



# CONCORD MUNICIPAL LIGHT PLANT

ELECTRIC | BROADBAND | ENERGY MANAGEMENT

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## 2022 OPERATING FORECAST

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Containing History and Forecasts of ...

- Electric Department and Telecom Net Income
- Electricity and Telecom Sales and Other Revenue
- Purchased Power Costs
- Operating and Maintenance Costs
- Energy Management Programs
- Electric and Telecom Plant Value
- Debt Service
- Capital Improvement Plan through 2027



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EXECUTIVE SUMMARY

CMLP COMBINED

Forecast net income from the Light Plant for 2022 is \$0.8MM; consisting of \$0.7MM from the Electric Department and \$0.1MM from the Telecom Division.

**Electric Department**

The Electric Department revenue is expected to be \$32.6MM and expenses \$31.9MM. Electricity sales are forecasted to increase \$1.0MM compared to 2021. Most of the increase in electric sales is due to a slight rate increase based on the Cost of Service and the introduction of a Power Cost Adjustment. Total Revenues include \$1.55MM which is due to a continued planned drawdown of the Provision for Rate Refund in 2021 and 2022.

Overall Expenses are expected to increase \$0.5MM. Power supply is expected to increase very slightly versus 2021. The expected increase in the price of energy and transmission will be eased somewhat by declines in the cost of Forward Capacity. Operating & Maintenance costs are expected to increase 6%, or \$0.4MM.

Based on this anticipated net income, a rate of return of 0.95% is expected.

Electric Department Income Statement 2022 vs. 2021

MM\$	2021	2022	2022 vs 2021
Revenue	\$31.8	\$32.6	\$0.8
Expense	\$31.4	\$31.9	\$0.5
Net Income	\$0.4	\$0.7	\$0.3

**Telecom Division**

Telecom sales are expected to grow 14% from \$1.4MM in 2021 to \$1.6MM in 2022. As of 11/30/21 there were 1,427 Residential and 121 Commercial broadband customers, an increase of 4% from 12/31/20.

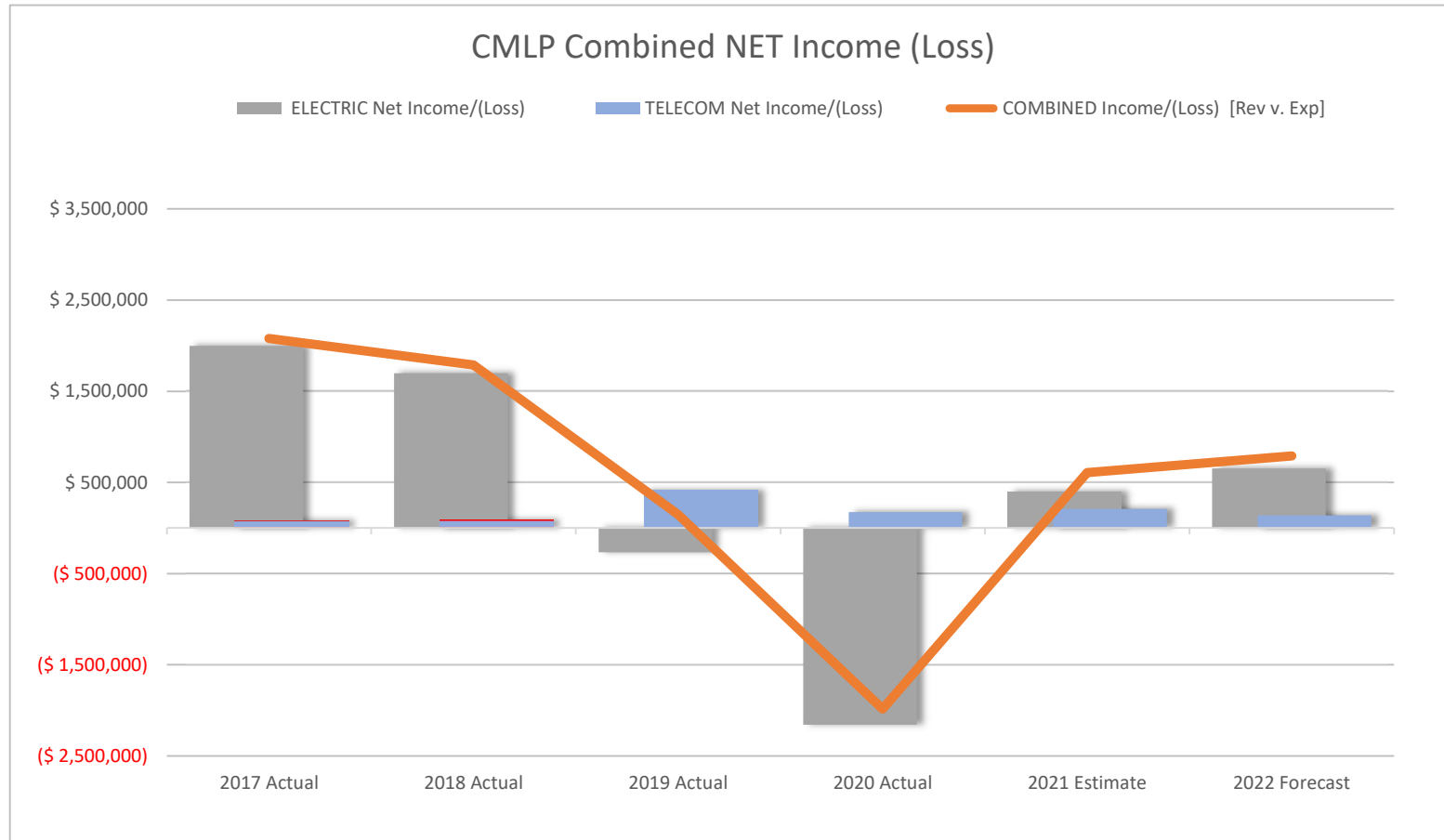
Telecom expenses are expected to increase \$0.3MM over 2021 due mainly to increased personnel costs.

As a result, Telecom net income is expected to total \$0.1MM, which a slight decrease from 2021.

Telecom Division Income Statement 2022 vs. 2021

MM\$	2021	2022	2022 vs 2021
Revenue	\$1.4	\$1.6	\$0.2
Expense	\$1.2	\$1.5	\$0.3
Net Income	\$0.2	\$0.1	(\$0.1)

# NET INCOME



**CMLP-CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**FORECAST SUMMARY**

**CMLP COMBINED**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>COMBINED Income/(Loss) [Rev v. Exp]</b>	\$ 2,079,164	\$ 1,786,874	\$ 147,702	\$ (1,984,905)	\$ 607,762	\$ 791,767
<b>TOTAL Combined Revenue</b>	27,593,499	30,075,039	29,929,841	28,408,373	33,176,465	\$ 34,196,227
<b>TOTAL Combined Expenses</b>	25,514,335	28,288,165	29,782,139	30,393,278	32,568,703	33,404,460
<b>COMBINED Income/(Loss) [Rev v. Exp]</b>	\$ 2,079,164	\$ 1,786,874	\$ 147,702	\$ (1,984,905)	\$ 607,762	\$ 791,767
<b>ELECTRIC Net Income/(Loss)</b>	1,997,418	1,698,513	(264,096)	(2,157,880)	399,549	653,092
<b>TELECOM Net Income/(Loss)</b>	81,746	88,360	411,799	172,974	208,213	138,675
<b>ELECTRIC Net Income/(Loss)</b>	\$ 1,997,418	\$ 1,698,513	\$ (264,096)	\$ (2,157,880)	\$ 399,549	\$ 653,092
<b>Total Operating Revenues</b>	26,829,077	29,111,600	28,725,990	27,045,547	31,753,428	\$ 32,577,833
<b>Base Revenues</b>	224,203	100,695	268,526	201,152	271,854	219,000
<b>Electricity Sales</b>	23,808,948	25,486,590	26,118,918	25,422,895	27,430,923	28,386,076
<b>Meter Charges</b>	1,091,208	1,160,609	1,434,001	1,378,480	1,787,658	1,876,671
<b>Rate Refunds</b>	979,657	1,389,924	41,970	(675,883)	1,748,680	1,550,000
<b>Other Revenues</b>	725,061	973,783	862,576	718,902	514,312	546,086
<b>Total Expenses</b>	24,831,659	27,413,087	28,990,087	29,203,427	31,353,879	\$ 31,924,741
<b>Purchased Power Cost</b>	17,287,536	19,299,625	19,657,153	19,201,733	22,261,848	22,322,525
<b>Operating + Maintenance Costs</b>	5,106,133	5,608,054	6,809,095	7,499,493	6,644,031	7,056,335
<b>Depreciation Expense</b>	1,777,915	1,880,907	1,927,034	1,901,850	1,900,352	1,981,181
<b>Debt Service Interest</b>	186,075	163,500	144,806	125,850	96,147	90,200
<b>PILOT - Payment In Lieu of Taxes</b>	474,000	461,000	452,000	474,500	451,500	474,500

**CMLP-CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**FORECAST SUMMARY**

**CMLP COMBINED**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
31 TELECOM Net Income/(Loss)	\$ 81,746	\$ 88,360	\$ 411,799	\$ 172,974	\$ 208,213	\$ 138,675
32						
33 <b>Total Operating Revenues</b>	<b>764,422</b>	<b>963,439</b>	<b>1,203,850</b>	<b>1,362,826</b>	<b>1,423,038</b>	<b>\$ 1,618,394</b>
34 <b>Sales</b>	764,332	963,026	1,128,726	1,242,267	1,316,382	1,461,519
35 <b>Other Revenues</b>	91	413	75,125	120,559	106,655	156,875
36						
37 <b>Total Expenses</b>	<b>682,676</b>	<b>875,079</b>	<b>792,052</b>	<b>1,189,852</b>	<b>1,214,824</b>	<b>1,479,720</b>
38 <b>Resource Costs</b>	129,235	183,432	183,502	209,390	195,220	201,077
39 <b>Operating + Maintenance Costs</b>	516,156	641,181	542,803	906,764	933,628	1,170,623
40 <b>Depreciation Expense</b>	37,286	50,465	65,747	73,697	67,342	86,097
41 <b>PILOF - Payment In Lieu of Franchise Tax</b>	-	-	-	-	18,634	21,923



**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**PERSONNEL SUMMARY**

**CMLP COMBINED**

Account #	Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
1	<b>ANNUAL FTE CHANGE BY DIVISION ↑(↓)</b>	x	-	-	2 %	(4 %)	10 %
2	■ Conservation	x	-	-	-	-	-
3	■ Customer Service	x	-	-	4 %	(4 %)	5 %
4	■ Engineering	x	-	-	7 %	-	-
5	■ Finance	x	-	-	-	-	-
6	■ Line Crew	x	-	-	(2 %)	(17 %)	23 %
7	■ Maintenance	x	-	-	-	-	-
8	■ Management & General	x	-	-	(10 %)	23 %	-
9	■ Metering	x	-	-	-	-	-
10	■ Telecom	x	-	-	19 %	(1 %)	29 %
11							
12	<b>ANNUAL \$ CHANGE BY DIVISION ↑(↓)</b>	x \$	- \$	- \$	24,942 \$	(9,377) \$	803,397 \$
13	■ Conservation	x \$	- \$	- \$	3,847 \$	14,263 \$	4,691 \$
14	■ Customer Service	x \$	- \$	- \$	(1,869) \$	6,455 \$	9,042 \$
15	■ Engineering	x \$	- \$	- \$	136,416 \$	38,601 \$	14,693 \$
16	■ Finance	x \$	- \$	- \$	(34,266) \$	3,979 \$	8,366 \$
17	■ Line Crew	x \$	- \$	- \$	(45,100) \$	(192,943) \$	579,430 \$
18	■ Maintenance	x \$	- \$	- \$	(22,030) \$	5,506 \$	4,403 \$
19	■ Management & General	x \$	- \$	- \$	(57,127) \$	66,430 \$	10,341 \$
20	■ Metering	x \$	- \$	- \$	(5,606) \$	11,190 \$	6,538 \$
21	■ Telecom	x \$	- \$	- \$	50,677 \$	37,141 \$	165,892 \$
22							
23							

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**PERSONNEL SUMMARY**

**CMLP COMBINED**

Account #	Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
24	<b>ANNUAL FTE COUNTS BY DIVISION</b>	<b>0.00</b>	<b>0.00</b>	<b>40.67</b>	<b>41.54</b>	<b>39.98</b>	<b>44.00</b>
25	■ Conservation	0.00	0.00	2.00	2.00	2.00	2.00
26	■ Customer Service	0.00	0.00	4.77	4.96	4.75	5.00
27	■ Engineering	0.00	0.00	4.65	5.00	5.00	5.00
28	■ Finance	0.00	0.00	4.00	4.00	4.00	4.00
29	■ Line Crew	0.00	0.00	12.02	11.81	9.79	12.00
30	■ Maintenance	0.00	0.00	2.00	2.00	2.00	2.00
31	■ Management & General	0.00	0.00	3.60	3.25	4.00	4.00
32	■ Metering	0.00	0.00	3.00	3.00	3.00	3.00
33	■ Telecom	0.00	0.00	4.63	5.52	5.44	7.00
34							
35	<b>ANNUAL \$ BY DIVISION</b>	<b>-</b>	<b>-</b>	<b>4,606,178</b>	<b>4,631,120</b>	<b>4,621,743</b>	<b>5,425,140</b>
36	■ Conservation	-	-	182,726	186,574	200,837	205,528
37	■ Customer Service	-	-	396,622	394,753	401,207	410,249
38	■ Engineering	-	-	487,296	623,712	662,313	677,007
39	■ Finance	-	-	404,833	370,567	374,546	382,912
40	■ Line Crew	-	-	1,605,293	1,560,192	1,367,249	1,946,680
41	■ Maintenance	-	-	203,301	181,271	186,777	191,181
42	■ Management & General	-	-	475,963	418,836	485,266	495,607
43	■ Metering	-	-	281,564	275,959	287,149	293,686
44	■ Telecom	-	-	568,580	619,257	656,398	822,290
45							
46							

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**PERSONNEL SUMMARY**

**CMLP COMBINED**

Account #	Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
41	<b>TOTAL ANNUAL COST OF PERSONNEL</b>	-	-	<b>3,997,751</b>	<b>4,157,701</b>	<b>3,976,450</b>	<b>4,673,949</b>
42							
43	<b>Gross Pay</b>	-	-	<b>3,997,751</b>	<b>4,157,701</b>	<b>3,976,450</b>	<b>4,673,949</b>
44	Conservation	-	-	167,211	170,544	178,353	181,920
45	Customer Service	-	-	349,881	355,689	360,360	367,567
46	Engineering	-	-	452,195	584,127	605,435	617,544
47	Finance	-	-	358,848	340,551	342,951	349,810
48	Line Crew	-	-	1,309,104	1,311,035	1,032,158	1,521,237
49	Maintenance	-	-	162,475	152,259	143,638	146,510
50	Management & General	-	-	437,917	403,292	456,280	465,405
51	Metering	-	-	249,222	249,126	257,475	262,624
52	Telecom	-	-	510,899	591,079	599,800	761,330
42							
43	<b>Over Time</b>	-	-	<b>365,183</b>	<b>240,685</b>	<b>281,434</b>	<b>351,613</b>
44	Conservation	-	-	-	-	-	-
45	Customer Service	-	-	6,584	1,768	3,232	3,296
46	Engineering	-	-	3,152	3,231	2,897	2,955
47	Finance	-	-	33,730	13,896	60	61
48	Line Crew	-	-	225,500	185,406	235,340	302,562
49	Maintenance	-	-	28,643	15,306	20,433	20,841
50	Management & General	-	-	20,663	4,239	4,675	4,768
51	Metering	-	-	9,689	3,480	877	895
52	Telecom	-	-	37,223	13,359	13,921	16,235
42							
43	<b>Health Insurance</b>	-	-	<b>222,525</b>	<b>212,179</b>	<b>342,461</b>	<b>376,930</b>
44	Conservation	-	-	15,515	16,030	22,484	23,608
45	Customer Service	-	-	36,770	34,139	34,842	36,585
46	Engineering	-	-	28,475	32,263	49,675	52,159
47	Finance	-	-	11,231	14,664	29,762	31,250
48	Line Crew	-	-	64,078	57,506	93,789	115,824
49	Maintenance	-	-	11,276	13,313	22,375	23,494
50	Management & General	-	-	14,983	9,343	21,972	23,071
51	Metering	-	-	21,124	21,715	27,066	28,419
52	Telecom	-	-	19,073	13,207	40,495	42,520
42							

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**PERSONNEL SUMMARY**

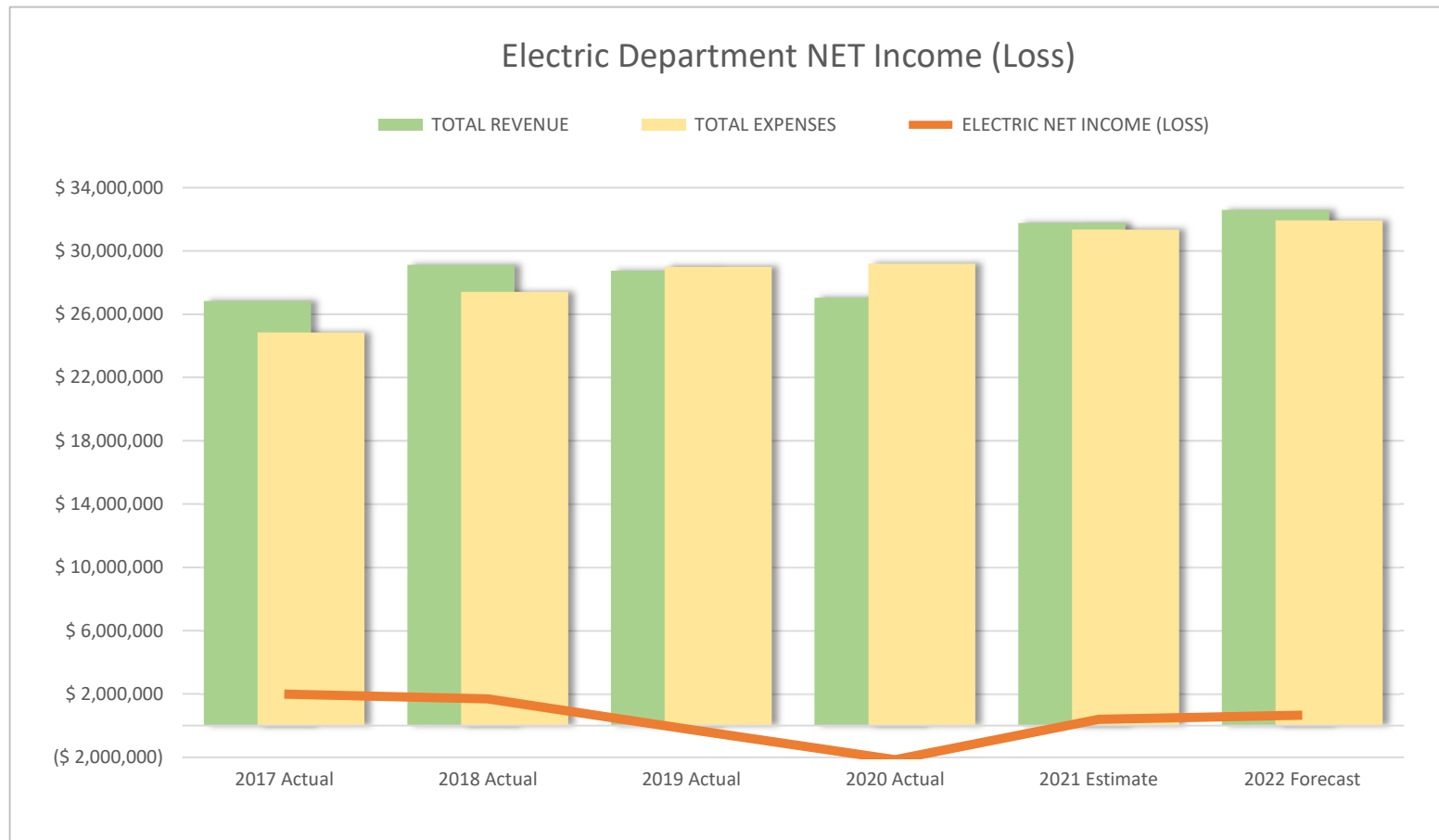
**CMLP COMBINED**

Account #	Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
43	<b>Dental</b>	-	-	19,902	19,579	20,255	21,437
44	Conservation	-	-	-	-	-	-
45	Customer Service	-	-	3,271	3,022	2,614	2,640
46	Engineering	-	-	3,353	3,923	4,094	4,135
47	Finance	-	-	907	1,321	1,604	1,620
48	Line Crew	-	-	6,430	6,043	5,764	6,801
49	Maintenance	-	-	907	394	332	335
50	Management & General	-	-	2,342	1,886	2,213	2,235
51	Metering	-	-	1,441	1,537	1,604	1,620
52	Telecom	-	-	1,252	1,454	2,031	2,052
43	<b>Life Insurance</b>	-	-	816	976	1,143	1,211
44	Conservation	-	-	-	-	-	-
45	Customer Service	-	-	117	135	159	160
46	Engineering	-	-	122	168	212	214
47	Finance	-	-	117	135	169	171
48	Line Crew	-	-	182	202	197	255
49	Maintenance	-	-	-	-	-	-
50	Management & General	-	-	58	76	127	128
51	Metering	-	-	87	101	127	128
52	Telecom	-	-	133	159	152	153





# ELECTRIC DEPARTMENT



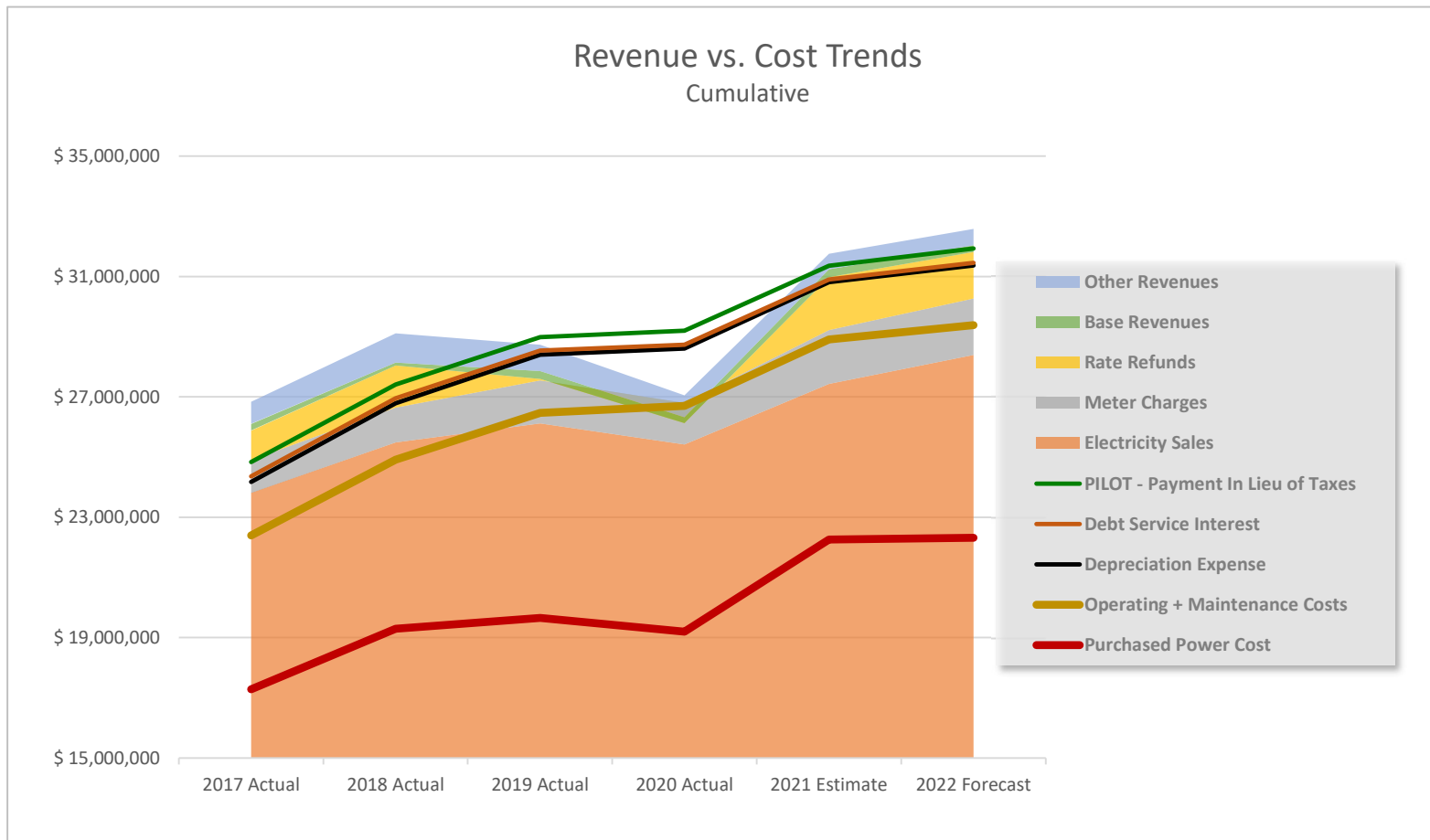


CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

REVENUE vs. COST TRENDS

ELECTRIC DEPARTMENT



## CMLP - CONCORD MUNICIPAL LIGHT PLANT

## 2022 OPERATING FORECAST

## NET INCOME SUMMARY

## ELECTRIC DEPARTMENT

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>ELECTRIC NET INCOME (LOSS)</b>	\$ 1,997,418	\$ 1,698,513	\$ (264,096)	\$ (2,157,880)	\$ 399,549	\$ 653,092
Income (Loss) Margin	7.44 %	5.83 %	(0.92 %)	(7.98 %)	1.26 %	2.00 %
<b>ANNUAL \$ CHANGE BY REVENUE CATEGORY ↑(↓)</b>	x \$ 2,282,523	\$ (385,610)	\$ (1,680,444)	\$ 4,707,881	\$ 824,405	
Base Revenues	x (123,509)	167,831	(67,374)	70,702	(52,854)	
Electricity Sales	x 1,677,642	632,328	(696,023)	2,008,028	955,153	
Meter Charges	x 69,401	273,392	(55,521)	409,178	89,013	
Rate Refunds	x 410,267	(1,347,954)	(717,853)	2,424,563	(198,680)	
Other Revenues	x 248,722	(111,207)	(143,674)	(204,590)	31,773	
<b>RATIOS OF TOTAL REVENUE</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>
Base Revenues	1 %	0 %	1 %	1 %	1 %	1 %
Electricity Sales	89 %	88 %	91 %	94 %	86 %	87 %
Meter Charges	4 %	4 %	5 %	5 %	6 %	6 %
Rate Refunds	4 %	5 %	0 %	(2 %)	6 %	5 %
Other Revenues	3 %	3 %	3 %	3 %	2 %	2 %
<b>TOTAL REVENUE</b>	\$ 26,829,077	\$ 29,111,600	\$ 28,725,990	\$ 27,045,547	\$ 31,753,428	\$ 32,577,833
Base Revenues	224,203	100,695	268,526	201,152	271,854	219,000
Electricity Sales	23,808,948	25,486,590	26,118,918	25,422,895	27,430,923	28,386,076
Meter Charges	1,091,208	1,160,609	1,434,001	1,378,480	1,787,658	1,876,671
Rate Refunds	979,657	1,389,924	41,970	(675,883)	1,748,680	1,550,000
Other Revenues	725,061	973,783	862,576	718,902	514,312	546,086

