-insurance	-	-	NA
Insurance - Group Health HSA funding	27,593	27,593	100% Customer
Insurance - Group Life	998	998	100% Customer
Employee Assistance Programs	-	-	NA
Insurance - Group Dental	5,485	5,485	100% Customer
Insurance - Third Party Admin Costs	360	360	100% Customer
FICA	-	-	NA
PERA	(44,674)	(44,674)	100% Customer
Deferred Compensation	-	-	NA
Paid Time Off	89,859	89,859	100% Customer
Extended Illness Benefit	4,519	4,519	100% Customer
Short-Term Disability Payments	-	-	NA
Insurance - Long Term Disability	4,339	4,339	100% Customer
Unemployment Compensation	-	-	NA

Grand Rapids Public Utilities Commission
2021 Test Year Customer Classification

	2021 <u>Test Year</u>	<u>Customer</u>	<u>Classification Basis</u>
REVENUE REQUIREMENT			
Membership - APPA	-	-	NA
Membership - NEMPA	-	-	NA
Membership - MMUA	-	-	NA
Membership - NMMEA	-	-	NA
Membership - Other	-	-	NA
Amortize Service Territory Costs	-	-	NA
Miscellaneous General Expense	3,362	3,362	100% Customer
Office Equip Rental & Maintenance	4,569	4,569	100% Customer
Maintenance of General Plant	-	-	NA
Total Administrative and General	<u>342,681</u>	<u>342,681</u>	
Depreciation	-	-	NA
Amortization	-	-	NA
Total Operating Expenses	778,699	778,699	
Non Operating Revenues (Expenses)			
Investment income	-	-	NA
Penalties	-	-	NA
Gain (loss) on property disposition	-	-	NA
Interest expense	(2,996)	(2,996)	100% Customer
Grant revenue	-	-	NA
City land improvements	-	-	NA
Total Non-Operating Revenues (Expenses)	<u>(2,996)</u>	<u>(2,996)</u>	
Other Operating Revenues (Expenses)			
Connection Fees	-	-	NA
Reconnection Fees	-	-	NA
Pole rentals	-	-	NA
23 kV Capacity Lease	-	-	NA
Merchandising and Jobbing	-	-	NA
City of Grand Rapids Merch/Jobbing	-	-	NA
Street Light Revenues	-	-	NA
Equipment Rental	-	-	NA
AFUDC	-	-	NA
Miscellaneous	-	-	NA
Security Lights	-	-	NA
Service Center	-	-	NA
Lease revenues combined service center	-	-	NA
Unusual & Extraordinary Expense	-	-	NA
Total Other Operating Revenues	<u>-</u>	<u>-</u>	
Payment in lieu of taxes	-	-	NA
Margin	-	-	NA
Total Revenue Requirement	\$ 781,695	\$ 781,695	

Grand Rapids Public Utilities Commission 2021 Test Year Allocation Factors

Demand Allocation Factors	<u>Total</u>	<u>Residential</u>	<u>Commercial</u>	<u>Demand & Energy</u>	<u>Industrial</u>	<u>Load Management</u>	<u>Lighting</u>
12 Coincident Peak (kW)	266,679	73,071	49,794	111,743	26,055	4,618	1,397
12 CP	100.0%	27.4%	18.7%	41.9%	9.8%	1.7%	0.5%
1 Non-coincident Peak (kW)	31,028	8,877	5,466	10,753	2,927	1,736	1,268
1 NCP	100.0%	28.6%	17.6%	34.7%	9.4%	5.6%	4.1%
Sum of Max Demands (kW)	498,746	232,924	74,456	136,698	29,003	19,913	5,752
SMD	100.0%	46.7%	14.9%	27.4%	5.8%	4.0%	1.2%
Energy Allocation Factors							
Energy Requirements (kWh)	152,478,992	47,153,459	24,932,835	57,322,789	17,180,351	4,801,046	1,088,512
E	100.0%	30.9%	16.4%	37.6%	11.3%	3.1%	0.7%
Customers							
Number of Customers	7,410	5,736	1,114	103	7	323	128
Customer Facility Weight		1.0	1.5	25.0	100.0	1.5	1.0
Customer Service Weight		1.0	2.0	4.0	5.0	0.5	0.5
Customer Facilities Allocation Factor							
Weighted Number of Cust	11,283	5,736	1,670	2,565	700	485	128
CF	100.0%	50.8%	14.8%	22.7%	6.2%	4.3%	1.1%
Customer Service Allocation Factor							
Weighted Number of Cust	8,634	5,736	2,227	410	35	162	64
CS	100.0%	66.4%	25.8%	4.8%	0.4%	1.9%	0.7%
Revenue Allocator							
Sum of Other Rev Reqs	14,927,826	4,849,388	2,624,205	5,394,343	1,448,396	449,533	161,960
R	100.0%	32.5%	17.6%	36.1%	9.7%	3.0%	1.1%

**Grand Rapids Public Utilities Commission
2021 Test Year Allocation of Revenue Requirements**

	<u>Total</u>	<u>Residential</u>	<u>Commercial</u>	<u>Demand & Energy</u>	<u>Industrial</u>	<u>Load Management</u>	<u>Lighting</u>	<u>Allocation Factor</u>
<u>Power Supply</u>								
Power Supply Demand	1,982,838	543,306	370,235	830,840	193,728	34,340	10,389	12 CP
Transmission Demand	2,356,067	645,572	439,924	987,229	230,194	40,803	12,345	12 CP
Energy	7,106,082	2,197,525	1,161,962	2,671,453	800,668	223,746	50,729	E
Total Power Supply	11,444,987	3,386,402	1,972,121	4,489,522	1,224,590	298,889	73,462	
<u>Distribution</u>								
Demand	1,756,560	502,531	309,434	608,774	165,708	98,303	71,809	1 NCP
Customer Facilities	944,585	441,138	141,014	258,895	54,929	37,714	10,894	SMD
Total Distribution	2,701,144	943,670	450,448	867,669	220,637	136,017	82,703	
<u>Customer</u>								
Customer Service	781,695	519,316	201,636	37,152	3,169	14,626	5,795	CS
Total Customer Facility	781,695	519,316	201,636	37,152	3,169	14,626	5,795	
<u>Revenue</u>								
Operating Expenses	78,369	25,459	13,777	28,320	7,604	2,360	850	R
Non-Operating Revenue	323,505	105,092	56,870	116,902	31,389	9,742	3,510	R
Other Operating Revenue	(45,607)	(14,816)	(8,017)	(16,481)	(4,425)	(1,373)	(495)	R
Payment in lieu of taxes	882,288	286,616	155,100	318,825	85,605	26,569	9,572	R
Margin	1,520,331	493,888	267,263	549,389	147,513	45,783	16,495	R
Total Revenue	2,758,886	896,240	484,992	996,955	267,685	83,080	29,933	
Total Revenue Requirements	17,686,712	5,745,628	3,109,198	6,391,298	1,716,082	532,613	191,893	
Total Revenues	17,686,712	6,032,191	3,178,573	6,267,250	1,653,087	347,399	208,213	
Percent Revenue Requirements	100.0%	32.5%	17.6%	36.1%	9.7%	3.0%	1.1%	
Percent Revenues	100.0%	34.1%	18.0%	35.4%	9.3%	2.0%	1.2%	
Percent Change	0.0%	-4.8%	-2.2%	2.0%	3.8%	53.3%	-7.8%	
Revenue Req/kWh	0.116	0.122	0.125	0.111	0.100	0.111	0.176	
Revenue/kWh	0.116	0.128	0.127	0.109	0.096	0.072	0.191	

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Proposed Rates

Changes to rates are generally based on the overall need for revenues and results of the cost-of-service and unbundled cost analyses. The projected operating results at existing rates as presented in Section 2 of this report outlines the overall revenue needs of the electric utility. Section 3 summarizes the cost-of-service results. These factors have been considered in developing the rate proposals summarized in this section of the report.

Proposed Rates

Revenue Needs

Based on the current projections for the electric utility, no overall increase in revenues through general rate increases is recommended at this time. There are specific rate recommendations below which do alter the overall projections for the electric utility.

Purchased Power Adjustment Clause

GRPUC's bills from MP currently include a monthly energy cost adjustment and certain pass-through charges from the Midwest Independent System Operator (MISO). These charges vary from month to month and are not generally predictable. GRPUC utilizes a Purchased Power Adjustment Clause (PPAC) as part of its retail rates to automatically adjust retail bills to account for these charges. In its current form, GRPUC does a straight pass through of the MP energy adjustment and only certain portions of the MISO charges. GRPUC's new wholesale power agreement with MP has a wholesale energy adjustment that is applicable to only a portion of the energy usage by GRPUC. It is not appropriate to pass this charge to all retail kWh sold on a per kWh basis. Additionally, all the MISO charges are outside GRPUC's control. It is recommended that a new PPAC formula be adopted for GRPUC retail rates beginning Jan. 1, 2023.

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This formula can be used to calculate a PPAC at the beginning of each year based on forecasted values provided by MP every fall.

Proposed formula:

$$PPAC = \left(\frac{EAC + MISO}{WE \times 0.959} - 0.0120 \right)$$

Where:

- PPAC is the power cost adjustment per kWh.
- EAC is the projected annual base energy adjustment cost in dollars.
- MISO is the projected annual transmission charges in dollars
- WE is the projected annual wholesale energy in kWh.
- 0.959 is a loss adjustment
- 0.0120 is the base dollars per kWh.

Table 4-1 shows the projected PPAC values for 2023-2027 as well as the current PPAC as set for 2022 at the beginning of the year. As shown in the table below, the proposed PPAC for 2023 is \$0.00752/kWh less than the current value. With existing retail rates remaining the same (with a few exceptions), total average bills for all customers will decrease approximately 6.5% from 2022 to 2023. Beyond 2023, the changes in customer bills, assuming published rates do not change, will be dependent on increases in the wholesale base energy adjustment from MP and changes in the MISO transmission costs.

Proposed Rates

Table 4-1
PPAC Comparison
(\$/kWh)

Year	Present Formula	Proposed Formula
2022	0.01583	n/a
2023	n/a	0.00831
2024	n/a	0.01237
2025	n/a	0.01497
2026	n/a	0.01761
2027	n/a	0.02027

Rate Adjustments

The cost-of-service results for the four major groups of customers (residential, commercial, demand & energy and industrial), show that overall distribution of revenues as compared to allocated revenue requirements by class were within an acceptable range. These four groups of customers account for 97% of total GRPUC revenues from sales to customers. No overall change in the distribution of revenues from these four groups of customers is recommended at this time. Exhibit 4-A lists the existing and proposed rates through 2027. Most rates are not recommended to change, the changing rates as described below are highlighted in Exhibit 4-A.

Load Management Rates

In the cost-of-service results, it indicates that the load management rates are underpaying by slightly more than 50%. This is a relatively small group of customers, only 2% of total revenues are collected from these customers. In the last study these

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customers were underpaying by 16%. The dramatic change in results for these customers is due to the change in the MP wholesale structure under the new contract. Load management customers receive a lower energy charge because they allow for curtailment of their use during peak times which allows GRPUC to avoid wholesale demand charges from MP. Under the new MP contract, the incremental wholesale demand charge dropped by more than 80% which limits the savings to GRPUC of interruptible customer loads. Additionally, the energy charges under the new contract have increased by more than 100%, the load management customers are primarily served energy during off-peak times. GRPUC has 9 rate different groups of Residential and Commercial load management customers. It is recommended that the energy rates associated with load management rates be increased over a three-year period. Additionally, there are currently two groups of load management customers with two separate energy rates. The recommendation also includes equalizing these rates over the period of increases. No change is recommended in the monthly customer charges for these customers. Table 4-2 summarizes the load management energy rate recommendations.

Table 4-2
Load Management Energy Rates
(\$/kWh)

Customer Groups	Current Rate	Proposed 2023	Proposed 2024	Proposed 2025
Off Peak Heat/Cool	0.0648	0.0699	0.0750	0.0800
Storage Heat	0.0545	0.0630	0.0715	0.0800

Electric Vehicle Charging

Utilities like GRPUC are beginning to see electric vehicles (EVs) enter their service territories. Customers who drive EVs are interested in special electric rate plans that help them control their costs by charging during periods of lower electricity pricing. GRPUC recently implemented TOU rates for EV charging. There are three scenarios

Proposed Rates

examined for EV charging specific rates for GRPUC which are consistent with the existing rates. They are:

- (1) At home charging
- (2) Commercial charging at an existing customer location
- (3) Stand-alone commercial charging

For each of these options, a new proposed TOU rate has been developed for EV application. In each of these options, a new separate meter with TOU capabilities would be required to measure EV charging usage only. For options (1) and (2) shown above, an existing residential or commercial customer would add EV charging capabilities at their existing location. There would be a separate customer charge with TOU based energy charges as shown in Table 4-3 below. For these customers, they currently have an additional \$4.10 per month customer charge related to the EV usage meter. The proposed on-peak rate shown below matches the on-peak rate listed later in this section in the example residential TOU rate. The proposed off-peak rate for EV charging is less than the TOU rate discussed below and represents an incremental cost rate design as opposed to a shifted energy usage off-peak rate as shown in the residential TOU rate. The off-peak period for EV charging is set as 10 p.m. to 8 a.m. M-F and weekends. For a stand-alone commercial EV charger, option (3) above, the energy rates would be the same as for existing customers, but the customer charge is kept higher as established for the existing rate. Existing customers continue to have the option of adding charging facilities at their current location without a separate meter and pay for the EV charging consumption at their regular rate. The proposed energy rates have been increased to reflect the higher energy rates in the new MP wholesale contract.

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Table 4-3
EV Charging Rate

Item	GRPUC Existing Rate	GRPUC Proposed Rate
Customer charge	\$4.10/mo. – existing cust \$26.00/mo – stand alone	\$4.10/mo. – existing cust \$26.00/mo – stand alone
On-peak Energy ⁽¹⁾	\$0.1515/kWh	\$0.1612/kWh
Off-peak Energy	\$0.0422/kWh	\$0.055/kWh

(1) On-peak – 8 a.m. to 10 p.m. Monday through Friday

Projected Operating Results – Proposed Rates

Table 4-4 below summarizes the revised projected operating results with all rate adjustments explained above. Exhibit 4-B presents a more detailed version of the operating results at proposed rates.

Table 4-4
Projected Operating Results
Proposed Rates

Year	2022	2023	2024	2025	2026	2027
Operating Revenues	\$19,061,765	\$18,419,566	\$18,977,138	\$19,960,632	\$20,607,360	\$21,270,933
Less Operating Expenses	(15,133,717)	(16,471,822)	(17,535,707)	(18,642,543)	(19,600,947)	(20,298,209)
Less Non -Operating Expenses	<u>(1,075,942)</u>	<u>(1,045,042)</u>	<u>(1,045,230)</u>	<u>(1,048,419)</u>	<u>(1,038,842)</u>	<u>(1,046,235)</u>
Net Income	2,852,105	902,702	396,200	269,670	(32,429)	(73,511)
Net Income as Percent of Revenues	15.0%	4.9%	2.1%	1.4%	-0.2%	-0.3%

Proposed Rates***Cash Reserves – Proposed Rates***

A summary of the impact of the proposed rates on GRPUC’s cash reserves for the Study Period is shown in Table 4-5 below, it is also shown at the bottom of Exhibit 4-B.

As shown below, under the proposed rate revisions, the Study Period cash reserve level is consistently between 20% and 25% of revenues. This is slightly below GRPUC’s target of 25%.

Table 4-5
Projected Cash Reserves
Proposed Rates

Year	2022	2023	2024	2025	2026	2027
Beginning Balance	\$1,520,146	\$4,118,902	\$4,492,526	\$4,726,758	\$4,910,742	\$4,957,575
Plus Net Income	2,852,105	902,702	396,200	269,670	(32,429)	(73,511)
Less Capital Improvements	(950,607)	(1,176,840)	(929,440)	(883,440)	(884,440)	(886,440)
Less ERP Proj Costs	-	(80,833)	-	-	-	-
Plus Deprec/Amort	910,382	942,069	981,297	1,012,278	1,041,726	1,071,208
Less Debt Principal	(135,100)	(135,450)	(135,800)	(136,500)	-	-
Less LCP Payment	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>	<u>(78,024)</u>
Ending Balance	\$4,118,902	\$4,492,526	\$4,726,758	\$4,910,742	\$4,957,575	\$4,990,807
As a percent of revenue	21.6%	24.4%	24.9%	24.6%	24.1%	23.5%

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Neighboring Utilities

As part of its rate setting strategy, GRPUC compares its rates to other utilities to gauge its relative competitive position. GRPUC buys its wholesale power from MP, but MP also serves retail customers in numerous northern Minnesota cities. MP is rate regulated by the Minnesota State Public Utilities Commission ('MPUC'). Lake Country Power ('LCP') is the rural electric cooperative that serves rural areas around Grand Rapids. Also, a comparison has been prepared for the City of Brainerd, MN municipal utility as well. Tables 4-6, 4-7 and 4-8 below summarize the residential rates for MP, LCP and Brainerd. The rates shown for MP are the current rate and an estimated rate based on their recent approval by the MPUC for a 7.115% interim rate increase.

Table 4-6
Minnesota Power
Residential Rates

Rate Component	Current Rate	Interim Rate
Service Charge	\$8.00/mo	\$8.56/mo
Affordability Surcharge	\$1.03/mo	\$1.03/mo
Energy Charge (all kWh)	\$0.08384/kWh	\$0.08981/kWh
Resource Adjustment (all kWh)	\$0.03427/kWh	\$0.03427/kWh
Conservation Adjustment (all kWh)	\$0.002002/kWh	\$0.002002/kWh
Renewable Adjustment (all kWh)	\$0.00178/kWh	\$0.00178/kWh
Transmission Adjustment (all kWh)	\$0.00742/kWh	\$0.00742/kWh
Duluth Franchise Fee (% of bill)	3.0%	3.0%

Proposed Rates

**Table 4-7
Lake Country Power
Residential Rates**

Rate Component	Rate
Facilities Charge	\$42.00/mo
Summer Energy Charge (all kWh)	\$0.1503/kWh
Winter Energy Charge (all kWh)	\$0.1403/kWh
Fall/Spring Energy Charge (all kWh)	\$0.1303/kWh

**Table 4-8
Brainerd, MN
Residential Rates**

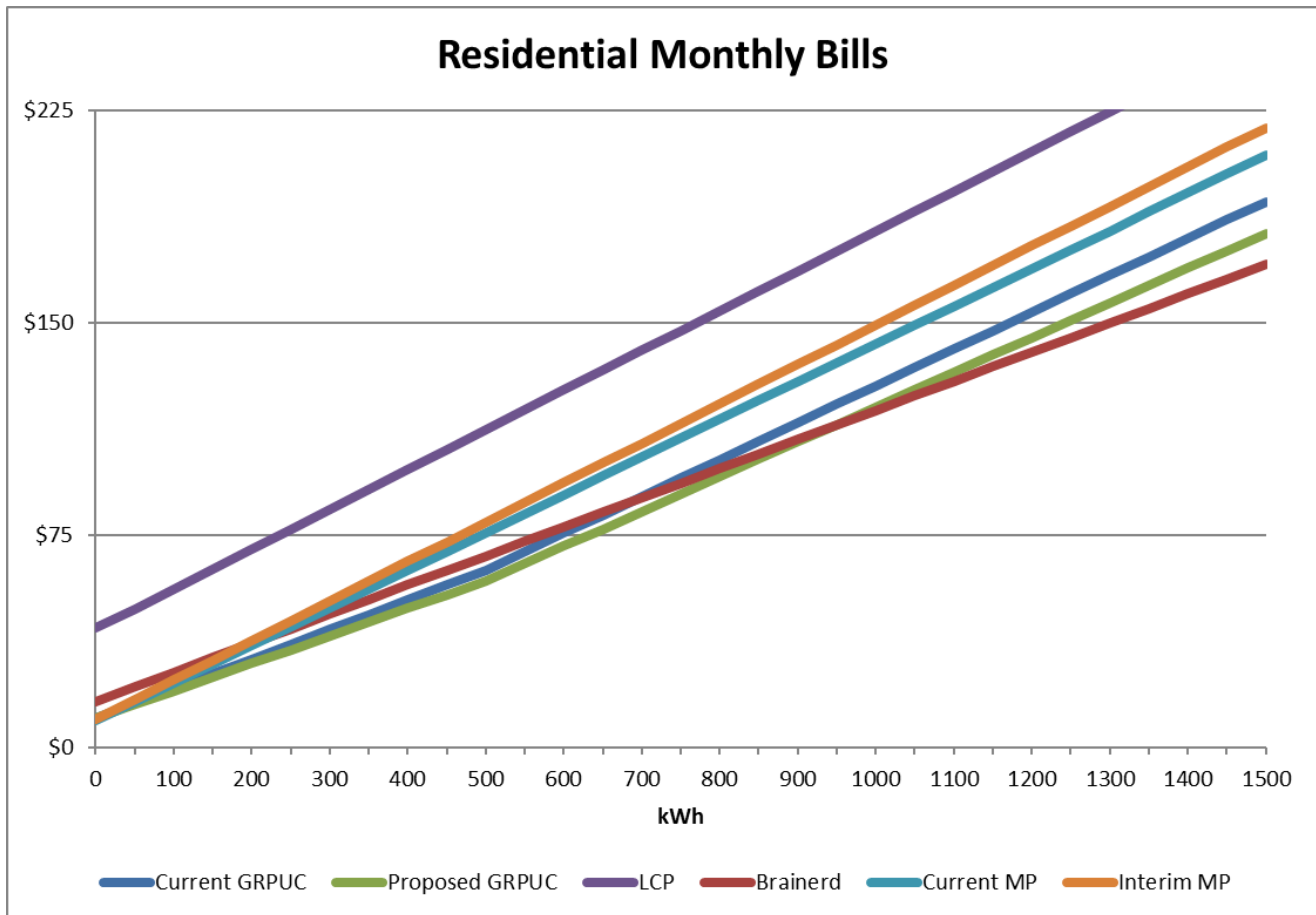
Rate Component	Rate
Facilities Charge	\$16.25/mo
Energy Charge (all kWh)	\$0.0858/kWh
Purchased Power Adjustment (all kWh)	\$0.017/kWh

As shown above, the MP residential rate has a monthly charge plus a monthly surcharge. MP now has a single residential energy rate. There are four separate energy adjustments applied to all energy. MP also pays various levels of franchise fees in the communities it serves. The 3.0% of total bill franchise fee for Duluth was used as a representative fee (these can range from 1%-4% of a typical residential bill). The LCP rates have a single monthly customer charge with energy charges that vary by season. For the comparisons made, a weighted average annual rate of \$0.1403/kWh was utilized for LCP. Brainerd's residential rate includes a monthly customer charge, a single energy charge and a purchased power adjustment.

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Figure 4-1 below is a graphical representation of estimated residential bills for GRPUC existing and proposed 2020 rate, plus MP existing and interim rate and existing rates for LCP and Brainerd. Table 4-9 following the graph shows estimated monthly bills at representative monthly residential energy usage levels.

