



Electric, Water and Wastewater Collection Cost of Service and Rate Design Study – Initial Report

Grand Rapids Public Utilities Commission

David A. Berg, PE Principal – Dave Berg Consulting Oct. 26, 2022



Capital Improvements and Debt

Electric Capital Improvements and Debt Service

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>	\$303,550	\$65,000	\$13,000	\$13,000	<u>\$13,000</u>
Total	\$950,607	\$1,176,840	\$929,440	\$883,440	\$884,440	\$886,440

- Current electric debt service paid in full in 2025
- Annual payments approximately \$135,000



Water Capital Improvements

Table 2-1
Capital Improvements

Capital Item	2022	2023	2024	2025	2026	2027
Water Capital	\$439,160	\$5,992,933	\$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	\$6,086,333	\$1,363,575	\$973,580	\$912,511	\$1,274,000



Water Debt Service new \$5 million issue in late 2023

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>-</u>	<u>-</u>	<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



Wastewater Collection Capital Improvements

Table 2-1
Capital Improvements

Capital Item	2022	2023	2024	2025	2026	2027
Wastewater Capital	\$333,289	\$1,108,133	\$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	\$1,178,183	\$735,067	\$697,100	\$849,435	\$528,000



Wastewater Collection Debt Service new \$2.0 million issue in late 2023

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	=	Ξ	<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



Operating Results at Existing Rates

Electric

Table 2-3
Projected Operating Results
Existing Rates

Year	2022	2023	2024	2025	2026	2027
Operating Revenues	\$19,061,765	\$17,574,247	\$17,878,697	\$18,188,096	\$18,503,195	\$18,824,631
Less Operating Expenses	(15,133,717)	(16,022,294)	(16,637,870)	(17,526,933)	(18,263,632)	(18,731,902)
Less Non -Operating Expenses	(1,075,942)	(1,046,649)	(1,054,686)	(1,061,944)	(1,065,591)	(1,088,655)
Net Income	2,852,105	505,303	186,142	(400,781)	(826,028)	(995,926)
Net Income as Percent of Revenues	15.0%	2.9%	1.0%	-2.2%	-4.5%	-5.3%



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)	(2,191,334)	(2,312,470)	(2,424,941)	(2,539,015)
Less Non -Operating Expenses	<u>(58,171)</u>	<u>(69,105)</u>	(293,836)	(288,518)	(279,975)	(274,149)
Net Income	\$1,980	\$(57,332)	\$(529,226)	\$(624,698)	\$(707,951)	\$(795,300)
Net Income as Percent of Revenues	0.1%	-3.0%	-27.1%	-31.6%	-35.5%	-39.4%



Wastewater Collection

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)	(1,688,267)	(1,753,872)	(1,820,629)	(1,895,054)
Less Non -Operating Expenses	<u>(81,595)</u>	(86,371)	(162,550)	<u>(168,633)</u>	(160,547)	(155,261)
Net Income	36,054	(137,027)	41,519	(12,731)	(53,701)	(105,004)
Net Income as Percent of Revenues	1.9%	-7.3%	2.2%	-0.7%	-2.8%	-5.4%



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	\$4,038,069	\$4,016,988	\$4,046,551	\$3,565,472	\$2,824,095
Plus Net Income	2,852,105	505,303	186,142	(400,781)	(826,028)	(995,926)
Less Capital Improvements	(1,031,440)	(1,257,673)	(929,440)	(883,440)	(884,440)	(886,440)
Plus Deprec/Amort	910,382	944,763	986,686	1,017,667	1,047,115	1,076,596
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>	(78,024)	(78,024)	(78,024)
Ending Balance	\$4,038,069	\$4,016,988	\$4,046,551	\$3,565,472	\$2,824,095	\$1,940,301
As a percent of revenue	21.2%	22.9%	22.6%	19.6%	15.3%	10.3%

Water

Table 2-3
Projected Cash Reserves-Water
Existing Rates

Year	2022	2023	2024		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)	(529,226)	(624,698)	(707,951)	(795,300)	
Less Capital Improvements	(452,761)	(6,086,333)	(1,363,575)	(973,580)	(912,511)	(1,274,000)	
Plus Depreciation	332,035	347,127	550,005	595,457	627,910	657,327	
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>-</u>	<u>-</u>	<u>(112,195)</u>	<u>(117,244)</u>	(122,520)	(128,033)	
Ending Balance	\$178,992	\$(858,321)	\$92,587	\$92,587 \$(1,121,727)		\$(3,916,555)	
Reserves as % of Operating Revenue	9.3%	-44.3%	4.7%	-56.8%	-115.4%	-194.1%	



Wastewater Collection

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)	41,519	(12,731)	(53,701)	(105,004)
Less Capital Improvements	(344,289)	(1,178,183)	(735,067)	(697,100)	(849,435)	(528,000)
Plus Depreciation/Amortization	237,213	248,690	287,962	312,465	335,701	364,016
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>-</u>	<u>۔</u>	(44,878)	(46,898)	(49,008)	<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	\$ 4,038,069	\$ 4,016,988	\$ 4,046,551
Water	178,992	(858,321)	92,587
WW Collection	 280,237	 933,198	296,946
Total	\$ 4,497,298	\$ 4,091,864	\$ 4,436,084
	2025	2026	2027
Electric	\$ 3,565,472	\$ 2,824,095	\$ 1,940,301
Water	(1,121,727)	(2,305,049)	(3,916,555)
WW Collection	 (336,782)	(1,118,796)	 (1,610,092)
Total	\$ 2,106,963	\$ (599,750)	\$ (3,586,346)



Cost of Service

Electric

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%



Water

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%



Wastewater

- Wastewater service and rates are not conducive to cost of service techniques.
- We will be addressing:
 - Wholesale cost (Cohasset and La Prairie) vs retail cost
 - Appropriate customer charges for different classes



Thoughts/Issues

- Still waiting on MP for final projections for next year
- Increases needed for water and wastewater collection
- Management addressing operational efficiencies
- How fast should we address rate issues?



Questions/Discussion