**CMLP - CONCORD MUNICIPAL LIGHT PLANT** **2022 OPERATING FORECAST**

**NET INCOME SUMMARY**

**ELECTRIC DEPARTMENT**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>ANNUAL \$ CHANGE BY EXPENSE CATEGORY ↑(↓)</b>	x \$ 2,581,428	\$ 1,577,000	\$ 213,340	\$ 2,150,452	\$ 570,862	
Purchased Power Cost	x \$ 2,012,089	\$ 357,528	\$ (455,420)	\$ 3,060,115	\$ 60,677	
Operating + Maintenance Costs	x \$ 501,921	\$ 1,201,040	\$ 690,399	\$ (855,462)	\$ 412,303	
Depreciation Expense	x \$ 102,992	\$ 46,127	\$ (25,184)	\$ (1,497)	\$ 80,828	
Debt Service Interest	x \$ (22,575)	\$ (18,694)	\$ (18,956)	\$ (29,703)	\$ (5,947)	
PILOT - Payment In Lieu of Taxes	x \$ (13,000)	\$ (9,000)	\$ 22,500	\$ (23,000)	\$ 23,000	
<b>RATIOS OF TOTAL EXPENSES</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>
Purchased Power Cost	70 %	70 %	68 %	66 %	71 %	70 %
Operating + Maintenance Costs	21 %	20 %	23 %	26 %	21 %	22 %
Depreciation Expense	7 %	7 %	7 %	7 %	6 %	6 %
Debt Service Interest	1 %	1 %	0 %	0 %	0 %	0 %
PILOT - Payment In Lieu of Taxes	2 %	2 %	2 %	2 %	1 %	1 %
<b>TOTAL EXPENSES</b>	<b>\$ 24,831,659</b>	<b>\$ 27,413,087</b>	<b>\$ 28,990,087</b>	<b>\$ 29,203,427</b>	<b>\$ 31,353,879</b>	<b>\$ 31,924,741</b>
Purchased Power Cost	17,287,536	19,299,625	19,657,153	19,201,733	22,261,848	22,322,525
Operating + Maintenance Costs	5,106,133	5,608,054	6,809,095	7,499,493	6,644,031	7,056,335
Depreciation Expense	1,777,915	1,880,907	1,927,034	1,901,850	1,900,352	1,981,181
Debt Service Interest	186,075	163,500	144,806	125,850	96,147	90,200
PILOT - Payment In Lieu of Taxes	474,000	461,000	452,000	474,500	451,500	474,500

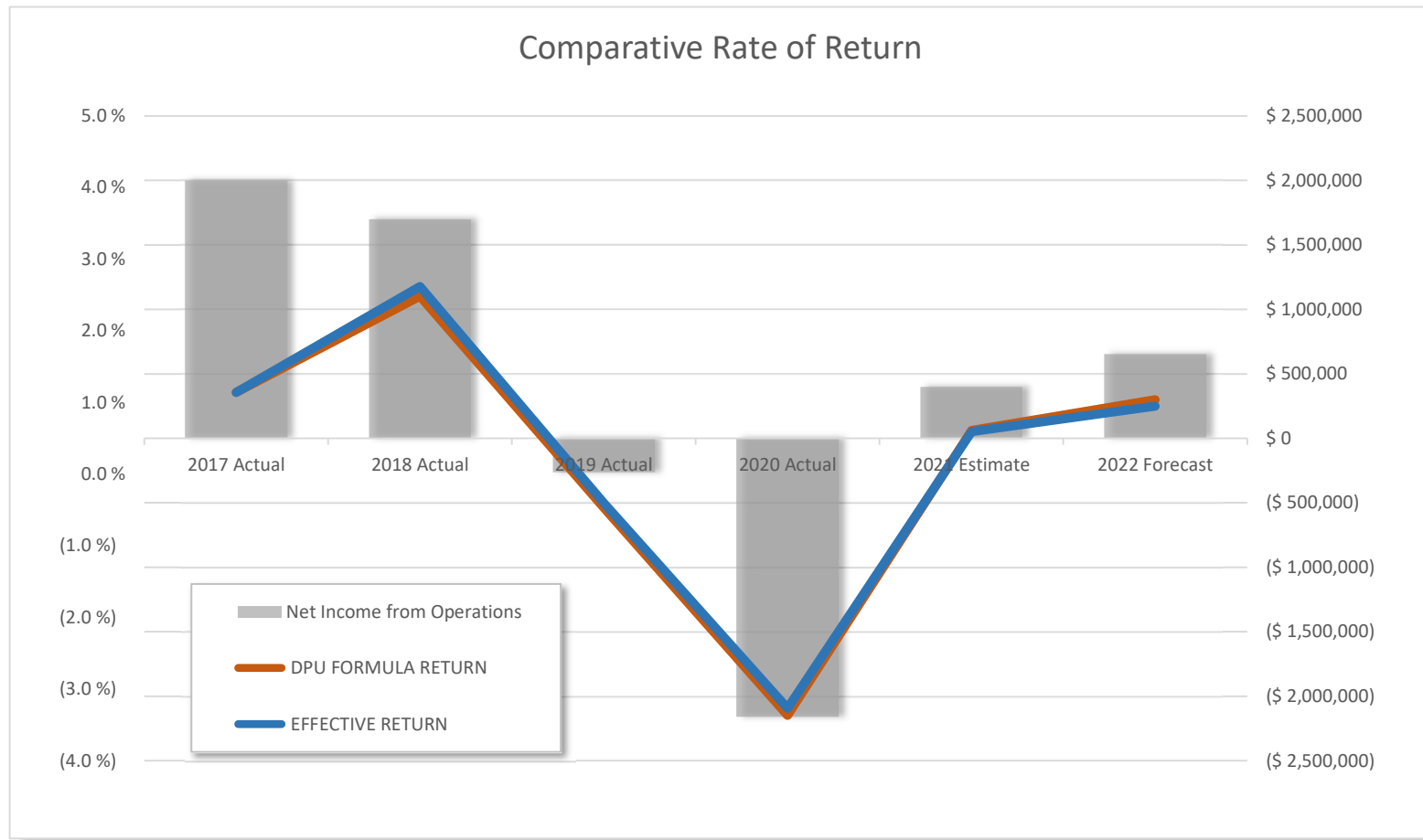


CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

RATE OF RETURN - CMLP v. DPU

ELECTRIC DEPARTMENT



**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**RATE OF RETURN**

**ELECTRIC DEPARTMENT**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>EFFECTIVE RETURN</b>	<b>1.14 %</b>	<b>2.62 %</b>	<b>(0.40 %)</b>	<b>(3.27 %)</b>	<b>0.59 %</b>	<b>0.95 %</b>
Net Income from Operations	1,997,418	1,698,513	(264,096)	(2,157,880)	399,549	653,092
DIVIDED by Gross Plant Value Used for DPU Formula Calculation	n/a	64,866,495	65,587,823	66,064,765	67,651,702	68,858,826
<b>DPU FORMULA RETURN</b>	<b>1.14 %</b>	<b>2.49 %</b>	<b>(0.47 %)</b>	<b>(3.37 %)</b>	<b>0.61 %</b>	<b>1.04 %</b>
DPU QUALIFIED INCOME	1,974,924	1,611,975	(307,003)	(2,224,747)	413,275	715,504
DIVIDED by Gross Plant Value Used for DPU Formula Calculation	n/a	64,866,495	65,587,823	66,064,765	67,651,702	68,858,826
<b>DPU QUALIFIED INCOME</b>	<b>\$ 1,974,924</b>	<b>\$ 1,611,975</b>	<b>\$ (307,003)</b>	<b>\$ (2,224,747)</b>	<b>\$ 413,275</b>	<b>\$ 715,504</b>
Net Income from Operations	1,997,418	1,698,513	(264,096)	(2,157,880)	399,549	653,092
PILOT - Payment In Lieu of Taxes Credit	474,000	461,000	452,000	474,500	451,500	474,500
Underground Surcharge Revenue	(368,685)	(406,588)	(403,137)	(402,008)	(432,781)	(412,088)
CARES Surcharge Revenue	(127,810)	(140,950)	(91,770)	(139,359)	(4,993)	-
<b>GROSS VALUE OF PLANT</b>						
At Year End	64,866,495	65,587,823	66,064,765	67,651,702	68,858,826	71,588,756
Used for DPU Formula Calculation	n/a	64,866,495	65,587,823	66,064,765	67,651,702	68,858,826
<b>NET PROFIT MARGIN</b>	<b>7.44 %</b>	<b>5.83 %</b>	<b>(0.92 %)</b>	<b>(7.98 %)</b>	<b>1.26 %</b>	<b>2.00 %</b>
Net Income from Operations	1,997,418	1,698,513	(264,096)	(2,157,880)	399,549	653,092
DIVIDED by Total Operating Revenue	26,829,077	29,111,600	28,725,990	27,045,547	31,753,428	32,577,833



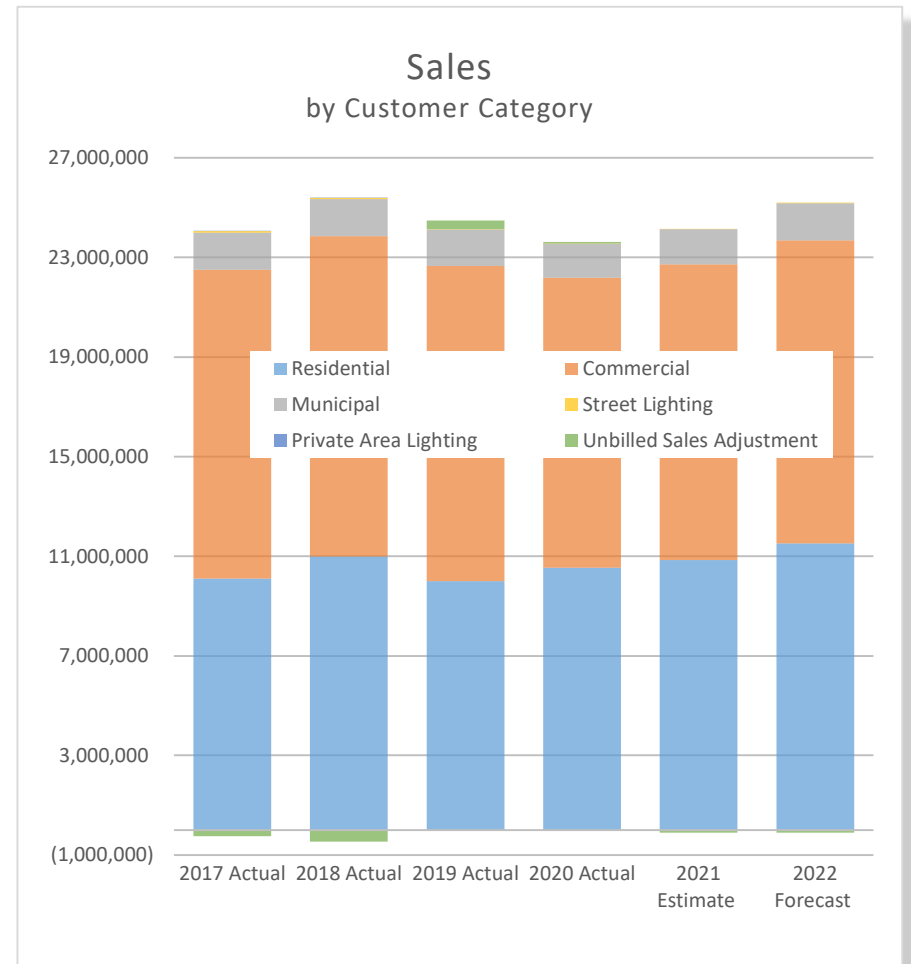
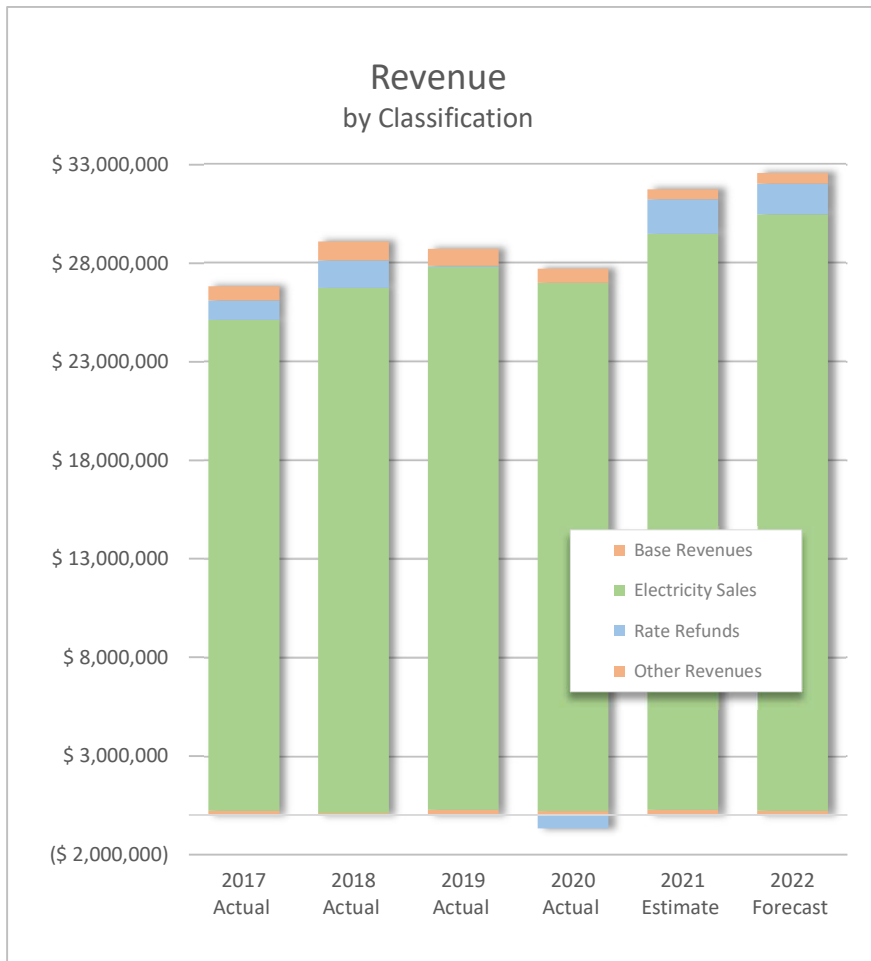
# REVENUE

CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

SALES REVENUE OVERVIEW

ELECTRIC DEPARTMENT



**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**REVENUE SUMMARY**

**ELECTRIC DEPARTMENT**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>ANNUAL % CHANGE BY REVENUE CATEGORY ↑(↓)</b>	x	9 %	(1 %)	(6 %)	17 %	3 %
■ Base Revenues	x	(55 %)	167 %	(25 %)	35 %	(19 %)
■ Electricity Sales	x	7 %	3 %	(3 %)	9 %	4 %
■ Rate Refunds	x	42 %	(97 %)	(1710 %)	(359 %)	(11 %)
■ Other Revenues	x	34 %	(11 %)	(17 %)	(28 %)	6 %
<b>ANNUAL \$ CHANGE BY REVENUE CATEGORY ↑(↓)</b>	x \$	2,282,523 \$	(385,610) \$	(1,680,444) \$	4,707,881 \$	824,405 \$
■ Base Revenues	x \$	(123,509) \$	167,831 \$	(67,374) \$	70,702 \$	(52,854) \$
■ Electricity Sales	x \$	1,747,043 \$	905,720 \$	(751,544) \$	2,417,206 \$	1,044,166 \$
■ Rate Refunds	x \$	410,267 \$	(1,347,954) \$	(717,853) \$	2,424,563 \$	(198,680) \$
■ Other Revenues	x \$	248,722 \$	(111,207) \$	(143,674) \$	(204,590) \$	31,773 \$
<b>RATIOS OF OPERATING REVENUE BY REVENUE CATEGORY</b>	100 %	100 %	100 %	100 %	100 %	100 %
■ Base Revenues	1 %	0 %	1 %	1 %	1 %	1 %
■ Electricity Sales	93 %	92 %	96 %	99 %	92 %	93 %
■ Rate Refunds	4 %	5 %	0 %	-2 %	6 %	5 %
■ Other Revenues	3 %	3 %	3 %	3 %	2 %	2 %
<b>TOTAL OPERATING REVENUE BY REVENUE CATEGORY</b>	\$ 26,829,077	\$ 29,111,600	\$ 28,725,990	\$ 27,045,547	\$ 31,753,428	\$ 32,577,833
■ Base Revenues	224,203	100,695	268,526	201,152	271,854	219,000
■ Electricity Sales	24,900,156	26,647,199	27,552,919	26,801,375	29,218,581	30,262,747
■ Rate Refunds	979,657	1,389,924	41,970	(675,883)	1,748,680	1,550,000
■ Other Revenues	725,061	973,783	862,576	718,902	514,312	546,086

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**REVENUE SUMMARY**

**ELECTRIC DEPARTMENT**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>ANNUAL % CHANGE BY REVENUE CATEGORY ↑(↓)</b>	x	5 %	(2 %)	(3 %)	2 %	4 %
■ Residential	x	9 %	(9 %)	5 %	3 %	6 %
■ Commercial	x	4 %	(2 %)	(8 %)	2 %	2 %
■ Municipal	x	(0 %)	(2 %)	(7 %)	3 %	6 %
■ Street Lighting	x	(35 %)	(66 %)	62 %	11 %	(7 %)
■ Private Area Lighting	x	(20 %)	(65 %)	(100 %)	0 %	0 %
■ Unbilled Sales Adjustment	x	46 %	(174 %)	(82 %)	(265 %)	6 %
<b>ANNUAL kWh CHANGE BY REVENUE CATEGORY ↑(↓)</b>	x	1,118,871	(451,617)	(855,294)	430,672	1,038,730
■ Residential	x	903,890	(997,437)	535,061	312,368	661,909
■ Commercial	x	457,628	(208,032)	(1,012,884)	238,606	295,420
■ Municipal	x	(3,472)	(25,334)	(102,212)	41,934	90,049
■ Street Lighting	x	(22,146)	(27,646)	8,739	2,470	(1,783)
■ Private Area Lighting	x	(1,162)	(3,055)	(1,676)	-	-
■ Unbilled Sales Adjustment	x	(215,867)	809,887	(282,321)	(164,705)	(6,866)
<b>RATIOS OF ELECTRICITY SALES VOLUME BY CUSTOMER CATEGORY</b>	100 %	100 %	100 %	100 %	100 %	100 %
■ Residential	42 %	44 %	41 %	45 %	45 %	46 %
■ Commercial	52 %	52 %	52 %	49 %	49 %	49 %
■ Municipal	6 %	6 %	6 %	6 %	6 %	6 %
■ Street Lighting	0 %	0 %	0 %	0 %	0 %	0 %
■ Private Area Lighting	0 %	0 %	0 %	-	-	-
■ Unbilled Sales Adjustment	(1 %)	(2 %)	1 %	0 %	(0 %)	(0 %)
<b>ELECTRICITY SALES VOLUME BY CUSTOMER CATEGORY</b>	\$ 23,808,948	\$ 24,927,818	\$ 24,476,201	\$ 23,620,908	\$ 24,051,580	\$ 25,090,310
■ Residential	10,091,151	10,995,041	9,997,604	10,532,665	10,845,033	11,506,943
■ Commercial	12,404,417	12,862,044	12,654,012	11,641,128	11,879,733	12,175,153
■ Municipal	1,493,008	1,489,536	1,464,202	1,361,990	1,403,923	1,493,972
■ Street Lighting	63,953	41,807	14,161	22,899	25,369	23,586
■ Private Area Lighting	5,893	4,731	1,676	-	-	-
■ Unbilled Sales Adjustment	(249,473)	(465,340)	344,547	62,226	(102,479)	(109,345)

CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

REVENUE SUMMARY

ELECTRIC DEPARTMENT

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Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>TOTAL OPERATING REVENUE</b>	\$ 26,829,077	\$ 29,111,600	\$ 28,725,990	\$ 27,045,547	\$ 31,753,428	\$ 32,577,833
<b>Base Revenues</b>	\$ 224,203	\$ 100,695	\$ 268,526	\$ 201,152	\$ 271,854	\$ 219,000
1-4150.0000 Income - M&J	221,998	73,944	262,925	206,202	212,388	215,000
1-4150.0001 M&J Other Towns	-	7,658	3,050	(3,787)	-	2,000
1-4150.1000 M&J Mutual Aid	-	-	-	-	-	-
1-4210.0000 Income - Misc Non-Operating	2,206	19,092	2,551	(1,263)	59,466	2,000
<b>Electricity Sales</b>	\$ 24,900,156	\$ 26,647,199	\$ 27,552,919	\$ 26,801,375	\$ 29,218,581	\$ 30,262,747
1-4400.0000 Residential Service	9,266,604	10,111,202	9,597,438	10,500,395	10,845,033	11,506,943
1-4400.0002 Residential - Controlled Hot Water Heater	619,085	654,345	266,716	-	-	-
1-4400.0003 Residential - Off Peak	163,877	181,387	116,336	-	-	-
1-4400.0004 Residential - Farm	11,497	14,191	5,435	-	-	-
1-4400.0009 Res Sales - Dist Charge	30,088	33,917	11,678	32,270	-	-
1-4420.0001 Commercial - Small	2,045,157	2,231,479	1,917,948	1,891,270	1,579,753	1,579,698
1-4420.0002 Commercial - Medium	3,714,567	3,805,802	3,924,892	3,513,330	3,564,251	3,807,903
1-4420.0003 Commercial - Large	6,574,254	6,750,846	6,775,102	6,231,301	6,726,804	6,779,244
1-4420.0004 PL Private Area Lighting	5,893	4,731	1,676	-	-	-
1-4420.0005 Commercial - Water Heater	-	-	-	-	-	-
1-4420.0006 Commercial - Small Farm	12,108	14,689	10,000	-	-	-
1-4420.0007 Commercial - Medium Farm	57,382	56,720	18,567	-	-	-
1-4420.0009 Electrical Vehicle Charging	949	2,509	7,502	5,227	8,926	8,308
1-4440.0001 Municipal - Small	57,757	71,657	54,906	62,733	57,813	73,914
1-4440.0002 Municipal - Medium	695,443	682,831	659,199	637,573	743,188	690,525
1-4440.0003 Municipal - Large	739,808	735,048	750,096	661,684	602,922	729,533
1-4440.0004 Municipal Street Lighting	63,953	41,807	14,161	22,899	25,369	23,586
Meter Charge	1,091,208	1,160,609	1,434,001	1,378,480	1,787,658	1,876,671
1-4450.0000 Unbilled Sales	(249,473)	(465,340)	344,547	62,226	(102,479)	(109,345)
1-4560.0005 REC Purchases Surcharge	-	558,771	1,642,716	1,801,988	3,379,344	3,295,766
<b>Rate Refunds</b>	\$ 979,657	\$ 1,389,924	\$ 41,970	\$ (675,883)	\$ 1,748,680	\$ 1,550,000
1-4490.0001 Provision for Rate Refund	269,699	639,704	(497,074)	(1,061,740)	1,748,680	1,550,000
1-4490.0003 Prov for Rate Stabilization	709,958	750,219	539,044	385,857	-	-

CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

REVENUE SUMMARY

ELECTRIC DEPARTMENT

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>Other Revenues</b>	\$ 725,061	\$ 973,783	\$ 862,576	\$ 718,902	\$ 514,312	\$ 546,086
1-4190.0000 Operating Interest Income	18,559	159,932	138,077	48,295	2,151	25,026
1-4190.0001 Non Op Int/Div Income	37,547	86,290	103,805	62,007	8,698	12,828
1-4290.0000 Amortization of Debt Premium	29,980	29,938	34,241	33,038	44,279	49,110
1-4490.0002 Provision for CARES	-	-	-	-	-	-
1-4500.0000 Finance Charge	15,769	16,814	54,859	4,886	(100)	19,544
1-4500.0001 Non Sufficient Funds Charge	-	-	775	525	(950)	-
1-4510.0000 Reconnection Meter Charges	1,000	5,400	7,250	250	1,400	1,200
1-4510.0001 Temporary Service Charges	-	-	-	-	-	-
1-4510.0099 Misc Charge/Credit	-	-	(127)	(256)	(7,729)	(2,500)
1-4540.2000 Smart Grid - Fiber Rental	98,495	100,655	-	-	-	-
1-4550.0000 Fiber Optics School Lease	27,216	27,216	28,789	28,789	28,789	28,789
1-4560.0000 Underground Surcharge	368,685	406,588	403,137	402,008	432,781	412,088
1-4560.0002 CARES Surcharge	127,810	140,950	91,770	139,359	4,993	-

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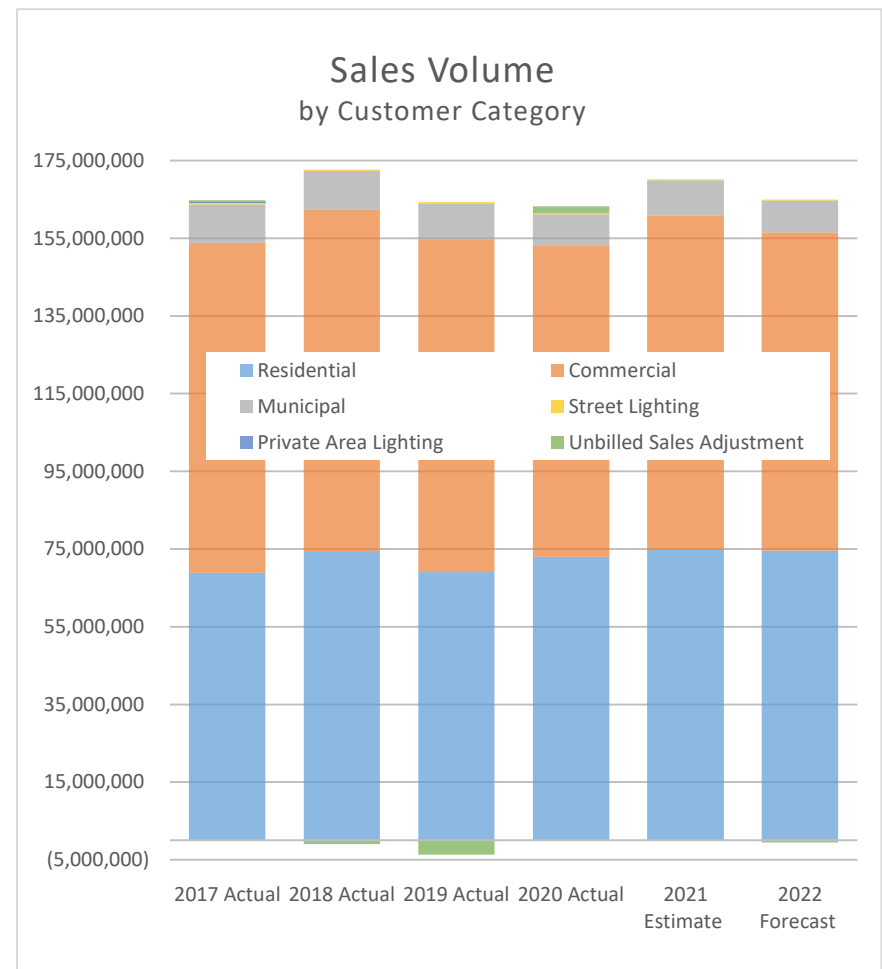
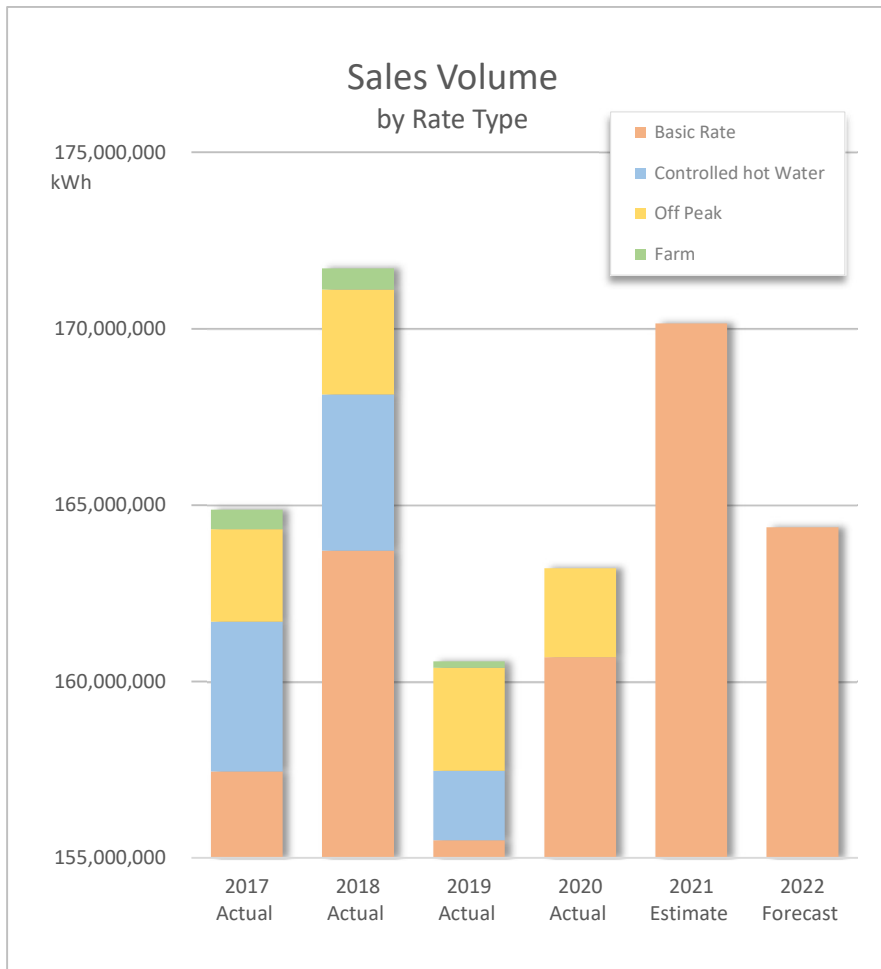


CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

SALES VOLUME OVERVIEW

ELECTRIC DEPARTMENT



**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**SALES VOLUME (kWh)**

**ELECTRIC DEPARTMENT**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>ANNUAL % CHANGE BY RATE TYPE ↑(↓)</b>	x	4 %	(6 %)	2 %	4 %	(3 %)
Basic Rate	x	4 %	(5 %)	3 %	6 %	(3 %)
Controlled hot Water		5 %	(55 %)	(100 %)	0 %	0 %
Off Peak		14 %	(2 %)	(13 %)	(100 %)	0 %
Farm	x	6 %	(71 %)	(100 %)	0 %	0 %
<b>ANNUAL kWh CHANGE BY RATE TYPE ↑(↓)</b>	x	6,836,228	(11,146,588)	2,649,131	6,940,624	(5,783,568)
Basic Rate	x	6,254,167	(8,205,831)	5,180,939	9,472,784	(5,783,568)
Controlled hot Water	x	191,781	(2,456,628)	(1,974,085)	-	-
Off Peak	x	356,861	(63,674)	(382,202)	(2,532,160)	-
Farm	x	33,419	(420,455)	(175,521)	-	-
<b>RATIOS OF SALES VOLUME BY RATE TYPE</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>
Basic Rate	95 %	95 %	97 %	98 %	100 %	100 %
Controlled hot Water	3 %	3 %	1 %	-	-	-
Off Peak	2 %	2 %	2 %	2 %	-	-
Farm	0 %	0 %	0 %	-	-	-
<b>SALES VOLUME BY RATE TYPE</b>	<b>164,870,859</b>	<b>171,707,087</b>	<b>160,560,499</b>	<b>163,209,630</b>	<b>170,150,254</b>	<b>164,366,686</b>
Basic Rate	157,448,195	163,702,362	155,496,531	160,677,470	170,150,254	164,366,686
Controlled hot Water	4,238,932	4,430,713	1,974,085	-	-	-
Off Peak	2,621,175	2,978,036	2,914,362	2,532,160	-	-
Farm	562,557	595,976	175,521	-	-	-

CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

SALES VOLUME (kWh)

ELECTRIC DEPARTMENT

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>ANNUAL % CHANGE BY REVENUE CATEGORY ↑(↓)</b>	x	4 %	(6 %)	2 %	4 %	(3 %)
■ Residential	x	8 %	(7 %)	6 %	3 %	(0 %)
■ Commercial		4 %	(3 %)	(7 %)	7 %	(5 %)
■ Municipal		(0 %)	(7 %)	(12 %)	11 %	(9 %)
■ Street Lighting	x	(33 %)	(16 %)	(30 %)	1 %	6 %
■ Private Area Lighting	x	(100 %)	0 %	0 %	0 %	0 %
■ Unbilled Sales Adjustment	x	(266 %)	74 %	(149 %)	(95 %)	(801 %)
<b>ANNUAL kWh CHANGE BY REVENUE CATEGORY ↑(↓)</b>	x	6,836,228	(11,146,588)	2,649,131	6,940,624	(5,783,568)
■ Residential	x	5,604,585	(5,340,583)	3,908,488	1,827,556	(261,938)
■ Commercial	x	2,994,366	(2,356,320)	(5,610,919)	5,957,098	(4,048,462)
■ Municipal	x	(12,710)	(673,475)	(1,088,956)	873,417	(791,469)
■ Street Lighting	x	(147,964)	(48,608)	(75,641)	1,244	11,227
■ Private Area Lighting	x	(25,971)	-	-	-	-
■ Unbilled Sales Adjustment	x	(1,576,078)	(2,727,602)	5,516,159	(1,718,691)	(692,926)
<b>RATIOS OF SALES VOLUME BY CUSTOMER CATEGORY</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>
■ Residential	42 %	43 %	43 %	45 %	44 %	45 %
■ Commercial	52 %	51 %	53 %	49 %	51 %	50 %
■ Municipal	6 %	6 %	6 %	5 %	5 %	5 %
■ Street Lighting	0 %	0 %	0 %	0 %	0 %	0 %
■ Private Area Lighting	0 %	-	-	-	-	-
■ Unbilled Sales Adjustment	0 %	(1 %)	(2 %)	1 %	0 %	(0 %)

CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

SALES VOLUME (kWh)

ELECTRIC DEPARTMENT

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>SALES VOLUME BY CUSTOMER CATEGORY</b>	<b>164,870,859</b>	<b>171,707,087</b>	<b>160,560,499</b>	<b>163,209,630</b>	<b>170,150,254</b>	<b>164,366,686</b>
■ Residential	68,832,294	74,436,879	69,096,296	73,004,784	74,832,340	74,570,402
■ Commercial	85,005,349	87,999,715	85,643,395	80,032,476	85,989,574	81,941,112
■ Municipal	9,969,993	9,957,283	9,283,808	8,194,852	9,068,269	8,276,800
■ Street Lighting	444,581	296,617	248,009	172,368	173,612	184,839
■ Private Area Lighting	25,971	-	-	-	-	-
■ Unbilled Sales Adjustment	592,671	(983,407)	(3,711,009)	1,805,150	86,459	(606,467)
<b>TOTAL SALES VOLUME</b>	<b>164,870,859</b>	<b>171,707,087</b>	<b>160,562,686</b>	<b>163,234,053</b>	<b>170,150,254</b>	<b>164,366,686</b>
<b>Electricity Sales</b>	<b>164,870,859</b>	<b>171,707,087</b>	<b>160,562,686</b>	<b>163,234,053</b>	<b>170,150,254</b>	<b>164,366,686</b>
1-4400.0000 Residential Service	61,895,427	66,935,104	64,172,068	70,472,624	74,832,340	74,570,402
1-4400.0002 Residential - Controlled Hot Water Heater	4,238,932	4,430,713	1,974,085	-	-	-
1-4400.0003 Residential - Off Peak	2,621,175	2,978,036	2,914,362	2,532,160	-	-
1-4400.0004 Residential - Farm	76,760	93,026	35,781	-	-	-
1-4400.0009 Res Sales - Dist Charge	-	-	2,187	24,423	-	-
1-4420.0001 Commercial - Small	12,095,510	13,135,019	12,161,890	11,011,787	11,640,851	11,266,012
1-4420.0002 Commercial - Medium	23,899,622	24,616,114	25,128,667	22,999,469	23,447,742	23,585,851
1-4420.0003 Commercial - Large	48,524,420	49,745,632	48,213,098	46,021,220	50,900,981	47,089,249
1-4420.0004 PL Private Area Lighting	25,971	-	-	-	-	-
1-4420.0005 Commercial - Water Heater	-	-	-	-	-	-
1-4420.0006 Commercial - Small Farm	73,619	84,620	-	-	-	-
1-4420.0007 Commercial - Medium Farm	412,178	418,330	139,740	-	-	-
1-4420.0009 Electrical Vehicle Charging	-	-	-	-	-	-
1-4430.0004 Adopt a Street Light	-	-	-	-	-	-
1-4440.0001 Municipal - Small	335,678	414,801	391,304	338,477	415,912	341,862
1-4440.0002 Municipal - Medium	4,582,789	4,527,694	4,044,285	3,784,445	4,857,628	3,822,289
1-4440.0003 Municipal - Large	5,051,526	5,014,788	4,848,219	4,071,930	3,794,729	4,112,649
1-4440.0004 Municipal Street Lighting	444,581	296,617	248,009	172,368	173,612	184,839
1-4450.0000 Unbilled Sales	592,671	(983,407)	(3,711,009)	1,805,150	86,459	(606,467)





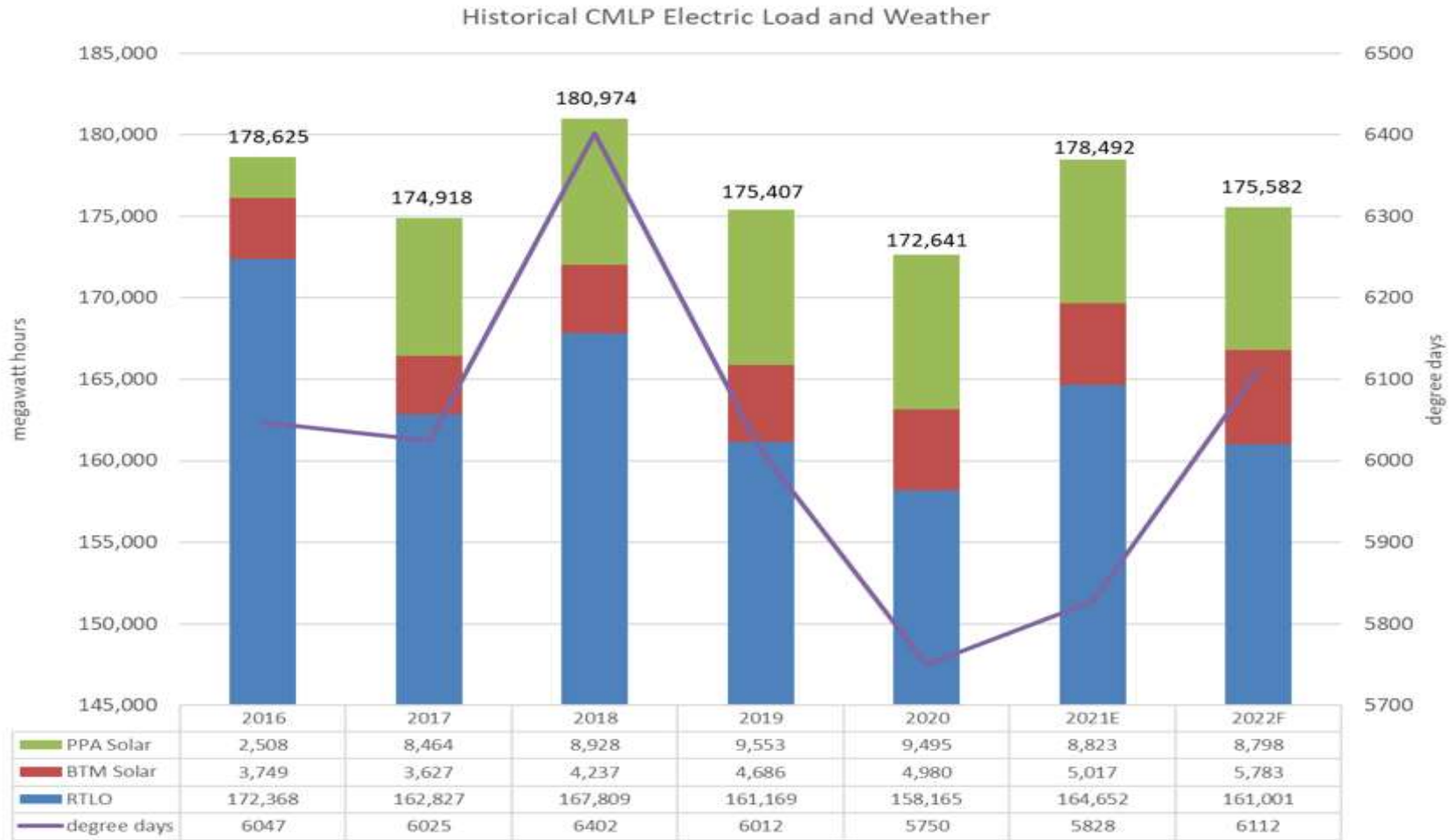
# PURCHASED POWER

CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

LOAD FORECAST

ELECTRIC DEPARTMENT



**Discussion of Plan for 2022 - Purchased Power Expense and Recovery**

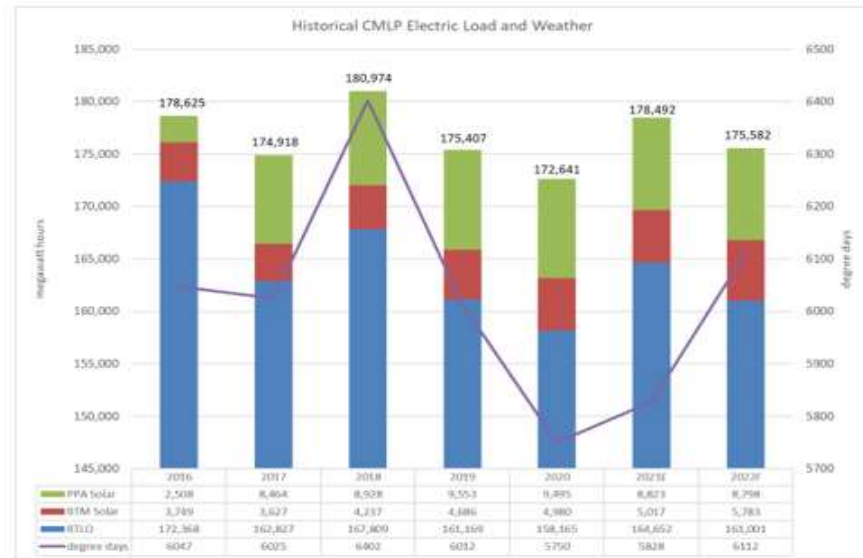
CMLP staff prepares the load forecast based upon estimated load growth, solar generation and normal weather. Energy New England (ENE) then estimates the cost to serve load using current contracts and capacity prices, and price forecasts for energy, transmission and ancillary services. ENE’s optimization model devises a least cost portfolio through the optimal dispatch of resources.

**Load Forecast**

CMLP’s power needs are sensitive to the weather. Colder or hotter than normal weather results in higher electricity sales and purchases. Over the last five years CMLP’s load has varied between an estimated 172,641 megawatt hours (“MWh”) in 2020 when the weather was very mild and 182,507 MWh in 2015 when the weather was more severe<sup>1</sup>.

The load volumes in the chart to the right are measured in megawatt hours on the left axis and include 1) power purchased from third parties and imported to Concord (RTLO), 2) power purchased from third party solar generating facilities located in Town (PPA Solar), and 3) a simulation of the amount of power produced by customer-owned solar arrays (BTM Solar). The sum of those three represent a fair estimate of the amount of power the Town consumed in any given year. Shown on the right axis are the total number of degree days for the year (see footnote 1.) The 2021

data includes actuals through November and an estimate for December.



<sup>1</sup> Temperature severity can be measured using a unit called a “degree day.” Degree days are the difference between the daily temperature mean and a fixed, mild temperature, usually 60°F.

**Power Purchase Cost**

The cost of purchased power is the largest expense for CMLP. In 2022 total purchased power expenses are expected to be \$22.2 million. The items that are classified as Purchased Power Expense include: capacity, energy, transmission, fixed costs and renewable energy certificates.

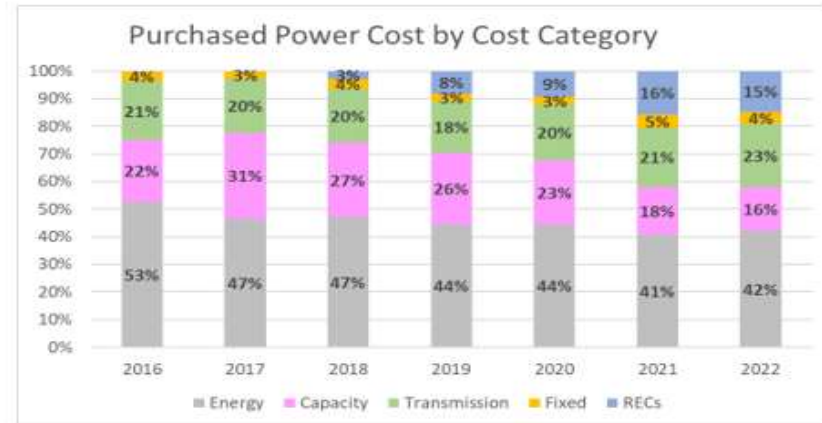
*Energy*

The energy component of the purchased power budget is for electricity produced by generation asset owners and delivered to CMLP. These are the costs associated with the ongoing provision of electricity to native load customers and are the largest expense in the power portfolio.

CMLP maintains a diverse portfolio of energy counterparties to ensure reliable, cost-effective delivery of energy to CMLP ratepayers. Contracts are set at different lengths and with different characteristics (e.g. take or pay, load-following, calls). Contracts and resources are processed through an economic dispatch model which uses market pricing to determine how to optimize CMLP’s portfolio and system costs for a given period.

A consideration of this process is the pricing and availability in the spot market. Spot market energy is secured either day-ahead or in real-time to meet CMLP’s load. For 2022, about 20% of all energy that will be purchased is forecasted to be in the spot market.

Energy expenses are expected to total \$9.4 million in 2022. The chart below shows what percent of total purchase power costs each of energy, capacity, transmission and Renewable Energy Certificates is expected to total in 2022.