**Figure 4-1
Bill Comparison Graph**



Proposed Rates

**Table 4-9
Monthly Bill Comparison
Residential Rates**

Monthly Consumption kWh	GRPUC existing	GRPUC 2023 Proposed	LCP Existing	Brainerd Existing	MP Existing	MP Interim
300	\$41.64	\$39.38	\$84.09	\$44.69	\$49.26	\$51.68
700	88.61	83.34	140.21	82.61	102.53	107.42
1000	127.68	120.16	182.30	111.05	142.49	149.22
1250	160.24	150.83	217.38	134.75	175.79	184.05
1500	192.80	181.51	252.45	158.45	209.09	218.89

Time of Use Considerations

In order to give customers an incentive to move consumption of electricity away from more expensive on-peak periods to cheaper off-peak periods, some utilities have instituted time-of-use (TOU) or time-of-day (TOD) rates. Under a TOU structure, electric rates are higher during defined on-peak periods and lower during off-peak periods. For utilities that have a direct tie to hourly wholesale market prices, the market differentials during on-peak versus off-peak periods can provide guidance for design of TOU rates. For a utility like GRPUC that purchases wholesale based on an all-requirements contract with fixed demand and energy pricing, a different approach to TOU pricing can be adopted. Working with staff, we have developed a residential TOU rate to demonstrate an approach to TOU ratemaking. The on-peak period has been set at 8 a.m. to 8 p.m. Monday through Friday. Off-peak would be all other hours. Based on AMI data for the residential customers, on-peak usage accounts for 39% of total residential usage. The rate has been designed based on the current residential customer charge and a 2 to 1 ratio of on-peak pricing to off-peak pricing. The ratio between pricing period rates was assumed to be high enough to give customers incentive to move consumption to off-peak periods without too excessive of a penalty for

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those customers that need to use energy during on-peak times. The TOU example rate is shown in Table 4-10 below. The design of the rate, if implemented, would need to be reviewed and adjusted as necessary to reflect movement of energy consumption by customers based their reaction to the rate.

Table 4-10
Example TOU Rate

Residential

Item	Rate
Customer charge	\$10.25/mo.
On-peak Energy ⁽¹⁾	\$0.1612/kWh
Off-peak Energy	\$0.0806/kWh

(1) On-peak – 8 a.m. to 8 p.m. Monday through Friday

Large Residential Transformer Capacity

GRPUC's standard residential distribution transformer capacity is 25 kVa with typically 4-5 customers connected to a single transformer. This results in a standard residential transformer capacity of 5-6 kVa per customer. This is very similar to other distribution systems in this area. With the popularity of larger homes and the addition of in-home EV charging for residential customers, there is a trend towards some customers requiring 10 or more kVa of transformation capacity. Distribution transformer capacity is a fixed cost to provide service. These types of costs are generally reflected in the fixed monthly customer charge portion of rates. For residential customers requiring larger than normal capacity, an increased monthly customer charge is the appropriate method for collection those increased fixed costs. Based on installed cost for a 25 kVa transformer provided by GRPUC staff, the calculation of a monthly additional fixed customer charge for increased transformation is summarized in Table 4-11 below. As shown in the table, an annual percentage carrying cost is estimated based on annual costs for depreciation, interest and O&M. The total 8% value multiplied times the

Proposed Rates

installed cost results in an annual fixed cost for a 25 kVa transformer. Dividing this by 25 kVa and 12 months results in a monthly cost/kVa of \$2.87. Based on this calculation, a residential customer requiring 5 kVa of additional transformation capacity could be charged an additional monthly fee of \$14.35 (5 times \$2.87).

Table 4-11
Increased Transformation Charge

Residential

Item	Value
Installed Cost (25 kVa)	\$10,756
Annual Fixed Costs as % of Cost	
Depreciation	3%
Interest	4%
O&M	<u>1%</u>
Total	8%
Annual Fixed Cost (25 kVa)	\$860
Annual Fixed Cost/kVa	\$34.42
Monthly Fixed Cost/kVa	\$2.87

Grand Rapids Public Utilities Commission
Existing and Proposed Rates

Exhibit Item 2.

Class		Current Rate	2023 Proposed Rate	2024 Proposed Rate	2025 Proposed Rate	2026 Proposed Rate	2027 Proposed Rate
Electric - City Residential	ECR-10						
	Customer Charge	10.25	10.25	10.25	10.25	10.25	10.25
	Energy 0-500 kWh	0.0888	0.0888	0.0888	0.0888	0.0888	0.0888
	Energy over 500 kWh	0.1144	0.1144	0.1144	0.1144	0.1144	0.1144
Electric - City Res Off Peak Heat/Cool	ECR-10-LM						
	Customer Charge	8.25	8.25	8.25	8.25	8.25	8.25
	Energy	0.0648	0.0699	0.0750	0.0800	0.0800	0.0800
Electric - City Residential Annex 1&2	ECR-13-ANX1						
	Customer Charge	10.25	10.25	10.25	10.25	10.25	10.25
	Energy 0-500 kWh	0.1043	0.1043	0.1043	0.1043	0.1043	0.1043
	Energy over 500 kWh	0.1299	0.1299	0.1299	0.1299	0.1299	0.1299
Electric - City Res Annex 1 Off Peak	ECR-13-ANX1-LM						
	Customer Charge	8.25	8.25	8.25	8.25	8.25	8.25
	Energy	0.0648	0.0699	0.0750	0.0800	0.0800	0.0800
Electric - City Res Storage Heat	ECR-14-STG						
	Customer Charge	8.25	8.25	8.25	8.25	8.25	8.25
	Energy	0.0545	0.0630	0.0715	0.0800	0.0800	0.0800
Electric - City Res Annex 1&2 Storage Heat	ECR-33-ANX1-STG						
	Customer Charge	8.25	8.25	8.25	8.25	8.25	8.25
	Energy	0.0545	0.0630	0.0715	0.0800	0.0800	0.0800
Electric - Rural Residential	ERR-20						
	Customer Charge	11.25	11.25	11.25	11.25	11.25	11.25
	Energy 0-500 kWh	0.0924	0.0924	0.0924	0.0924	0.0924	0.0924
	Energy over 500 kWh	0.1180	0.1180	0.1180	0.1180	0.1180	0.1180
Electric - Rural Res Off Peak Heat/Cool	ERR-20-LM						
	Customer Charge	8.25	8.25	8.25	8.25	8.25	8.25
	Energy	0.0648	0.0699	0.0750	0.0800	0.0800	0.0800
Electric - City Commercial	ECC-30						
	Customer Charge	19.25	19.25	19.25	19.25	19.25	19.25
	Energy	0.1058	0.1058	0.1058	0.1058	0.1058	0.1058
Electric - City Comm Off Peak Heat/Cool	ECC-30-LM						
	Customer Charge	8.25	8.25	8.25	8.25	8.25	8.25
	Energy	0.0648	0.0699	0.0750	0.0800	0.0800	0.0800
Electric - City Commercial Annex 1&2	ECC-33-ANX1						
	Customer Charge	19.25	19.25	19.25	19.25	19.25	19.25
	Energy	0.1213	0.1213	0.1213	0.1213	0.1213	0.1213
Electric - City Comm Annex Off Peak Heat/Cool	ECC-33-ANX1-LM						
	Customer Charge	8.25	8.25	8.25	8.25	8.25	8.25
	Energy	0.0648	0.0699	0.0750	0.0800	0.0800	0.0800
Electric - City Comm Storage Heat	ECC-34-STG						
	Customer Charge	8.25	8.25	8.25	8.25	8.25	8.25
	Energy	0.0545	0.0630	0.0715	0.0800	0.0800	0.0800
Electric - City Com Seas Eve Ent Lt ICF	ECC-38-SEEL-ICF						
	Customer Charge	12.75	12.75	12.75	12.75	12.75	12.75
	Energy	0.1032	0.1032	0.1032	0.1032	0.1032	0.1032
Electric - City Com Seas Eve Ent Lt	ECC-39-SEEL						
	Customer Charge	12.75	12.75	12.75	12.75	12.75	12.75
	Energy	0.1032	0.1032	0.1032	0.1032	0.1032	0.1032
Electric - City Commercial WWTP	ECC-50-WWTP						
	Customer Charge	19.3	19.25	19.25	19.25	19.25	19.25
	Energy	0.1058	0.1058	0.1058	0.1058	0.1058	0.1058
Electric - City Commercial Elec Substations	ECC-55-SUB						
	Customer Charge	19.25	19.25	19.25	19.25	19.25	19.25
	Energy	0.1058	0.1058	0.1058	0.1058	0.1058	0.1058
Electric - City Commercial Street Light Book	ECC-56-STLT						
	Customer Charge	12.00	12.00	12.00	12.00	12.00	12.00
	Energy	0.1030	0.1030	0.1030	0.1030	0.1030	0.1030
Electric - City Commercial Water Trt Plt	ECC-57-WTR						
	Customer Charge	19.25	19.25	19.25	19.25	19.25	19.25
	Energy	0.1058	0.1058	0.1058	0.1058	0.1058	0.1058
Electric - City Commercial WW Coll Dept	ECC-59-WWCOLL						
	Customer Charge	19.25	19.25	19.25	19.25	19.25	19.25
	Energy	0.1058	0.1058	0.1058	0.1058	0.1058	0.1058
Electric - City Demand>50 KW -KWH	ECD-70-050KWH						
	Customer Charge	27.00	27.00	27.00	27.00	27.00	27.00
	Energy	0.0513	0.0513	0.0513	0.0513	0.0513	0.0513
	Demand Charge	17.41	17.41	17.41	17.41	17.41	17.41
Electric - City Demand Annex1&2>50 KW-KWH	ECD-73-AX-050KH						
	Customer Charge	27.00	27.00	27.00	27.00	27.00	27.00
	Energy	0.0513	0.0513	0.0513	0.0513	0.0513	0.0513
	Demand Charge	17.41	17.41	17.41	17.41	17.41	17.41
Electric -City Demand WTP > 50KWH Chg	EDD-58-WT-050KH						
	Customer Charge	27.00	27.00	27.00	27.00	27.00	27.00
	Energy	0.0513	0.0513	0.0513	0.0513	0.0513	0.0513
	Demand Charge	17.41	17.41	17.41	17.41	17.41	17.41
Electric-Elec Vehicle Off-Peak	EVC-ELVOFFPEAK						
	Energy	0.0422	0.0550	0.0550	0.0550	0.0550	0.0550
Electric-Elec Vehicle On-Peak	EVC-ELVONPEAK						
	Energy	0.1515	0.1612	0.1612	0.1612	0.1612	0.1612
Electric-Elec Veh Existing Serv Customer Chg	EVC-EX-CUSTCHG						
	Customer Charge	4.10	4.10	4.10	4.10	4.10	4.10
Electric-Elec Veh Stand Alone Customer Chg	EVC-SA-CUSTCHG						
	Customer Charge	26.00	26.00	26.00	26.00	26.00	26.00

Grand Rapids Public Utilities Commission
Existing and Proposed Rates

Exhibit Item 2.

Class		Current Rate	2023 Proposed Rate	2024 Proposed Rate	2025 Proposed Rate	2026 Proposed Rate	2027 Proposed Rate
Electric - Rural Commercial	ERC-40						
	Customer Charge	20.25	20.25	20.25	20.25	20.25	20.25
	Energy	0.1097	0.1097	0.1097	0.1097	0.1097	0.1097
Electric - Rural Comm Off Peak Heat/Cool	ERC-40-LM						
	Customer Charge	19.25	19.25	19.25	19.25	19.25	19.25
	Energy	0.0648	0.0699	0.0750	0.0800	0.0800	0.0800
Electric - Rural Demand>50 KW - KWH	ERD-80-050KWH						
	Customer Charge	27.00	27.00	27.00	27.00	27.00	27.00
	Energy	0.0550	0.0550	0.0550	0.0550	0.0550	0.0550
	Demand Charge	17.41	17.41	17.41	17.41	17.41	17.41
Electric - WWTP Comm (Ind)	ECC-51-WWTP						
	Customer Charge	19.25	19.25	19.25	19.25	19.25	19.25
	Energy	0.1058	0.1058	0.1058	0.1058	0.1058	0.1058
Electric - City Demand WWTP>50KWH Chg	ECD-51-WWT-50KH						
	Customer Charge	27.00	27.00	27.00	27.00	27.00	27.00
	Energy	0.0513	0.0513	0.0513	0.0513	0.0513	0.0513
	Demand Charge	17.41	17.41	17.41	17.41	17.41	17.41
<u>Security Lights</u>	<u>\$/month</u>						
Electric - City Res Sec Lt 100W HPS NP	ECR-1021-SL	9.13	9.13	9.13	9.13	9.13	9.13
Electric - City Res Sec Lt 100W HPS P	ECR-1022-SL	11.82	11.82	11.82	11.82	11.82	11.82
Electric - City Res Sec Lt 250W HPS NP	ECR-1023-SL	13.08	13.08	13.08	13.08	13.08	13.08
Electric - City Res Sec Lt 250W HPS P	ECR-1024-SL	15.77	15.77	15.77	15.77	15.77	15.77
Electric - Security Light 40W LED Existing Pole	E-LED40-EP-SL	4.83	4.83	4.83	4.83	4.83	4.83
Electric - Security Light 40W LED Separate Pole	E-LED40-SP-SL	9.14	9.14	9.14	9.14	9.14	9.14
Electric - Security Light 48W LED Existing Pole	E-LED48-EP-SL	5.28	5.28	5.28	5.28	5.28	5.28
Electric - Security Light 48W LED Separate Pole	E-LED48-SP-SL	8.18	8.18	8.18	8.18	8.18	8.18
Electric - Security Light 70W LED Existing Pole	E-LED70-EP-SL	5.64	5.64	5.64	5.64	5.64	5.64
Electric - Security Light 70W LED Separate Pole	E-LED70-SP-SL	9.96	9.96	9.96	9.96	9.96	9.96
Electric - Rural Com Sec St 100W HPS NP	ERC-4021-SL	9.13	9.13	9.13	9.13	9.13	9.13
Electric - Rural Com Sec Lt 100W HPS P	ERC-4022-SL	11.82	11.82	11.82	11.82	11.82	11.82
Electric - Rural Com Sec Lt 250W HPS NP	ERC-4023-SL	13.08	13.08	13.08	13.08	13.08	13.08
Electric - Rural Com Sec Lt 250W HPS P	ERC-4024-SL	15.77	15.77	15.77	15.77	15.77	15.77
Electric - Rural Res Sec Lt 100W HPS NP	ERR-2021-SL	9.13	9.13	9.13	9.13	9.13	9.13
Electric - Rural Res Sec Lt 100W HPS P	ERR-2022-SL	11.82	11.82	11.82	11.82	11.82	11.82
Electric - Rural Res Sec Lt 250W HPS NP	ERR-2023-SL	13.08	13.08	13.08	13.08	13.08	13.08
Electric - Rural Res Sec Lt 250W HPS P	ERR-2024-SL	15.77	15.77	15.77	15.77	15.77	15.77
Electric - City Com Sec Lt 100W HPS NP	ECC-3021-SL	9.13	9.13	9.13	9.13	9.13	9.13
Electric - City Com Sec Lt 100W HPS P	ECC-3022-SL	11.82	11.82	11.82	11.82	11.82	11.82
Electric - City Com Sec Lt 250W HPS NP	ECC-3023-SL	13.08	13.08	13.08	13.08	13.08	13.08
Electric - City Com Sec Lt 250W HPS P	ECC-3024-SL	15.77	15.77	15.77	15.77	15.77	15.77
Electric - City Com Sec Lt 150W HPS Twshp	ECC-3025-SL	9.13	9.13	9.13	9.13	9.13	9.13

**Grand Rapids Public Utilities Commission
Electric Operating Results at Proposed Rates**

	Historical					Projected					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
OPERATING REVENUES											
Utility Revenues											
City residential	\$ 3,496,976	\$ 3,848,068	\$ 3,821,527	\$ 4,142,608	\$ 4,311,259	\$ 4,485,931	\$ 4,581,573	\$ 4,631,250	\$ 4,720,658	\$ 4,781,747	\$ 4,843,700
City commercial and demand & energy	9,790,884	9,051,114	9,189,588	8,874,782	9,411,411	9,880,460	10,402,764	10,510,369	10,653,107	10,772,361	10,893,697
Rural residential	1,023,159	1,136,791	1,125,900	1,182,228	1,213,463	1,251,841	1,269,679	1,261,114	1,286,664	1,286,664	1,286,664
Rural commercial and demand & energy	544,806	569,994	583,743	563,487	626,763	639,013	643,887	643,097	645,694	645,694	645,694
Security lighting	57,566	55,300	56,412	60,075	61,567	61,371	60,994	60,994	60,994	60,994	60,994
Total Retail Sales	\$ 14,913,391	\$ 14,661,267	\$ 14,777,170	\$ 14,823,180	\$ 15,624,463	\$ 16,318,615	\$ 16,958,897	\$ 17,106,824	\$ 17,367,118	\$ 17,547,459	\$ 17,730,748
Purchased power adjustment passthrough	693,130	612,842	436,847	400,954	2,401,457	2,631,811	1,349,330	1,758,975	2,482,175	2,948,562	3,428,845
Total Utility Revenues	\$ 15,606,521	\$ 15,274,109	\$ 15,214,017	\$ 15,224,134	\$ 18,025,920	\$ 18,950,426	\$ 18,308,227	\$ 18,865,799	\$ 19,849,293	\$ 20,496,021	\$ 21,159,594
Other Operating Revenues											
Pole rentals	\$ 16,715	\$ -	\$ 38,624	\$ 21,416	\$ 23,577	\$ 21,000	\$ 21,000	\$ 21,000	\$ 21,000	\$ 21,000	\$ 21,000
Other	176,275	95,315	119,168	75,804	148,569	90,339	90,339	90,339	90,339	90,339	90,339
Penalties	49,752	49,954	46,823	9,869	14,294	-	-	-	-	-	-
Total Operating Revenues	\$ 15,849,263	\$ 15,419,378	\$ 15,418,632	\$ 15,331,223	\$ 18,212,360	\$ 19,061,765	\$ 18,419,566	\$ 18,977,138	\$ 19,960,632	\$ 20,607,360	\$ 21,270,933
OPERATING EXPENSES											
Purchased Power											
	\$ 10,991,941	\$ 11,169,489	\$ 11,336,920	\$ 11,069,792	\$ 13,611,143	\$ 11,807,430	\$ 12,931,589	\$ 13,831,851	\$ 14,777,844	\$ 15,568,697	\$ 16,178,333
Distribution Operations											
Supervision and engineering	\$ 75,537	\$ 83,435	\$ 88,122	\$ 89,308	\$ 88,820	\$ 90,495	\$ 93,210	\$ 97,870	\$ 102,764	\$ 107,902	\$ 113,297
Crew Personnel						230,683	237,603	249,483	261,958	275,055	288,808
Substations	14,410	6,480	6,373	5,580	6,334	6,614	6,944	7,153	7,367	7,588	7,816
Overhead and underground lines	122,256	57,556	147,490	91,108	366,055	9,000	9,450	9,734	10,026	10,326	10,636
Locating Expense						48,000	50,400	51,912	53,469	55,073	56,726
Meters	103,488	21,751	74,041	79,910	75,208	-	-	-	-	-	-
Customer installations	43,143	21,941	14,714	13,129	22,802	-	-	-	-	-	-
Mapping	81,756	67,602	57,115	34,139	47,363	-	-	-	-	-	-
Small tools	31,520	22,379	15,027	17,833	30,801	28,000	29,400	30,282	31,190	32,126	33,090
Safety	21,887	18,731	12,098	29,396	30,613	17,000	17,850	18,386	18,937	19,505	20,090
Seminar/training	41,493	12,554	12,617	11,590	11,401	12,000	12,600	12,978	13,367	13,768	14,181
Uniforms Expense						11,000	11,550	11,897	12,253	12,621	13,000
Rentals						3,164	3,322	3,422	3,525	3,621	3,739
Stores	81,237	97,862	126,094	95,509	155,224	55,849	57,524	60,401	63,421	66,592	69,921
Distribution Maintenance											
Supervision and engineering	75,537	83,326	88,121	89,128	88,780	90,309	93,018	97,669	102,552	107,680	113,064
Crew Personnel						158,000	162,740	170,877	179,421	188,392	197,811
Locating expense	-	-	11,871	15,769	37,924	-	-	-	-	-	-
Substations	24,965	58,720	73,803	55,319	52,509	60,335	63,352	65,252	67,210	69,226	71,303
Overhead lines	139,379	122,630	177,900	174,777	236,987	22,000	23,100	23,793	24,507	25,242	25,999
Overhead Lines - Tree Trimming						80,000	150,000	154,500	159,135	163,909	80,000
Underground lines	93,839	56,368	43,292	98,188	22,259	16,000	16,800	17,304	17,823	18,358	18,909
Underground Lines - Locating						-	-	-	-	-	-
Line transformers	3,506	-	6,914	778	-	2,500	2,625	2,704	2,785	2,869	2,955
Security Lighting	284	4,375	-	1,173	5,047	-	-	-	-	-	-
Street lighting	-	-	-	2,158	-	-	-	-	-	-	-
Meters	1,320	11,890	2,316	4,168	42,513	500	525	541	557	574	591
Other	43,995	12,127	57,645	7,031	5,922	-	-	-	-	-	-
Total Distribution Expenses	\$ 999,552	\$ 759,727	\$ 1,015,553	\$ 915,991	\$ 1,326,562	\$ 941,448	\$ 1,042,014	\$ 1,086,156	\$ 1,132,267	\$ 1,180,437	\$ 1,141,937

**Grand Rapids Public Utilities Commission
Electric Operating Results at Proposed Rates**

	Historical					Projected					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Other Operating Expenses											
Customer accounts expense	\$ 327,351	\$ 357,952	\$ 347,475	\$ 297,957	\$ 436,018	\$ 340,422	\$ 356,860	\$ 368,167	\$ 379,842	\$ 391,900	\$ 404,352
Conservation Improvement						119,701	119,701	119,701	119,701	119,701	119,701
Administrative and general	1,084,608	1,153,457	1,066,753	1,145,209	1,125,105	1,014,334	1,079,589	1,148,535	1,220,610	1,298,485	1,382,678
Depreciation - electric	909,967	881,083	879,575	1,123,497	933,748	908,137	939,824	979,052	1,010,033	1,039,481	1,068,962
Depreciation - other	98,367	99,113	95,904	103,727	106,360	-	-	-	-	-	-
Amortization - intangibles	50,025	49,995	47,935	43,533	45,181	2,245	2,245	2,245	2,245	2,245	2,245
Amortization - other	13,696	13,696	34,338	34,337	34,337	-	-	-	-	-	-
Service center	132,588	106,494	127,550	108,160	123,085	-	-	-	-	-	-
Total Other Operating Expenses	\$ 2,616,602	\$ 2,661,790	\$ 2,599,530	\$ 2,856,420	\$ 2,803,834	\$ 2,384,839	\$ 2,498,219	\$ 2,617,700	\$ 2,732,432	\$ 2,851,812	\$ 2,977,939
Total Operating Expenses	\$ 14,608,095	\$ 14,591,006	\$ 14,952,003	\$ 14,842,203	\$ 17,741,539	\$ 15,133,717	\$ 16,471,822	\$ 17,535,707	\$ 18,642,543	\$ 19,600,947	\$ 20,298,209
NET OPERATING INCOME	\$ 1,241,168	\$ 828,372	\$ 466,629	\$ 489,020	\$ 470,821	\$ 3,928,047	\$ 1,947,744	\$ 1,441,431	\$ 1,318,089	\$ 1,006,413	\$ 972,724
NON-OPERATING INCOME (EXPENSES)											
Investment income	\$ 38,310	\$ 26,473	\$ 50,825	\$ 30,745	\$ 15,667	\$ 30,225	\$ 81,897	\$ 89,326	\$ 93,983	\$ 97,642	\$ 98,573
Penalties	-	-	-	-	-	28,622	27,000	27,000	27,000	27,000	27,000
Gain (loss) on property disposition	(407,122)	4,474	11,650	(21,351)	(29,861)	-	-	-	-	-	-
Interest expense	(27,648)	(24,199)	(21,223)	-	(2,996)	(2,700)	(2,700)	(2,700)	(2,700)	(2,700)	(2,700)
Lease revenues combined service center	125,563	17,900	35,071	28,763	19,593	23,858	16,800	16,800	16,800	16,800	16,800
CSC Building/Grounds expenses	-	-	-	-	-	(284,247)	(296,339)	(303,956)	(311,802)	(305,883)	(314,207)
Grant revenue	-	-	-	145,672	84,329	-	-	-	-	-	-
City land improvements	-	-	-	-	(393,640)	-	-	-	-	-	-
Payment in lieu of taxes	(872,898)	(876,832)	(871,916)	(873,537)	(882,288)	(871,701)	(871,701)	(871,701)	(871,701)	(871,701)	(871,701)
Total Non-Operating Revenues (Expenses)	\$ (1,143,795)	\$ (852,184)	\$ (795,593)	\$ (689,708)	\$ (1,189,196)	\$ (1,075,942)	\$ (1,045,042)	\$ (1,045,230)	\$ (1,048,419)	\$ (1,038,842)	\$ (1,046,235)
NET INCOME	\$ 97,373	\$ (23,812)	\$ (328,964)	\$ (200,688)	\$ (718,375)	\$ 2,852,105	\$ 902,702	\$ 396,200	\$ 269,670	\$ (32,429)	\$ (73,511)
as a percent of Operating Revenues	0.6%	-0.2%	-2.1%	-1.3%	-3.9%	15.0%	4.9%	2.1%	1.4%	-0.2%	-0.3%
CASH RESERVES											
Beginning of Year						\$ 1,520,146	\$ 4,118,902	\$ 4,492,526	\$ 4,726,758	\$ 4,910,742	\$ 4,957,575
Plus Net Income						2,852,105	902,702	396,200	269,670	(32,429)	(73,511)
Less Capital Improvements						(950,607)	(1,176,840)	(929,440)	(883,440)	(884,440)	(886,440)
Less ERP Project Costs						-	(80,833)	-	-	-	-
Plus Depreciation/Amortization						910,382	942,069	981,297	1,012,278	1,041,726	1,071,208
Less Debt Service Principal						(135,100)	(135,450)	(135,800)	(136,500)	-	-
Less Loss of Revenue Payment to LCP						(78,024)	(78,024)	(78,024)	(78,024)	(78,024)	(78,024)
End of Year					\$ 1,520,146	\$ 4,118,902	\$ 4,492,526	\$ 4,726,758	\$ 4,910,742	\$ 4,957,575	\$ 4,990,807
As a percent of revenue					8.3%	21.6%	24.4%	24.9%	24.6%	24.1%	23.5%



GRAND RAPIDS PUBLIC UTILITIES COMMISSION AGENDA ITEM

AGENDA DATE: November 29, 2022

AGENDA ITEM: Review 2023 Proposed Operations and Capital Budgets

PREPARED BY: Jean Lane, Business Services Manager

BACKGROUND:

Attached please find the 2023 proposed operations and capital budgets for GRPU.

The information is separated into summary and detail format via separate PDF's. I will be referencing the summary financial information, yet please feel free to review the detail financial information.

I look forward to the Commission's review and discussion.

RECOMMENDATION:

Review and discuss 2023 proposed operations and capital budgets.



GRAND RAPIDS PUBLIC UTILITIES COMMISSION

2023 PROPOSED OPERATIONS & CAPITAL BUDGET

The preparation of the GRPU 2023 proposed operations and capital budget was a team approach. The managers, directors, and key team positions were involved in budget preparation discussions and on-going actual versus budget discussions in 2022. This allows team members to have ownership in the budget preparation process and monitoring the 2023 actual versus budget once approved by the Commission. The 2023 budget was developed using a zero-based approach, historical costs, and current supply chain pricing and availability.

Forecasted financial information, from the rate studies, was used as a base and then adjusted for actual financial activities and pricing for 2023. Thus, the proposed 2023 budgets are slightly different from the rate study forecasts.

The electric and water utilities are showing a net income in the 2023 proposed budget, while wastewater collection displays a net loss per the 2023 Budget Summary worksheet. Wastewater treatment revenue is collected from GRPU major customer (UPM-Blandin) and equals the operation expenses, except for depreciation. Depreciation is a required accounting transaction which has no effect on the operating cash flow.

Rate increases (decreases) as proposed in each utility rate study has been included in the budgeted revenues for 2023. As seen in the 2023 Proposed Revenue by Classification chart the top four total utility revenue sources are (1) city residential sales, (2) city demand and energy sales, (3) city commercial sales, and (4) wastewater treatment customer charges.

Operating expenses include known costs; for example, average insurance increases of 5%, labor contract increases of 2.5%, bond interest and PILOT payments, and training costs for new employees. There are some one-time expenses which are included in the 2023 proposed expense budget; including, a compensation study, consulting services for RPF ERP evaluation and contract negotiation, and preventative maintenance repairs on utility operating equipment.

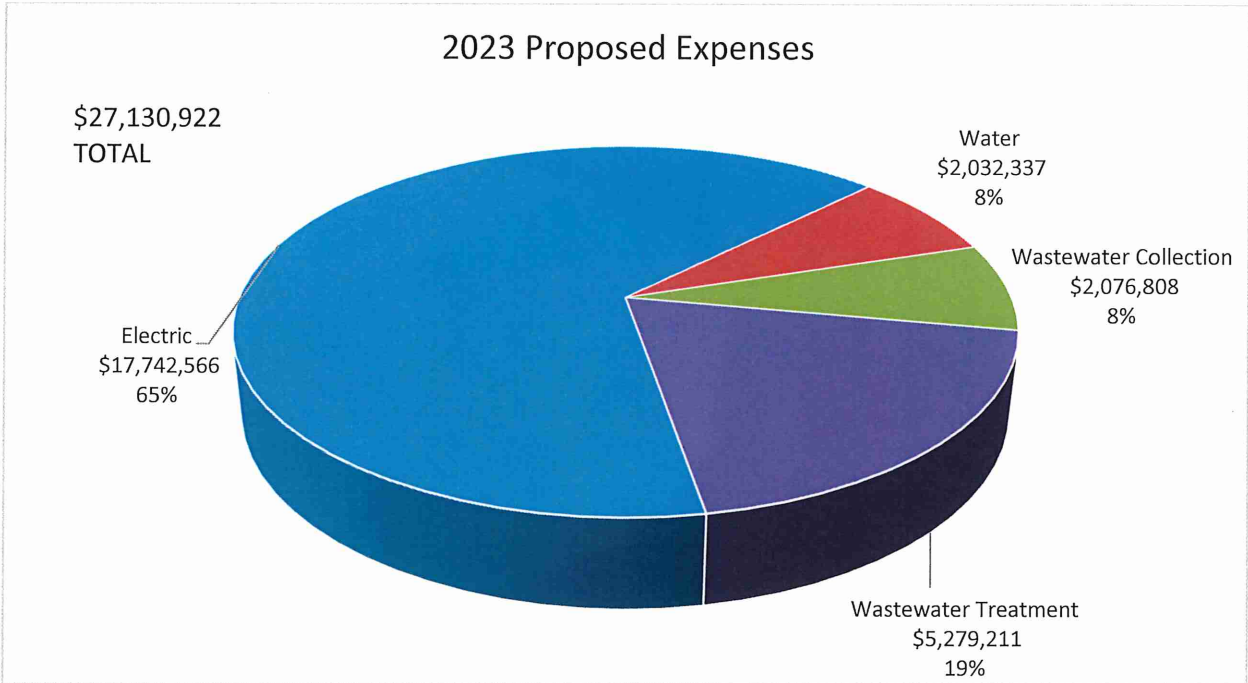
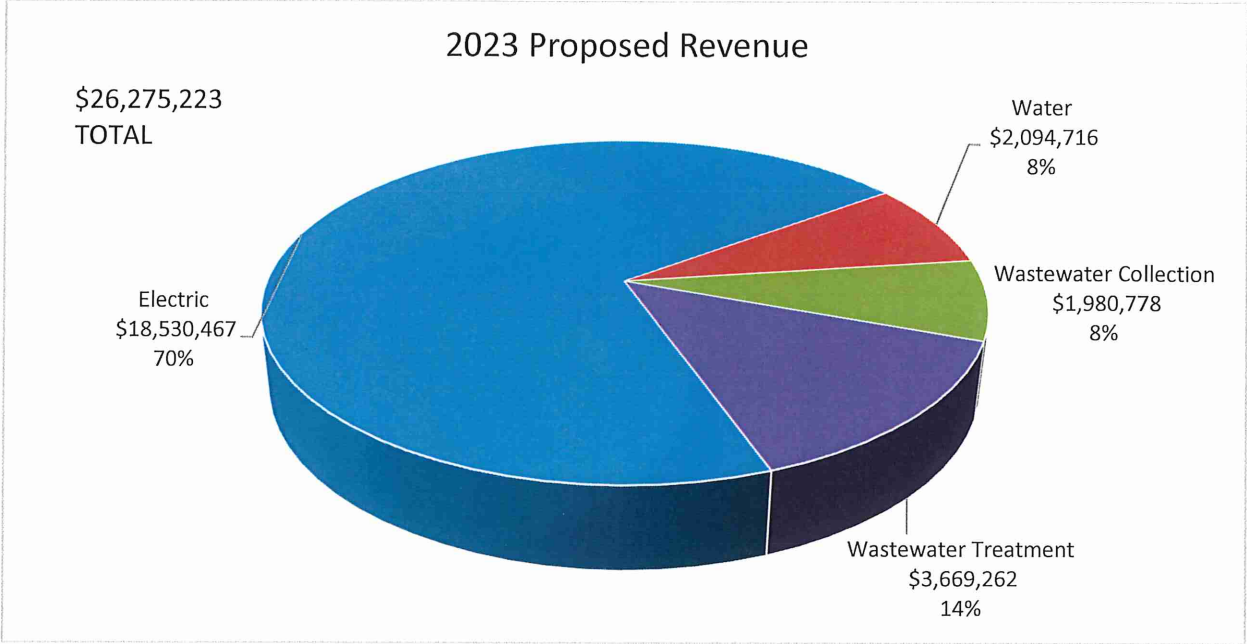
The 2023 Proposed Expenses by Category pie chart illustrates GRPU three largest cost categories are: (1) purchased power at \$12.5 million, (2) production at \$4.9 million, and (3) distribution at \$2.8 million. The actual detail expenses for 2019, 2020, 2021, 2022 year-to-date through September, 2022 forecasted to end-of year, and proposed 2023 budget by line item for each utility are provide for your review.

Capital purchases/projects of \$34 million are proposed over the next five years. The proposed capital purchases/projects for 2023 are \$12.3 million per the Capital Plan 2023 thru 2027 Department Summary report. The water utility has 2023 capital proposed at \$7.3 million, domestic wastewater collection at \$2.3 million, and wastewater treatment at \$1.2 million. Individual projects by utility is listed in the Capital Plan 2023 thru 2027 Projects by Department report. Managers are still finalizing the narrative for each individual capital purchase/project request which will be part of the final budget adoption review at the December GRPU Commission meeting.

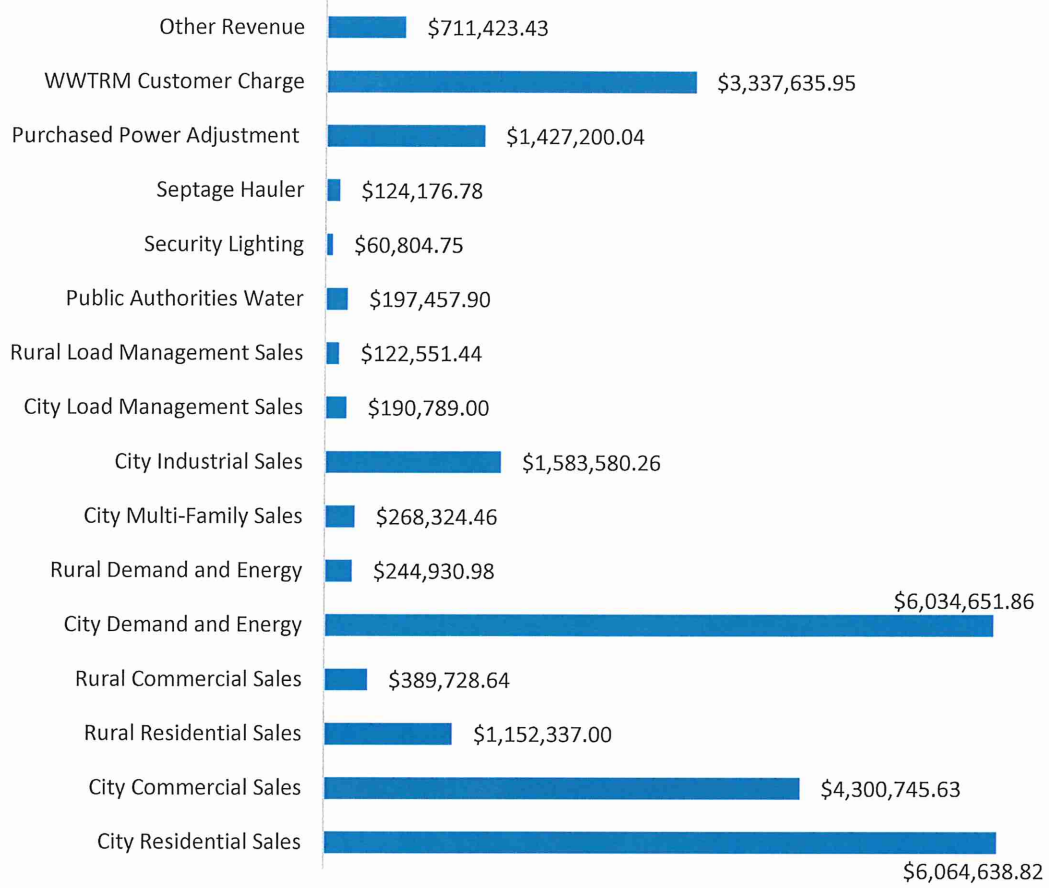
There are six City lead projects costing \$2.9 million included in the utility 2023 proposed capital projects. Over the next five years there are approximately 20 City lead projects costing \$6.2 million or 18% of the \$34 million proposed utility capital. This will change each year as GRPU and the City work together closely on prioritizing infrastructure projects.

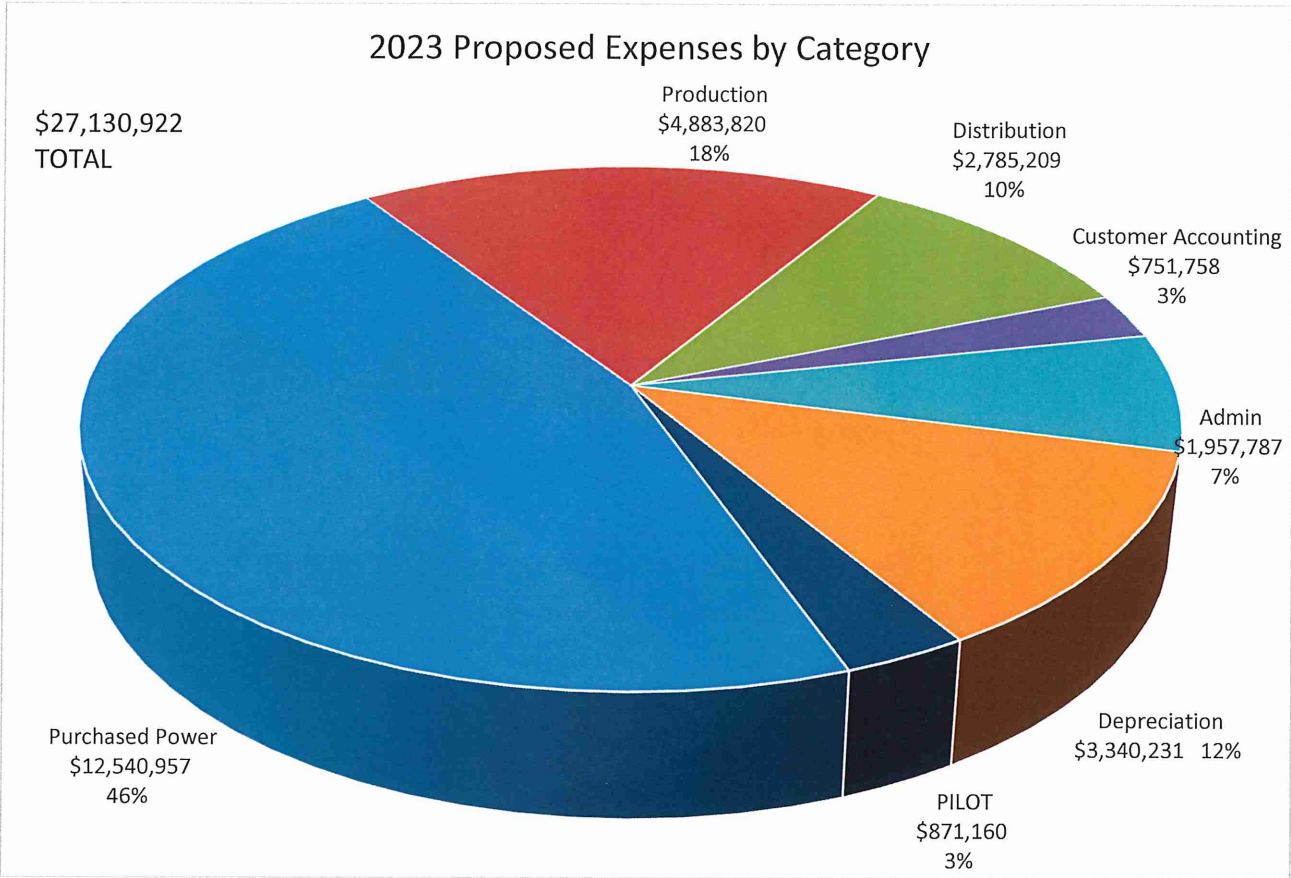
**Grand Rapids Public Utilities
2023 Budget Summary
11/20/2022**

	Electric	Water	Wastewater Collection	Wastewater Treatment	Total
REVENUES:					
Operating	\$ 18,357,987	\$ 1,846,836	\$ 1,957,094	\$ 3,337,636	\$ 25,499,553
Other	122,283	240,280	17,234		379,797
TOTAL REVENUES	18,480,270	2,087,116	1,974,328	3,337,636	25,879,350
EXPENSES:					
Source of Supply	12,540,957	0	0	0	12,540,957
Production/Treatment	0	601,145	613,413	3,337,636	4,552,194
Distribution/Collection	1,264,979	481,655	732,202	0	2,478,836
Customer Accounting	364,934	110,355	82,268	0	557,557
Conservation Improvement Program	164,356	0	0	0	164,356
Administrative	1,138,755	431,666	310,175	0	1,880,596
Depreciation and Other	947,233	334,147	239,183	1,609,949	3,130,512
Interest Expense & Bond Fees on debt issuance	3,000	21,464	47,662	0	72,126
Other - Solar	142,017	0	0	0	142,017
PILOT City of Grand Rapids:	871,160	0	0	0	871,160
TOTAL EXPENSES	17,437,391	1,980,432	2,024,903	4,947,585	26,390,311
NET INCOME BEFORE OTHER INC AND EXP	1,042,879	106,684	(50,575)	(1,609,949)	(510,961)
OTHER REVENUES:					
Interest or Demand Payments for Interest	17,247	0	0	331,626	348,873
Penalties	14,950	4,600	3,450	0	23,000
Lease Revenues	18,000	3,000	3,000	0	24,000
TOTAL OTHER REVENUES	50,197	7,600	6,450	331,626	395,873
OTHER EXPENSES:					
Service Center - Operation & Maintenance	145,651	24,275	24,275	0	194,201
Service Center - Depreciation & Amort	128,887	21,481	21,481	0	171,849
Communications - Depreciation	4,936	823	823	0	6,581
AMI - Depreciation	13,698	2,935	2,935	0	19,569
AMI - Amortization Intangibles	8,204	1,758	1,758	0	11,720
Interest Expense & Customer Interest Expense	3,799	633	633	331,626	336,691
TOTAL OTHER EXPENSES	305,175	51,905	51,905	331,626	740,611
NET INCOME (LOSS)	\$ 787,901.00	\$ 62,379.00	\$(96,030.00)	\$ (1,609,949.00)	\$ (855,699.00)
ADD:					
Depreciation and Amortization	947,233	334,147	239,183	1,609,949	3,130,512
Miscellaneous Depreciation and Amortization	160,440	26,997	26,997	0	214,434
NET OPERATING CASH FLOW	\$ 1,895,574	\$ 423,523	\$ 170,150	\$ -	\$ 2,489,247



2023 Proposed Revenue by Classifications





GRAND RAPIDS PUBLIC UTILITIES
Operating Budget - Electric
For the Twelve Months Ending Saturday, December 31, 2022

Item 3.