*Capacity*

Load-serving entities - the market participants that secure electric energy, transmission service, and related services to serve the demand of their customers- make capacity payments to generators to ensure the long-term availability of sufficient generation capacity for the reliable operation of the bulk power grid. CMLP pays ISO-New England for its estimated capacity requirements as do all other load serving entities within the ISO.

For 2022, net capacity costs are expected to be \$3.4 million. Included in that amount are: fixed capacity and O&M payments for the Thomas A Watson Generating Facility, capacity charges associated with the RISE contract, capacity charges assessed by the New York Power Authority for hydro resources, forward capacity market costs for ISO-supplied capacity and credits received for capacity that CMLP cannot use to offset its load obligation directly.

Transmission

Transmission costs consist of the tariffs and fees to move energy from generators to CMLP's distribution system. The fees listed below are based on the revenue requirements of the transmission providers and allocated to CMLP in proportion to the respective load for each type of service.

Regional Network Service

CMLP is a part of ISO-New England, the Regional Transmission Organization, which is responsible for the operation and reliability of the power grid in New England. The majority of CMLP's contracts are delivered at the ISO-New England hub for which CMLP pays Regional Network Service ("RNS") to use the ISO-New England pool assets. RNS is by far CMLP's largest transmission expense. Projected RNS expense for 2022 is \$4.7 million.

Local Network Service

Beyond the ISO-New England pool assets, energy is subsequently transmitted over non-pool transmission lines owned by Eversource via the Sudbury substation. For use of the Eversource network, CMLP pays Local Network Service ("LNS") fees, expected to cost \$188,000 in 2022. After the Sudbury substation, Eversource delivers the power over two underground 115 kV transmission lines to the Maynard substation at which point the power enters CMLP's two underground 115 kV transmission lines and continues to CMLP Station 219. For the interconnection with Eversource, CMLP also pays facilities fees for the operation and maintenance of the equipment used at the interconnection between CMLP and Eversource. The annual facilities charge is approximately \$60,000.

Greater Springfield Reliability Project

In October, 2014, CMLP began paying for the use of non-pool transmission improvements as a Massachusetts beneficiary of the Greater Springfield Reliability Project (GSRP). The Project began in late 2010 to upgrade 39 miles of transmission lines on an existing right-of-way between Ludlow, Massachusetts, and Bloomfield, Connecticut.

With over 600 new structures and 13 new or rebuilt substations and switching stations, GSRP is one of the major transmission projects that are part of the New England East- West Solutions to address limitations to east-west/west-east movement of electricity on the New England power grid and weaknesses in the transmission system in and around Springfield, MA. Costs related to GSRP are expected to cost CMLP \$4,000 for 2022.

Hydro Quebec II Transmission Capacity

CMLP is an Interconnection Right Holder to a share of high voltage transmission capacity between the Sandy Pond HVDC Terminal, which interconnects Central Massachusetts and the Nicolet and/or Radisson HVDC terminals of Hydro-Québec. CMLP is responsible for support charges for the facilities and is billed monthly. 2022 costs are projected to be \$38,000. ENE re-markets this transmission capacity, which is part of the Forward Capacity Market, and collects capacity credits that serve to reduce the cost of this obligation.

*Fixed Costs*

For 2022, fixed costs are expected to be \$1 million. Included in that amount are: fixed fees associated with the RISE contract, ENE administrative fees and ancillary services provided by ISO-New England.

*Renewable Energy Certificates*

In 2018 CMLP began collecting an extra \$0.01 per kilowatt hour from customers on all energy sales in order to establish a fund to pay for increased amounts of renewable energy including Massachusetts Class 1 renewable energy certificates (“MA Class 1 RECs.”) With the money that was collected in 2018 CMLP purchased 74,256 MWh 2018 MA Class 1 RECs. When added to the other purchases made from non-carbon emitting sources in that year, CMLP was able to claim that 58% of sales came from renewable resources in 2018.

CMLP’s REC purchase strategy purposefully sets the cost of the program at a fixed level while letting the amount of RECs purchased in any year to fluctuate based upon the market price of RECs. That program feature prevents the attainment of carbon neutral power from significantly increasing rates. Like commodity prices, REC prices fluctuate with supply and demand. 2018 REC prices were generally less than \$0.01/kWh. 2019 REC prices averaged \$0.029/kWh, and 2020 REC prices averaged \$0.042/kWh.

As prices rose, CMLP was able to purchase fewer RECs, reducing the percentage of purchases that came from non-carbon emitting sources. On September 1, 2020 the Light Board approved an increase in the renewable energy surcharge from \$0.0100 to

\$0.0150 and a further increase to \$0.0200 effective with January 2021 bills. Those price increases will result in increasing amounts of renewable energy serving the Town of Concord.

It is estimated that non-carbon emitting energy will make up 83% of CMLP’s purchases in 2021 and 100% possibly as early as 2022.

Certificate Retirement Percentages by Year	2018	2019	2020	2021B	2022F
MA Class 1	8%	10%	10%	10%	13%
ME Class 2	3%	6%	6%	8%	9%
VT Tier 1	4%	5%	5%	4%	4%
EFECs			3%	10%	21%
Total Associated	15%	21%	24%	32%	47%
Non-associated MA Class 1	42%	33%	25%	50%	49%
Total as a % of Purchases*	57%	53%	49%	83%	96%
Total as a % of Sales	58%	56%	51%	87%	100%

\*totals may not add due to rounding

**Power Cost Adjustment**

The Power Cost Adjustment (PCA) is the cost recovery mechanism to collect expenses for purchased power that were not included in the base rate charges. For 2022 \$0.11429/kWh is embedded in base rates. Costs above that level are collected via the PCA. Other considerations in formulating the PCA include maintaining adequate levels of working capital and addressing prior period over/under collections.

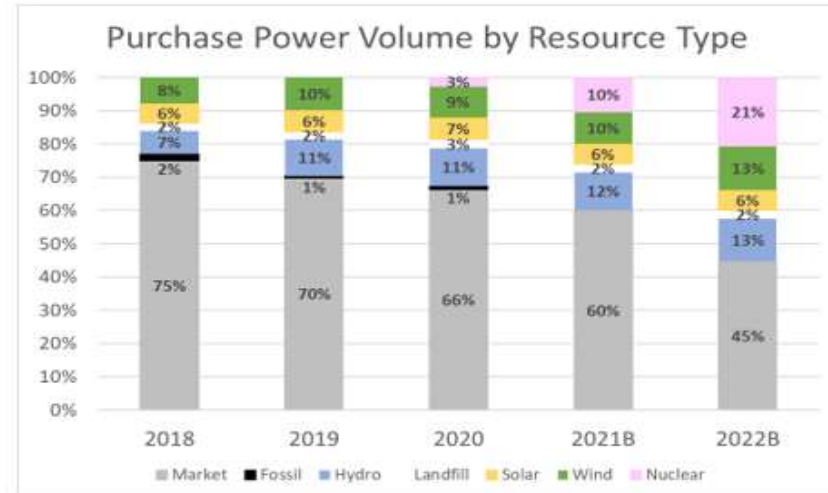
Given the extraordinary rise in worldwide energy costs since September 2021, the Light Board has determined that a \$0.0090/kW PCA will need to be added to 2022 rates. After the first quarter of 2022, the need for the PCA will be reassessed.

**Non-PCA Rate Stabilization for Purchased Power**

The fund for provision of rate stabilization is a distinct and different fund from operating cash and PCA working capital, though all funds are analyzed comprehensively. There is currently no Rate Stabilization Fund in effect for 2021.

**Purchase Power Portfolio Composition**

CMLP sources power from a diverse supply of generation. Over recent years CMLP has increased the percentage of renewable resources in its portfolio. Solar purchased from third parties has increased from 2% of the mix in 2018 to an expected 6% for 2022. Hydro has increased from 7% to 13%. Wind has increased from 8% to 13%. Landfill has remained flat at 2%. Nuclear will supply about 21% of CMLP’s needs in 2022. As a result of the net increase of renewables, CMLP has lowered the amount of energy it buys from the Market from 75% in 2018 to an expected 45% in 2022.



CMLP plans to continue increasing the amount of electricity it purchases directly from renewable resources, and purchasing Massachusetts Class 1 Renewable Energy Certificates to offset the emissions generated by the portion of the portfolio that continues to be sourced from the Market.

**Percentage Non-Carbon Emitting**

Though not subject to the Massachusetts Renewable Portfolio Standard, Concord is committed to renewable and non-carbon emitting energy initiatives. The energy portfolio reflects the community’s value of balancing cost and decreasing reliance on fossil fuels. For 2022, 55% of CMLP’s energy supply is forecasted to come from generation that does not emit carbon. However, CMLP does not own the Renewable Energy Credits (“RECs”) for all of that generation.

2022 Forecast	MWh	%
MA Class 1	22,829	13%
ME Class 2	14,946	9%
EFECs (nuclear)	35,040	21%
VT Tier 1	6,721	4%
Total certificates	72,816	47%
Other sources; no RECs <sup>2</sup>	14,336	8%
<b>Total</b>	<b>67,996</b>	<b>55%</b>
Expected purchases	169,978	

CMLP has title to Massachusetts Class 1 RECs for 13% of expected purchases. CMLP has title to Maine Class 2 RECs for a further 9% of expected purchases. CMLP is expected to receive 35,040 Emission-Free Energy Certificates (“EFECs”) associated with energy purchased from the Seabrook nuclear plant (21% of expected purchases) and 4% Vermont Tier 1 certificates generated by the hydro power from the New York Power Authority Niagara project.

<sup>2</sup> Includes on-system solar purchased from 3<sup>rd</sup> parties, grid purchase of solar with no RECs, and grid purchase of landfill energy with no RECs.

An additional 8% of purchases come from generating resources that are non-carbon emitting; such as in-Town solar generation from the third-party owned large solar arrays, and other solar and landfill plants to which CMLP does not own the RECs.

CMLP will retire 100% of the RECs to which it has title and all of the Massachusetts Class 1 RECs it purchases.

The chart below shows the percentage of purchases that are currently contracted to come from resources with associated MA Class 1, ME Class 2, VT Tier 1, and Zero-emission RECs; emitting sources including both fossil-based and market purchases; and purchases of non-associated MA Class I RECs.

In 2018 CMLP retired, as a percent of its purchases, 8% Massachusetts Class 1 RECs associated with power purchases, 3% Maine Class 2 RECs associated with power purchases, 4% Vermont Tier 1 RECs, and 42% non-associated Massachusetts Class 1 RECs for a total of 57%. When calculated as a percentage of sales, the total was 58% (sales are lower than purchases due to losses.)

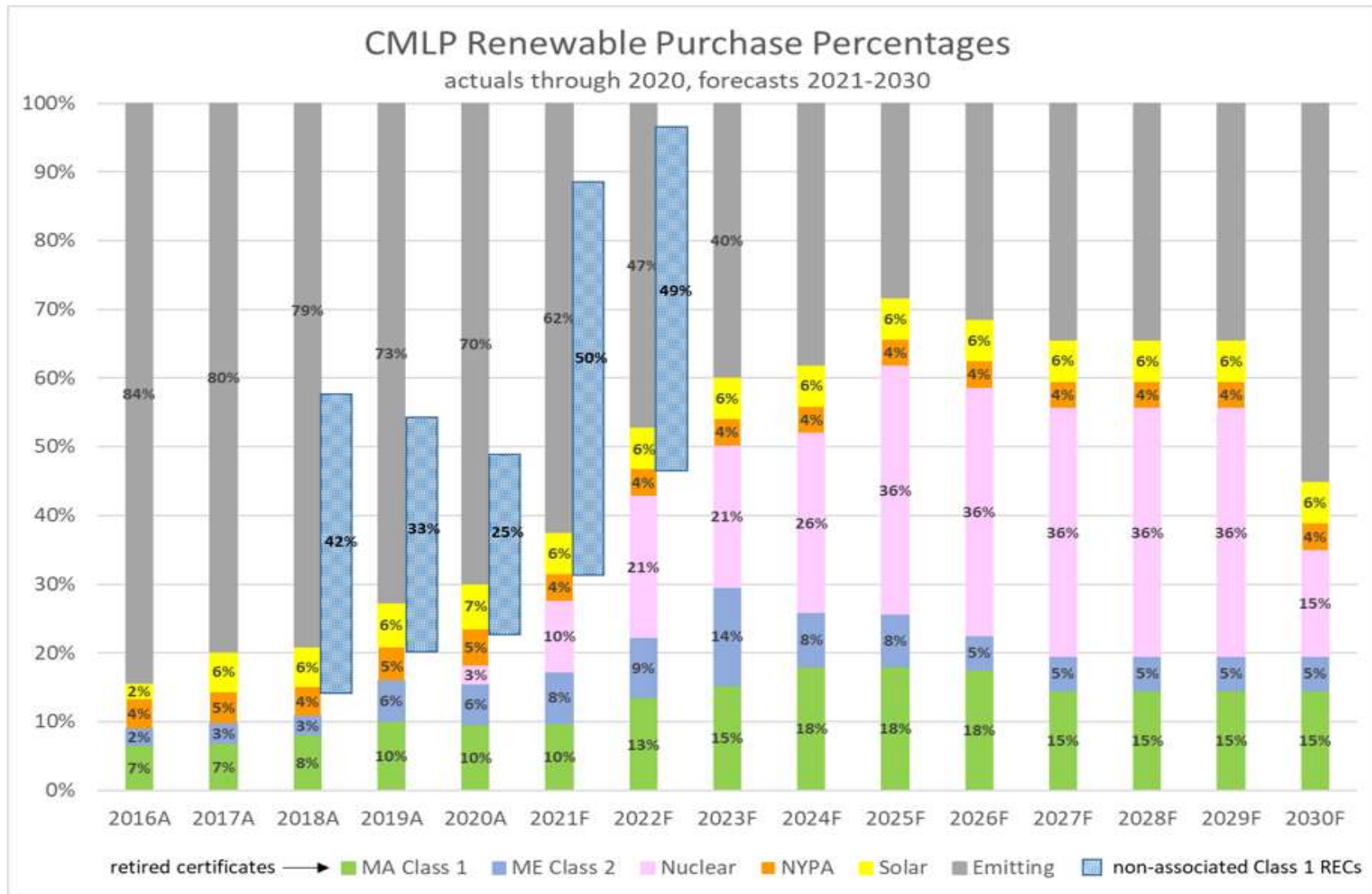
In 2019 the cost of purchasing non-associated Massachusetts Class 1 RECs increased resulting in CMLP not being able to purchase as many RECs as it did in 2018. CMLP had title to more associated RECs in 2019: 10% Massachusetts Class 1, 6% Maine Class 2, and 5% Vermont Tier 1 . However, when added to the 33% purchase of non-associated Massachusetts Class 1 RECs, CMLP retired RECS equal to 53% of its total purchases in 2019 (56% of its sales.)

CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

PURCHASED POWER NARRATIVE

ELECTRIC DEPARTMENT



## PURCHASED POWER NARRATIVE

## ELECTRIC DEPARTMENT

REC prices continued to increase throughout 2020. CMLP had title to more associated RECs in 2020: 10% Massachusetts Class 1, 6% Maine Class 2, 3% nuclear EFECs and 5% Vermont Tier 1 . However, when added to the 25% purchase of non-associated Massachusetts Class 1 RECs, CMLP retired RECS equal to 49% of its total purchases in 2019 (51% of its sales.)

The picture gets better in 2021 for two reasons. First, new hydro and nuclear supply contracts come online increasing the total amount of ME Class 2 and EFECs that CMLP will be able to retire.

The new total of associated RECs will be approximately 32% compared to 24% in 2020. Second, the CMLP Board of Director's implemented an increase in the renewable energy surcharge collected from ratepayers. More money will be available to offset the cost of either non-associated MA Class 1 REC purchases or renewable energy contracts. 2021 REC purchases will not be completed until June 15, 2022. However, at current market prices, CMLP would retire RECs equal to approximately 82% of its total 2021 electricity purchases and perhaps 85% of its sales.

New wind and nuclear resources will increase the total amount of associated RECs that CMLP will be able to retire in 2022 from 32% to 47%. Future REC prices are unknown. However, at current market prices CMLP would retire RECs equal to approximately 96% of its total 2022 electricity purchases and perhaps 100% of its sales



**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**PURCHASED POWER VOLUME (kWh)**

**ELECTRIC DEPARTMENT**

Account #	Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
1	<b>ANNUAL % CHANGE BY ENERGY GENERATION TYPE ↑(↓)</b>	x	3 %	(3 %)	(2 %)	2 %	(1 %)
2	■ Fossil Fuel Powered Generation ONLY	x	-	-	-	-	-
3	■ Natural Gas Powered Generation	x	-	-	-	-	-
4	■ Hydro-Electric Generation	x	(4 %)	47 %	3 %	10 %	4 %
5	■ Landfill Gas Powered Generation	x	(46 %)	4 %	9 %	(1 %)	(3 %)
6	■ Generation Using Multiple Fuel Types	x	5 %	(12 %)	(6 %)	(10 %)	(25 %)
7	■ Solar Powered Generation	x	4 %	7 %	40 %	82 %	63 %
8	■ Wind Powered Generation	x	21 %	21 %	(6 %)	4 %	36 %
9							
10	<b>ANNUAL \$ CHANGE BY ENERGY GENERATION TYPE ↑(↓)</b>	x \$	5,430,254 \$	(6,015,357) \$	(3,056,409) \$	3,805,770 \$	(1,668,816) \$
11	■ Fossil Fuel Powered Generation ONLY	x \$	- \$	- \$	- \$	- \$	- \$
12	■ Natural Gas Powered Generation	x \$	- \$	- \$	- \$	- \$	- \$
13	■ Hydro-Electric Generation	x \$	(496,753) \$	5,990,397 \$	497,299 \$	1,834,224 \$	918,564 \$
14	■ Landfill Gas Powered Generation	x \$	(3,180,936) \$	133,782 \$	366,552 \$	(52,718) \$	(117,623) \$
15	■ Generation Using Multiple Fuel Types	x \$	6,273,526 \$	(15,792,887) \$	(7,307,697) \$	(11,134,096) \$	(25,857,057) \$
16	■ Solar Powered Generation	x \$	396,572 \$	680,877 \$	4,378,896 \$	12,519,776 \$	17,408,264 \$
17	■ Wind Powered Generation	x \$	2,437,845 \$	2,972,474 \$	(991,459) \$	638,584 \$	5,979,036 \$
18							
19							

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**PURCHASED POWER VOLUME (kWh)**

**ELECTRIC DEPARTMENT**

Account #	Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
20	<b>RATIOS OF VOLUME PURCHASED BY ENERGY GENERATION TYPE</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>
21	■ Fossil Fuel Powered Generation ONLY	Fossil	-	-	-	-	-
22	■ Natural Gas Powered Generation	Nat Gas	-	-	-	-	-
23	■ Hydro-Electric Generation	Hydro	8 %	7 %	11 %	11 %	12 %
24	■ Landfill Gas Powered Generation	LF Gas	4 %	2 %	2 %	3 %	2 %
25	■ Generation Using Multiple Fuel Types	Mixed	76 %	77 %	70 %	67 %	59 %
26	■ Solar Powered Generation	Solar	6 %	6 %	6 %	9 %	16 %
27	■ Wind Powered Generation	Wind	7 %	8 %	10 %	9 %	10 %
28							
29	<b>VOLUME PURCHASED BY ENERGY GENERATION TYPE</b>	<b>171,303,559</b>	<b>176,733,812</b>	<b>170,718,455</b>	<b>167,662,046</b>	<b>171,467,816</b>	<b>169,799,000</b>
30	■ Fossil Fuel Powered Generation ONLY	Fossil	-	-	-	-	-
31	■ Natural Gas Powered Generation	Nat Gas	-	-	-	-	-
32	■ Hydro-Electric Generation	Hydro	13,208,385	12,711,632	18,702,029	19,199,328	21,033,552
33	■ Landfill Gas Powered Generation	LF Gas	6,989,734	3,808,798	3,942,580	4,309,132	4,256,414
34	■ Generation Using Multiple Fuel Types	Mixed	129,744,089	136,017,615	120,224,728	112,917,031	101,782,935
35	■ Solar Powered Generation	Solar	9,852,957	10,249,528	10,930,405	15,309,301	27,829,077
36	■ Wind Powered Generation	Wind	11,508,394	13,946,239	16,918,713	15,927,254	16,565,838
37							
38							

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**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**PURCHASED POWER COST (\$\$\$)**

**ELECTRIC DEPARTMENT**



















	Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
1	<b>ANNUAL % CHANGE BY ENERGY GENERATION TYPE ↑(↓)</b>	x	12 %	2 %	(2 %)	16 %	0 %
2	■ Fossil Fuel Powered Generation ONLY	x	x	-	-	-	-
3	■ Natural Gas Powered Generation	x	x	-	-	-	-
4	■ Hydro-Electric Generation	x	x	109 %	17 %	35 %	4 %
5	■ Landfill Gas Powered Generation	x	x	(6 %)	9 %	(1 %)	(3 %)
6	■ Generation Using Multiple Fuel Types	x	x	5 %	(10 %)	10 %	(12 %)
7	■ Solar Powered Generation	x	x	6 %	23 %	57 %	54 %
8	■ Wind Powered Generation	x	x	(20 %)	45 %	10 %	34 %
9	■ Not a Power Generation Cost	x	x	(9 %)	7 %	26 %	9 %
10							
11	<b>ANNUAL \$ CHANGE BY ENERGY GENERATION TYPE ↑(↓)</b>	x \$	1 \$	357,529 \$	(455,419) \$	3,060,116 \$	60,678 \$
12	■ Fossil Fuel Powered Generation ONLY	x	x \$	- \$	- \$	- \$	- \$
13	■ Natural Gas Powered Generation	x	x \$	- \$	- \$	- \$	- \$
14	■ Hydro-Electric Generation	x	x \$	264,126 \$	84,131 \$	208,816 \$	30,162 \$
15	■ Landfill Gas Powered Generation	x	x \$	(10,750) \$	14,946 \$	(2,183) \$	(4,602) \$
16	■ Generation Using Multiple Fuel Types	x	x \$	655,847 \$	(1,414,542) \$	1,211,058 \$	(1,684,056) \$
17	■ Solar Powered Generation	x	x \$	44,617 \$	172,914 \$	521,968 \$	772,288 \$
18	■ Wind Powered Generation	x	x \$	(252,133) \$	443,818 \$	141,593 \$	535,022 \$
19	■ Not a Power Generation Cost	x	x \$	(344,179) \$	243,313 \$	978,864 \$	411,864 \$
20							
21							
22	<b>RATIOS OF COST BY ENERGY GENERATION TYPE</b>	100.00 %	100 %	100 %	100 %	100 %	100 %
23	■ Fossil Fuel Powered Generation ONLY	Fossil	-	-	-	-	-
24	■ Natural Gas Powered Generation	Nat Gas	-	-	-	-	-
25	■ Hydro-Electric Generation	Hydro	-	1 %	3 %	3 %	4 %
26	■ Landfill Gas Powered Generation	LF Gas	-	1 %	1 %	1 %	1 %
27	■ Generation Using Multiple Fuel Types	Mixed	-	67 %	70 %	64 %	61 %
28	■ Solar Powered Generation	Solar	-	4 %	4 %	5 %	6 %
29	■ Wind Powered Generation	Wind	-	6 %	5 %	7 %	7 %
30	■ Not a Power Generation Cost	N/A	-	20 %	18 %	20 %	22 %
31							

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**PURCHASED POWER COST (\$\$\$)**

**ELECTRIC DEPARTMENT**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast	
<b>COST BY ENERGY GENERATION TYPE</b>	<b>\$ 17,287,536</b>	<b>\$ 19,299,625</b>	<b>\$ 19,657,153</b>	<b>\$ 19,201,733</b>	<b>\$ 22,261,848</b>	<b>\$ 22,322,525</b>	
 Fossil Fuel Powered Generation ONLY	Fossil	-	-	-	-	-	
 Natural Gas Powered Generation	Nat Gas	-	-	-	-	-	
 Hydro-Electric Generation	Hydro	279,436	242,613	506,739	590,870	799,686	
 Landfill Gas Powered Generation	LF Gas	292,751	169,588	158,839	173,785	171,602	
 Generation Using Multiple Fuel Types	Mixed	12,859,514	13,024,561	13,680,408	12,265,866	13,476,924	
 Solar Powered Generation	Solar	673,423	698,743	743,361	916,275	1,438,242	
 Wind Powered Generation	Wind	934,951	1,236,660	984,527	1,428,345	1,569,938	
 Not a Power Generation Cost	XPC	3,728,364	3,927,460	3,583,280	3,826,593	4,805,456	
<b>ANNUAL % CHANGE IN TOTAL PURCHASED POWER COST ↑(↓)</b>		x	x	(82 %)	(227 %)	(772 %)	(98 %)
 Energy		x	x	x	(0.03)	0.10	0.03
 Forward Capacity Market Costs		x	x	x	(17 %)	(11 %)	(22 %)
 Transmission Costs		x	x	x	7 %	22 %	8 %
 Fixed + Other Costs		x	x	x	2 %	9 %	7 %
 Renewable Energy Certificates (RECs)		x	x	x	x	x	x
<b>ANNUAL \$ CHANGE IN TOTAL PURCHASED POWER COST ↑(↓)</b>		x \$ 2,012,089	\$ 357,528	\$ (455,420)	\$ 3,060,115	\$ 60,677	
 Energy		x	x	(545,620)	(221,822)	847,879	255,255
 Forward Capacity Market Costs		x	x	(1,364,218)	(668,594)	(369,932)	(656,136)
 Transmission Costs		x	x	(210,316)	243,313	840,698	394,301
 Fixed + Other Costs		x	x	834,965	32,413	164,113	150,835
 Renewable Energy Certificates (RECs)		x	x	1,642,716	159,271	1,577,356	(83,577)

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**PURCHASED POWER COST (\$\$\$)**

**ELECTRIC DEPARTMENT**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>RATIOS OF TOTAL PURCHASED POWER COST BY COST CATEGORY</b>	<b>100.00 %</b>	<b>100.00 %</b>	<b>100.00 %</b>	<b>100.00 %</b>	<b>100.00 %</b>	<b>100.00 %</b>
Energy	-	47.41 %	43.77 %	43.65 %	41.46 %	42.49 %
Forward Capacity Market Costs	-	27.76 %	20.32 %	17.32 %	13.28 %	10.30 %
Transmission Costs	-	19.66 %	18.23 %	19.93 %	20.97 %	22.67 %
Fixed + Other Costs	66,600.00	5.17 %	9.32 %	9.71 %	9.12 %	9.77 %
Renewable Energy Certificates (RECs)	-	0.00 %	8.36 %	9.38 %	15.18 %	14.76 %
<b>TOTAL PURCHASED POWER COST BY COST CATEGORY</b>	<b>\$ 17,287,536</b>	<b>\$ 19,299,625</b>	<b>\$ 19,657,153</b>	<b>\$ 19,201,733</b>	<b>\$ 22,261,848</b>	<b>\$ 22,322,525</b>
Energy	17,287,536	9,149,799	8,604,179	8,382,357	9,230,237	9,485,492
Forward Capacity Market Costs	5,223,207	5,358,383	3,994,165	3,325,570	2,955,638	2,299,502
Transmission Costs	3,630,348	3,793,596	3,583,280	3,826,593	4,667,291	5,061,592
Fixed + Other Costs	1,347,436	997,847	1,832,812	1,865,225	2,029,338	2,180,173
Renewable Energy Certificates (RECs)	-	-	1,642,716	1,801,988	3,379,344	3,295,766

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OPERATIONS +  
MAINTENANCE

**Discussion of Plan for 2022 - Operations and Maintenance Expense**

In general, averages or amounts approximating last year's estimated results were used in arriving at the estimate for this year. Specific comments are provided only for estimates that differ from this general approach.

**A/C 5700.0002 - Maintenance of Station Equipment – Eversource**

This is the OM&T charge estimated by Eversource per our Interconnection Agreement with them. It covers operations and maintenance plus municipal taxes associated with the transmission equipment we own in the Eversource Maynard substation. It also covers the additional 115 kV equipment Eversource owns in the Maynard station, which is used for, or which was installed as a direct result of, our high voltage interconnection.

**A/C 5890.0000 –Rent Expense**

The allowance for this year covers the rent paid to Amtrak for use of their land along Main Street at the South Bridge. The land is used for conduit and manholes for a future river crossing.

**A/C 5920.0000 – Maintenance of Station Equipment**

We do routine maintenance at substations on an ongoing basis. In some years, we do more than in others. The estimate for this year is intended to provide for this work.

**A/C 5930.0001 - Maintenance of Overhead Lines – Tree Trimming**

This account covers the cost of tree trimming the overhead electric facilities. This year CMLP will provide vegetation control for the distribution system, determined by inspection and prioritization planning.

**A/C 9020.0000 – Meter Reading Expenses**

This account covers the cost of meter reading net of reimbursement received from the Water Division of Public Works. The projected amount reflects less meter readers and efficiencies from the AMR system.

**A/C 9040.0000 – Uncollectible Accounts**

The amount reflects open invoice balances that have not been paid.

**A/C 9060.0000 – Customer Service and Information**

This account covers the costs associated with customer service relating to the proper and efficient use of CMLP's service.

**A/C 9080.0000 – Consumer Education**

The amount indicated in this account covers the expected costs for energy efficiency and outreach programs.

**A/C 9090.0005 – Energy Conservation & Load Management**

Conservation rebates and programs associated with CMLP's load management system are contained within this account. This value provides for services such as:

- Energy audits
- Appliance rebates
- Solar PV rebates
- EV rebates
- Commercial Lighting Program

## CMLP - CONCORD MUNICIPAL LIGHT PLANT

## 2022 OPERATING FORECAST

## OPS + MAINTENANCE NARRATIVE

## ELECTRIC DEPARTMENT

**A/C 9100.0000 – Energy Conservation**

Included in this account are costs for residential and general service audits, customer surveys and CMLP promotional materials.

**A/C 9200.0000 – Administrative & General Salaries**

This account reflects the administrative and general salaries not specified under the 926000 series.

**A/C 9230.0001 - Outside Services - Engineering**

CMLP Plans to use engineering services in 2022 for station equipment testing and technical services.

**A/C 9230.0002 - Outside Services - Legal**

Routine costs under this account include legal work on power supply and generation and general legal work by Town and Special Counsel.

**A/C 9230.2000 - Outside Services - Telecommunications**

An allowance has been made for consulting services associated with the fiber system.

**A/C 9240.0000 – Insurance**

CMLP's insurance needs are provided in part though the Town of Concord's insurance portfolio as provided by Massachusetts Interlocal Insurance Association (MIIA) and in part through the Public Utilities Risk Management Association (PURMA).

**A/C 9260.0000 - Pensions and Benefits**

Light Plant employees have been separated out from the rest of the town by the actuary. The Finance Director provided an estimate of pension costs. Social Security and Medicare costs were estimated as a function of salary.

**A/C 9260.0003 - Training**

Training of our employees is very important, but we do not attempt to identify in advance who will go where or receive what in a particular year. Instead, we maintain flexibility so we can respond to opportunities or needs as they may arise. The allowance is based on the most recent calendar year as being reflective of increasing registration cost, hotel cost and airfare.

**A/C 9310.0000 – Miscellaneous Contributions to Town**

This account includes costs associated with hanging holiday lighting around town and contributions to the Hugh Cargill fund.

**A/C 9330.0000 – Transportation**

Note that since A/C 9330.0000 Transportation Expenses acts as a clearing account, all charges for the cost of transportation are intended to be re-allocated to either O&M, M&J or Plant accounts and included therein.

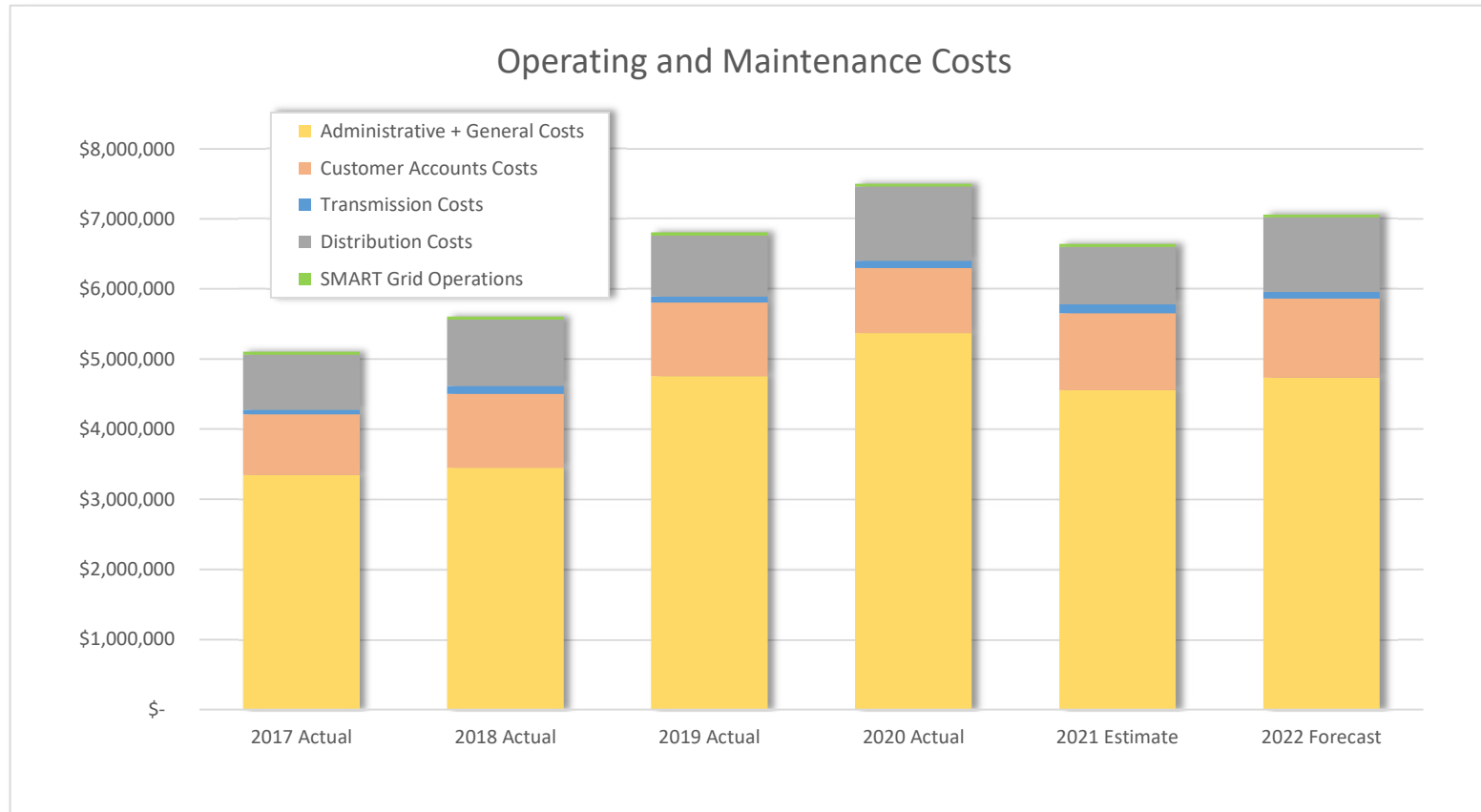


CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

OPS + MAINTENANCE OVERVIEW

ELECTRIC DEPARTMENT



**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**OPERATIONS + MAINTENANCE**

**ELECTRIC DEPARTMENT**

Account #	Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
1	<b>ANNUAL % CHANGE BY COST CATEGORY ↑(↓)</b>	x	10 %	21 %	10 %	(11 %)	6 %
2	■ Transmission Costs	x	73 %	(19 %)	19 %	19 %	(27 %)
3	■ Distribution Costs	x	21 %	(9 %)	22 %	(23 %)	30 %
4	■ Customer Accounts Costs	x	22 %	(1 %)	(12 %)	18 %	4 %
5	■ Administrative + General Costs	x	3 %	38 %	13 %	(15 %)	4 %
6	■ SMART Grid Operations	x	2 %	15 %	(25 %)	27 %	(10 %)
7							
8	<b>ANNUAL \$ CHANGE BY COST CATEGORY ↑(↓)</b>	x \$	501,921 \$	1,201,040 \$	690,399 \$	(855,462) \$	420,616 \$
9	■ Transmission Costs	x	46,324	(20,466)	16,918	20,238	(34,636)
10	■ Distribution Costs	x	161,636	(82,388)	194,503	(243,506)	248,419
11	■ Customer Accounts Costs	x	188,167	(5,803)	(126,857)	169,067	38,975
12	■ Administrative + General Costs	x	104,943	1,303,265	618,141	(811,124)	172,698
13	■ SMART Grid Operations	x	851	6,433	(12,306)	9,862	(4,840)
14							
15							
16	<b>RATIOS OF OPERATING + MAINTENANCE COSTS</b>	100 %	100 %	100 %	100 %	100 %	100 %
17	■ Transmission Costs	1 %	2 %	1 %	1 %	2 %	1 %
18	■ Distribution Costs	15 %	17 %	13 %	14 %	12 %	15 %
19	■ Customer Accounts Costs	17 %	19 %	15 %	12 %	16 %	16 %
20	■ Administrative + General Costs	66 %	62 %	70 %	72 %	69 %	67 %
21	■ SMART Grid Operations	1 %	1 %	1 %	0 %	1 %	1 %
22							
23	<b>TOTAL OPERATING + MAINTENANCE COSTS</b>	\$ 5,106,133	\$ 5,608,054	\$ 6,809,095	\$ 7,499,493	\$ 6,644,031	\$ 7,064,647
24	■ Transmission Costs	63,261	109,584	89,118	106,036	126,274	91,638
25	■ Distribution Costs	786,180	947,816	865,428	1,059,931	816,425	1,064,844
26	■ Customer Accounts Costs	869,588	1,057,755	1,051,952	925,095	1,094,162	1,133,138
27	■ Administrative + General Costs	3,345,700	3,450,643	4,753,908	5,372,049	4,560,924	4,733,622
28	■ SMART Grid Operations	41,405	42,256	48,689	36,383	46,246	41,405

CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

OPERATIONS + MAINTENANCE

ELECTRIC DEPARTMENT

Account #	Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>TOTAL OPERATING + MAINTENANCE COSTS</b>		\$ 5,106,133	\$ 5,608,054	\$ 6,809,095	\$ 7,499,493	\$ 6,644,031	\$ 7,056,335
<b>Transmission Costs</b>		\$ 63,261	\$ 109,584	\$ 89,118	\$ 106,036	\$ 126,274	\$ 91,638
1-5610.0000	Trans Load Dispatching	-	-	671	2,620	2,546	2,779
1-5620.0000	Trans Station Expense	7,230	41,654	31,996	51,876	53,989	20,000
1-5700.0000	Maintenance of Station Equipment	-	-	218	-	-	500
1-5700.0001	Subtrans Maint of Station Equipment	1,244	-	9,800	4,900	8,578	7,759
1-5700.0002	Maint of Station Equipment - Eversourc	54,787	67,930	46,433	46,640	61,161	60,600
1-5720.0000	Trans Maint UG Lines	-	-	-	-	-	-
<b>Distribution Costs</b>		\$ 786,180	\$ 947,816	\$ 865,428	\$ 1,059,931	\$ 816,425	\$ 1,064,844
1-5810.0000	Line and Station Supplies and Expenses	161,943	165,202	204,694	197,551	162,077	166,939
1-5820.0000	Station Expenses	803	-	1,784	931	1,989	1,377
1-5830.0000	Overhead Line Expense	40,122	19,390	9,317	3,942	10,892	11,437
1-5840.0000	UG Operations Line Expense	-	-	-	-	-	-
1-5860.0000	Meter Expense	44,448	32,009	56,973	4,916	6,917	5,917
1-5890.0000	Rent Expense - MBTA	9,196	9,495	9,801	12,502	12,535	13,162
1-5900.0000	Maintenance Supervision	50,618	59,023	95,491	99,147	121,851	123,447
1-5910.0000	Maintenance of Structures	-	-	-	-	-	-
1-5920.0000	Maintenance of Station Equipment	7,362	25,312	15,967	26,166	35,685	22,098
1-5930.0000	Maintenance of Overhead Lines	213,936	395,074	211,742	280,229	173,179	218,050
1-5930.0001	Maint OH Lines - Tree Trimming	37,294	33,823	77,551	315,131	144,867	350,866
1-5930.0002	Maint OH Lines - Damages	555	-	9,404	685	-	-
1-5940.0000	Maintenance of Underground Lines	162,887	175,083	137,901	99,203	115,827	121,618
1-5950.0000	Maintenance of Transformers	-	-	180	300	128	-
1-5950.0001	Transformer Disposal	1,000	1,470	-	-	-	-
1-5960.0000	Maintenance of Street Lights	53,658	30,958	31,843	16,961	24,371	24,058
1-5970.0000	Maintenance of Meters	-	-	-	-	511	-
1-5980.0000	Maint of Customer LTD Mgt Switches	2,359	978	2,685	1,404	2,973	3,122
1-5980.0001	Maint of EV Charging Stations	-	-	96	864	2,623	2,754

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**OPERATIONS+MAINTENANCE**

**ELECTRIC DEPARTMENT**

Account #	Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
	<b>Customer Accounts Costs</b>	<b>\$ 869,588</b>	<b>\$ 1,057,755</b>	<b>\$ 1,051,952</b>	<b>\$ 925,095</b>	<b>\$ 1,094,162</b>	<b>\$ 1,133,138</b>
62							
63	1-9010.0000 Supervision	43,499	63,411	66,414	13,588	40,981	60,948
64	1-9020.0000 Meter Reading	22,455	31,406	39,989	20,337	25,259	14,258
65	1-9030.0000 Accounting, Collection Expense	190,805	237,909	296,893	244,748	250,400	256,182
66	1-9040.0000 Uncollectable Accounts	283	(12,821)	48,681	30,906	(1,423)	15,850
67	1-9040.0001 Small Balance Write Off	-	-	(7)	(2)	(15)	(5)
68	1-9040.0002 Uncollectable Accounts - MR	-	-	-	27,706	204	2,500
68	1-9060.0000 Customer Service and Informational	92,464	105,555	102,575	51,503	47,238	48,183
69	1-9080.0000 Customer Education	38,397	43,132	44,455	11,198	14,490	12,384
70	1-9080.0001 SmartHub Sign Up Credit	-	-	75	-	-	-
71	1-9090.0000 Informational & Instructional	89,881	95,525	46,835	31,237	46,708	35,250
72	1-9090.0001 Appliance Rebate	400	800	-	-	-	-
73	1-9090.0002 Lighting Rebate	2,301	143	3,398	-	-	-
74	1-9090.0003 ETS Rebate	-	-	-	-	-	-
75	1-9090.0005 CARES expenses	357,239	472,865	374,191	464,759	636,693	653,146
76	1-9090.0008 Cool Concord Rebate CMLP	6,597	16,634	939	875	309	707
77	1-9090.0009 Cooler Concord Rebates - TH	8,538	(8,538)	-	-	-	-
78	1-9090.0030 Electric Vehicle Level 2 Expense	-	3,750	13,072	5,000	10,250	9,375
79	1-9090.0031 Electric Vehicle Miles Expense	-	7,600	14,059	23,240	23,069	24,359
80	1-9100.0000 Energy Conservation	16,728	384	384	-	-	-
81							

CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

OPERATIONS + MAINTENANCE

ELECTRIC DEPARTMENT

Account #	Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>Administrative + General Costs</b>		<b>\$ 3,345,700</b>	<b>\$ 3,450,643</b>	<b>\$ 4,753,908</b>	<b>\$ 5,372,049</b>	<b>\$ 4,560,924</b>	<b>\$ 4,733,622</b>
1-4160.0000	M&J Operating Expenses	-	2,405	111,057	81,599	154,864	149,759
1-9200.0000	Administration & General Salaries	998,727	911,107	1,232,219	1,882,618	1,528,892	1,628,892
1-9200.0001	G & A Town House Transfer	317,928	346,104	361,904	385,206	253,781	266,470
1-9200.0002	G & A IS Dept Transfer	81,331	118,516	177,842	202,563	175,843	184,635
1-9210.0000	Office Supplies & Expenses	169,773	341,869	362,914	207,862	59,255	64,693
1-9230.0000	Misc Outside Services	146,978	176,319	62,991	263,730	180,083	163,689
1-9230.0001	Outside SVS Engineering	5,301	-	-	-	-	20,000
1-9230.0002	Outside SVS Legal	88,598	108,841	54,890	39,901	20,124	18,836
1-9240.0000	Property Insurance	48,390	52,376	53,784	52,131	53,580	55,096
1-9250.0000	Employee Injuries & Damages	19,757	21,147	20,772	30,381	31,794	33,384
1-9260.0000	Employee Pension & Benefits	847,514	512,303	1,473,124	1,417,198	1,286,198	1,324,784
1-9260.0001	Employee Sick Leave	104,888	97,847	104,401	81,388	134,291	120,247
1-9260.0002	Employee Vacation & Holiday	328,695	331,793	350,614	401,108	410,801	413,141
1-9260.0003	Employee Benefits Training	68,481	68,455	77,857	108,039	94,683	83,503
1-9300.0000	Misc General Expense	32,674	33,547	38,658	32,652	34,958	36,007
1-9310.0000	Contribution to the Town	30,022	47,379	29,228	61,185	(4,867)	32,589
1-9320.0000	Maint General Plant	162,249	260,828	286,760	123,363	130,526	133,579
1-9330.0000	Transportation Expense	(105,607)	(5,680)	(7,739)	(14,526)	-	-
1-9340.0000	Inventory Adjustment	-	22,865	(37,369)	15,649	16,119	4,316
1-9350.0000	Maint of General Plant	-	2,622	-	-	-	-
<b>SMART Grid Operations</b>		<b>\$ 41,405</b>	<b>\$ 42,256</b>	<b>\$ 48,689</b>	<b>\$ 36,383</b>	<b>\$ 46,246</b>	<b>\$ 33,093</b>
1-5820.2000	SG - Station Expenses	1,218	410	5,747	4,245	-	-
1-5860.2000	SG - Meter Expense	901	20	10,010	3,289	5,605	3,965
1-5930.2000	SG - Maint OH lines	2,818	9,181	2,779	5,919	16,345	7,408
1-5940.2000	SG - Maint UG Lines	1,279	2,223	-	-	287	301
1-5960.2000	SG - Maint St Lights	6,220	5,948	10,059	555	153	389
1-9020.2000	SG - Meter Reading	7,205	4,890	5,402	7,140	9,369	6,474
1-9030.2000	SG - Accounting, Collection Expense	1,014	-	271	-	-	-
1-9200.2000	SG - General Salaries	-	-	-	-	-	-
1-9230.2000	SG - Outside SVS	6,295	6,378	6,921	6,919	6,987	7,056
1-9320.2000	SG - Maintenance	14,455	13,206	7,500	8,317	7,500	7,500



**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**ENERGY MANAGEMENT**

**ELECTRIC DEPARTMENT**

**2022 ENERGY MANAGEMENT EXPENDITURE FORECAST**

	Notes	2021 Budget	Actual as of 12/2/21	Consumer Education (9080)	Energy Conservation & Load Management (9090)	2022 Total Energy Services
<b>RESIDENTIAL</b>		<b>538,175</b>	<b>519,690</b>	<b>97,250</b>	<b>470,794</b>	<b>568,044</b>
ENE Residential Home Energy Assessments	A	21,683	21,450	-	26,520	26,520
Abode Decarbonization Consulting and Planning Services	B	-	-	-	6,870	6,870
LED Bulb Installations during Home Energy Assessments	C	6,190	11,595	-	-	-
LED Bulb Rebates	D	851	259	-	-	-
Air Source Heat Pump Rebates	E	71,920	68,874	-	123,165	123,165
Ground Source Heat Pump Rebates	F	3,641	4,964	-	30,000	30,000
Heat Pump Water Heater Rebates	G	4,284	6,185	-	7,282	7,282
Heat Pump Promotion	H	54,441	36,026	62,000	-	62,000
Weatherization rebates	I	6,683	15,655	-	28,704	28,704
Weatherization Contractor Network and Quality Assurance Reviews	J	-	-	-	3,700	3,700
Solar PV Rebates	K	91,958	128,125	-	86,850	86,850
Massachusetts MLP Solar Program Rebates	L	102,087	148,996	-	55,524	55,524
Massachusetts MLP Solar Program Rebate Processing Fees	M	6,500	-	-	3,000	3,000
EV Miles Program	N	31,200	21,304	-	25,531	25,531
EV Level 2 Rebate Program	O	5,513	9,000	-	12,500	12,500
EV Education and Promotion	P	30,224	22,619	35,250	-	35,250
EV Make Ready Grant Pilot Program	Q	72,500	22,188	-	50,000	50,000
EV Ready Program	R	24,000	-	-	-	-
DriveEV Rebate Program	S	4,500	2,450	-	11,148	11,148
<b>COMMERCIAL</b>		<b>45,021</b>	<b>41,767</b>	<b>-</b>	<b>99,375</b>	<b>99,375</b>
Facility energy audits	T	3,500	-	-	2,600	2,600
Air-Source Heat Pump Rebates	U	-	4,633	-	23,666	23,666
Heat Pump Water Heater Rebates	V	935	-	-	-	-
Variable Refrigerant Flow ASHP Rebates	W	-	-	-	21,000	21,000
Ground-Source Heat Pump Rebates	X	-	-	-	-	-
High Efficiency Lighting Program Rebates	Y	33,012	36,770	-	38,609	38,609
Air Purifier Rebate Program	Z	4,434	364	-	-	-
Electric Patio Heater Rebate Program	AA	3,140	-	-	-	-
Commercial EV Charging Rate and Rebate Program	BB	-	-	-	13,500	13,500
<b>RESIDENTIAL ENERGY EFFICIENCY PROGRAM ADMINISTRATION</b>	<b>CC</b>	<b>14,400</b>	<b>13,200</b>	<b>-</b>	<b>15,600</b>	<b>15,600</b>
<b>REBATE PROCESSING</b>	<b>DD</b>	<b>12,191</b>	<b>1,501</b>	<b>-</b>	<b>4,750</b>	<b>4,750</b>
<b>PR, PUBLICATIONS &amp; BROCHURES</b>		<b>408</b>	<b>384</b>	<b>12,384</b>	<b>-</b>	<b>12,384</b>
Marketing Services	EE	-	-	12,000	-	12,000
SurveyMonkey ProPlan		408	384	384	-	384
<b>DOER RESIDENTIAL CONSERVATION SERVICE ASSESSMENT</b>		<b>590</b>	<b>627</b>	<b>-</b>	<b>627</b>	<b>627</b>
<b>TOTALS</b>		<b>610,785</b>	<b>577,169</b>	<b>109,634</b>	<b>591,146</b>	<b>700,780</b>