	2019	2020	2021	2022	2022	2023
	Actual	Actual	Actual	YTD Sept	Forecast	Budget
ELECTRIC DEPARTMENT						
OPERATING REVENUES						
City Residential Sales	\$3,713,421.05	\$4,035,745.59	\$4,217,360.88	\$3,242,751.40	\$4,323,668.53	\$4,467,702.39
City Commercial Sales	2,647,358.00	2,531,212.47	2,627,386.82	2,023,319.04	2,697,758.72	2,887,095.66
City Commercial Sales - EVC Sales		118.80	1,162.06	1,525.62	2,034.16	723.48
Rural Residential Sales	1,007,401.66	1,075,240.88	1,114,473.18	837,961.86	1,117,282.48	1,151,555.88
Rural Commercial Sales	338,166.36	338,026.47	390,675.11	302,798.90	403,731.87	385,091.71
City Demand and Energy	5,145,843.71	4,959,822.67	5,236,998.57	4,133,875.42	5,511,833.89	6,034,651.86
Rural Demand and Energy	230,675.67	210,819.50	225,393.99	173,522.12	231,362.83	244,930.98
City Industrial Sales	1,298,590.77	1,296,016.81	1,466,929.23	1,248,902.03	1,665,202.71	1,384,889.86
City Load Management Sales	205,900.87	194,592.27	173,993.85	135,152.13	180,202.84	190,789.00
Rural Load Management Sales	133,399.36	121,627.52	109,684.15	89,800.98	119,734.64	122,551.44
TOTAL RETAIL SALES	14,720,757.45	14,763,222.98	15,564,057.84	12,189,609.50	16,252,812.67	16,869,982.26
ADD: Purchased Power Adjustment Passthru	436,845.76	400,952.76	2,401,455.03	1,961,157.58	2,614,876.77	1,427,200.04
TOTAL ELECTRIC SALES	15,157,603.21	15,164,175.74	17,965,512.87	14,150,767.08	18,867,689.44	18,297,182.30
OTHER SERVICES						
Windsense Program Sales						
City Security Lighting	31,145.91	34,835.41	35,951.81	19,588.64	26,118.19	34,576.59
Rural Security Lighting	25,266.03	25,239.87	25,615.88	14,059.45	18,745.93	26,228.16
Public Street and Highway Lighting						
TOTAL OTHER SERVICES	56,411.94	60,075.28	61,567.69	33,648.09	44,864.12	60,804.75
OTHER REVENUES						
Connection Fees	19,797.09	25,285.20	66,954.32	134,428.73	179,238.31	54,471.10
Reconnection Fees	11,110.00	360.00	4,980.00	990.00	1,320.00	1,000.00
Pole Rentals	38,624.30	21,415.79	23,577.36	2,761.00	3,681.33	21,344.05
23 kV Capacity Lease	35,868.00	35,868.00	35,868.00	35,868.00	35,868.00	35,868.00
Merchandising and Jobbing (Net)	4,181.64	1,883.66	(225.57)	387.00	516.00	1,642.12
City of Grand Rapids Merch / Jobbing (Net)	1,716.98	1,329.44	359.85	(426.33)	(568.44)	957.26
Street Light Revenues (Net)	12,046.28	7,415.98	9,998.64	(4,686.54)	(6,248.72)	7,000.70
Equipment Rental Revenue						
Allowance for Funds Used During Construction						
Grant Revenue		10,065.28	84,329.00			
Miscellaneous Income	30,049.49	26,830.05	94,633.96	175,554.41	234,072.55	0.00
TOTAL OTHER REVENUES	153,393.78	130,453.40	320,475.56	344,876.27	447,879.03	122,283.23
TOTAL ELECTRIC REVENUES	15,367,408.93	15,354,704.42	18,347,556.12	14,529,291.44	19,360,432.59	18,480,270.28
ELECTRIC DEPARTMENT						
EXPENSES						
Purchased Power	11,336,920.53	11,069,792.18	13,611,142.91	8,879,119.39	11,838,825.85	12,540,957.17
OPERATING EXPENSES						
Supervision and Engineering	88,121.52	89,308.13	88,820.02	69,562.14	92,749.52	93,209.91
Crew Personnel				228,550.83	304,734.44	346,603.13
Customer Service Engineer						
Substations	6,373.33	5,579.90	6,334.46	4,714.38	6,285.84	6,952.88
Overhead Lines	52,835.51	36,004.09	131,601.37	17,430.62	23,240.83	3,163.33
Underground Lines	96,141.07	55,104.11	231,225.03	49,677.66	66,236.88	6,348.55
Locating Expense	11,870.09	15,769.14	37,924.05	17,332.53	23,110.04	1,400.09
Street Lighting			3,176.47			
Security Lighting	(1,487.09)		52.87			
Meters	74,041.39	79,910.32	75,208.06	23,751.80	31,669.07	69,696.08
Customer Installations	14,713.85	13,129.34	22,802.35	2,201.95	2,935.93	13,906.69
Mapping/GIS Expense	57,115.39	34,139.32	47,363.20	3,282.93	4,377.24	9,166.01
	15,026.70	17,832.55	30,800.72	25,502.02	34,002.69	29,399.94
Safety Expense	12,097.80	29,395.61	30,612.66	18,077.02	24,102.69	18,850.09
Seminar/Training Expense	12,617.12	11,590.32	11,400.63	4,201.79	5,602.39	17,600.01
Uniforms Expense	7,766.17	7,124.31	12,680.59	4,814.46	6,419.28	11,550.04
Miscellaneous Meetings	49,862.41	29,531.50	40,837.53	608.35	811.13	1,592.14
Rentals	3,023.91	3,026.70	3,381.21	2,423.26	3,231.01	3,325.89
Stores Expense (Labor)	65,442.24	55,826.21	98,587.21	35,649.48	47,532.64	57,524.53
TOTAL OPERATING EXPENSES	565,561.41	483,271.55	872,808.43	507,781.22	677,041.63	690,289.31
MAINTENANCE EXPENSES						

GRAND RAPIDS PUBLIC UTILITIES
Operating Budget - Electric
For the Twelve Months Ending Saturday, December 31, 2022

Item 3.

	2019	2020	2021	2022	2022	2023
	Actual	Actual	Actual	YTD Sept	Forecast	Budget
Supervision and Engineering Crew Personnel	88,120.86	89,127.73	88,779.54	69,561.94	92,749.25	93,018.01
Substation Structures		310.88		95,128.73	126,838.31	172,739.95
Substations	73,802.85	55,007.89	52,508.85	28,914.33	38,552.44	63,351.75
Overhead Lines	87,874.31	115,832.74	118,101.29	49,830.22	66,440.29	53,099.49
Overhead Lines-Tree Trimming	90,025.80	58,944.17	64,555.39	97,782.99	130,377.32	150,024.19
Underground Lines	43,292.11	97,135.22	22,119.95	13,102.42	17,469.89	16,799.97
Underground Locates		1,053.36	139.31			
Line Transformers	6,914.00	777.64		60.00	80.00	2,625.08
Street Lighting		2,157.74				
Security Lighting		1,172.76	5,046.51	1,329.31	1,772.41	2,500.00
Meters	2,315.60	4,167.61	42,513.45			20,531.00
Miscellaneous Plant						
TOTAL MAINTENANCE EXPENSES	392,345.53	425,687.74	393,764.29	355,709.94	474,279.92	574,689.44
OTHER EXPENSES						
Truck Expense - Operation			4,484.88	2,893.02	3,857.36	0.00
Truck Expense - Maintenance						
Operation & Maintenance - Misc Equip						
TOTAL OTHER EXPENSES			4,484.88	2,893.02	3,857.36	0.00
ELECTRIC DEPARTMENT						
CUSTOMER ACCOUNTING EXPENSES						
Supervision	22,850.38	(13,007.83)	85,911.82	25,589.39	34,119.19	35,092.26
Meter Reading	29,694.43	4,034.67	9,871.89	5,538.90	7,385.20	0.00
Customer Billing and Accounting	268,701.73	292,131.23	311,733.80	232,627.21	310,169.61	288,863.89
Collecting Expense	6,899.52	2,524.65	50.39	841.01	1,121.35	2,730.22
Uncollectible Accounts	12,405.81	12,273.82	28,450.14	5,223.30	6,964.40	18,534.55
Miscellaneous Expense				117.02	156.03	229.25
Customer Service & Information Expense	6,922.52					5,624.06
Miscellaneous Customer Information						13,860.00
TOTAL CUSTOMER ACCOUNTING EXPENSES	347,474.39	297,956.54	436,018.04	269,936.83	359,915.77	364,934.23
CONSERVATION IMPROVEMENT PROGRAMS						
Planning & Evaluation	14,991.64	28,101.84	14,554.29	10,554.19	14,072.25	18,149.22
Energy Star Appliance	4,895.76	4,027.40	14,797.24	13,862.59	18,483.45	18,136.49
Fluorescent LT Recycling		93.00		1,101.02	1,468.03	
Resident/Low Income Conservation	(2,000.00)		3,820.99	23,729.60	31,639.47	22,487.66
Commerical Energy Audits	35,005.91	36,847.03	36,258.28	41,952.16	55,936.21	40,227.58
Commerical Industrial Power Grade	55,392.05	69,535.52	104,879.70	70,213.19	93,617.59	51,570.70
Load Mgmt Efficiency						
Windsense - Admin Exp						
Education	12,243.50	12,356.00	12,004.00			13,784.23
TOTAL CONSERVATION IMPROVEMENT PROGRAMS	120,528.86	150,960.79	186,314.50	161,412.75	215,217.00	164,355.88
ADMINISTRATIVE AND GENERAL EXPENSES						
Administrative & General Salaries	139,208.76	144,137.07	185,593.58	117,563.83	156,751.77	168,655.64
Commissioner Salaries	8,859.58	8,402.52	8,711.51	6,533.65	8,711.53	8,711.49
City Treasurer Salary	462.00	462.00	462.00			486.00
General Office Supplies and Phone	3,669.99	3,563.74	14,520.14	8,731.23	11,641.64	6,841.97
Telephone Expense	14,109.14	13,293.47	14,853.09	11,998.75	15,998.33	16,421.75
Accounting Outside Service	17,392.20	17,808.00	18,463.20	26,241.60	34,988.80	19,976.27
Data Processing Outside Service	53,468.58	55,390.69	64,628.68	60,865.76	81,154.35	68,424.98
Legal Outside Services	9,458.34	9,442.79	11,517.12	2,815.83	3,754.44	21,499.95
Engineering Outside Service		38,875.00				5,268.75
Other - Outside Service	27,962.44	5,642.92	7,069.91	2,987.33	3,983.11	64,129.71
Fiber Optic Outside Service				0.03	0.04	
Insurance - Fire	2,067.30	2,292.06	2,414.55	2,110.53	2,814.04	2,954.74
Insurance - Liability	29,083.12	26,951.61	26,984.46	21,433.89	28,578.52	30,007.44
Insurance - Worker's Compensation	30,707.00	25,343.00	26,125.00	24,043.46	32,057.95	33,660.84
Insurance - Worker's Comp Deductible						
Insurance - Auto	3,142.25	2,964.82	3,243.78	2,625.30	3,500.40	3,675.42
Insurance - Miscellaneous	1,000.74	1,104.67	1,320.18	1,520.28	2,027.04	2,128.39
Insurance Claims- Injuries & Damages	1,170.81					
Insurance - Group Health	317,414.57	321,475.80	242,071.46	167,180.39	222,907.19	255,066.53
Insurance - Group Health Co-insurance	314.96					
Insurance - Group Health HSA funding	33,313.73	38,691.00	66,220.00	46,197.35	61,596.47	72,035.19
Insurance - Group Life	2,609.19	2,396.91	2,395.31	1,682.52	2,243.36	3,004.80
Employee Assistance Programs						

GRAND RAPIDS PUBLIC UTILITIES
 Operating Budget - Electric
 For the Twelve Months Ending Saturday, December 31, 2022

Item 3.

	2019	2020	2021	2022	2022	2023
	Actual	Actual	Actual	YTD Sept	Forecast	Budget
Insurance - Group Dental	10,161.45	10,114.38	13,163.88	9,256.26	12,341.68	12,958.76
Third Party Administrative Cost	953.27	986.42	863.88	541.31	721.75	1,080.30
FICA						
PERA	(4,078.62)	(45,111.00)	(107,211.00)			
Deferred Compensation						
Paid Time Off	202,885.35	192,499.38	215,649.06	144,819.88	193,093.17	204,520.86
Extended Illness Benefit	8,099.71	9,630.76	10,845.34			
Short-Term Disability Payments						
Disability Insurance	6,770.86	9,555.40	10,413.02	8,152.25	10,869.67	11,192.50
Unemployment Compensation		6,660.00				
Membership - APPA	9,265.25	9,419.47	9,605.74			10,605.77
Membership - NEMPA	2,000.00	2,000.00	4,000.00			2,000.00
Membership - MMUA	29,227.00	30,426.00	30,426.00	30,249.00	40,332.00	31,432.00
Membership - NMMEA						
Membership - Other	1,853.05	1,883.89		1,921.15	2,561.53	1,905.93
Advertising/Promotions	0.00	0.00	0	0.00	-	5,000.00
Amortize Service Territory Costs	34,337.49	34,337.49	34,337.49		34,337.49	34,337.49
Miscellaneous General Expense	(27,923.92)	36,514.42	8,067.29	49,663.67	52,463.27	28,696.44
Office Equip Rental & Maintenance	11,596.53	11,430.80	11,049.15	9,391.01	12,521.35	12,074.89
Maintenance of General Plant						
TOTAL ADMINISTRATIVE AND GENERAL	980,562.12	1,028,585.48	937,803.82	758,526.26	1,031,950.88	1,138,754.80
OPERATING INCOME BEFORE DEPRECI	1,624,016.09	1,898,450.14	1,905,219.25	3,593,912.03	4,759,344.17	3,006,289.45
LESS:						
Depreciation	853,086.68	1,104,806.65	911,093.56	688,872.87	918,497.16	942,518.00
Amortization Computer Intangibles	3,085.00	3,085.00	4,338.17	10,187.82	13,583.76	4,715.33
TOTAL OPERATING EXPENSES	14,599,564.52	14,564,145.93	17,357,768.60	11,634,440.10	15,533,169.33	16,421,214.16
NET OPERATING INCOME	767,844.41	790,558.49	989,787.52	2,894,851.34	3,827,263.25	2,059,056.12
OTHER INCOME						
Extraordinary Income (Loss)						
Interest Income						
Penalties						
Lease Revenue						
Property Disposition Gain (Loss)	11,650.00			4,000.00	5,333.33	
Contributions - (Capital)	1,364,096.01					
Grant Revenues		10,065.28	84,329.00			
TOTAL OTHER INCOME	1,375,746.01	10,065.28	84,329.00	4,000.00	5,333.33	
OTHER EXPENSES						
Payment in Lieu of Tax to City - cash	868,000.00	868,000.00	868,000.00	651,000.01	868,000.01	868,000.00
Payment in Lieu of Tax to City - Composte	3,915.89	3,855.67	5,287.26	1,103.47	1,471.29	0.00
Payment in Lieu of Tax to City - Electric Dept		1,681.10	9,001.34	883.28	1,177.71	3,160.49
Payment in Lieu of Tax to City - W/S Dept						
Payment in Lieu of Tax - Other						
Interest Expense & Bond Fees						3,000.00
Solar Garden Expenses			393,640.13	4,212.18	5,616.24	142,017.05
Unusual & Extraordinary Expenses			54,331.00			
TOTAL OTHER EXPENSES	871,915.89	873,536.77	1,330,259.73	657,198.94	876,265.25	1,016,177.54
ELECTRIC DEPARTMENT NET INCOME	1,271,674.53	(72,913.00)	(256,143.21)	2,241,652.40	2,956,331.33	1,042,878.58

GRAND RAPIDS PUBLIC UTILITIES
Operating Budget - Water
For the Twelve Months Ending Saturday, December 31, 2022

Item 3.

	2019 Actual	2020 Actual	2021 Actual	2022 YTD Sept	2022 Forecast	2023 Budget
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WATER DEPARTMENT

OPERATING REVENUES

City Water Residential Sales	\$596,140.69	\$619,545.14	\$614,459.01	\$486,595.97	\$648,794.63	\$707,186.14
City Water Commercial Sales	571,391.51	524,541.82	596,505.19	429,137.74	572,183.65	629,392.02
City Multi-Family Sales	241,492.48	247,837.05	247,105.20	192,209.50	256,279.33	268,324.46
City Industrial Sales	97,313.25	98,082.08	102,991.90	76,444.36	101,925.81	109,060.62
City Industrial Sales - Internal	37,166.77	41,856.86	72,034.84	62,824.61	83,766.15	89,629.78
Rural Water Sales						
Public Authorities Water Sales	34,759.52	35,253.12	37,911.76	26,253.71	35,004.95	43,243.00
TOTAL OPERATING REVENUES	1,578,264.22	1,567,116.07	1,671,007.90	1,273,465.89	1,697,954.52	1,846,836.02

OTHER REVENUES

Service Connections	11,549.00	10,098.00	20,953.00	14,312.00	19,082.67	20,718.25
Permit Fees	1,235.00	1,000.00	1,680.00	810.00	1,080.00	1,317.08
Thawing Service	920.00	330.00	960.00	1,756.80	2,342.40	1,044.20
Water Shutoff Fees					-	
Merchandising and Jobbing (Net)	3,539.60	1,072.21	1,285.36	507.48	676.64	1,662.53
City of Grand Rapids Jobbing	(1.66)			(2,666.20)	-	0.00
City of LaPrairie Jobbing (Net)	16,399.64	3,212.20	2,436.79	(2,734.32)	2,400.00	5,393.59
Equipment Rental Revenue					-	
Antenna Rental Revenue	185,512.07	190,903.66	194,340.65	129,636.01	172,848.01	194,103.44
Miscellaneous Income	10,712.27	10,744.03	11,987.55	7,679.44	10,239.25	16,041.10
TOTAL OTHER REVENUES	229,865.92	217,360.10	233,643.35	149,301.21	208,668.97	240,280.19

TOTAL WATER REVENUES	1,808,130.14	1,784,476.17	1,904,651.25	1,422,767.10	1,906,623.49	2,087,116.21
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EXPENSES

PRODUCTION OPERATION EXPENSE

Supervision and Engineering						
WTP Operators Wages	122,809.82	127,170.16	127,657.13	98,091.19	130,788.25	134,711.89
WTP Operators Wages - OT	29,866.19	31,466.14	34,198.17	24,975.76	33,301.01	35,224.11
Other Operating Wages					-	16,480.00
Water Treatment Expense	89,041.60	111,014.18	114,018.32	95,830.43	127,773.91	111,533.05
Heating Fuel					-	
Station Supplies and Expense	2,736.90	2,469.16	4,030.99	664.64	886.19	2,441.37
Permits and Fees	3,610.31	3,654.44	3,893.37	10,145.69	13,527.59	4,095.58
Miscellaneous Production Expense	16,470.70	12,450.36	18,325.99	5,466.96	7,289.28	15,750.01
Power Purchased	169,963.79	168,760.15	195,189.86	154,547.65	206,063.53	174,898.54
TOTAL PRODUCTION OPERATION EXPENSE	434,499.31	456,984.59	497,313.83	389,722.32	519,629.76	495,134.55

PRODUCTION MAINTENANCE EXPENSE

Supervision	209.02					
WTP Buildings and Grounds	9,930.41	6,761.18	17,851.36	8,888.09	11,850.79	15,529.94
WTP HVAC System	633.65		53.68	47.65	63.53	1,050.00
Wellhouses	2,877.84	1,828.16	6,272.49	1,088.37	1,451.16	4,725.01
Wellhead Protection					-	1,050.00
Wells, Pumps and Mains	1,699.33	4,181.30	8,081.25	2,793.64	3,724.85	2,520.08
Maintenance of WTP Equipment	40,548.97	62,364.13	51,510.34	55,791.19	64,388.25	66,014.54
Maintenance of SCADA System	7,921.56	6,954.36	8,182.58	1,964.53	2,619.37	9,442.00
Underground Clearwell					-	0.00
Maintenance Inspections - WTP	10,593.82	4,629.79	2,381.05	1,527.58	2,036.77	5,679.18
TOTAL PRODUCTION MAINTENANCE EXPENSE	74,414.60	86,718.92	94,332.75	72,101.05	86,134.73	106,010.75

DISTRIBUTION OPERATION EXPENSE

Supervision and Engineering	27,437.05	29,361.26	43,108.47	33,840.25	45,120.33	46,248.33
Records (Mapping-Meters-Valves)	4,714.43	10,527.28	1,274.81	3,400.99	4,534.65	5,090.47
Maintenance Inspections	619.08	6,325.36	11,358.97	5,781.06	7,708.08	10,950.02
Thaw/Flush Hydrants, Mains, Valves	18,498.45	4,931.67	8,053.86	22,580.85	25,107.80	23,285.02
Locating Expense	15,685.53	21,104.64	13,629.88	13,462.74	17,950.32	21,629.93
Service on Customer Premise	21,008.19	7,371.79	46,237.87	21,993.68	29,324.91	22,655.96

GRAND RAPIDS PUBLIC UTILITIES
Operating Budget - Water
For the Twelve Months Ending Saturday, December 31, 2022

Item 3.

	2019	2020	2021	2022	2022	2023
	Actual	Actual	Actual	YTD Sept	Forecast	Budget
Mapping Expense	28,553.29	30,799.16	30,810.45	25,019.81	33,359.75	35,300.07
Small Tools Expense	1,665.17	3,412.39	3,465.45	3,832.36	5,109.81	5,920.02
Safety Expense	5,683.21	9,000.30	14,825.96	5,223.97	6,965.29	16,995.00
Seminar/Training Expense	19,286.72	14,211.13	20,364.93	8,801.70	11,735.60	13,776.01
Uniforms Expense	78.94	56.91	377.79	707.48	943.31	310.54
Miscellaneous Meetings					-	
Rentals			2.49		-	
Stores Expense (Labor)	836.58	15,074.25	24,981.16	9,422.02	12,562.69	13,682.65
TOTAL DISTRIBUTION OPERA	144,066.64	152,176.14	218,492.09	154,066.91	200,422.55	215,844.02

WATER DEPARTMENT

DISTRIBUTION MAINTENANCE EXPENSE

Supervision						
Towers and Tanks	2,235.43	6,484.15	16,298.13	6,305.19	8,406.92	5,249.99
Elevated Tank Control System	840.81	2,089.14	370.63	189.47	252.63	1,000.00
Booster Pump (21st St SW)	320.22	303.00	2,538.31	3,639.54	4,852.72	2,236.50
Booster Station	385.41		24.99		-	0.00
Mains and Hydrants	108,480.20	138,680.98	93,944.35	232,354.63	309,806.17	197,450.09
Services	18,326.14	9,018.65	43,923.48	46,636.80	62,182.40	49,925.01
Meters and Meter Installations	(366.58)	(2,552.98)	6,396.12	4,723.17	6,297.56	6,400.03
Miscellaneous Distribution Ex	472.37	147.38	5,319.77	3,636.39	4,848.52	3,549.83
TOTAL DISTRIBUTION MAINT	130,694.00	154,170.32	168,815.78	297,485.19	396,646.92	265,811.45

OTHER EXPENSES

Truck Expense - Operation			(2,657.73)	(1,744.30)	(2,325.73)	0.00
Truck Expense - Maintenance						
Operation & Maintenance - Misc Equip						
TOTAL OTHER EXPENSES			(2,657.73)	(1,744.30)	(2,325.73)	0.00

CUSTOMER ACCOUNTING EXPENSES

Supervision	7,030.92	(4,002.37)	26,434.37	7,873.66	10,498.21	10,760.66
Meter Reading	8,948.43	1,617.90	2,426.13	2,237.09	2,982.79	0.00
Customer Billing and Account	82,538.24	89,886.58	95,917.52	71,577.40	95,436.53	98,323.69
Collecting Expense	2,224.65	700.38				770.30
Miscellaneous Expense	275.00	214.99	(1,847.11)	364.94	486.59	500.00
Miscellaneous Customer Information						
TOTAL CUSTOMER ACCOUN	101,017.24	88,417.48	122,930.91	82,053.09	109,404.12	110,354.65

ADMINISTRATIVE AND GENERAL EXPENSES

Administrative & General Sale	42,833.24	44,349.48	57,100.74	36,173.51	48,231.35	49,437.13
Commissioner Salaries	2,726.08	2,585.46	2,680.46	2,010.32	2,680.43	2,680.43
City Treasurer Salary	165.00	165.00	165.00		165.00	165.00
General Office Supplies and P	4,553.64	4,619.83	8,406.55	5,351.48	7,135.31	8,076.46
Accounting Outside Service	6,211.50	6,360.00	6,594.00	9,372.00	9,372.00	10,234.39
Data Processing Outside Ser	20,259.31	21,431.91	25,122.96	24,321.15	32,428.20	33,325.00
Legal Outside Services	6,234.93	5,159.95	3,741.32	9,480.54	12,640.72	10,995.34
Engineering Outside Service	22,412.50	6,800.00	3,400.00	369.59	492.79	7,639.90
Other- Outside Services	251.72	579.74	228.54	9,938.26	13,251.01	9,075.30
Fiber Optic Outside Service				113.51	151.35	
Insurance - Fire	5,497.92	5,869.00	6,165.72	5,328.75	7,105.00	7,460.25
Insurance - Liability	8,487.23	5,621.15	4,096.38	3,585.48	4,780.64	5,019.67
Insurance - Worker's Compen	7,624.00	5,702.00	11,369.04	10,956.63	14,608.84	15,339.28
Insurance - Worker's Comp Deductible					-	
Insurance - Auto	571.20	614.94	572.28	349.53	466.04	489.34
Insurance - Miscellaneous	613.86	630.74	538.86	482.01	642.68	674.81
Insurance Claims - Injuries & Damages			9,979.69	(8,836.30)	(8,836.30)	5,085.85
Insurance - Group Health	122,054.09	126,465.59	114,280.66	84,689.52	112,919.36	125,708.72
Insurance - Group Health Co-	96.92				-	
Insurance - Group Health HS/	12,279.95	14,760.04	27,980.00	22,395.15	29,860.20	38,846.22
Insurance - Group Life	1,098.67	1,009.26	1,008.61	708.47	944.63	991.86
Employee Assistance Programs					-	
Insurance - Group Dental	3,892.00	3,976.65	5,887.62	4,362.86	5,817.15	6,108.00
Third Party Administrative Co:	304.26	314.82	275.72	172.75	230.33	641.84

GRAND RAPIDS PUBLIC UTILITIES
 Operating Budget - Water
 For the Twelve Months Ending Saturday, December 31, 2022

Item 3.

	2019	2020	2021	2022	2022	2023
	Actual	Actual	Actual	YTD Sept	Forecast	Budget
FICA						
PERA	(1,090.36)	(19,173.00)	(45,566.00)			
Paid Time Off	64,850.43	59,180.42	80,057.70	52,473.17	69,964.23	71,713.33
Extended Illness Benefit	3,884.81	8,114.22	8,287.14		-	
Short-Term Disability Payments					-	
Disability Insurance	2,043.89	2,902.25	2,870.97	2,275.92	3,034.56	4,457.53
Unemployment Compensation					-	
Lump Sum Payments					-	
Advertising/Promotions	0	0	0	0	-	3,000.00
Miscellaneous General Exper	(9,903.22)	10,350.13	(1,170.13)	17,173.37	18,456.25	12,000.00
Maintenance of General Plant	2,859.94	2,344.32	2,921.83	2,669.65	3,559.53	2,500.00
TOTAL ADMINISTRATIVE AND	330,813.51	320,733.90	336,995.66	295,917.32	390,101.28	431,665.65
Depreciation	305,679.58	325,827.13	331,342.63	249,280.22	332,373.63	331,035.11
Amortization Bond Discount & Amortization Expense, Intangibles	973.56	973.56	973.56	10,925.69	14,567.59	3,112.00
TOTAL OPERATING EXPENSES	1,522,158.44	1,586,002.04	1,768,539.48	1,549,807.49	2,046,954.84	1,958,968.18
NET OPERATING INCOME	285,971.70	198,474.13	136,111.77	(127,040.39)	(140,331.35)	128,148.03
OTHER INCOME						
Extraordinary Income (Loss)						
Property Disposition Gain (Loss)	(105,172.00)	1,125.00				
TOTAL OTHER INCOME	(105,172.00)	1,125.00				
OTHER EXPENSES						
Interest Expense - 2012D Bor	25,830.00	24,630.00	22,826.43	1,946.46	2,595.28	0
Interest Expense - 1999 Wate	1,294.65				-	0
Interest Expense - 2021A Go	0.00	0	0	0	-	1,000.00
Interest Expense - 2021D Refunding Bonds						18,963.75
Bond Fees - 2021A	532.72	1,131.58	992.20	650.00	866.67	750.00
Bond Fees - 2021D						750.00
Unusual & Extraordinary Expenses						
TOTAL OTHER EXPENSES	27,657.37	25,761.58	23,818.63	2,596.46	3,461.95	21,463.75
WATER DEPARTMENT NET INCOME	153,142.33	173,837.55	112,293.14	(129,636.85)	(143,793.30)	106,684.28

GRAND RAPIDS PUBLIC UTILITIES
 Operating Budget - Wastewater Collection
 For the Twelve Months Ending Saturday, December 31, 2022

Item 3.

	2019	2020	2021	2022	2022	2023
	Actual	Actual	Actual	YTD Sept	Forecast	Budget
WASTEWATER COLLECTION DEPARTMENT						
OPERATING REVENUES						
Collections - City Residential	\$727,197.01	\$733,023.05	\$765,394.05	\$566,415.74	\$755,220.99	\$889,750.29
Collections- City Commercial	799,491.14	737,707.56	787,523.28	591,877.34	789,169.79	783,534.47
Collections- City Multi-Family					-	
Collections - Rural Residential	799.95	811.20	763.20	569.38	759.17	781.12
Collections - Rural Commercial	3,741.90	3,978.15	3,639.12	2,541.69	3,388.92	4,636.93
Collections - Public Authority	144,393.70	140,931.40	133,262.20	114,198.85	152,265.13	154,214.90
Septage Hauler - Regular Fees	90,898.50	129,671.86	114,482.26	74,773.58	99,698.11	95,094.35
Septage Hauler - Holding Tank Fee	20,172.25	24,858.95	41,449.77	23,496.69	31,328.92	29,082.43
Septage Hauler - Biosolids Disposal						
TOTAL OPERATING REVENUES	1,786,694.45	1,770,982.17	1,846,513.88	1,373,873.27	1,831,831.03	1,957,094.49
OTHER REVENUES						
Service Connections	900.00	1,000.00	1,400.00	800.00	1,066.67	1,158.33
Permit Fees	1,085.00	935.00	1,615.00	680.00	906.67	1,192.08
Septage Hauler - Permit Fees	100.00	175.00	250.00	100.00	133.33	158.33
Thawing Service					-	
Septic Tank Disposal					-	
Merchandising & Jobbing (Net)	907.79	4,442.88	2,755.55	6,031.14	8,041.52	5,459.55
City of Grand Rapids Merch & Jobbing (N	91.49				-	0.00
City of LaPrairie Merch/ Jobbing (Net)	2,057.14	7,682.09	3,656.41	2,190.26	2,920.35	2,450.38
Jetting Service	891.71	2,169.02	402.91	185.00	246.67	565.46
Equipment Rental Revenue					-	
Miscellaneous Income	6,828.86	6,372.51	6,456.68	7,587.33	10,116.44	6,250.06
TOTAL OTHER SERVICES	12,861.99	22,776.50	16,536.55	17,573.73	23,431.64	17,234.19
TOTAL WASTEWATER COLLECTION RE	1,799,556.44	1,793,758.67	1,863,050.43	1,391,447.00	1,855,262.67	1,974,328.68

WASTEWATER COLLECTION DEPARTMENT

EXPENSES						
OPERATING EXPENSES						
Supervision and Engineering	26,323.16	26,142.84	25,032.23	19,077.99	25,437.32	26,678.49
Crew Personnel				62,183.84	82,911.79	168,676.81
Records	469.49	329.67	373.08	2,411.10	3,214.80	2,834.99
Maintenance Inspections	99.00		638.88	132.60	176.80	750.00
Thawing Mains & Services	72.26			35.93	47.91	527.05
Locating Expense	9,136.91	9,876.72	10,100.09	9,746.28	12,995.04	14,419.93
Services on Customer Premises	359.15	424.02	556.47	251.99	335.99	714.78
Mapping Expense	28,553.18	30,778.77	30,810.45	24,010.75	32,014.33	814.68
Small Tools Expense	487.98	919.46	2,059.25	1,198.97	1,598.63	2,000.00
Safety Expense	2,042.11	3,467.17	4,075.69	1,746.08	2,328.11	6,299.96
Seminar/Training Expense	7,599.86	1,262.49	5,659.31	1,090.00	1,453.33	6,614.94
Uniforms Expense	69.35	56.91	95.08	584.70	779.60	750.00
Miscellaneous Meetings					-	0.00
Rentals					-	0
Stores Expense (Labor)	84.82	3,056.02	5,400.35	1,876.25	2,501.67	2,899.01
Power Purchased	14,396.93	14,327.33	15,438.62	13,077.53	17,436.71	15,188.24
TOTAL OPERATING EXPENSES	89,694.20	90,641.40	100,239.50	137,424.01	183,232.01	249,168.88
MAINTENANCE EXPENSES						
Supervision and Engineering						
Lift Station Buildings		30.00				
Lift Station Pumps	40,004.67	38,226.54	94,554.04	41,352.29	55,136.39	58,147.47
Mains	34,382.15	81,456.05	74,472.17	55,628.32	74,171.09	412,466.00
Services	5,685.20	7,323.44	4,733.26	11,591.31	15,455.08	8,819.95
Miscellaneous Expenses	194.08	330.18	6,896.81	3,973.82	5,298.43	3,599.92
TOTAL MAINTENANCE EXPENSES	80,266.10	127,366.21	180,656.28	112,545.74	150,060.99	483,033.34
OTHER EXPENSES						
Truck Expense - Operation			4,069.43	1,905.17	2,540.23	0.00
Truck Expense - Maintenance						
Operation & Maintenance - Misc Equip						
TOTAL OTHER EXPENSES			4,069.43	1,905.17	2,540.23	0.00

WASTEWATER DEPARTMENT

GRAND RAPIDS PUBLIC UTILITIES
Operating Budget - Wastewater Collection
For the Twelve Months Ending Saturday, December 31, 2022

Item 3.

	2019	2020	2021	2022	2022	2023
	Actual	Actual	Actual	YTD Sept	Forecast	Budget
CUSTOMER ACCOUNTING EXPENSES						
Supervision	5,273.21	(3,001.81)	19,825.78	5,905.32	7,873.76	8,070.60
Meter Reading	6,511.98		41.38		-	
Customer Billing and Accounting	61,906.46	67,415.24	71,938.66	53,683.31	71,577.75	73,367.19
Collecting Expense	1,832.29	525.35			-	632.34
Miscellaneous Expense	40.00	215.00	2,528.79	208.69	278.25	198.12
Miscellaneous Customer Information			1,846.00		-	0.00
TOTAL CUSTOMER ACCOUNTING EXPE	75,563.94	65,153.78	96,180.61	59,797.32	79,729.76	82,268.25
ADMINISTRATIVE AND GENERAL EXPENSES						
Supervision	32,125.12	33,262.61	42,825.45	27,130.05	36,173.40	37,077.73
Commissioner Salaries	2,044.50	1,939.12	2,010.47	1,507.86	2,010.48	2,010.21
City Treasurer Salary	110.00	110.00	110.00		110.00	110.00
General Office Supplies and Phone	3,067.61	3,217.59	5,632.25	5,503.93	7,338.57	4,637.96
Accounting Outside Service	4,141.00	4,240.00	4,396.00	6,248.00	6,248.00	7,656.27
Data Processing Outside Service	10,999.00	11,457.56	13,363.38	12,747.10	16,996.13	17,387.00
Legal Outside Services	4,478.13	3,048.44	10,381.11	609.40	812.53	7,737.80
Engineering Outside Service	35,812.50	1,900.00	1,900.00	11,094.81	14,793.08	27,451.21
Other - Outside Services	147.85	331.06	130.51	122.99	163.99	9,076.38
Fiber Optic Outside Service				113.51	151.35	
Insurance - Fire	653.40	550.50	577.20	529.71	706.28	741.59
Insurance - Liability	7,356.90	8,250.86	12,372.42	11,305.89	15,074.52	15,828.24
Insurance - Worker's Compensation	22,393.00	19,093.00	8,470.96	27,201.75	36,269.00	38,082.45
Insurance - Worker's Comp Deductible					-	
Insurance - Auto	571.20	935.71	1,210.86	825.78	1,101.04	1,156.09
Insurance - Miscellaneous	537.10	553.19	483.12	627.66	836.88	878.72
Insurance Claims - Injuries & Damages	500.00		55,139.53	1,000.00	1,333.33	5,000.00
Insurance - Group Health	69,943.01	71,727.28	56,034.90	42,697.60	56,930.13	62,623.14
Insurance - Group Health Co-insurance	72.68				-	
Insurance - Group Health HSA funding	7,042.99	8,508.96	19,150.00	11,354.35	15,139.13	22,653.04
Insurance - Group Life	557.81	512.44	512.08	359.69	479.59	503.56
Employee Assistance Programs					-	
Insurance - Group Dental	2,249.55	2,289.78	2,909.56	2,211.42	2,948.56	3,095.98
Third Party Administrative Cost	162.24	167.90	147.04	92.14	122.85	528.99
FICA					-	
PERA	(738.52)	(10,150.00)	(24,122.00)		-	
Paid Time Off	38,614.65	35,896.47	41,974.00	24,830.51	33,107.35	33,935.03
Extended Illness Benefit	2,202.97	2,816.63	3,206.00		-	
Short-Term Disability Payments					-	
Disability Insurance	1,173.24	1,608.24	1,523.06	1,204.92	1,606.56	2,230.61
Unemployment Compensation					-	
Lump Sum Payments					-	
Promotion/Advertising	0	0	0	0	-	2,500.00
Miscellaneous General Expense	(5,439.43)	5,574.34	1,303.81	10,449.39	13,932.52	5,039.93
Maintenance of General Plant	2,027.47	1,499.63	1,974.44	1,803.35	2,404.47	2,232.83
Environmental Programs						
TOTAL ADMINISTRATIVE AND GENERAL	242,805.97	209,341.31	263,616.15	201,571.81	266,789.75	310,174.76
DOMESTIC PLANT EXPENSES						
Power Purchased	46,019.90	44,734.86	51,914.97	42,951.23	57,268.31	47,250.12
Water Purchased	4,689.42	4,818.38	5,044.06	4,398.61	5,864.81	4,515.03
Wastewater Collection Services Purchas	5,803.20	5,956.80	6,225.60	5,410.26	7,213.68	5,250.11
Supervision and Engineering						
Labor						
Chemicals						
Heating Fuel						
Miscellaneous Supplies and Expense						
Maintenance - Building and Fixtures	1,388.79	1,546.18	1,982.40	1,401.74	1,868.99	2,674.95
Maintenance - Treatment Facilities and E	29,950.48	22,867.18	21,530.98	10,767.20	14,356.27	19,971.08
Maintenance - Tools and Equipment					-	
Miscellaneous Maintenance Expense			1,370.00	1,765.04	2,353.39	2,309.98
Maintenance Inspections					-	
Insurance - All, Expired	771.72	686.50	717.78	591.81	789.08	816.85
Miscellaneous General and Admin Expense						
TOTAL DOMESTIC EXPENSE	88,623.51	80,609.90	88,785.79	67,285.89	89,714.52	82,788.12
DOMESTIC PORTION SECONDARY PLAI	422,020.07	423,425.33	456,209.17	463,154.06	617,538.75	467,772.68
DOMESTIC PORTION OF SERVICE CTR	9,716.00	9,992.07	8,677.69	19,782.93	26,377.24	17,262.52
DOMESTIC PORTION OF SLUDGE DISP	140,403.94	50,293.08	50,293.08	74,915.07	99,886.76	45,589.43

GRAND RAPIDS PUBLIC UTILITIES
 Operating Budget - Wastewater Collection
 For the Twelve Months Ending Saturday, December 31, 2022

Item 3.

	2019	2020	2021	2022	2022	2023
	Actual	Actual	Actual	YTD Sept	Forecast	Budget
OPERATING INCOME BEFORE DEPREC	650,462.71	736,935.59	614,322.73	253,065.00	339,392.67	236,270.70
LESS:						
Depreciation	142,340.18	190,015.22	236,712.92	175,567.68	234,090.24	236,713.26
Amortization - Debt Discount and Expense	519.96	519.96	519.96	5,628.36	7,504.48	2,470.19
Amortization Computer Intangibles						
TOTAL OPERATING EXPENSES	1,291,953.87	1,247,358.26	1,485,960.58	1,319,578.04	1,757,464.72	1,977,241.43
NET OPERATING INCOME	507,602.57	546,400.41	377,089.85	71,868.96	97,797.95	(2,912.75)
ADD:						
Extra Ordinary Income (Loss)						
Gain (Loss) on Property Disposition	5,000.00		27,500.00		-	
Grant Revenues						
LESS:						
Interest Expense, 2012D Bonds	12,665.80	11,965.85	11,652.95	1,048.11	1,397.48	0
Interest Expense, 2021A Bonds						1,000.00
Interest Expense, 2021D Bonds						18,963.75
Bond Fees - 2012D	284.59	604.53	232.80	350.00	466.67	0
Bond Fees - 2021A	0.00	0.00	0.00	0.00	-	750.00
Bond Fees - 2021D						750.00
Operating Transfer In from WWTM						26,198.43
Operating Transfers to City						
Unusual & Extraordinary Expenses						
WASTEWATER COLLECTION DEPT NET INCO	499,652.18	533,830.03	392,704.10	70,470.85	95,933.80	(50,574.93)

GRAND RAPIDS PUBLIC UTILITIES
 Operating Budget - Wastewater Treatment
 For the Twelve Months Ending Saturday, December 31, 2022

Item 3.

	2019	2020	2021	2022	2022	2023
	Actual	Actual	Actual	YTD Sept	Forecast	Budget

WASTEWATER TREATMENT PLANT

OPERATING REVENUES

Screen House	\$258,620.05	\$266,991.11	\$251,313.34	\$217,329.56	\$289,772.75	\$261,669.81
Industrial Waste Treatment					-	
Primary Plant II Waste Treatment	1,705,172.26	1,778,803.18	1,274,014.25	1,065,946.94	1,421,262.59	1,339,380.47
Sludge Disposal	407,837.03	378,955.36	507,039.14	337,834.68	450,446.24	524,278.45
WWTP Service Center Building	129,083.44	132,751.94	114,300.14	93,464.29	124,619.05	120,837.65
Secondary Waste Treatment	985,185.71	1,034,087.36	1,207,757.08	1,033,486.98	1,377,982.64	1,091,469.58
WWTP Revenue (Exp) Suspense						
Total Waste Treatment Revenue	3,485,898.49	3,591,588.95	3,354,423.95	2,748,062.45	3,664,083.27	3,337,635.95

Screen House Expenses

Supervision	6,857.89	7,104.84	6,147.03	4,688.34	6,251.12	6,557.66
Operating Labor	21,389.06	21,215.71	21,125.12	15,789.94	21,053.25	21,923.78
Overtime - Operator Labor	3,879.06	4,199.61	4,561.73	3,977.64	5,303.52	5,436.10
Pera (Public Employee Retireme	(236.78)				-	
Group Insurance	15,291.91	17,058.36	11,093.33	7,804.69	10,406.25	11,907.06
Co-Insurance Payments	52.85				-	
HSA Funding	1,611.00	2,028.00	2,750.00	1,947.83	2,597.11	3,053.54
Life Insurance	168.11	154.41	154.33	108.41	144.55	169.76
Employee Assistance Programs					-	
Dental Insurance	479.18	532.17	576.67	413.98	551.97	607.16
Third Party Administrative Cost	60.89	62.96	55.16	34.54	46.05	69.25
Other Fringe Costs (PTO & EIB)	9,123.37	9,062.02	7,207.62	7,487.59	9,983.45	8,833.31
Short-Term Disability Payments					-	
Disability Insurance	592.36	866.25	846.61	710.17	946.89	1,041.57
Supplies and Sundries	241.91	214.58	816.40	786.66	1,048.88	839.99
Uniforms Expense	20.30	62.59	7.05	596.31	795.08	475.79
Fuel - Heating	3,212.33	3,039.12	4,669.93	3,255.83	4,341.11	5,370.41
Fuel - Trucks					-	
Engineering Expense					-	
Administrative Expense	17,796.75	24,463.89	17,991.15	15,635.83	20,847.77	19,789.17
Safety Expense	1,195.95	1,796.49	1,492.43	890.58	1,187.44	1,200.00
Seminars	423.52	484.61	458.43	32.74	43.65	400.00
Miscellaneous Meetings					-	
Insurance	6,711.14	4,881.61	3,962.65	2,102.99	2,803.99	2,944.18
Worker Compensation Deductible					-	
Permits					-	
Legal	1,036.13	875.83	735.40	379.71	506.28	500.00
Records					-	
Telephone					-	
Misc Capital Exp Work in Prog				12,830.16	17,106.88	0
Misc Capital Expenditures					-	
DCS Support Contract	2,810.35	3,523.15	2,356.06	145.47	193.96	3,000.00
Screens-Conveyors-Spray Wate	9,367.97	12,006.60	4,177.40	8,216.17	10,954.89	12,599.91
Sewage Pumps	13,024.20	3,925.90	9,108.18	8,225.60	10,967.47	22,679.95
Bark Trucks	385.66	127.25		631.57	842.09	286.13
Electric Motors & Controls	20,531.32	4,178.21	4,274.99	2,431.29	3,241.72	5,250.05
Instrumentation	3,917.33	3,011.00	2,938.45	1,683.78	2,245.04	3,569.92
Buildings and Grounds	14,719.91	32,706.95	12,596.39	17,003.57	22,671.43	15,750.04
Maintenance Inspection	302.85	1,170.64	555.95	2,749.98	3,666.64	1,261.37
Force Mains & Manholes	529.14	3,151.78	738.99	738.71	984.95	1,888.58
Power Purchased	92,269.69	94,790.60	118,447.68	104,792.21	139,722.95	94,500.04
Utilities - Use Tax					-	
Water Purchased	10,854.70	8,419.48	13,671.79	14,400.90	19,201.20	9,765.09
Total Screen House Expense	258,620.05	265,114.61	253,516.92	240,493.19	320,657.59	261,669.81

Primary Plant II Waste Treatment Expense

Supervision	24,965.06	25,893.26	22,135.71	16,844.93	22,459.91	23,756.03
Operating Labor	246,563.92	242,901.97	131,788.56	96,506.56	128,675.41	135,083.27
Overtime - Operating Labor	58,187.87	62,991.63	32,878.34	27,463.61	36,618.15	38,449.05
Pera (Public Employee Retireme	(1,691.82)				-	
Group Insurance	118,453.72	122,285.69	54,934.32	38,651.86	51,535.81	56,689.39
Co-Insurance Payments	211.38				-	
HSA Funding	11,794.00	14,352.00	13,375.00	9,673.86	12,898.48	13,431.43
Third Party Administrative Cost	385.25	398.80	349.16	218.87	291.83	300.00
Life Insurance	1,050.50	965.02	964.33	677.39	903.19	948.34

GRAND RAPIDS PUBLIC UTILITIES
 Operating Budget - Wastewater Treatment
 For the Twelve Months Ending Saturday, December 31, 2022

Item 3.