**Notes:**

- A Using standard CMLP procedure, we have projected the number of home energy assessments (HEAs) to grow 5% from 89 in 2021 to 94 in 2022. In addition to HEAs provided by ENE, we do plan to offer a more intensive decarbonization assessment provided by Abode Energy Management (see next footnote). Abode has estimated that 1 in 6 customers interested in an HEA may choose a decarbonization assessment instead. Based on that assumption, we expect that ENE would carry out 78 HEAs in 2022. ENE has increased their fee per HEA from \$330 in 2021 to \$340 in 2022.
- B We plan to contract with Abode Energy Management to provide intensive decarbonization assessments. The decarbonization assessments will provide customers with an in-home decarbonization assessment that will address near-term opportunities for energy efficiency as well as longer term opportunities, including fuel switching, personal transportation, behavioral practices, and appliances inside and outside the home. Abode has proposed a price of \$600 per decarbonization assessment, but proposed that part of that cost be borne by the customer. CMLP intends to pay \$340 of the cost, as we would if the customer had requested an HEA. The customer would be responsible for the remaining \$260. Abode will also follow up with decarbonization assessment customers to help them troubleshoot as they implement measures over time.
- C We recommend discontinuing this LED installation program at the end of 2021 for several reasons. The vast majority of the bulb selection in stores at this point is LED bulbs. When the only choice is essentially LED bulbs, providing LED bulbs encourages free ridership - that is, use of the program by customers who will replace outdated bulbs with LEDs over time even without the installation program. Further, with the continuing pandemic conditions and use of remote audits, bulbs are delivered, but not installed, if the customer is uncomfortable having installers do work in the home. This means that we can't assume they are actually installed. Mass Save is discontinuing its residential LED bulb installation program at the end of 2021, and we recommend following suit to be consistent. Finally, we believe that diverting these funds to other programs will have more benefits for CMLP and for our customers.
- D We recommend discontinuing the LED bulb rebate program at the end of 2021. Applications for LED bulb rebates have dropped to very low levels. Further, the vast majority of the bulb selection in stores at this point is LED bulbs. When the only choice is essentially LED bulbs, providing LED bulb rebates encourages free ridership - use of the rebates by customers who will replace outdated bulbs with LEDs anyway. Finally, Mass Save is discontinuing its residential LED bulb rebates at the end of 2021, so our action will be consistent with theirs.
- E If approved by the DPU by the end of January 2022, which we have been told by NGrid is highly likely, Mass Save heat pump rebates will be available to natural gas heating households in Concord to assist financially with a transition to heat pumps, retroactive to systems installed after 1/1/22. The rebates will be \$10,000 for whole home heating with heat pumps, and \$1,250/ton of heat pump capacity for partial home heating with heat pumps using integrated controls. CMLP plans to provide the same rebate levels to oil/propane/electric resistance heating homes in Town. In 2021, 45% of ASHP rebate applicants heated with a fuel other than natural gas before transitioning partially or fully to heat pumps. Due to the higher rebate levels and our ongoing coaching activities, we have assumed that the overall number of Concord households applying for ASHP rebates will increase 20%, from 61 (est.) in 2021, to 73 in 2022. Our forecast assumes that CMLP will provide heat pump rebates to the 45% of applicants who transition partially or fully from oil/propane/electric resistance to heat pumps, and that National Grid will provide rebates to the 55% who transition from natural gas.

- F If approved by the DPU, Mass Save GSHP rebates of \$15,000 per installation will be available to natural gas heating households. We propose to match Mass Save's 2022 GSHP rebate of \$15,000 per whole-house installation for oil/propane/electric resistance heating households. CMLP provided a rebate for one new GSHP in 2021, in a home formerly heated with gas. However, the other GSHPs installed in Concord over the last few years have been in homes formerly heated with oil. While we expect that our coaching service will continue its primary focus on ASHPs, we speculate that this increased rebate could lead to two or more GSHP installation in oil heated homes in 2022 and have forecasted expenditures accordingly.
- G We offer a rebate of \$750 when a HPWH replaces a fossil-fuel fired water or is installed in a new home, and \$185 when a HPWH replaces an electric resistance water heater. Using standard CMLP procedure, we have projected 2022 costs to be 5% greater than 2021 costs.
- H CMLP has contacted with Abode Energy Management to continue its HP Awareness and Quality Assurance Program in 2022. The program also continues our Heating/Cooling Coaching Service, staffed by part-time coaches supported by both CMLP funds and a DEED grant through June 2022. This forecast includes CMLP funding to fully support the coaching service during the 2nd half of the year. Services offered include a technical specialist and coaches to assist CMLP customers with heat adoption, quality assurance processes to improve heat pump sizing and installation, and marketing. We have also assumed expenditures of \$3,600 to do community-wide promotion of a HP educational event, and to prepare bill inserts, social media posts, etc. to publicize the program services.
- I For customers whose primary source of heat is electricity, oil, propane or wood, CMLP provides a rebate of 50% of the cost of eligible weatherization measures, up to \$1,000. The average weatherization project cost in 2021 was about \$4,500, and the average rebate was about \$800. Twenty-six weatherization projects are projected to be completed in 2021, compared to 8 in 2020. We attribute this 325% increase to our heating/cooling coaches, who are advising people to install weatherization in conjunction with heat pumps for best performance. While we would normally project a 5% increase using standard CMLP procedures, we will assume there will be 20% more weatherization projects in 2022 than in 2021. Because our coaching service began in February 2021, a full year of coaching, along with new decarbonization assessments in 2022, is likely to lead to a larger increase in weatherization projects from year to year than we might otherwise expect. We also plan to add income-based weatherization rebates in 2022, since the Town's Climate Action and Resilience Plan calls on us to take equity considerations into account. Weatherizing can be particularly helpful to lower income families by reducing their annual energy costs. Weatherization will also improve the possibility that lower income families can adopt heat pumps. We propose that households below 120% of Boston area median income be eligible for a rebate of 75% of project cost, up to \$1,500 and that households below 80% of median income be eligible for a rebate of 100% of project cost, up to \$2,000. We've adjusted our 2022 expenditure forecast upward based on an estimated number of income-based rebates to be provided.
- J CMLP proposes to contract with Abode Energy Management to maintain a list of participating weatherization contractors for our customers' use and carry out a virtual quality assurance check on 90% of weatherization projects and an in-home quality assurance check on 10% of projects. There will also be a startup fee of \$1,000 for this service in 2022. While we currently point customers to online lists of Mass Save weatherization contractors, many of those contractors will work only on Mass Save funded projects. Having a list of contractors that will serve Concord residents will make it easier for CMLP customers to procure weatherization services. The quality assurance checks will have a focus on health and safety, ensuring that moisture and ventilation concerns are addressed, and will help contractors do high quality work.

- K The forecast assumes that the rebate remains \$625/kW AC up to 5 kW. The forecast takes into account the rebates already committed to projects expected to be installed in 2022, plus likely additions of \$46,875, based on the assumption that there will be 15 new CMLP PV solar rebate applications in 2022 at the maximum rebate of \$3,125 each.
- L The Municipal Light Plant (MLP) Solar Program ended on 6/30/21. However, rebates for some applications submitted in 2021 will be paid out in 2022, once the systems are installed. MLP rebates are 50% funded by DOER. CMLP is responsible for providing \$600 per kW DC of installed capacity, up to 25 kW, in order to match the DOER funding. These rebates are provided to customers in addition to CMLP's ongoing solar rebates, not in place of them. Our expenditure forecast is based upon MLP Solar Program rebate commitments made in 2021 for systems expected to be installed in 2022.
- M ENE charges \$250 per MLP solar rebate that they process for us since the administrative fee they are paid by DOER does not cover their costs. The fee is due when ENE pays the rebate to the customer after system completion. We expect up to 12 systems to be installed in 2022 and to receive rebates at that time.
- N The EV Miles Program offers electric bill credits to EV owners when charging at home is done off peak. Battery electric vehicle (BEV) owners receive \$10/month and plug-in hybrid (PHEV) electric vehicle owners receive \$5/month. We project that we will add 72 new EVs (60 BEVs and 12 PHEVs) to the EV Miles Program in 2022, compared to 59, 43 and 61 in 2019, 2020, and 2021. We will be discontinuing the Sagewell services effective January 2022, and administering the program in-house instead, saving us over \$10,000 per year.
- O The EV Level 2 rebate is \$250. In 2022, We project that we will pay out 50 EV level 2 applications compared to 45, 20 and 38 in 2019, 2020, and 2021.
- P We have contracted with Energy New England to provide various EV education and awareness program on a time and materials basis. We will limit monthly expenditures to no more than \$2,500 per month. The services include providing access to a dedicated 800 # and email address to trained EV specialists to answer utility and customer questions; coordination and management of promotional events, an auto dealership education program, general program support, including consulting services on best practices and industry trends. We have also included monies in this line item for EV promotional materials, including graphic design services, printing of bill inserts and postcards, postage, media advertising and event giveaways. This expenditure category also includes \$5,000 for annual license fees for WattPlan, a website that helps people compare the lifetime costs of EVs and conventional vehicles.
- Q In 2020, CMLP contracted for and oversaw EV charging infrastructure design work for three multi-dwelling units (MDUs) as part of its EV Ready Pilot Program and committed \$75,000 in incentives to help the MDUs offset the cost of installing EV charging infrastructure. All charging infrastructure design work was completed in 2020. However, the engineering design firm elected to delay invoicing CMLP for \$22,500 in design work costs until a final deliverable, a Project Cost Estimator Tool, was completed in 2021. The total in design work costs ended up being \$22,188. However, there is a need for a small amount of additional work before the end of 2021, which we believe will bring the total for the year to \$22,500. Two of the three pilot program participants wish to install the designed EV charging infrastructure. CMLP committed 1/3 of the reserved \$75,000 to each of the two MDUs who wished to install EV charging infrastructure, for a total of \$50,000 in installation funding. Both projects encountered significant delays in 2021, but are now underway, and expected to be completed in early 2022.

- R Although the 2021 expenditure forecast included monies for a successor program to its EV Ready Pilot Program, CMLP decided not to move forward with this successor program, but instead to put the funds towards a new EV purchase incentive, the DriveEV rebate program.
- S CMLP launched the DriveEV Rebate Program in September 2021. In a survey of over 500 potential EV buyers, we conducted in 2020, 62.5% of respondents indicated that a cash rebate is a top influence factor for their decision to purchase or lease an EV. The DriveEV Rebate Program offers rebates of \$350 to \$1,000 upon purchase or lease of a new or used BEV or PHEV. The rebate amount is based on the type of car purchased and the household's annual income. The forecasted expenditure for 2022 is an annual extrapolation based on expenditures during the 1st 12 weeks of the program, increased by 5%, according to standard CMLP procedures.
- T Requests for commercial audits are unpredictable from year to year, and we received only one request for a commercial energy audit in 2021. In 2022, we would like to consider paying the full cost of commercial energy audits for interested G1 customers. One audit for a facility < 10,000 sq. ft would cost up to \$2,600, based on ENE's proposed 2022 pricing. We'll assume that one small business will take advantage of a no-cost commercial energy audit in 2022.
- U If approved by the DPU by the end of January 2022, which we have been told by NGrid is highly likely, Mass Save heat pump rebates will be available to natural gas heating businesses in Concord to assist financially with a transition to heat pumps, retroactive to systems installed after 1/1/22. Mass Save's proposed rebate is \$2,500 per ton of cooling capacity. We plan to match that rebate for oil heated commercial customers up to a cap of \$50,000 per customer every 3 years. For the one small commercial ASHP system that was installed in Concord in 2021, that would have amounted to a rebate of \$11,833. For the 2022 expenditure forecast, we assume two small business installations in oil heated buildings in 2022.
- V In late 2020, CMLP launched a heat pump water heater rebate program for businesses. Rebate levels are the same as currently offered to residential customers. There was no uptake in 2021. We do not expect to be able to publicize this program widely until fall of 2022. Therefore, we estimate there will be no rebates paid out in 2022.
- W If approved by the DPU by the end of January 2022, which we have been told by NGrid is highly likely, Mass Save air source variable refrigerant flow heat pump rebates will be available to natural gas heating businesses in Concord to assist financially with a transition to heat pumps, retroactive to systems installed after 1/1/22. Mass Save's proposed rebate is \$3,500 per ton of cooling capacity. We plan to match that rebate for oil heated commercial customers up to \$50,000 per customer every 3 years. For the 2022 expenditure forecast, we assume one 6 ton installation in an oil heated building in 2022.
- X If approved by the DPU by the end of January 2022, which we have been told by NGrid is highly likely, Mass Save ground source heat pump rebates will be available to natural gas heating businesses in Concord to assist financially with a transition to heat pumps, retroactive to systems installed after 1/1/22. Mass Save's proposed rebate is \$4,500 per ton of cooling capacity. We plan to match that rebate for oil heated commercial customers up to \$50,000 per customer every 3 years. However, we do not expect to be able to publicize this program widely until fall of 2022. Therefore, we estimate there will be no rebates paid out in 2022.

- Y Our forecast for High Efficiency Lighting Program rebate expenditures in 2022 includes \$30,062 that has already been committed to projects expected to be completed in 2022. Overall, using standard CMLP procedure, we have projected 2022 costs to be 5% greater than 2021 costs.
- Z After paying out two air purifier rebate requests in January 2021, we received no further applications. Since it was intended as a short-term pandemic relief measure, we plan to discontinue this program at the end of 2021.
- AA We received no requests for electric patio heater rebates in 2021. Since it was intended as a short-term pandemic relief measure, we plan to discontinue the program at the end of 2021.
- AB If approved by the Light Board, CMLP intends to launch the Commercial EV Charging Rate and Rebate Program in 2022. This program aims to increase the uptake of EVs by encouraging the development of EV charging infrastructure to support workers, MDU residents, schools, fleets, and retail. It offers modest rebates of up to \$3,000 towards equipment costs and up to \$3,000 towards installation costs per dual port charging station. The level of CMLP funding is designed, when combined with the MassEVIP rebate, to fully cover the eligible costs of installing a typical \$30,000 dual port charging station. The CMLP award will equal the lesser of the eligible expenses up to \$3,000 in hardware costs plus \$3,000 in 3rd-party contractor installation expenses per dual port station or the total project cost less the MassEVIP grant amount. A sample rebate calculated for a \$30,000 charging station accessible to the public is \$4,229. A sample rebate calculated for a \$30,000 charging station restricted to workplace employees or MDU residents is \$4,500. Based on interest shown in the program by specific commercial customers, we project that 6 customers will apply for \$4,500 rebates for restricted charging stations in 2022, and that 3 of those projects will be complete and receive a rebate before the end of 2022.
- AC ENE has proposed to charge a monthly residential energy efficiency administrative services fee of \$1,300 per month in 2022. This fee pays for customer inquiry management, scheduling of HEAs, coordination with state resources for funding and inclusion in program opportunities, rebate program evaluation and research, website maintenance and quarterly and annual reporting required by DOER.
- AD Energy New England (ENE) processes rebate applications submitted by our customers for weatherization, CMLP solar (MLP solar rebate processing is covered by DOER funds and fees addressed in footnote [I]), ASHPs, HPWHs and LED bulbs. In 2022, ENE proposes to charge a \$500/month online portal software fee and a \$50 per rebate application processing fee for all of our rebates, except for LED rebates, which will be processed at \$20 per application. Because the rebate processing service provided by ENE has not been satisfactory, we plan to discontinue use of ENE's service and process rebates in house starting on April 1, 2022. The rebate processing expenditure forecast is therefore for Q1 2022 only.
- AE CMLP has been forward thinking about making rebate money available, but getting the word out about rebate programs and services is key to uptake. In 2022, we intend to engage the services of a marketing firm to develop concepts for, create (or oversee creation by graphic design service) and oversee production of marketing materials such as social media posts, bill inserts, postcards, bookmarks, magnets, ad notes on Concord Journal, flyers, social media ads, e-newsletters, etc. We assume 5 hours per month at \$150 /hr. We have also included \$3,000 to promote a Sustainability Event Series on which CMLP plans to collaborate with CSEC to deliver in fall 2022.



# PLANT

**Discussion of Plan for 2022 - Additions to Utility Plant in Service**

In general, five-year historical averages were used in arriving at the estimates for the upcoming year. Specific comments are provided for accounts that differ from this approach.

**A/C 352011 – Structures & Improvements (Transmission/Subtransmission)**

A depreciation fund allowance has been made for security system and high-efficiency lighting upgrades to the Substation 219 roof repairs.

**A/C 362000 – Station Equipment (Distribution)**

This account provides funding for upgraded metering, protection, and operating equipment on our distribution circuits.

**A/C 365000 – Overhead Conductors and Devices**

An allowance for upgrades to our reclosers, conductors and field switches is included in this account.

**A/C 366000 – Underground Conduit**

A depreciation fund allotment has been estimated to support the following system improvements:

- Wright Farm Road

**A/C 367000 – Underground Conductors and Devices**

Provisions have been made to support a number of underground infrastructure improvements and conversions. Improvements are covered by depreciation reserves and conversions are covered by underground surcharge funds. The projects planned for 2022 are as follows:

- Cambridge Turnpike Conversion (Underground Fund) Sections 3 and 4
- Thoreau Street Improvement (Main Street to Sudbury Road)
- Bartkus Farm direct buried circuit upgrade
- Wright Farm Road direct buried circuit upgrade
- 2011 Underground Conversion Project

**A/C 370000 – Meters**

A 5-year average has been allotted for in this account. The Smart Meter upgrade project will be funded through a bond and is estimated to cost \$3,000,000. The expectation is that \$750,000 will be spent this year. Of note, analog meters, calibration / testing equipment and repair tooling, may need to be purchased

**A/C 390000 - Structures & Improvements (General Plant)**

An allowance is provided for the following upgrades to the facilities at 1175 Elm Street:

- Roof repairs

**A/C 391001 – Computer Equipment (General Plant)**

An allowance is provided for the following upgrades to software systems:

- Upgrade Several Older Computers
- Upgrade Outdated Software
- Add laptops for deployment flexibility

**A/C 395000 – Laboratory Equipment**

The following equipment purchases are anticipated to support CMLP operations:

- Power quality recording equipment
- Metal detector / Locator

**A/C 398000 – Miscellaneous Equipment**

This account provides funding for an EV charging station.

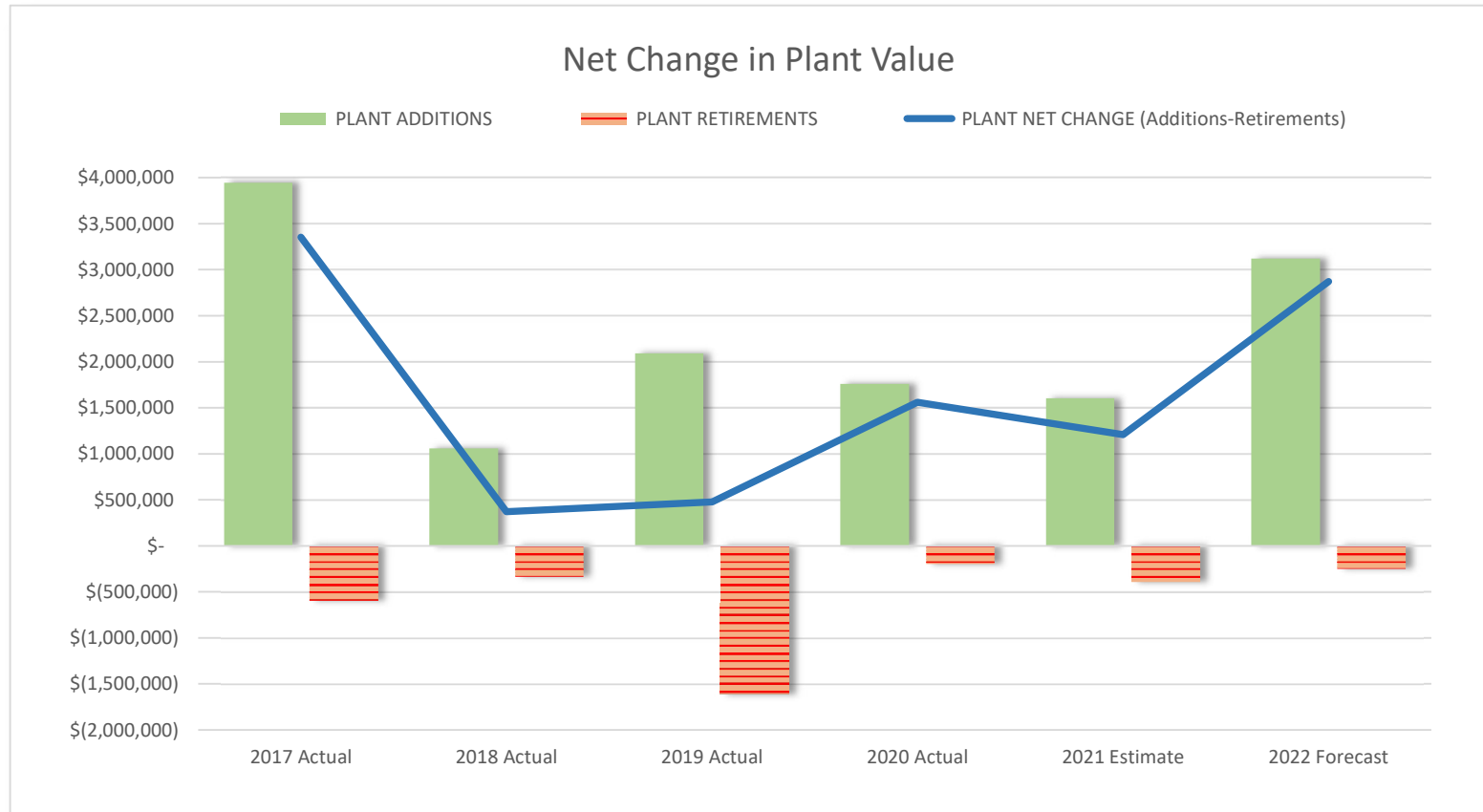


CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

PLANT IN SERVICE OVERVIEW

ELECTRIC DEPARTMENT



**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**PLANT - CHANGE IN GROSS VALUE**

**ELECTRIC DEPARTMENT**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>% CHANGE IN PLANT GROSS VALUE</b>	<b>5 %</b>	<b>1 %</b>	<b>1 %</b>	<b>2 %</b>	<b>2 %</b>	<b>4 %</b>
■ INTANGIBLE PLANT - NET CHANGE (Additions-Retirements)	-	-	-	-	-	-
■ TRANSMISSION PLANT - NET CHANGE (Additions-Retirements)	0 %	0 %	(0 %)	0 %	0 %	-
■ SUBTRANSMISSION PLANT - NET CHANGE (Additions-Retirements)	-	-	(1 %)	0 %	0 %	0 %
■ DISTRIBUTION PLANT - NET CHANGE (Additions-Retirements)	5 %	0 %	1 %	2 %	1 %	3 %
■ GENERAL PLANT - NET CHANGE (Additions-Retirements)	0 %	0 %	2 %	1 %	0 %	1 %
<b>PLANT NET CHANGE (Additions-Retirements)</b>	<b>\$ 3,351,755</b>	<b>\$ 370,958</b>	<b>\$ 476,942</b>	<b>\$ 1,560,334</b>	<b>\$ 1,207,124</b>	<b>\$ 2,872,618</b>
■ INTANGIBLE PLANT - NET CHANGE (Additions-Retirements)	-	-	-	-	-	-
■ TRANSMISSION PLANT - NET CHANGE (Additions-Retirements)	14,356	19,143	(133,451)	43,361	43,361	-
■ SUBTRANSMISSION PLANT - NET CHANGE (Additions-Retirements)	-	-	(952,481)	3,550	3,550	210,000
■ DISTRIBUTION PLANT - NET CHANGE (Additions-Retirements)	3,214,960	209,158	477,959	1,158,332	822,109	2,079,655
■ GENERAL PLANT - NET CHANGE (Additions-Retirements)	122,439	142,658	1,084,915	355,091	338,104	582,963
<b>PLANT ADDITIONS</b>	<b>\$ 3,945,630</b>	<b>\$ 1,056,822</b>	<b>\$ 2,089,447</b>	<b>\$ 1,757,157</b>	<b>\$ 1,601,435</b>	<b>\$ 3,120,984</b>
■ Intangible Plant - Additions	-	350,000	-	-	-	-
■ Transmission Plant - Additions	14,356	19,143	55,213	43,361	43,361	-
■ Subtransmission Plant - Additions	-	-	2,635	3,550	3,550	210,000
■ Distribution Plant - Additions	3,806,306	439,798	784,631	1,297,826	1,185,242	2,314,484
■ General Plant - Additions	124,968	247,882	1,246,968	412,419	369,282	596,500
<b>PLANT RETIREMENTS</b>	<b>\$ 593,875</b>	<b>\$ 335,864</b>	<b>\$ 1,612,505</b>	<b>\$ 196,822</b>	<b>\$ 394,311</b>	<b>\$ 248,366</b>
■ Intangible Plant - Retirements	64,886	350,000	-	-	-	-
■ Transmission Plant - Retirements	-	-	188,664	-	-	-
■ Subtransmission Plant - Retirements	-	-	955,116	-	-	-
■ Distribution Plant - Retirements	591,346	230,640	306,672	139,494	363,133	234,829
■ General Plant - Retirements	2,529	105,224	162,053	57,328	31,178	13,537

CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

PLANT - CHANGE IN GROSS VALUE

ELECTRIC DEPARTMENT

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
30 INTANGIBLE PLANT - NET CHANGE (Additions-Retirements)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31						
32 <b>Intangible Plant - Additions</b>	<b>64,886</b>	<b>350,000</b>	-	-	-	-
33 1-3030.0000 Misc Intangible Plant	-	-	-	-	-	-
34 1-3400.0000 Land and Land Rights Generation	64,886	350,000	-	-	-	-
35 1-3500.0000 Land & Land Rights	-	-	-	-	-	-
36						
37 <b>Intangible Plant - Retirements</b>	<b>64,886</b>	<b>350,000</b>	-	-	-	-
38 1-3030.0000 Misc Intangible Plant	-	-	-	-	-	-
39 1-3400.0000 Land and Land Rights Generation	64,886	350,000	-	-	-	-
40 1-3500.0000 Land & Land Rights	-	-	-	-	-	-
41						
42 TRANSMISSION PLANT - NET CHANGE (Additions-Retirements)	\$ 14,356	\$ 19,143	\$ (133,451)	\$ 43,361	\$ 43,361	\$ -
43						
44 <b>Transmission Plant - Additions</b>	<b>14,356</b>	<b>19,143</b>	<b>55,213</b>	<b>43,361</b>	<b>43,361</b>	-
45 1-3520.0000 Trans Structures & Improvements	14,356	19,143	-	9,101	9,101	-
46 1-3530.0000 Trans Station Equipment	-	-	55,213	34,260	34,260	-
47 1-3570.0000 Trans Underground Conduit	-	-	-	-	-	-
48 1-3580.0000 Trans Underground Conductors	-	-	-	-	-	-
49						
50 <b>Transmission Plant - Retirements</b>	-	-	<b>188,664</b>	-	-	-
51 1-3520.0000 Trans Structures & Improvements	-	-	188,664	-	-	-
52 1-3530.0000 Trans Station Equipment	-	-	-	-	-	-
53 1-3570.0000 Trans Underground Conduit	-	-	-	-	-	-
54 1-3580.0000 Trans Underground Conductors	-	-	-	-	-	-
55						

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**PLANT - CHANGE IN GROSS VALUE**

**ELECTRIC DEPARTMENT**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>SUBTRANSMISSION PLANT - NET CHANGE (Additions-Retirements)</b>	\$ -	\$ -	\$ (952,481)	\$ 3,550	\$ 3,550	\$ 210,000
<b>Subtransmission Plant - Additions</b>	-	-	2,635	3,550	3,550	210,000
1-3521.0000 Subtrans - Structures & Improvement	-	-	2,635	-	-	-
1-3531.0000 Subtrans - Station Equipment	-	-	-	3,550	3,550	210,000
1-3571.0000 Subtrans - Underground Conduit	-	-	-	-	-	-
1-3581.0000 Subtrans - Underground Conductors	-	-	-	-	-	-
<b>Subtransmission Plant - Retirements</b>	-	-	955,116	-	-	-
1-3521.0000 Subtrans - Structures & Improvement	-	-	-	-	-	-
1-3531.0000 Subtrans - Station Equipment	-	-	955,116	-	-	-
1-3571.0000 Subtrans - Underground Conduit	-	-	-	-	-	-
1-3581.0000 Subtrans - Underground Conductors	-	-	-	-	-	-
<b>DISTRIBUTION PLANT - NET CHANGE (Additions-Retirements)</b>	\$ 3,214,960	\$ 209,158	\$ 477,959	\$ 1,158,332	\$ 822,109	\$ 2,079,655
<b>Distribution Plant - Additions</b>	3,806,306	439,798	784,631	1,297,826	1,185,242	2,314,484
1-3600.0000 Distribution Land & Land Rights	-	-	-	-	-	-
1-3610.0000 Distribution Structures & Improveme	-	-	-	-	-	-
1-3620.0000 Distribution Station Equipment	10,260	-	-	-	-	-
1-3640.0000 Poles, Towers & Fixtures	794	297	16,950	20,340	49,145	42,000
1-3641.0000 Distribution JO Poles	11,293	19,308	-	-	-	-
1-3642.0000 Distribution JO Anchors & Guys	-	-	10,581	5,103	1,272	10,000
1-3643.0000 Plant Anchors & Guys Plant	5,380	6,213	-	-	-	-
1-3644.0000 Distribution Plant Poles	-	891	-	-	-	-
1-3650.0000 Overhead Conductors & Devices	26,437	130,576	149,538	129,451	116,010	110,000
1-3660.0000 Distribution UG Conduit	2,653,847	67,437	172,187	806,797	320,545	115,500
1-3670.0000 UG Conductors/FO	96,492	28,937	45,584	166,428	634,675	625,000
1-3680.0000 Distribution Line Xformer	274,786	67,365	10,937	28,390	2,341	200,000
1-3690.0000 Distribution - Services	562,872	50,765	88,396	56,509	30,407	63,984
1-3691.0000 Distr Svs - Conversions	20,000	20,800	27,000	21,750	16,750	15,000
1-3692.0000 Distr Services - House Service Reim	-	-	-	-	-	-
1-3700.0000 Dist - Meters	6,855	17,907	2,245	9,857	9,459	1,012,000

CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

PLANT - CHANGE IN GROSS VALUE

ELECTRIC DEPARTMENT

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
89 1-3710.0000 Install Customers Premises	312	271	93	-	-	-
90 1-3730.0000 Street Lighting & Signal System	136,977	29,031	261,120	53,203	4,639	121,000
91						
92 <b>Distribution Plant - Retirements</b>	<b>591,346</b>	<b>230,640</b>	<b>306,672</b>	<b>139,494</b>	<b>363,133</b>	<b>234,829</b>
93 1-3600.0000 Distribution Land & Land Rights	-	-	-	-	-	-
94 1-3610.0000 Distribution Structures & Improveme	-	-	-	-	-	-
95 1-3620.0000 Distribution Station Equipment	-	-	-	-	-	-
96 1-3640.0000 Poles, Towers & Fixtures	3,864	200	4,780	10,969	59,766	15,916
97 1-3641.0000 Distribution JO Poles	-	13,244	-	-	-	-
98 1-3642.0000 Distribution JO Anchors & Guys	-	-	4,395	827	20,400	5,124
99 1-3643.0000 Plant Anchors & Guys Plant	-	946	-	-	-	-
100 1-3644.0000 Distribution Plant Poles	-	-	-	-	-	-
101 1-3650.0000 Overhead Conductors & Devices	74,683	13,890	7,566	31,960	217,423	69,105
102 1-3660.0000 Distribution UG Conduit	302,740	-	1,235	9,754	500	62,846
103 1-3670.0000 UG Conductors/FO	-	6,500	5,862	1,014	5,489	3,773
104 1-3680.0000 Distribution Line Xformer	22,830	182,075	215,455	1,537	-	-
105 1-3690.0000 Distribution - Services	172,138	8,822	7,441	16,310	10,303	43,003
106 1-3691.0000 Distr Svs - Conversions	15,091	-	-	-	-	-
107 1-3692.0000 Distr Services - House Service Reim	-	-	-	-	-	-
108 1-3700.0000 Dist - Meters	-	-	-	5,354	-	-
109 1-3710.0000 Install Customers Premises	-	71	332	205	-	-
110 1-3730.0000 Street Lighting & Signal System	-	4,892	59,606	61,563	49,251	35,063
111						
112 <b>GENERAL PLANT - NET CHANGE (Additions-Retirements)</b>	<b>\$ 122,439</b>	<b>\$ 142,658</b>	<b>\$ 1,084,915</b>	<b>\$ 355,091</b>	<b>\$ 338,104</b>	<b>\$ 582,963</b>
113						
114 <b>General Plant - Additions</b>	<b>124,968</b>	<b>247,882</b>	<b>1,246,968</b>	<b>412,419</b>	<b>369,282</b>	<b>596,500</b>
115 1-3900.0000 General Plant - Structure & Improve	-	54,785	587,486	253,470	253,354	35,000
116 1-3910.0000 Office Furniture & Equipment	-	2,113	3,142	-	-	-
117 1-3911.0000 Computer Equipment & Software	13,453	26,713	343,903	71,154	44,551	20,000
118 1-3912.0000 Telecom Office & Equipment	-	-	-	-	-	-
119 1-3913.0000 Telecom Computer Equipment	-	-	-	-	-	-
120 1-3920.0000 Transportation Equipment	3,698	56,887	267,765	14,692	14,692	425,000
121 1-3930.0000 General Plant - Store Equipment	-	-	-	-	-	-
122 1-3940.0000 Tools, Shop & Garage Equipment	-	9,490	6,447	-	-	-
123 1-3950.0000 Laboratory Equipment	1,326	30,508	-	16,096	2,935	100,000
124 1-3960.0000 Power Operated Equipment	-	-	-	-	-	-

CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

PLANT - CHANGE IN GROSS VALUE

ELECTRIC DEPARTMENT

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
125 1-3970.0000 Communication Equipment	-	1,302	-	6,245	6,776	-
126 1-3972.0000 Fiber Optics-Town Loop Comm Equip	-	-	-	-	-	-
127 1-3974.0000 Comm Equip FO School	-	-	-	-	-	-
128 1-3975.0000 Comm Equip -Telephone	-	-	-	-	-	-
129 1-3976.0000 Comm Smart Grid	96,157	23,575	25,012	9,160	5,372	16,500
130 1-3980.0000 Misc Equip - General Plant	10,334	42,508	13,213	41,603	41,603	-
131						
132 <b>General Plant - Retirements</b>	<b>2,529</b>	<b>105,224</b>	<b>162,053</b>	<b>57,328</b>	<b>31,178</b>	<b>13,537</b>
133 1-3900.0000 General Plant - Structure & Improve	-	-	-	-	-	-
134 1-3910.0000 Office Furniture & Equipment	-	24,856	-	-	-	-
135 1-3911.0000 Computer Equipment & Software	2,529	20,769	29,515	-	-	-
136 1-3912.0000 Telecom Office & Equipment	-	-	-	-	-	-
137 1-3913.0000 Telecom Computer Equipment	-	3,261	1,174	-	-	-
138 1-3920.0000 Transportation Equipment	-	21,025	130,619	-	-	-
139 1-3930.0000 General Plant - Store Equipment	-	-	-	-	-	-
140 1-3940.0000 Tools, Shop & Garage Equipment	-	-	-	-	-	-
141 1-3950.0000 Laboratory Equipment	-	28,679	-	-	-	-
142 1-3960.0000 Power Operated Equipment	-	1,595	-	-	-	-
143 1-3970.0000 Communication Equipment	-	-	-	-	-	-
144 1-3972.0000 Fiber Optics-Town Loop Comm Equip	-	-	-	-	-	-
145 1-3974.0000 Comm Equip FO School	-	-	-	-	-	-
146 1-3975.0000 Comm Equip -Telephone	-	-	-	-	-	-
147 1-3976.0000 Comm Smart Grid	-	2,345	744	15,725	16,178	6,998
148 1-3980.0000 Misc Equip - General Plant	-	2,694	-	41,603	15,000	6,539

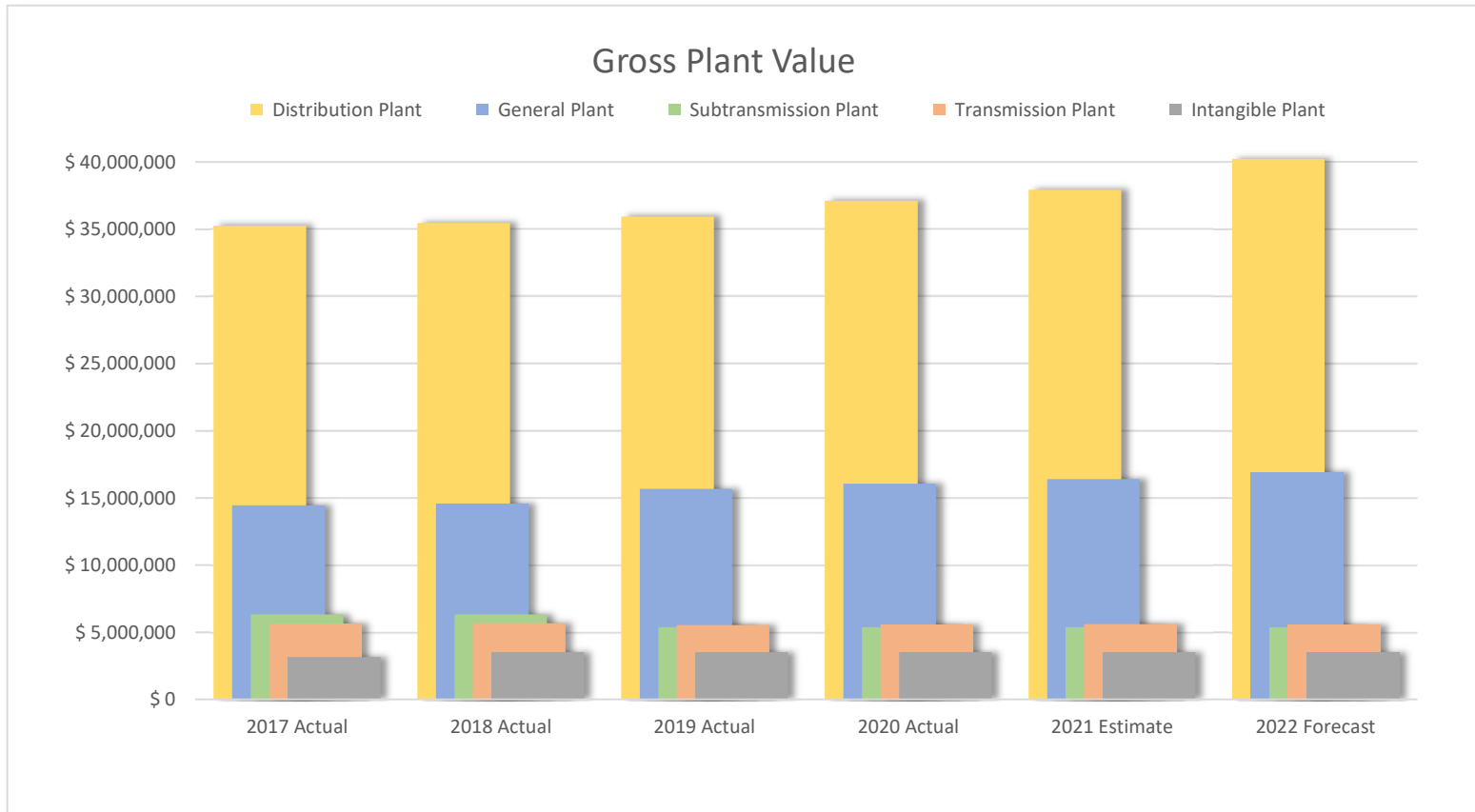


CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

GROSS PLANT VALUE OVERVIEW

ELECTRIC DEPARTMENT



**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**GROSS PLANT VALUE**

**ELECTRIC DEPARTMENT**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>CALCULATED DEPRECIATION EXPENSE</b>	\$ 1,664,931	\$ 1,945,995	\$ 1,967,635	\$ 1,981,943	\$ 2,029,551	\$ 2,065,765
<b>GROSS VALUE OF PLANT IN SERVICE</b>	64,866,495	65,587,823	66,064,765	67,651,702	68,858,826	71,588,756
<b>LESS Land and Land Rights</b>	-	-	-	-	-	-
<b>NET Value for Depreciation Calculation</b>	64,866,495	65,587,823	66,064,765	67,651,702	68,858,826	71,588,756
<b>Depreciation Rate</b>	3.00 %	3.00 %	3.00 %	3.00 %	3.00 %	3.00 %
<b>RATIOS OF GROSS PLANT VALUE</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>
■ Intangible Plant	5 %	5 %	5 %	5 %	5 %	5 %
■ Transmission Plant	9 %	9 %	8 %	8 %	8 %	8 %
■ Subtransmission Plant	10 %	10 %	8 %	8 %	8 %	7 %
■ Distribution Plant	54 %	54 %	54 %	55 %	55 %	56 %
■ General Plant	22 %	22 %	24 %	24 %	24 %	24 %
<b>GROSS VALUE OF PLANT IN SERVICE</b>	\$ 64,866,495	\$ 65,587,823	\$ 66,064,765	\$ 67,651,702	\$ 68,858,826	\$ 71,588,756
■ Intangible Plant	3,152,436	3,502,436	3,502,436	3,502,436	3,502,436	3,502,436
■ Transmission Plant	5,654,261	5,673,403	5,539,952	5,583,313	5,626,674	5,579,508
■ Subtransmission Plant	6,335,881	6,335,881	5,383,400	5,386,950	5,390,500	5,361,721
■ Distribution Plant	35,269,691	35,478,849	35,956,808	37,115,140	37,937,249	40,216,167
■ General Plant	14,454,226	14,597,254	15,682,170	16,063,864	16,401,967	16,928,925

CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

GROSS PLANT VALUE

ELECTRIC DEPARTMENT

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>TOTAL GROSS VALUE OF PLANT IN SERVICE</b>	\$ 64,866,495	\$ 65,587,823	\$ 66,064,765	\$ 67,651,702	\$ 68,858,826	\$ 71,588,756
<b>Intangible Plant</b>	<b>3,152,436</b>	<b>3,502,436</b>	<b>3,502,436</b>	<b>3,502,436</b>	<b>3,502,436</b>	<b>3,502,436</b>
1-3030.0000 Misc Intangible Plant	2,086,402	2,086,402	2,086,402	2,086,402	2,086,402	2,086,402
1-3400.0000 Land and Land Rights Generation	568,445	918,445	918,445	918,445	918,445	918,445
1-3500.0000 Land & Land Rights	497,589	497,589	497,589	497,589	497,589	497,589
<b>Transmission Plant</b>	<b>5,654,261</b>	<b>5,673,403</b>	<b>5,539,952</b>	<b>5,583,313</b>	<b>5,626,674</b>	<b>5,579,508</b>
1-3520.0000 Trans Structures & Improvements	1,981,465	2,000,607	1,811,943	1,821,044	1,830,145	1,782,979
1-3530.0000 Trans Station Equipment	2,763,283	2,763,283	2,818,496	2,852,756	2,887,016	2,887,016
1-3570.0000 Trans Underground Conduit	421,793	421,793	421,793	421,793	421,793	421,793
1-3580.0000 Trans Underground Conductors	487,720	487,720	487,720	487,720	487,720	487,720
<b>Subtransmission Plant</b>	<b>6,335,881</b>	<b>6,335,881</b>	<b>5,383,400</b>	<b>5,386,950</b>	<b>5,390,500</b>	<b>5,361,721</b>
1-3521.0000 Subtrans - Structures & Improvement	211,474	211,474	214,109	214,109	214,109	214,109
1-3531.0000 Subtrans - Station Equipment	1,293,960	1,293,960	338,844	342,394	345,944	317,165
1-3571.0000 Subtrans - Underground Conduit	2,829,992	2,829,992	2,829,992	2,829,992	2,829,992	2,829,992
1-3581.0000 Subtrans - Underground Conductors	2,000,455	2,000,455	2,000,455	2,000,455	2,000,455	2,000,455
<b>Distribution Plant</b>	<b>35,269,691</b>	<b>35,478,849</b>	<b>35,956,808</b>	<b>37,115,140</b>	<b>37,937,249</b>	<b>40,216,167</b>
1-3600.0000 Distribution Land & Land Rights	186,275	186,275	186,275	186,275	186,275	186,275
1-3610.0000 Distribution Structures & Improveme	783,689	783,689	783,689	783,689	783,689	783,689
1-3620.0000 Distribution Station Equipment	827,302	827,302	827,302	827,302	827,302	1,137,302
1-3640.0000 Poles, Towers & Fixtures	740,280	740,377	1,339,905	1,349,275	1,338,654	1,364,739
1-3641.0000 Distribution JO Poles	541,923	547,987	-	-	-	-
1-3642.0000 Distribution JO Anchors & Guys	49,988	49,988	265,155	269,431	250,303	255,178
1-3643.0000 Plant Anchors & Guys Plant	242,194	247,461	-	-	-	-
1-3644.0000 Distribution Plant Poles	-	891	-	-	-	-
1-3650.0000 Overhead Conductors & Devices	3,390,529	3,507,215	3,649,187	3,746,678	3,645,264	3,686,160
1-3660.0000 Distribution UG Conduit	12,401,573	12,469,009	12,639,962	13,437,004	13,757,049	13,809,703
1-3670.0000 UG Conductors/FO	6,993,044	7,015,481	7,055,203	7,220,617	7,849,803	8,471,030
1-3680.0000 Distribution Line Xformer	4,675,081	4,560,371	4,355,852	4,382,706	4,385,046	4,479,572