	2019	2020	2021	2022	2022	2023
	Actual	Actual	Actual	YTD Sept	Forecast	Budget
Employee Assistance Programs					-	
Dental Insurance	3,506.20	3,896.55	2,902.05	2,093.05	2,790.73	2,930.26
Other Fringe Costs (PTO & EIB)	63,887.89	61,139.55	34,610.55	36,344.29	48,459.05	49,670.52
Short-Term Disability Payments					-	
Disability Insurance	1,975.23	2,886.91	2,823.03	2,367.60	3,156.80	3,314.64
Supplies and Sundries	148.41	796.89	1,083.02	1,615.69	2,154.25	1,259.96
Tools	1,895.20	2,869.46	4,344.78	6,540.41	8,720.55	4,724.95
Electric Tools & Equipment					-	4,725.00
Uniforms Expense	151.50	361.72	23.51	1,987.71	2,650.28	750.00
Fuel - Heating					-	
Fuel - Trucks		15.87	9.20	166.10	221.47	250.00
Engineering Expense					-	
Administrative Expense	112,710.83	146,898.22	125,978.49	140,601.13	187,468.17	139,781.78
Safety Expense	2,517.49	11,082.77	9,077.03	5,598.10	7,464.13	8,689.84
Seminars	2,178.00	2,503.67	2,368.55	192.79	257.05	2,749.92
Miscellaneous Meetings		139.72	94.43		-	0.00
Insurance	30,081.71	26,643.88	32,297.83	20,568.70	27,424.93	30,167.42
Worker Compensation Deductible					-	
Permits	948.92	801.71	827.75	963.01	1,284.01	1,100.00
Legal	5,118.24	4,378.35	3,590.60	1,824.04	2,432.05	5,313.65
Records					-	
Outside Testing		1,750.00	28.75		-	0.00
Environmental Programs					-	
Telephone	1,238.23	1,271.24	1,129.33	3,192.64	4,256.85	4,366.25
Misc Capital Exp Work in Prog				61,384.12	81,845.49	0.00
Misc Capital Expenditures					-	
Chemicals	255,427.45	249,372.09	56,313.11	21,890.17	29,186.89	34,700.02
Nitrogen Solution	20,792.98	5,558.40		9,050.80	12,067.73	9,850.55
Polymer	223,299.28	229,894.55	334,413.01	252,456.84	336,609.12	283,500.03
Polymer - Secondary Plant					-	
Zinc Chloride	25,662.00	26,109.60		44,046.23	58,728.31	33,349.96
Sulfuric Acid					-	
HTH	111,390.00	153,650.00	29,610.00	822.00	1,096.00	30,000.02
C-5 Scale Inhibitor					-	
K-10 Dewatering Chemical					-	
DCS Support Contract			563.00		-	500.00
Primary Clarifier & AIC	22,429.02	16,435.82	8,169.71	15,885.15	21,180.20	29,146.62
Sludge Blend Tank	15,001.87	547.78	1,853.18	2,062.32	2,749.76	5,065.03
Sludge Pumps	9,953.42	5,578.68	25,794.95	16,308.38	21,744.51	23,309.94
Rotary Screens	16,158.75	10,115.12	7,255.85	2,860.89	3,814.52	18,900.00
Sludge Conveyors	7,509.70	48,363.45	9,140.80	11,222.11	14,962.81	23,099.91
Additive Systems	13,583.47	9,452.91	3,200.45	4,655.18	6,206.91	8,819.93
Electric Motors & Controls	11,236.13	8,643.31	9,190.58	17,460.37	23,280.49	12,603.20
Instrumentation	11,832.25	1,841.89	1,462.00	2,037.17	2,716.23	10,499.92
Building & Grounds	31,686.51	48,114.77	36,259.65	35,160.64	46,880.85	36,750.12
Snowplowing - Primary II Plant		938.79	280.90	340.57	454.09	500.00
Demo Dump					-	
Screw Presses	6,692.44	2,454.04	3,066.71	9,233.82	12,311.76	12,359.92
Maintenance Inspection	196.94	1,694.15	903.43	2,405.85	3,207.80	3,287.99
Power Purchased	232,018.10	218,527.93	264,484.86	208,143.64	277,524.85	230,401.56
Utilities - Use Tax					-	
Water Purchased	4,024.22	4,285.02	6,515.76	3,218.33	4,291.11	4,284.05
Total Primary Plant II Waste Treatm	1,705,172.26	1,778,803.18	1,276,092.27	1,134,736.92	1,512,982.56	1,339,380.47
Sludge Disposal Waste Treatment Plant						
Supervision	9,323.49	9,629.70	15,884.33	12,204.36	16,272.48	16,679.29
Truck Driver Wages	119,456.83	57,763.39	133,640.60	103,534.73	138,046.31	141,497.46
Overtime - Truck Driver	12,787.01	12,426.71	42,133.87	41,426.88	55,235.84	30,295.14
Pera (Public Employee Retiree)	(628.00)				-	
Group Insurance	51,042.97	49,435.15	41,801.59	29,375.18	39,166.91	43,083.60
Co-Insurance Payments	52.85				-	
HSA Funding	5,038.00	5,954.04	9,625.00	7,400.34	9,867.12	10,918.53
Life Insurance	553.87	508.85	508.48	357.18	476.24	500.05
Third Party Administrative Cost					-	
Other Fringe Costs (PTO & EIB)	4,117.79	3,545.29	21,139.13	26,303.11	35,070.81	26,960.68
Short-Term Disability Payments					-	
Employee Assistance Programs					-	
Dental Insurance	1,499.34	1,614.78	2,314.18	1,689.24	2,252.32	2,364.93
Uniforms Expense					-	
Fuel - Trucks					-	

GRAND RAPIDS PUBLIC UTILITIES
 Operating Budget - Wastewater Treatment
 For the Twelve Months Ending Saturday, December 31, 2022

Item 3.

	2019	2020	2021	2022	2022	2023
	Actual	Actual	Actual	YTD Sept	Forecast	Budget
Engineering Exp - Sludge Landfill	3,443.10	3,620.00	14,603.50	8,021.40	10,695.20	5,000.00
Administrative Expense	4,671.88	3,487.43	2,508.26	1,021.77	1,362.36	2,491.70
FEMA Payments					-	
Safety Expense		313.89			-	500.00
Seminars/Training	480.00		1,698.71		-	1,500.00
Miscellaneous Meetings	50.20		78.49		-	0.00
Insurance	11,442.28	9,194.88	16,180.50	6,482.56	8,643.41	9,075.58
Worker Compensation Deductible					-	
Permits	400.00	400.00	400.00	400.00	400.00	400.00
Legal	1,025.00				-	0.00
Records					-	
Outside Testing					-	
Misc Capital Exp Work in Prog					-	
Misc Capital Expenditures					-	
Sludge Placement	49,476.20	48,862.08	63,474.00	54,031.68	72,042.24	68,290.47
Misc Landfill Operating Expense	52,290.66	53,756.85	45,171.85	34,259.44	45,679.25	50,924.94
Sludge Dump Closure					-	
Leachate Collection Sludge LD	21,527.82	39,945.28	11,811.74	13,323.98	17,765.31	25,174.99
Soild Waste ST Tax Assessment	428.90	244.80	316.80	309.60	412.80	422.03
Sludge Landfill Amortization	143,541.22	53,430.36	53,430.36		53,430.36	53,430.36
Landfill Monitoring					-	
Well Monitoring	39,293.41	53,007.26	54,025.87	31,183.31	41,577.75	46,121.86
Sludge Disposal Alternatives					-	
Sludge Land Spreading					-	
Sludge Hauling Trucks	14,236.59	19,711.09	24,395.11	39,535.51	52,714.01	31,499.92
Power Purchased	2,689.56	2,396.61	2,189.85	1,738.32	2,317.76	2,736.35
Water Purchased						
Total Sludge Disposal Waste Treat	548,240.97	429,248.44	557,332.22	412,598.59	603,428.48	569,867.88
Waste Treatment Service Center Building						
Supplies and Sundries	5,112.78	2,781.27	1,770.46	498.65	664.87	2,276.01
Tools	1,759.56	3,853.23	3,223.85	608.39	811.19	2,991.91
Fuel - Heating SCB					-	
Administrative Expense	28,342.49	32,300.81	15,266.02	14,074.87	18,766.49	20,686.50
Insurance	1,687.70	1,945.85	2,895.11	2,646.42	3,528.56	3,704.98
Safety Expense	634.39	3,032.04	176.00	745.42	993.89	1,647.83
Telephone	3,324.65	3,910.75	4,220.60	3,154.41	4,205.88	4,398.11
Misc Capital Exp Work in Prog				7,500.00	10,000.00	0
Misc Capital Expenditures					-	0
SCADA Maint - SCB Primary Ple	3,148.12	155.38	2,281.46	(861.43)	(1,148.57)	5,680.89
Plant Vehicles	15,612.02	13,339.98	14,689.38	13,638.08	18,184.11	15,130.02
Building & Grounds - SCB	30,232.08	35,209.76	27,755.65	28,958.47	38,611.29	30,240.01
Snowplowing - SCB					-	0.00
Power Purchased	44,846.70	42,307.14	46,545.05	36,615.66	48,820.88	46,514.93
Utilities - Use Tax					-	
Water Purchased	387.03	387.03	359.76	236.36	315.15	408.04
Wastewater Collection Service	285.73	285.73	245.51	146.45	195.27	291.84
Power Purchased (PUC Portion)	3,375.57	3,184.42	3,503.41	5,230.81	6,974.41	4,076.69
Utilities - Use Tax - PUC Portion					-	
Water Purchased - PUC Portion	29.15	29.15	27.08	33.75	45.00	30.96
WW Collection Services - PUC F	21.47	21.47	18.49	20.91	27.88	21.45
Total Waste Treatment Service Ce	138,799.44	142,744.01	122,977.83	113,247.22	150,996.29	138,100.17
Secondary Waste Treatment Plant						
Supervision	27,431.01	28,418.63	24,588.12	18,753.16	25,004.21	25,800.08
Operating Labor	85,554.09	84,862.16	54,129.39	39,992.12	53,322.83	54,655.90
Overtime - Operating Labor	15,516.78	16,797.85	9,762.52	8,183.45	10,911.27	11,456.83
Truck Driver Wages					-	
Truck Driver Wages - Overtime					-	
Truck Driver Wages - Test Burn					-	
Pera (Public Employee Retireme	(825.90)				-	
Group Insurance	56,579.68	60,778.52	36,682.48	25,775.65	34,367.53	37,804.28
Co-Insurance Payments	211.37				-	
HSA Funding	5,937.00	7,305.96	9,250.00	6,406.36	8,541.81	9,212.40
Life Insurance	478.34	439.37	439.11	308.44	411.25	431.81
Employee Assistance Programs					-	
Third Party Administrative Cost	162.24	167.90	147.04	92.14	122.85	150.00
Dental Insurance	1,761.28	1,902.69	1,877.34	1,339.96	1,786.61	1,875.94
Other Fringe Costs (PTO & EIB)	32,245.29	32,255.55	25,088.35	25,317.07	33,756.09	30,513.87
Short-Term Disability Payments					-	

GRAND RAPIDS PUBLIC UTILITIES
Operating Budget - Wastewater Treatment
For the Twelve Months Ending Saturday, December 31, 2022

Item 3.

	2019	2020	2021	2022	2022	2023
	Actual	Actual	Actual	YTD Sept	Forecast	Budget
Disability Insurance	1,381.80	2,020.27	1,976.04	1,656.51	2,208.68	2,319.11
Supplies and Sundries	488.67	439.66	1,674.75	1,582.45	2,109.93	1,575.02
Uniforms Expense	59.34	167.92	16.46	1,391.39	1,855.19	750.00
Fuel - Heating					-	
Fuel - Trucks					-	
Engineering Expense					-	
Administrative Expense	37,745.44	53,318.68	41,616.17	36,397.58	48,530.11	34,933.15
Safety Expense	3,825.21	4,789.69	5,910.86	1,871.12	2,494.83	4,339.94
Seminars	1,115.57	1,049.93	993.26	70.97	94.63	1,199.93
Miscellaneous Meetings		381.38	1,671.62	1,689.03	2,252.04	1,049.47
Insurance	33,849.59	29,179.56	28,568.60	21,400.21	28,533.61	29,960.29
Worker Compensation Deductible					-	
Permits	14,350.00	14,350.00	14,350.00	14,350.00	19,133.33	15,245.83
Legal	4,610.93	1,938.72	2,447.31	760.08	1,013.44	3,405.48
Records					-	
Outside Testing	13,846.14	15,256.66	12,593.00	10,342.62	13,790.16	14,119.92
Potlatch Payments					-	
Telephone	1,195.75	1,264.83	1,129.00	1,422.44	1,896.59	1,960.00
Misc Capital Exp Work in Prog				68,283.20	91,044.27	0
Misc Capital Expenditures					-	0
Laboratory Supplies	6,194.32	4,698.88	4,791.47	4,324.93	5,766.57	5,709.91
Laboratory Certification	3,676.12	3,231.80	2,923.00	606.29	808.39	3,550.38
Chemicals	19,517.68	19,628.00	38,711.06	45,774.02	61,032.03	47,025.00
DCS Support Contract	2,395.74	3,196.06	2,356.06		-	3,000.00
Blowers & Air Systems	6,748.87	23,245.40	7,835.47	8,592.06	11,456.08	12,009.94
Aerators	13,916.64	18,810.11	20,406.96	14,214.27	18,952.36	19,979.91
Secondary Clarifiers	8,144.81	3,360.13	3,241.78	2,652.40	3,536.53	6,111.00
Waste Activated Sludge	4,054.53	4,504.55	1,581.41	9,404.09	12,538.79	5,354.99
Pumps	6,795.34	8,071.57	8,865.76	1,724.99	2,299.99	10,709.96
Chlorination System	4,682.33	2,181.74	7,190.71	3,995.21	5,326.95	4,097.50
Additive System	330.09	75.92		140.41	187.21	
Laboratory Equipment	4,698.24	1,911.64	1,235.24		-	1,666.53
Plant Vehicles			146.40	747.03	996.04	3,123.37
Electric Motors & Controls	2,338.24	3,749.70	12,091.03	3,048.86	4,065.15	4,798.77
Instrumentation	3,901.02	694.77	2,198.47		-	2,648.58
Building & Grounds	33,247.37	39,440.00	25,929.86	16,841.92	22,455.89	23,499.93
Snowplowing		938.82	280.90	340.56	454.08	1,153.42
Maintenance Inspections	1,075.43	1,888.52	764.44	3,495.62	4,660.83	1,931.22
Sludge Dredging of A Cells					-	
Sludge Dredging					-	
Power Purchased (Industrial)	648,355.65	661,900.42	869,497.82	775,716.10	1,034,288.13	775,319.92
Utilities - Use Tax (Industrial)						
Water Purchased (Industrial)	15,310.85	20,407.02	37,265.05	33,262.55	44,350.07	15,225.10
Power Purchased (Domestic)	277,742.07	270,162.55	327,546.54	272,701.06	363,601.41	324,999.97
Utilities - Use Tax (Domestic)					-	
Water Purchased (Domestic)	6,560.82	8,329.16	14,195.40	11,672.72	15,563.63	4,567.60
Total Secondary Waste Treatment	1,407,205.78	1,457,512.69	1,663,966.25	1,496,641.04	1,995,521.39	1,559,242.25
Total WWTP Expenses	4,058,038.50	4,073,422.93	3,873,885.49	3,397,716.96	4,583,586.31	3,868,260.58
Domestic Portion - Secondary Plai	(422,020.07)	(423,425.33)	(456,209.17)	(463,154.06)	(617,538.75)	(467,772.68)
Domestic Portion - WWTP SCB	(9,716.00)	(9,992.07)	(8,677.69)	(19,782.93)	(26,377.24)	(17,262.52)
Domestic Portion - Sludge Dispos	(140,403.94)	(50,293.08)	(50,293.08)	(74,763.91)	(99,685.21)	(45,589.43)
Net WasteWater Treatment Plant E	3,485,898.49	3,589,712.45	3,358,705.55	2,840,016.06	3,839,985.11	3,337,635.95
Other Revenues						
Demand Pmt/From Deferred Revenue						
Demand Pmt/2001A WW Rev Bond						
Demand Pmt/2006A GO WW Rev Bond						
Demand Pmt/2009A GO WW Rev	105,000.50	(0.50)				
Demand Pmt/2009E PFA Note	1,180,548.00	1,215,432.00	1,117,721.58		-	0.00
Demand Pmt/2011A GO WW Rev	399,483.27	412,971.54	420,769.17		-	
Demand Pmt/2013C GO Utility Bo	134,276.00	140,000.22	118,880.21	205,550.00	274,066.67	0.00
Demand Pmt/2021C GO Utility Bond						0.00
Demand Pmt / JD Loader lease	30,387.77	33,584.99			-	
Demand Pmt / 2018 Dump Truck	23,961.55	25,157.71	25,564.64		-	
Demand Pmt / 2018 Water Truck	29,233.26	30,692.58	31,189.04		-	
Interest Rev - Financial Assurance					-	
Interest Rev - 2001A Bonds Dem					-	

GRAND RAPIDS PUBLIC UTILITIES
Operating Budget - Wastewater Treatment
For the Twelve Months Ending Saturday, December 31, 2022

Item 3.

	2019	2020	2021	2022	2022	2023
	Actual	Actual	Actual	YTD Sept	Forecast	Budget
Interest Rev - 2006A Bonds Dem					-	
Interest Rev - 2009A Bonds Dem	5,116.25				-	
Interest Rev - 2009E PFA Dem	423,988.19	390,579.77	366,877.88	165,309.31	330,618.62	293,294.57
Interest Rev - 2011A Bonds Dem	41,089.64	28,244.72	15,245.00		-	
Interest Rev - 2013C Bonds Dem	67,892.23	63,537.54	60,834.67		-	26,362.50
Interest Rev - 2021C Bonds Dem						10,468.75
Interest Rev - JD Loader Lease	953.26	151.19			-	
Interest Rev - 2018 Dump Truck	3,000.47	1,765.86	1,318.57		-	
Interest Rev - 2018 Water Truck	3,660.59	2,154.36	1,608.66		-	
Bond Fees Revenue						1,500.00
Primary PLT Relocation Revenue					-	
EPA Stag Grant					-	
Grant Revenues	10,000.00	445,671.73	610.00		-	
Contribution City of GR		75,000.00			-	
Customer Contributions	117,794.71	339,821.69	32,686.88		-	
Total Other Revenues	2,576,385.69	3,204,765.40	2,193,306.30	370,859.31	604,685.29	331,625.82
Other Expenses						
Interest on LT Debt - 2001A Bonds						
Interest on LT Debt - 2006A Bonds						
Interest on LT Debt - 2009A Bonds	4,716.25					
Interest on LT Debt - 2009E PFA N	461,788.35	424,137.59	384,864.88	65,187.26	86,916.35	319,493.00
Interest on LT Debt - 2011A Bonds	46,269.58	32,020.00	16,041.67		-	
Interest on LT Debt - 2013C Bonds	67,168.70	63,037.54	57,168.00	8,937.21	11,916.28	26,362.50
Interest on LT Debt - 2021C Bonds						10,468.75
Interest on Lease Payable - 2017 I	1,082.43	151.19			-	
Interest on Lease Payable - 2018 I	3,000.47	1,765.86	469.63		-	
Interest on Lease Payable - 2018 \	3,660.59	2,154.36	572.95		-	
Capitalized Interest					-	
Bond Fees - 2001A WW Revenue Bonds					-	
Bond Fees - 2006A GO WW Revenue Bonds					-	
Bond Fees - 2009A GO WW Rev f	692.31	211.11			-	
Bond Fees - 2009E PFA Note	1,600.00	1,600.00	1,600.00		-	1,000.00
Bond Fees - 2011A GO WW Rev f	817.31	736.11	725.00		-	
Bond Fees - 2012D GO Utility Rev					-	
Bond Fees - 2013C GO Utility Bon	792.31	711.11	200.00		-	500.00
Amort Debt Disc & Exp - 2001A Bond						
Amort Debt Disc & Exp - 2006A Bond						
Amort Debt Disc & Exp - 2009A Bc	2,876.06					
Amort Debt Disc & Exp - 2009E Bc	6,493.08	6,493.08	6,493.08		-	6,493.08
Amort Debt Disc & Exp - 2011A Bc	8,264.16	8,264.16	7,575.48		-	
Amort Debt Disc & Exp - 2013C Bc	3,456.12	3,456.12	3,456.12		-	3,456.12
Depreciation Expense - WWTP	1,595,234.73	1,596,768.60	1,588,891.95		1,600,000.00	1,600,000.00
Amortization Expense, Intangibles						
Contributions Refunded						
Gain of Asset Disposal	(6,100.00)					
Loss on Asset Disposal (Secondary)		1,671.75	1,253.80		-	
Loss on Disposition of Property						
Transfer Out to WW Collection						(26,198.43)
Other Deduct - Loss on Investment						
Total Other Expenses	2,201,812.45	2,143,178.58	2,069,312.56	74,124.47	1,698,832.63	1,941,575.02
Wastewater Treatment Net Income	374,573.24	1,063,463.32	119,712.14	204,781.23	(1,270,049.18)	(1,609,949.20)

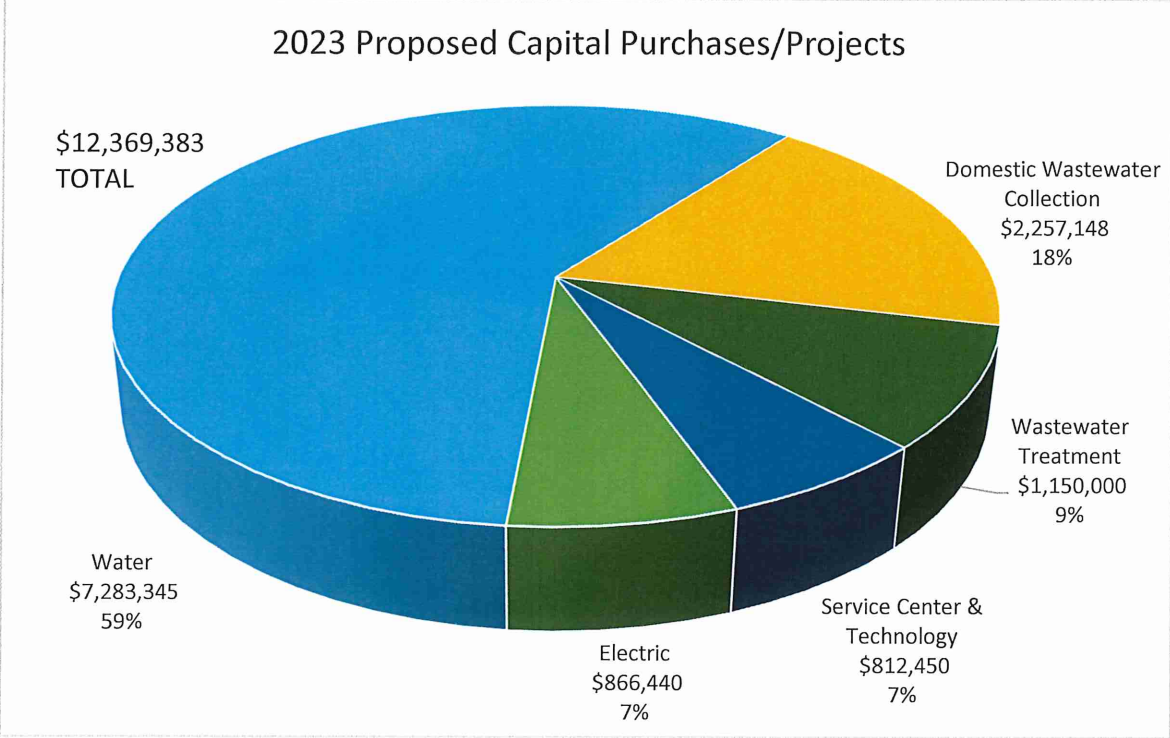
Grand Rapids Public Utilities Commission

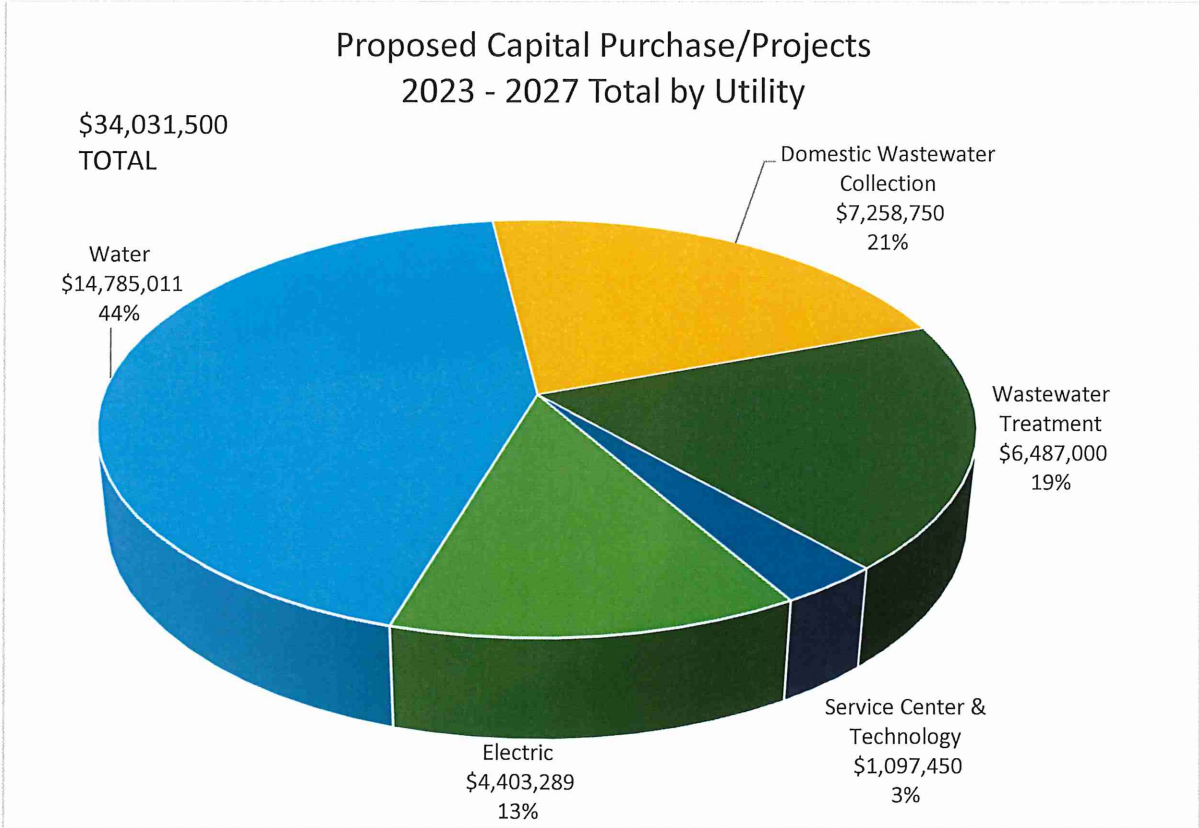
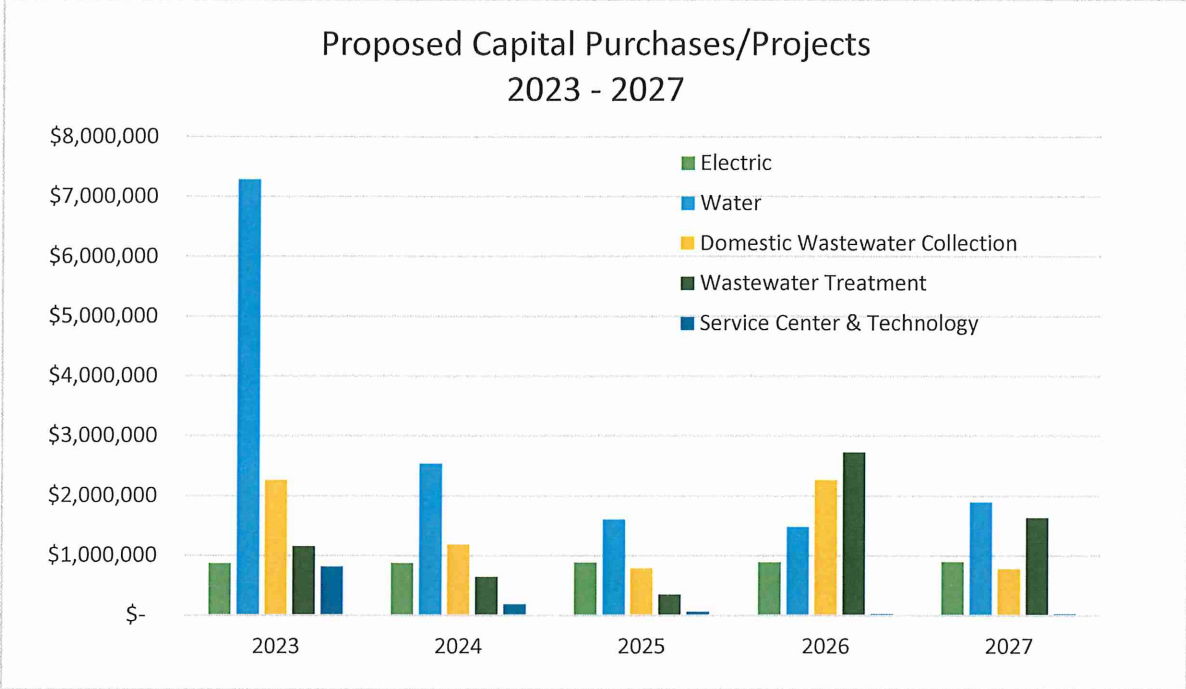
Capital Plan

2023 thru 2027

DEPARTMENT SUMMARY

Department	2023	2024	2025	2026	2027	Total
1-Electric	866,440	871,883	882,490	888,264	894,212	4,403,289
2-Water	7,283,345	2,533,575	1,599,580	1,478,511	1,890,000	14,785,011
3-Wastewater Collection	2,257,148	1,181,067	784,100	2,261,435	775,000	7,258,750
4a-WWT Domestic	57,000	30,000		15,000		102,000
4b-WWT Screenhouse	24,000	36,000	12,000	1,612,000		1,684,000
4c-WWT Primary Plant	172,000	78,000	28,000	28,000	28,000	334,000
4d-WWT Sludge Disposal	268,000	18,000	18,000	18,000	18,000	340,000
4e-WWT Service Center	54,000	65,000				119,000
4f-WWT Secondary Treatment	575,000	415,000	285,000	1,050,000	1,583,000	3,908,000
5-Technology	335,000	85,000	40,000			460,000
6-Service Center	477,450	100,000	20,000	20,000	20,000	637,450
TOTAL	12,369,383	5,413,525	3,669,170	7,371,210	5,208,212	34,031,500





Capital Plan
2023 thru 2027

PROJECTS BY DEPARTMENT

Department	Project #	Priority	2023	2024	2025	2026	2027	Total
1-Electric								
Distribution System Services	ELEC2701	1					40,000	40,000
Electric System Reliability Upgrades	ELEC2414	2		100,000				100,000
Distribution System Transformers	ELEC2506	1			150,000			150,000
Crystal Springs Conversion	ELEC2315	1	146,000					146,000
Distribution System Transformers	ELEC2606	1				150,000		150,000
Distribution System Transformers	ELEC2706	1					150,000	150,000
Purchase of electric AML meters	ELEC2507	1			26,523			26,523
SW 1st Ave Conversion	ELEC2317	1	30,000					30,000
Purchase of electric AML meters	ELEC2607	1				27,318		27,318
Distribution System Duel Fuel Services	ELEC2702	1					2,881	2,881
Purchase of electric AML meters	ELEC2707	1					28,138	28,138
Backyard Machine	ELEC2318	2	90,000					90,000
Crystal Springs Conversion	ELEC2415	1		110,000				110,000
Convert SW Grand Rapids to Underground	ELEC2510	1			200,000			200,000
Distribution System Services	ELEC2601	1				40,000		40,000
Inspect and replace power poles	ELEC2311	1	50,000					50,000
Distribution System Duel Fuel Services	ELEC2502	1			2,716			2,716
Distribution System Duel Fuel Services	ELEC2602	1				2,797		2,797
Overhead to Underground Conversions	ELEC2713	1					400,000	400,000
Overhead to Underground Conversions	ELEC2613	1				200,000		200,000
Overhead to Underground Conversions	ELEC2513	1			200,000			200,000
Convert 7200 volt systems to 23 Kv	ELEC2712	1					100,000	100,000
Convert 7200 volt systems to 23 Kv	ELEC2612	1				100,000		100,000
Convert 7200 volt systems to 23 Kv	ELEC2512	1			100,000			100,000
Inspect and replace power poles	ELEC2711	1					56,275	56,275
Inspect and replace power poles	ELEC2611	1				54,637		54,637
Inspect and replace power poles	ELEC2511	1			53,045			53,045
Convert SW Grand Rapids to Underground	ELEC2610	1				200,000		200,000
Distribution System Services	ELEC2501	1			40,000			40,000
Distribution System Security Lighting	ELEC2303	1	13,880					13,880
Distribution System Security Lighting	ELEC2503	1			14,725			14,725
Distribution System Security Lighting	ELEC2603	1				15,167		15,167
Distribution System Security Lighting	ELEC2703	1					15,622	15,622
Overhead power line replacements and repairs	ELEC2504	1			63,654			63,654
Replace Truck 63	ELEC2413	2		200,000				200,000
Overhead power line replacements and repairs	ELEC2604	1				65,564		65,564
Overhead power line replacements and repairs	ELEC2704	1					67,531	67,531
Underground power line replacements and repairs	ELEC2505	1			31,827			31,827
Underground power line replacements and repairs	ELEC2605	1				32,781		32,781
Underground power line replacements and repairs	ELEC2705	1					33,765	33,765
Distribution System Services	ELEC2301	1	40,000					40,000
Distribution System Services	ELEC2401	1		40,000				40,000
Electric System Reliability Upgrades	ELEC2314	2	100,000					100,000
Distribution System Duel Fuel Services	ELEC2402	1		2,637				2,637
Inspect and replace power poles	ELEC2411	1		51,500				51,500
Distribution System Security Lighting	ELEC2403	1		14,296				14,296

Department	Project #	Priority	2023	2024	2025	2026	2027	T
Overhead power line replacements and repairs	ELEC2304	1	60,000					60,000
Overhead power line replacements and repairs	ELEC2404	1		61,800				61,800
Underground power line replacements and repairs	ELEC2305	1	30,000					30,000
Distribution System Transformers	ELEC2306	1	150,000					150,000
Distribution System Transformers	ELEC2406	1		150,000				150,000
Purchase of electric AML meters	ELEC2307	1	25,000					25,000
Purchase of electric AML meters	ELEC2407	1		25,750				25,750
Underground power line replacements and repairs	ELEC2405	1		30,900				30,900
Replace Truck 84	ELEC2410	1		35,000				35,000
Convert 7200 volt systems to 23 kV	ELEC2312	1	100,000					100,000
Convert 7200 volt systems to 23 kV	ELEC2412	1		50,000				50,000
Maple Street Conversion	ELEC2316	1	29,000					29,000
Distribution System Dual Fuel Services	ELEC2302	1	2,560					2,560

1-Electric Total

866,440	871,883	882,490	888,264	894,212	4,403,289
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2-Water

High Service Pump Control Improvement	WATR2005	2	30,000					30,000
NW Street Reconstruction	WATR1903	2			157,080			157,080
Watermain minor additions & replacements	WATR1807	4	30,000	30,000	40,000	40,000	50,000	190,000
6th Street NE (2nd Ave.-5th Ave.)	WATR2201	2				119,239		119,239
5th Ave. NE (TH 2 to 5th St NE)	WATR2001	3				35,772		35,772
11th St. NE (2nd to 3rdAve.)	WATR1904	3		83,600				83,600
Ha-Car Neighborhood SE, Phase 1	WATR2101	3			362,500			362,500
Fire Hydrant Repairs	WATR2209	2	35,000	25,000	20,000	20,000	20,000	120,000
Well 2 Rehabilitation	WATR2004	1	55,000					55,000
NEW WELL	WATR2401	3		590,000				590,000
6th Ave NW (4th to 5th st)	WATR2301	2				81,000		81,000
Hydrant Meters	WATR2203	3	8,700					8,700
WTP Sewage Ejector System	WATR2206	3	20,000					20,000
WTP Turbidity Meters	WATR2207	3	30,000					30,000
WTP Aerator Media	WATR2208	3		11,000				11,000
3rd Ave NE (5th to 8th Str.) & 7th Str. NE (3-5)	WATR2002	3		235,375				235,375
Water Plant Renovation	WATR2213	2	4,943,400					4,943,400
11th St NE (2nd- 3rd ave)	WATR2003	3		83,600				83,600
Replace Fiber (SH to City Hall)	WATR2309	2	15,000					15,000
WTP Valve Updates	WATR2304	2	20,000	20,000	20,000	20,000	20,000	100,000
Curb Stop Replacements	WATR2305	2	100,000	150,000	150,000	150,000	150,000	700,000
Well 1 Rehabilitation	WATR2402	1		45,000				45,000
City Wdie Overlays- Sylvan	WATR2306	2	1,202,000	510,000				1,712,000
Ha-car Neighborhood, Phase 2	WATR2601	3				362,500		362,500
City Project	WATR2702	2					250,000	250,000
Booster Station Panel View	WATR2302	2	30,000					30,000
Radio Communication Upgrades	WATR2308	2	30,000					30,000
TOWER PAINTING	WATR2703	2					700,000	700,000
South Tower Coating Repairs	WATR2310	1	150,000					150,000
North Tower Coating Repairs	WATR2501	1			150,000			150,000
River Road Roundabout	WATR2311	1	144,245					144,245
Category 1 Repairs	WATR2312	2	350,000	350,000	350,000	400,000	400,000	1,850,000
S-E-H Projects from Study	WATR2403	n/a		400,000	350,000	250,000	300,000	1,300,000
Paradise Park	WATR2313	2	85,000					85,000
Backwash Valve	WATR2307	2	5,000					5,000

2-Water Total

7,283,345	2,533,575	1,599,580	1,478,511	1,890,000	14,785,011
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3-Wastewater Collection

Manhole Replacements	WWCO1805	2	20,000	75,000	100,000	25,000	25,000	245,000
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Department	Project #	Priority	2023	2024	2025	2026	2027	T
Spare Jetting Camera	WWCO2303	3	60,000					60,000
Lift Station 2 Forcemain Replacement	WWCO2311	2	150,000					150,000
S-E-H SE 11th St Sanitary Sewer Replacement	WWCO2402	2				1,300,000		1,300,000
Lift Station 5 Forcemain Replacement	WWCO2602	2				65,000		65,000
Ha-Car SE Neighborhood, Phase 1	WWCO2021	2				250,000		250,000
City Wide Overlays-Rural	WWCO2202	2		60,000				60,000
City Project	WWCO2702	2					250,000	250,000
City Wide Overlays- Sylvan	WWCO2310	2	1,010,000	511,000				1,521,000
Lift Station 2 Forcemain Replacement	WWCO2704	2			140,000			140,000
Lift Station 9 Controls Update	WWCO2304	1	35,000					35,000
Lift Station 2 Pump	WWCO2305	1	25,000					25,000
Lift Station 2 Flow Meter	WWCO2309	2	8,000					8,000
5th Ave. NE (T.H. #2 to 5th Str. NE)	WWCO2001	2				66,435		66,435
River Road Roundabout	WWCO2312	1	369,848					369,848
Lift Station 6 I/I Repairs	WWCO2307	1	35,000					35,000
Replace Truck 61	WWCO2701	3					60,000	60,000
Lift Station Pumps	WWCO2005	1	35,000	35,000	38,000	40,000	40,000	188,000
Lift Station 6 Rehab	WWCO2306	1	30,000					30,000
Lift Station 9 Controls Update	WWCO2203	1			26,500			26,500
Lift Station 7 Controls Update	WWCO2301	1	27,300					27,300
NW Street Reconstruction	WWCO1904	2			114,600			114,600
Category 1 Repairs	WWCO2308	2	350,000	350,000	350,000	400,000	400,000	1,850,000
6th Ave NW (4th-5th)	WWCO2302	2	52,000					52,000
11th Ave NE (5th St NE - 7th St NE)	WWCO2003	2				115,000		115,000
3rd Ave.NE (4th - 8th) &7th st (3rd -5th)	WWCO2002	2		25,000				25,000
6th Street NE (2nd Ave. - 5th Ave)	WWCO2201	2		110,067				110,067
Lift Station 8 Controls Update	WWCO2601	1	35,000					35,000
Mains and Services	WWCO1804	4	15,000	15,000	15,000			45,000
3-Wastewater Collection Total			2,257,148	1,181,067	784,100	2,261,435	775,000	7,258,750

4a-WWT Domestic

Trash Compactor	WWDO2302	2	50,000					50,000
VFD Upgrades On Lift Pumps	WWDO2401	2		30,000		15,000		45,000
Flow Meter for Domestic Flow	WWDO2301	2	7,000					7,000
4a-WWT Domestic Total			57,000	30,000		15,000		102,000

4b-WWT Screenhouse

Replace Fiber SH to Pluemers	WWSH2302	2	12,000					12,000
Drive Gear Boxes for Parkson Screens	WWSH2401	2		16,000				16,000
Gear Box for Bark Dumper	WWSH2402	2		8,000				8,000
Industrial Screen House Upgrades	WWSH1801	4				1,600,000		1,600,000
VFD Upgrades for Lift Pumps	WWSH2301	2	12,000	12,000	12,000	12,000		48,000
4b-WWT Screenhouse Total			24,000	36,000	12,000	1,612,000		1,684,000

4c-WWT Primary Plant

Forks for Front End Loader	WWPP2202	3	12,000					12,000
Demo of Old Primary Plant	WWPP2001	3	50,000					50,000
Sludge Screw Conveyor - Screw Replacement	WWPP2103	2	50,000	50,000				100,000
Screw Press VFD	WWPP2302	2	8,000					8,000
Primary Plant Sludge Pumps	WWPP2303	2	28,000	28,000	28,000	28,000	28,000	140,000
Primary Sludge Pump VFD's	WWPP2301	2	24,000					24,000
4c-WWT Primary Plant Total			172,000	78,000	28,000	28,000	28,000	334,000

Department	Project #	Priority	2023	2024	2025	2026	2027	T
4d-WWT Sludge Disposal								
Landfill Phase Pumps	WWSD2302	2	18,000	18,000	18,000	18,000	18,000	90,000
Landfill Cover Work Phase 1-4, Kettle D	WWSD2301	2	250,000					250,000
4d-WWT Sludge Disposal Total			268,000	18,000	18,000	18,000	18,000	340,000
4e-WWT Service Center								
Replace Fiber ASV to CSC	WWSC2301	2	54,000					54,000
Replace Truck 78	WWSC2401	2		65,000				65,000
4e-WWT Service Center Total			54,000	65,000				119,000
4f-WWT Secondary Treatment								
Secondary Aeration Basin Mixer Repairs	WWSP1804	2	175,000	135,000	135,000	175,000	175,000	795,000
B1 Pond Dredging	WWSP1802	2			150,000			150,000
Secondary Air Header Piping	WWSP1701	2				875,000		875,000
Rebuild Blower Number 3	WWSP1702	2		280,000				280,000
Septic Hauler Dump Station	WWSP2301	3	350,000					350,000
Blower Building and Med Voltage Gear	WWSP2202	2					1,408,000	1,408,000
Bleach Tank Repair/Replacement	WWSP2302	1	50,000					50,000
4f-WWT Secondary Treatment Total			575,000	415,000	285,000	1,050,000	1,583,000	3,908,000
5-Technology								
Miscellaneous Computer Hardware	CITE2309	4	2,000					2,000
NEW ERP SOFTWARE - UB AR AP PROJ PYRL FS BUDG	CITE2310	1	250,000					250,000
Miscellaneous Computer Hardware	CITE2509	4			2,000			2,000
Software Upgrades	CITE2508	2			10,000			10,000
Mobile Computers	CITE2503	4			4,000			4,000
Personal Computer Replacements	CITE2502	3			4,000			4,000
Network Switch Upgrades	CITE2506	3			12,000			12,000
Software Upgrades	CITE2308	2	10,000					10,000
Computer Backup Hardware	CITE2507	1			8,000			8,000
Miscellaneous Computer Hardware	CITE2409	4		2,000				2,000
Personal Computer Replacements	CITE2402	3		4,000				4,000
Personal Computer Replacements	CITE2302	3	4,000					4,000
Software Upgrades	CITE2408	2		10,000				10,000
Mobile Computers	CITE2303	4	4,000					4,000
Mobile Computers	CITE2403	4		4,000				4,000
Server Upgrades	CITE2304	2	65,000					65,000
Server Upgrades	CITE2404	3		65,000				65,000
5-Technology Total			335,000	85,000	40,000			460,000
6-Service Center								
Building Security Upgrade	CSCW2102	3	33,000					33,000
CSC Lighting Upgrades - Garage Area	CSCW2023-3	2	10,450					10,450
Red Rubber Flooring Replacement	CSCW2302	2	125,000					125,000
Misc CSC CIP	CSCW2700	n/a					20,000	20,000
Building Landscaping	CSCW2103	4	14,000					14,000
North Roof Replacement	CSCW2201	2		80,000				80,000
Misc CSC CIP	CSCW2500	n/a			20,000			20,000
Misc CSC CIP	CSCW2600	n/a				20,000		20,000
South Roof Replacement	CSCW2301	2	275,000					275,000
South Gate Replacement	CSCW2022	2	20,000					20,000

Department	Project #	Priority	2023	2024	2025	2026	2027	T
Misc CSC CIP	CSCW2400	n/a		20,000				20,000
6-Service Center Total			477,450	100,000	20,000	20,000	20,000	637,450
GRAND TOTAL			12,369,383	5,413,525	3,669,170	7,371,210	5,208,212	34,031,500

Capital Plan
2023 thru 2027

FUNDING SOURCE SUMMARY

Source	2023	2024	2025	2026	2027	Total
City Contributions	10,450					10,450
Customer Contributions-Cohasset	5,157	6,150	6,071	17,381	4,011	38,770
Customer Contributions-LaPrairie	3,051	3,639	678	10,283	2,373	20,024
Customer Contributions-UPM	642,180	542,505	295,380	2,479,060	1,152,660	5,111,785
Debt	5,355,400	2,121,000	1,190,000	2,415,000	1,100,000	12,181,400
Grants	2,500,000					2,500,000
Reserves-Unrestricted	94,640	60,140	52,015	62,556	47,556	316,907
Rplcmt Fund-Elec share/business	358,370	104,870	31,720	13,000	13,000	520,960
Rplcmt Fund-Electric Infrastructure	866,556	870,983	882,490	888,264	894,212	4,402,505
Rplcmt Fund-Water Infrastructure	695,445	672,575	899,580	828,511	1,190,000	4,286,111
Rplcmt Fund-Water share/business	191,790	34,690	11,040	4,000	34,000	275,520
Rplcmt Fund-WWC Infrastructure	880,764	366,203	282,276	650,155	737,400	2,916,798
Rplcmt Fund-WWC share/business	95,696	24,870	7,920	3,000	33,000	164,486
GRAND TOTAL	11,699,499	4,807,625	3,659,170	7,371,210	5,208,212	32,745,716

Grand Rapids Public Utilities Commission

Capital Plan

2023 thru 2027

PROJECTS BY FUNDING SOURCE

Source	Project #	Priority	2023	2024	2025	2026	2027	Total
City Contributions								
CSC Lighting Upgrades - Garage Area	CSCW2023-3	2	10,450					10,450
City Contributions Total			10,450					10,450
Customer Contributions-Cohasset								
Secondary Air Header Piping	WWSP1701	2				13,370		13,370
Rebuild Blower Number 3	WWSP1702	2		3,056				3,056
B1 Pond Dredging	WWSP1802	2			1,146			1,146
Secondary Aeration Basin Mixer Repairs	WWSP1804	2	4,011	3,094	4,925	4,011	4,011	20,052
Bleach Tank Repair/Replacement	WWSP2302	1	1,146					1,146
Customer Contributions-Cohasset Total			5,157	6,150	6,071	17,381	4,011	38,770
Customer Contributions-LaPrairie								
Secondary Air Header Piping	WWSP1701	2				7,910		7,910
Rebuild Blower Number 3	WWSP1702	2		1,808				1,808
B1 Pond Dredging	WWSP1802	2			678			678
Secondary Aeration Basin Mixer Repairs	WWSP1804	2	2,373	1,831		2,373	2,373	8,950
Bleach Tank Repair/Replacement	WWSP2302	1	678					678
Customer Contributions-LaPrairie Total			3,051	3,639	678	10,283	2,373	20,024
Customer Contributions-UPM								
Personal Computer Replacements	CITE2302	3	1,320					1,320
Server Upgrades	CITE2304	2	0					0
Software Upgrades	CITE2308	2	2,500					2,500
Miscellaneous Computer Hardware	CITE2309	4	500					500
Personal Computer Replacements	CITE2402	3		1,320				1,320
Server Upgrades	CITE2404	3		16,250				16,250
Software Upgrades	CITE2408	2		2,500				2,500
Miscellaneous Computer Hardware	CITE2409	4		500				500
Personal Computer Replacements	CITE2502	3			1,320			1,320
Network Switch Upgrades	CITE2506	3			3,000			3,000
Computer Backup Hardware	CITE2507	1			2,000			2,000
Software Upgrades	CITE2508	2			2,500			2,500
Miscellaneous Computer Hardware	CITE2509	4			500			500
Demo of Old Primary Plant	WWPP2001	3	50,000					50,000
Sludge Screw Conveyor - Screw Replacement	WWPP2103	2	50,000	50,000				100,000
Forks for Front End Loader	WWPP2202	3	12,000					12,000
Primary Sludge Pump VFD's	WWPP2301	2	24,000					24,000
Screw Press VFD	WWPP2302	2	8,000					8,000
Primary Plant Sludge Pumps	WWPP2303	2	28,000	28,000	28,000	28,000	28,000	140,000
Replace Fiber ASV to CSC	WWSC2301	2	37,800					37,800

Source	Project #	Priority	2023	2024	2025	2026	2027	T	Item 3.
Replace Truck 78	WWSC2401	2		56,875					56,875
Landfill Cover Work Phase 1-4, Kettle D	WWSD2301	2	230,000						230,000
Landfill Phase Pumps	WWSD2302	2	16,560	16,560	16,560	16,560	16,560		82,800
Industrial Screen House Upgrades	WWSH1801	4				1,600,000			1,600,000
VFD Upgrades for Lift Pumps	WWSH2301	2	12,000	12,000	12,000	12,000			48,000
Replace Fiber SH to Plumers	WWSH2302	2	12,000						12,000
Drive Gear Boxes for Parkson Screens	WWSH2401	2		16,000					16,000
Gear Box for Bark Dumper	WWSH2402	2		8,000					8,000
Secondary Air Header Piping	WWSP1701	2				700,000			700,000
Rebuild Blower Number 3	WWSP1702	2		240,000					240,000
B1 Pond Dredging	WWSP1802	2			135,000				135,000
Secondary Aeration Basin Mixer Repairs	WWSP1804	2	122,500	94,500	94,500	122,500	122,500		556,500
Blower Building and Med Voltage Gear	WWSP2202	2					985,600		985,600
Bleach Tank Repair/Replacement	WWSP2302	1	35,000						35,000
Customer Contributions-UPM Total			642,180	542,505	295,380	2,479,060	1,152,660		5,111,785
Debt									
Water Plant Renovation	WATR2213	2	2,443,400						2,443,400
City Wdie Overlays- Sylvan	WATR2306	2	1,202,000	510,000					1,712,000
Category 1 Repairs	WATR2312	2	350,000	350,000	350,000	400,000	400,000		1,850,000
S-E-H Projects from Study	WATR2403	n/a		400,000	350,000	250,000	300,000		1,300,000
Category 1 Repairs	WWCO2308	2	350,000	350,000	350,000	400,000	400,000		1,850,000
City Wide Overlays- Sylvan	WWCO2310	2	1,010,000	511,000					1,521,000
S-E-H SE 11th St Sanitary Sewer Replacement	WWCO2402	2				1,300,000			1,300,000
Lift Station 5 Forcmain Replacement	WWCO2602	2				65,000			65,000
Lift Station 2 Forcmain Replacement	WWCO2704	2			140,000				140,000
Debt Total			5,355,400	2,121,000	1,190,000	2,415,000	1,100,000		12,181,400
Grants									
Water Plant Renovation	WATR2213	2	2,500,000						2,500,000
Grants Total			2,500,000						2,500,000
Reserves-Unrestricted									
Flow Meter for Domestic Flow	WWDO2301	2	7,000						7,000
Trash Compactor	WWDO2302	2	50,000						50,000
VFD Upgrades On Lift Pumps	WWDO2401	2		15,000	15,000	15,000			45,000
Replace Fiber ASV to CSC	WWSC2301	2	16,200						16,200
Replace Truck 78	WWSC2401	2		8,125					8,125
Landfill Cover Work Phase 1-4, Kettle D	WWSD2301	2	20,000						20,000
Landfill Phase Pumps	WWSD2302	2	1,440	1,440	1,440	1,440	1,440		7,200
Secondary Aeration Basin Mixer Repairs	WWSP1804	2		35,575	35,575	46,116	46,116		163,382
Reserves-Unrestricted Total			94,640	60,140	52,015	62,556	47,556		316,907
Rplcmt Fund-Elec share/business									
Personal Computer Replacements	CITE2302	3	1,680						1,680
Mobile Computers	CITE2303	4	2,000						2,000
Server Upgrades	CITE2304	2	45,500						45,500
Software Upgrades	CITE2308	2	4,700						4,700
Miscellaneous Computer Hardware	CITE2309	4	940						940

Source	Project #	Priority	2023	2024	2025	2026	2027	T	Item 3.
Personal Computer Replacements	CITE2402	3		1,680					1,680
Mobile Computers	CITE2403	4		2,000					2,000
Server Upgrades	CITE2404	3		30,550					30,550
Software Upgrades	CITE2408	2		4,700					4,700
Miscellaneous Computer Hardware	CITE2409	4		940					940
Personal Computer Replacements	CITE2502	3			1,680				1,680
Mobile Computers	CITE2503	4			2,000				2,000
Network Switch Upgrades	CITE2506	3			5,640				5,640
Computer Backup Hardware	CITE2507	1			3,760				3,760
Software Upgrades	CITE2508	2			4,700				4,700
Miscellaneous Computer Hardware	CITE2509	4			940				940
South Gate Replacement	CSCW2022	2	13,000						13,000
Building Security Upgrade	CSCW2102	3	21,450						21,450
Building Landscaping	CSCW2103	4	9,100						9,100
North Roof Replacement	CSCW2201	2		52,000					52,000
South Roof Replacement	CSCW2301	2	178,750						178,750
Red Rubber Flooring Replacement	CSCW2302	2	81,250						81,250
Misc CSC CIP	CSCW2400	n/a		13,000					13,000
Misc CSC CIP	CSCW2500	n/a			13,000				13,000
Misc CSC CIP	CSCW2600	n/a				13,000			13,000
Misc CSC CIP	CSCW2700	n/a					13,000		13,000
Rplcmt Fund-Elec share/business Total			358,370	104,870	31,720	13,000	13,000		520,960

Rplcmt Fund-Electric Infrastructure

Distribution System Services	ELEC2301	1	40,000						40,000
Distribution System Duel Fuel Services	ELEC2302	1	2,560						2,560
Distribution System Security Lighting	ELEC2303	1	13,996						13,996
Overhead power line replacements and repairs	ELEC2304	1	60,000						60,000
Underground power line replacements and repairs	ELEC2305	1	30,000						30,000
Distribution System Transformers	ELEC2306	1	150,000						150,000
Purchase of electric AMI meters	ELEC2307	1	25,000						25,000
Inspect and replace power poles	ELEC2311	1	50,000						50,000
Convert 7200 volt systems to 23 kV	ELEC2312	1	100,000						100,000
Electric System Reliability Upgrades	ELEC2314	2	100,000						100,000
Crystal Springs Conversion	ELEC2315	1	146,000						146,000
Maple Street Conversion	ELEC2316	1	29,000						29,000
SW 1st Ave Conversion	ELEC2317	1	30,000						30,000
Backyard Machine	ELEC2318	2	90,000						90,000
Distribution System Services	ELEC2401	1		40,000					40,000
Distribution System Duel Fuel Services	ELEC2402	1		2,637					2,637
Distribution System Security Lighting	ELEC2403	1		14,296					14,296
Overhead power line replacements and repairs	ELEC2404	1		61,800					61,800
Underground power line replacements and repairs	ELEC2405	1		30,000					30,000
Distribution System Transformers	ELEC2406	1		150,000					150,000
Purchase of electric AMI meters	ELEC2407	1		25,750					25,750
Replace Truck 84	ELEC2410	1		35,000					35,000
Inspect and replace power poles	ELEC2411	1		51,500					51,500
Convert 7200 volt systems to 23 kV	ELEC2412	1		50,000					50,000
Replace Truck 63	ELEC2413	2		200,000					200,000
Electric System Reliability Upgrades	ELEC2414	2		100,000					100,000
Crystal Springs Conversion	ELEC2415	1		110,000					110,000
Distribution System Services	ELEC2501	1			40,000				40,000
Distribution System Duel Fuel Services	ELEC2502	1			2,716				2,716
Distribution System Security Lighting	ELEC2503	1			14,725				14,725

Source	Project #	Priority	2023	2024	2025	2026	2027	T	Item 3.
Overhead power line replacements and repairs	ELEC2504	1			63,654				63,654
Underground power line replacements and repairs	ELEC2505	1			31,827				31,827
Distribution System Transformers	ELEC2506	1			150,000				150,000
Purchase of electric AML meters	ELEC2507	1			26,523				26,523
Convert SW Grand Rapids to Underground	ELEC2510	1			200,000				200,000
Inspect and replace power poles	ELEC2511	1			53,045				53,045
Convert 7200 volt systems to 23 Kv	ELEC2512	1			100,000				100,000
Overhead to Underground Conversions	ELEC2513	1			200,000				200,000
Distribution System Services	ELEC2601	1				40,000			40,000
Distribution System Duel Fuel Services	ELEC2602	1				2,797			2,797
Distribution System Security Lighting	ELEC2603	1				15,167			15,167
Overhead power line replacements and repairs	ELEC2604	1				65,564			65,564
Underground power line replacements and repairs	ELEC2605	1				32,781			32,781
Distribution System Transformers	ELEC2606	1				150,000			150,000
Purchase of electric AML meters	ELEC2607	1				27,318			27,318
Convert SW Grand Rapids to Underground	ELEC2610	1				200,000			200,000
Inspect and replace power poles	ELEC2611	1				54,637			54,637
Convert 7200 volt systems to 23 Kv	ELEC2612	1				100,000			100,000
Overhead to Underground Conversions	ELEC2613	1				200,000			200,000
Distribution System Services	ELEC2701	1					40,000		40,000
Distribution System Duel Fuel Services	ELEC2702	1					2,881		2,881
Distribution System Security Lighting	ELEC2703	1					15,622		15,622
Overhead power line replacements and repairs	ELEC2704	1					67,531		67,531
Underground power line replacements and repairs	ELEC2705	1					33,765		33,765
Distribution System Transformers	ELEC2706	1					150,000		150,000
Purchase of electric AML meters	ELEC2707	1					28,138		28,138
Inspect and replace power poles	ELEC2711	1					56,275		56,275
Convert 7200 volt systems to 23 Kv	ELEC2712	1					100,000		100,000
Overhead to Underground Conversions	ELEC2713	1					400,000		400,000
Rplcmt Fund-Electric Infrastructure Total			866,556	870,983	882,490	888,264	894,212		4,402,505

Rplcmt Fund-Water Infrastructure

Watermain minor additions & replacements	WATR1807	4	30,000	30,000	40,000	40,000	50,000		190,000
NW Street Reconstruction	WATR1903	2			157,080				157,080
11th St. NE (2nd to 3rd Ave.)	WATR1904	3		83,600					83,600
5th Ave. NE (TH 2 to 5th St NE)	WATR2001	3				35,772			35,772
3rd Ave NE (5th to 8th Str.) & 7th Str. NE (3-5)	WATR2002	3		235,375					235,375
11th St NE (2nd- 3rd ave)	WATR2003	3		83,600					83,600
Well 2 Rehabilitation	WATR2004	1	55,000						55,000
High Service Pump Control Improvement	WATR2005	2	30,000						30,000
Ha-Car Neighborhood SE, Phase 1	WATR2101	3			362,500				362,500
6th Street NE (2nd Ave.-5th Ave.)	WATR2201	2				119,239			119,239
Hydrant Meters	WATR2203	3	8,700						8,700
WTP Sewage Ejector System	WATR2206	3	20,000						20,000
WTP Turbidity Meters	WATR2207	3	30,000						30,000
Fire Hydrant Repairs	WATR2209	2	35,000	25,000	20,000	20,000	20,000		120,000
6th Ave NW (4th to 5th st)	WATR2301	2				81,000			81,000
Booster Station Panel View	WATR2302	2	30,000						30,000
WTP Valve Updates	WATR2304	2	20,000	20,000	20,000	20,000	20,000		100,000
Curb Stop Replacements	WATR2305	2	100,000	150,000	150,000	150,000	150,000		700,000
Backwash Valve	WATR2307	2	5,000						5,000
Radio Communication Upgrades	WATR2308	2	30,000						30,000
Replace Fiber (SH to City Hall)	WATR2309	2	7,500						7,500

Source	Project #	Priority	2023	2024	2025	2026	2027	T	Item 3.
South Tower Coating Repairs	WATR2310	1	150,000						150,000
River Road Roundabout	WATR2311	1	144,245						144,245
Well 1 Rehabilitation	WATR2402	1		45,000					45,000
North Tower Coating Repairs	WATR2501	1			150,000				150,000
Ha-car Neighborhood, Phase 2	WATR2601	3				362,500			362,500
City Project	WATR2702	2					250,000		250,000
TOWER PAINTING	WATR2703	2					700,000		700,000
Rplcmt Fund-Water Infrastructure Total			695,445	672,575	899,580	828,511	1,190,000		4,286,111

Rplcmt Fund-Water share/business

Personal Computer Replacements	CITE2302	3	600						600
Mobile Computers	CITE2303	4	1,000						1,000
Server Upgrades	CITE2304	2	9,750						9,750
Software Upgrades	CITE2308	2	1,700						1,700
Miscellaneous Computer Hardware	CITE2309	4	340						340
Personal Computer Replacements	CITE2402	3		600					600
Mobile Computers	CITE2403	4		1,000					1,000
Server Upgrades	CITE2404	3		11,050					11,050
Software Upgrades	CITE2408	2		1,700					1,700
Miscellaneous Computer Hardware	CITE2409	4		340					340
Personal Computer Replacements	CITE2502	3			600				600
Mobile Computers	CITE2503	4			1,000				1,000
Network Switch Upgrades	CITE2506	3			2,040				2,040
Computer Backup Hardware	CITE2507	1			1,360				1,360
Software Upgrades	CITE2508	2			1,700				1,700
Miscellaneous Computer Hardware	CITE2509	4			340				340
South Gate Replacement	CSCW2022	2	4,000						4,000
Building Security Upgrade	CSCW2102	3	6,600						6,600
Building Landscaping	CSCW2103	4	2,800						2,800
North Roof Replacement	CSCW2201	2		16,000					16,000
South Roof Replacement	CSCW2301	2	55,000						55,000
Red Rubber Flooring Replacement	CSCW2302	2	25,000						25,000
Misc CSC CIP	CSCW2400	n/a		4,000					4,000
Misc CSC CIP	CSCW2500	n/a			4,000				4,000
Misc CSC CIP	CSCW2600	n/a				4,000			4,000
Misc CSC CIP	CSCW2700	n/a					4,000		4,000
Paradise Park	WATR2313	2	85,000						85,000
Replace Truck 61	WWCO2701	3					30,000		30,000
Rplcmt Fund-Water share/business Total			191,790	34,690	11,040	4,000	34,000		275,520

Rplcmt Fund-WWC Infrastructure

WTP Aerator Media	WATR2208	3		11,000					11,000
Replace Fiber (SH to City Hall)	WATR2309	2	7,500						7,500
Mains and Services	WWCO1804	4	15,000	15,000	15,000				45,000
Manhole Replacements	WWCO1805	2	20,000	75,000	75,000	25,000	25,000		220,000
NW Street Reconstruction	WWCO1904	2			114,600				114,600
5th Ave. NE (T.H. #2 to 5th Str. NE)	WWCO2001	2				66,435			66,435
3rd Ave. NE (4th - 8th) & 7th st (3rd -5th)	WWCO2002	2		25,000					25,000
11th Ave NE (5th St NE - 7th St NE)	WWCO2003	2				115,000			115,000
Lift Station Pumps	WWCO2005	1	35,000	35,000	38,000	40,000	40,000		188,000
Ha-Car SE Neighborhood, Phase 1	WWCO2021	2				250,000			250,000
6th Street NE (2nd Ave. - 5th Ave)	WWCO2201	2		110,067					110,067

Source	Project #	Priority	2023	2024	2025	2026	2027	T	Item 3.
City Wide Overlays-Rural	WWCO2202	2		60,000					60,000
Lift Station 9 Controls Update	WWCO2203	1			26,500				26,500
Lift Station 7 Controls Update	WWCO2301	1	27,300						27,300
6th Ave NW (4th-5th)	WWCO2302	2	52,000						52,000
Spare Jetting Camera	WWCO2303	3	60,000						60,000
Lift Station 2 Pump	WWCO2305	1	25,000						25,000
Lift Station 6 Rehab	WWCO2306	1	30,000						30,000
Lift Station 6 I/I Repairs	WWCO2307	1	35,000						35,000
Lift Station 2 Flow Meter	WWCO2309	2	8,000						8,000
Lift Station 2 Forcmain Replacement	WWCO2311	2	150,000						150,000
River Road Roundabout	WWCO2312	1	369,848						369,848
City Project	WWCO2702	2					250,000		250,000
Secondary Air Header Piping	WWSP1701	2				153,720			153,720
Rebuild Blower Number 3	WWSP1702	2		35,136					35,136
B1 Pond Dredging	WWSP1802	2			13,176				13,176
Secondary Aeration Basin Mixer Repairs	WWSP1804	2	46,116						46,116
Blower Building and Med Voltage Gear	WWSP2202	2					422,400		422,400
Rplcmt Fund-WWC Infrastructure Total			880,764	366,203	282,276	650,155	737,400		2,916,798

Rplcmt Fund-WWC share/business

Personal Computer Replacements	CITE2302	3	400						400
Mobile Computers	CITE2303	4	1,000						1,000
Server Upgrades	CITE2304	2	9,750						9,750
Software Upgrades	CITE2308	2	1,100						1,100
Miscellaneous Computer Hardware	CITE2309	4	220						220
Personal Computer Replacements	CITE2402	3		400					400
Mobile Computers	CITE2403	4		1,000					1,000
Server Upgrades	CITE2404	3		7,150					7,150
Software Upgrades	CITE2408	2		1,100					1,100
Miscellaneous Computer Hardware	CITE2409	4		220					220
Personal Computer Replacements	CITE2502	3			400				400
Mobile Computers	CITE2503	4			1,000				1,000
Network Switch Upgrades	CITE2506	3			1,320				1,320
Computer Backup Hardware	CITE2507	1			880				880
Software Upgrades	CITE2508	2			1,100				1,100
Miscellaneous Computer Hardware	CITE2509	4			220				220
South Gate Replacement	CSCW2022	2	3,000						3,000
Building Security Upgrade	CSCW2102	3	4,950						4,950
Building Landscaping	CSCW2103	4	2,100						2,100
North Roof Replacement	CSCW2201	2		12,000					12,000
South Roof Replacement	CSCW2301	2	41,250						41,250
Red Rubber Flooring Replacement	CSCW2302	2	18,750						18,750
Misc CSC CIP	CSCW2400	n/a		3,000					3,000
Misc CSC CIP	CSCW2500	n/a			3,000				3,000
Misc CSC CIP	CSCW2600	n/a				3,000			3,000
Misc CSC CIP	CSCW2700	n/a					3,000		3,000
Replace Truck 61	WWCO2701	3					30,000		30,000
Bleach Tank Repair/Replacement	WWSP2302	1	13,176						13,176
Rplcmt Fund-WWC share/business Total			95,696	24,870	7,920	3,000	33,000		164,486

GRAND TOTAL 11,699,499 4,807,625 3,659,170 7,371,210 5,208,212 32,745,716