CMLP - CONCORD MUNICIPAL LIGHT PLANT

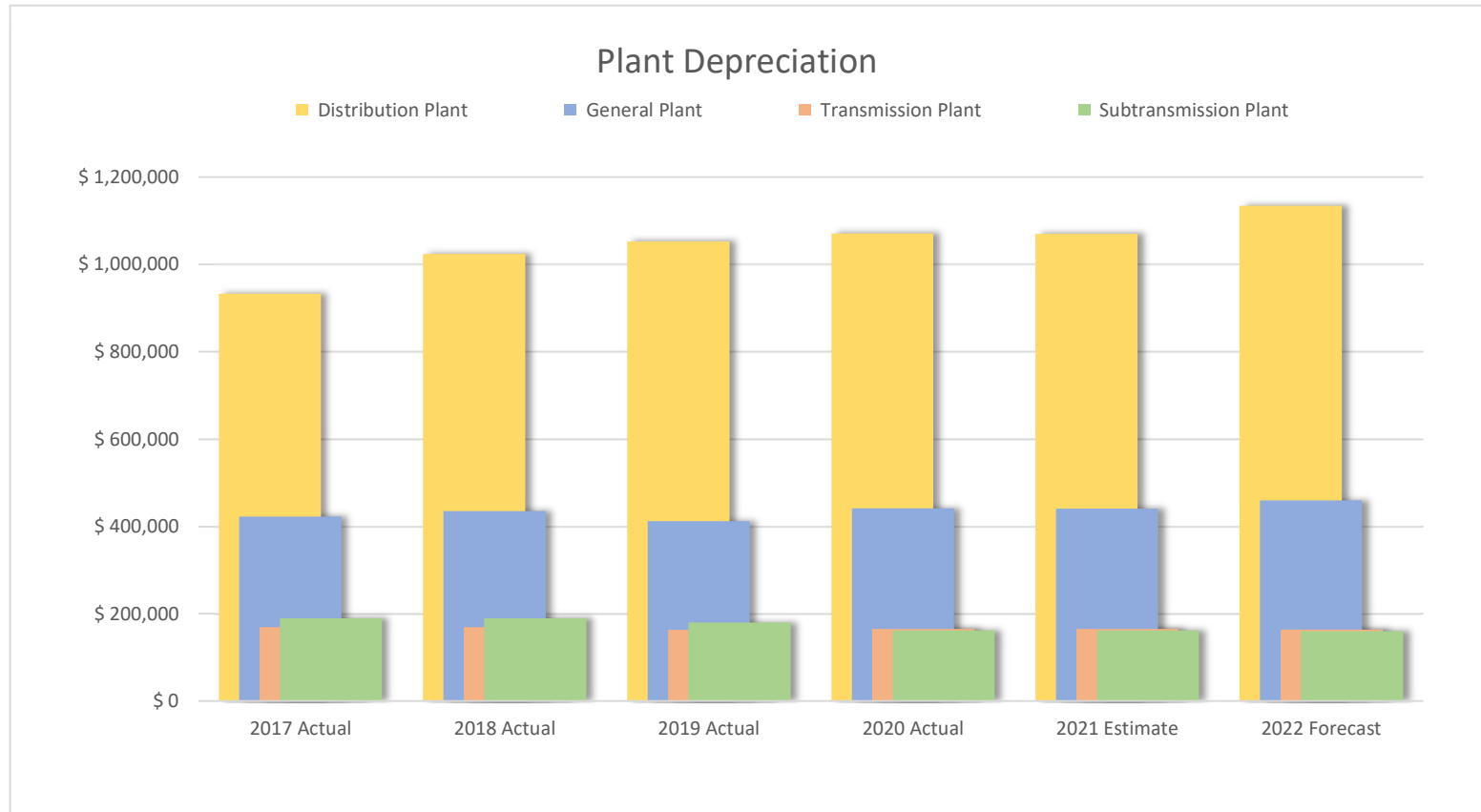
2022 OPERATING FORECAST

GROSS PLANT VALUE

ELECTRIC DEPARTMENT

	Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
53	1-3690.0000 Distribution - Services	1,535,671	1,577,614	1,658,569	1,698,767	1,718,871	1,739,852
54	1-3691.0000 Distr Svs - Conversions	561,700	582,500	609,500	631,250	648,000	659,227
55	1-3692.0000 Distr Services - House Service Reim	-	-	-	-	-	-
56	1-3700.0000 Dist - Meters	1,037,520	1,055,426	1,057,672	1,062,174	1,071,633	2,082,294
57	1-3710.0000 Install Customers Premises	68,392	68,592	68,353	68,148	68,148	67,996
58	1-3730.0000 Street Lighting & Signal System	1,234,532	1,258,671	1,460,185	1,451,824	1,407,212	1,493,150
59							
60	<b>General Plant</b>	<b>14,454,226</b>	<b>14,597,254</b>	<b>15,682,170</b>	<b>16,063,864</b>	<b>16,401,967</b>	<b>16,928,925</b>
61	1-3900.0000 General Plant - Structure & Improve	5,732,704	5,787,489	6,374,975	6,628,445	6,881,799	6,916,799
62	1-3910.0000 Office Furniture & Equipment	254,222	231,479	234,621	234,621	234,621	233,407
63	1-3911.0000 Computer Equipment & Software	433,083	439,397	753,785	824,939	869,490	876,287
64	1-3912.0000 Telecom Office & Equipment	3,305	3,305	3,305	3,305	3,305	3,305
65	1-3913.0000 Telecom Computer Equipment	9,962	6,701	5,526	5,526	5,526	4,418
66	1-3920.0000 Transportation Equipment	1,986,994	2,022,856	2,160,002	2,174,694	2,189,386	2,576,475
67	1-3930.0000 General Plant - Store Equipment	145,395	145,395	145,395	145,395	145,395	145,395
68	1-3940.0000 Tools, Shop & Garage Equipment	111,192	120,682	127,129	127,129	127,129	132,129
69	1-3950.0000 Laboratory Equipment	157,761	159,590	159,590	175,686	178,621	271,451
70	1-3960.0000 Power Operated Equipment	94,904	93,309	93,309	93,309	93,309	92,910
71	1-3970.0000 Communication Equipment	64,504	65,805	65,805	72,050	78,826	78,826
72	1-3972.0000 Fiber Optics-Town Loop Comm Equip	642,258	642,258	642,258	642,258	642,258	642,258
73	1-3974.0000 Comm Equip FO School	238,897	238,897	238,897	238,897	238,897	238,897
74	1-3975.0000 Comm Equip -Telephone	108,390	108,390	108,390	108,390	108,390	108,390
75	1-3976.0000 Comm Smart Grid	4,424,809	4,446,039	4,470,307	4,463,742	4,452,936	4,462,437
76	1-3980.0000 Misc Equip - General Plant	45,848	85,662	98,875	125,478	152,081	145,542





**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**PLANT - DEPRECIATION**

**ELECTRIC DEPARTMENT**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>ANNUAL % CHANGE IN ACCUMULATED DEPRECIATION ↑(↓)</b>	x	6 %	2 %	(1 %)	(0 %)	1 %
■ Intangible Plant	x	0 %	92 %	(48 %)	0 %	0 %
■ Transmission Plant	x	0 %	(4 %)	1 %	0 %	(1 %)
■ Subtransmission Plant	x	0 %	(6 %)	(10 %)	0 %	(6 %)
■ Distribution Plant	x	10 %	3 %	2 %	(0 %)	3 %
■ General Plant	x	3 %	(5 %)	7 %	(0 %)	1 %
<b>ANNUAL \$ CHANGE IN ACCUMULATED DEPRECIATION ↑(↓)</b>	x \$	102,992 \$	46,127 \$	(25,184) \$	(1,497) \$	27,905 \$
■ Intangible Plant	x	0	57,376	(57,376)	-	0
■ Transmission Plant	x	431	(6,395)	2,028	-	(1,312)
■ Subtransmission Plant	x	0	(10,504)	(18,009)	-	(9,504)
■ Distribution Plant	x	90,774	28,552	18,427	(627)	34,281
■ General Plant	x	11,788	(22,903)	29,746	(870)	4,440
<b>RATIOS OF ACCUMULATED DEPRECIATION BY CATEGORY</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>
■ Intangible Plant	4 %	3 %	6 %	3 %	3 %	3 %
■ Transmission Plant	10 %	9 %	8 %	9 %	9 %	8 %
■ Subtransmission Plant	11 %	10 %	9 %	8 %	9 %	8 %
■ Distribution Plant	52 %	54 %	55 %	56 %	56 %	57 %
■ General Plant	24 %	23 %	21 %	23 %	23 %	23 %
<b>TOTAL ACCUMULATED DEPRECIATION</b>	<b>\$ 1,777,915</b>	<b>\$ 1,880,907</b>	<b>\$ 1,927,034</b>	<b>\$ 1,901,850</b>	<b>\$ 1,900,352</b>	<b>\$ 1,981,181</b>
■ Intangible Plant	62,592	62,592	119,968	62,592	62,592	62,592
■ Transmission Plant	169,197	169,628	163,233	165,261	165,261	163,846
■ Subtransmission Plant	190,077	190,077	179,573	161,564	161,564	160,701
■ Distribution Plant	933,030	1,023,804	1,052,356	1,070,783	1,070,156	1,134,679
■ General Plant	423,018	434,807	411,904	441,650	440,780	459,363

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**PLANT - DEPRECIATION**

**ELECTRIC DEPARTMENT**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>TOTAL ADDITIONS TO PLANT</b>	<b>\$ 1,777,915</b>	<b>\$ 1,880,907</b>	<b>\$ 1,927,034</b>	<b>\$ 1,901,850</b>	<b>\$ 1,900,352</b>	<b>\$ 1,981,181</b>
<b>Intangible Plant</b>	<b>62,592</b>	<b>62,592</b>	<b>119,968</b>	<b>62,592</b>	<b>62,592</b>	<b>62,592</b>
1-3030.0000 Misc Intangible Plant	62,592	62,592	119,968	62,592	62,592	62,592
<b>Transmission Plant</b>	<b>169,197</b>	<b>169,628</b>	<b>163,233</b>	<b>165,261</b>	<b>165,261</b>	<b>163,846</b>
1-3520.0000 Trans Structures & Improvements	59,013	59,444	56,499	54,609	54,609	53,194
1-3530.0000 Trans Station Equipment	82,899	82,899	81,619	85,154	85,154	85,154
1-3570.0000 Trans Underground Conduit	12,654	12,654	11,366	10,866	10,866	10,866
1-3580.0000 Trans Underground Conductors	14,632	14,632	13,748	14,632	14,632	14,632
<b>Subtransmission Plant</b>	<b>190,077</b>	<b>190,077</b>	<b>179,573</b>	<b>161,564</b>	<b>161,564</b>	<b>160,701</b>
1-3521.0000 Subtrans - Structures & Improvement	6,344	6,344	5,986	6,423	6,423	6,423
1-3531.0000 Subtrans - Station Equipment	38,819	38,819	36,609	10,228	10,228	9,364
1-3571.0000 Subtrans - Underground Conduit	84,900	84,900	80,651	84,900	84,900	84,900
1-3581.0000 Subtrans - Underground Conductors	60,014	60,014	56,327	60,013	60,013	60,013
<b>Distribution Plant</b>	<b>933,030</b>	<b>1,023,804</b>	<b>1,052,356</b>	<b>1,070,783</b>	<b>1,070,156</b>	<b>1,134,679</b>
1-3610.0000 Distribution Structures & Improveme	23,511	23,511	21,543	20,064	20,064	20,064
1-3620.0000 Distribution Station Equipment	24,511	24,819	23,778	24,819	24,819	24,819
1-3640.0000 Poles, Towers & Fixtures	22,300	22,208	37,959	40,387	40,346	49,646
1-3642.0000 Distribution JO Anchors & Guys	1,500	1,500	7,486	7,966	7,959	7,959
1-3650.0000 Overhead Conductors & Devices	103,163	101,716	102,116	110,270	109,802	109,802
1-3660.0000 Distribution UG Conduit	301,514	372,047	366,299	379,217	379,211	380,438
1-3670.0000 UG Conductors/FO	206,897	209,791	202,175	211,838	211,835	213,415
1-3680.0000 Distribution Line Xformer	132,694	140,252	129,316	130,685	130,676	149,312
1-3690.0000 Distribution - Services	34,348	46,070	47,144	49,832	49,759	52,595
1-3691.0000 Distr Svs - Conversions	16,704	11,676	43,703	18,608	18,583	19,212
1-3700.0000 Dist - Meters	30,920	31,126	30,582	31,946	31,955	31,955
1-3710.0000 Install Customers Premises	2,042	2,052	2,153	2,050	2,051	32,370
1-3730.0000 Street Lighting & Signal System	32,927	37,036	38,101	43,101	43,096	43,091

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**PLANT - DEPRECIATION**

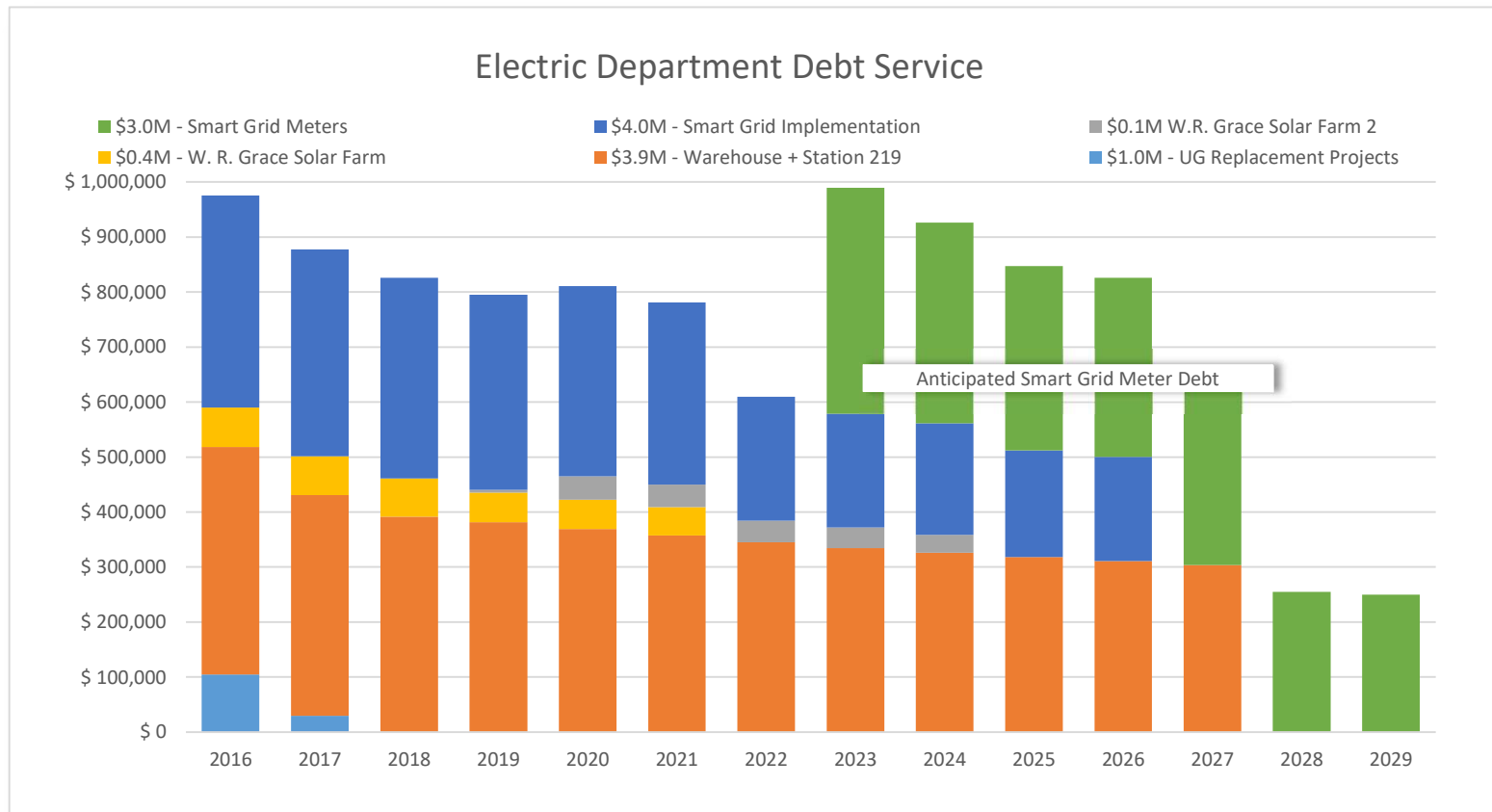
**ELECTRIC DEPARTMENT**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>General Plant</b>	<b>423,018</b>	<b>434,807</b>	<b>411,904</b>	<b>441,650</b>	<b>440,780</b>	<b>459,363</b>
1-3900.0000 General Plant - Structure & Improve	172,213	171,981	167,562	193,068	192,506	195,084
1-3910.0000 Office Furniture & Equipment	7,627	7,627	5,765	4,018	4,018	5,068
1-3911.0000 Computer Equipment & Software	12,665	12,993	12,677	22,940	22,794	22,758
1-3912.0000 Telcom Office & Equipment	99	99	50	-	-	204
1-3913.0000 Telecom Computer Equipment	299	299	187	166	166	166
1-3920.0000 Transportation Equipment	59,499	59,601	53,820	45,833	45,833	45,799
1-3930.0000 General Plant - Store Equipment	4,362	4,362	4,175	4,362	4,362	15,974
1-3940.0000 Tools, Shop & Garage Equipment	3,336	3,336	3,266	2,779	2,779	2,779
1-3950.0000 Laboratory Equipment	4,693	4,733	4,600	4,755	4,722	4,872
1-3960.0000 Power Operated Equipment	2,847	2,847	2,450	1,938	1,938	4,723
1-3970.0000 Communication Equipment	1,935	1,935	1,926	2,036	1,974	1,962
1-3972.0000 Fiber Optics-Town Loop Comm Equip	19,268	27,623	18,151	19,264	19,264	19,264
1-3974.0000 Comm Equip FO School	0	-	-	-	-	-
1-3975.0000 Comm Equip -Telephone	3,252	3,252	3,139	3,252	3,252	3,252
1-3976.0000 Comm Smart Grid	129,860	132,744	131,481	133,732	133,706	133,706
1-3980.0000 Misc Equip - General Plant	1,065	1,375	2,655	3,507	3,465	3,750





DEBT SERVICE  
+ CAPITAL PLAN



**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**DEBT SERVICE**

**ELECTRIC DEPARTMENT**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>ANNUAL % CHANGE IN TOTAL DEBT SERVICE EXPENSE ↑(↓)</b>	<b>x</b>	<b>(18 %)</b>	<b>(15 %)</b>	<b>(10 %)</b>	<b>(31 %)</b>	<b>(39 %)</b>
■ Debt Service Principle	x	(5 %)	(2 %)	5 %	0 %	(32 %)
■ Debt Service Interest	x	(14 %)	(13 %)	(15 %)	(31 %)	(7 %)
<b>ANNUAL \$ CHANGE IN TOTAL DEBT SERVICE EXPENSE ↑(↓)</b>	<b>x \$</b>	<b>(52,575) \$</b>	<b>(31,194) \$</b>	<b>16,044 \$</b>	<b>(29,703) \$</b>	<b>(171,947) \$</b>
■ Debt Service Principle	x	(30,000)	(12,500)	35,000	-	(166,000)
■ Debt Service Interest	x	(22,575)	(18,694)	(18,956)	(29,703)	(5,947)
<b>RATIOS OF DEBT SERVICE EXPENSE BY TYPE</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>
■ Debt Service Principle	79 %	80 %	82 %	84 %	88 %	85 %
■ Debt Service Interest	21 %	20 %	18 %	16 %	12 %	15 %
<b>TOTAL DEBT SERVICE EXPENSE BY TYPE</b>	<b>\$ 878,575</b>	<b>\$ 826,000</b>	<b>\$ 794,806</b>	<b>\$ 810,850</b>	<b>\$ 781,147</b>	<b>\$ 609,200</b>
■ Debt Service Principle	692,500	662,500	650,000	685,000	685,000	519,000
■ Debt Service Interest	186,075	163,500	144,806	125,850	96,147	90,200
<b>RATIOS OF DEBT SERVICE EXPENSE BY OBLIGATION</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>
\$1.0M Bond 2007-17 - UG REPLACEMENT PROJECTS	4 %	0 %	0 %	0 %	0 %	0 %
\$3.9M Bond 2014-27 - WRHSE + STA 219	46 %	47 %	48 %	46 %	46 %	57 %
\$400K Bond 2015-21 - WR GRACE	8 %	8 %	7 %	7 %	7 %	0 %
\$172K Bond 2019-24 - WR GRACE 2	0 %	0 %	1 %	5 %	5 %	6 %
\$4.0M Bond 2011-26 - SMART GRID	43 %	44 %	45 %	43 %	42 %	37 %
\$3.0M Bond 2023-2032 - SMART-GRID METERS	0 %	0 %	0 %	0 %	0 %	0 %
<b>TOTAL DEBT SERVICE EXPENSE BY OBLIGATION</b>	<b>\$ 878,575</b>	<b>\$ 826,000</b>	<b>\$ 794,806</b>	<b>\$ 810,850</b>	<b>\$ 781,147</b>	<b>\$ 609,200</b>
\$1.0M Bond 2007-17 - UG REPLACEMENT PROJECTS	31,200	-	-	-	-	-
\$3.9M Bond 2014-27 - WRHSE + STA 219	400,875	391,875	381,375	369,375	357,375	345,375
\$400K Bond 2015-21 - WR GRACE	70,750	68,875	54,500	53,000	51,500	-
\$172K Bond 2019-24 - WR GRACE 2	-	-	4,181	42,725	40,975	39,225
\$4.0M Bond 2011-26 - SMART GRID	375,750	365,250	354,750	345,750	331,297	224,600
\$3.0M Bond 2023-2032 - SMART-GRID METERS	-	-	-	-	-	-

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**DEBT SERVICE**

**ELECTRIC DEPARTMENT**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>TOTAL DEBT SERVICE EXPENSE</b>	\$ 878,582	\$ 826,007	\$ 794,813	\$ 810,858	\$ 781,156	\$ 609,209
<b>Debt Service Principle</b>	<b>692,500</b>	<b>662,500</b>	<b>650,000</b>	<b>685,000</b>	<b>685,000</b>	\$ 519,000
1-1280.1001 \$1.0M Bond 2007-17 - UG REPLACEMENT PROJECTS	30,000	-	-	-	-	-
1-1280.1012 \$3.9M Bond 2014-27 - WRHSE + STA 219	300,000	300,000	300,000	300,000	300,000	300,000
1-1280.1013 \$400K Bond 2015-21 - WR GRACE	62,500	62,500	50,000	50,000	50,000	-
1-1280.1015 \$172K Bond 2019-24 - WR GRACE 2	-	-	-	35,000	35,000	35,000
1-1280.1020 \$4.0M Bond 2011-26 - SMART GRID	300,000	300,000	300,000	300,000	300,000	184,000
1-1280.xxxx \$3.0M Bond 2023-2032 - SMART-GRID METERS	-	-	-	-	-	-
<b>Debt Service Interest</b>	<b>186,075</b>	<b>163,500</b>	<b>144,806</b>	<b>125,850</b>	<b>96,147</b>	\$ 90,200
1-1280.1001 \$1.0M Bond 2007-17 - UG REPLACEMENT PROJECTS	1,200	-	-	-	-	-
1-1280.1012 \$3.9M Bond 2014-27 - WRHSE + STA 219	100,875	91,875	81,375	69,375	57,375	45,375
1-1280.1013 \$400K Bond 2015-21 - WR GRACE	8,250	6,375	4,500	3,000	1,500	-
1-1280.1015 \$172K Bond 2019-24 - WR GRACE 2	-	-	4,181	7,725	5,975	4,225
1-1280.1020 \$4.0M Bond 2011-26 - SMART GRID	75,750	65,250	54,750	45,750	31,297	40,600
1-1280.xxxx \$3.0M Bond 2023-2032 - SMART-GRID METERS	-	-	-	-	-	-

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**FUTURE DEBT SERVICE**

**ELECTRIC DEPARTMENT**

Description	2023	2024	2025	2026	2027	2028
<b>ANNUAL % CHANGE IN TOTAL DEBT SERVICE EXPENSE ↑(↓)</b>	<b>x</b>	<b>(70 %)</b>	<b>(26 %)</b>	<b>(22 %)</b>	<b>(68 %)</b>	<b>(178 %)</b>
■ Debt Service Principle	x	(5 %)	(8 %)	(1 %)	(30 %)	(145 %)
■ Debt Service Interest	x	(65 %)	(18 %)	(21 %)	(38 %)	(33 %)
<b>ANNUAL \$ CHANGE IN TOTAL DEBT SERVICE EXPENSE ↑(↓)</b>	<b>x \$</b>	<b>(138,050) \$</b>	<b>(84,225) \$</b>	<b>(26,438) \$</b>	<b>(213,188) \$</b>	<b>(388,250)</b>
■ Debt Service Principle	x	(43,000)	(62,000)	(5,000)	(185,000)	(370,000)
■ Debt Service Interest	x	(95,050)	(22,225)	(21,438)	(28,188)	(18,250)
<b>RATIOS OF DEBT SERVICE EXPENSE BY TYPE</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>
■ Debt Service Principle	79 %	86 %	87 %	89 %	89 %	82 %
■ Debt Service Interest	21 %	14 %	13 %	11 %	11 %	18 %
<b>TOTAL DEBT SERVICE EXPENSE BY TYPE</b>	<b>\$ 1,160,775</b>	<b>\$ 1,022,725</b>	<b>\$ 938,500</b>	<b>\$ 912,063</b>	<b>\$ 698,875</b>	<b>\$ 310,625</b>
■ Debt Service Principle	920,000	877,000	815,000	810,000	625,000	255,000
■ Debt Service Interest	240,775	145,725	123,500	102,063	73,875	55,625
<b>RATIOS OF DEBT SERVICE EXPENSE BY OBLIGATION</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>
\$1.0M Bond 2007-17 - UG REPLACEMENT PROJECTS	0 %	0 %	0 %	0 %	0 %	0 %
\$3.9M Bond 2014-27 - WRHSE + STA 219	29 %	32 %	34 %	34 %	43 %	0 %
\$400K Bond 2015-21 - WR GRACE	0 %	0 %	0 %	0 %	0 %	0 %
\$172K Bond 2019-24 - WR GRACE 2	3 %	3 %	0 %	0 %	0 %	0 %
\$4.0M Bond 2011-26 - SMART GRID	18 %	20 %	21 %	21 %	0 %	0 %
\$3.0M Bond 2023-2032 - SMART-GRID METERS	50 %	45 %	45 %	45 %	57 %	100 %
<b>TOTAL DEBT SERVICE EXPENSE BY OBLIGATION</b>	<b>\$ 1,160,775</b>	<b>\$ 1,022,725</b>	<b>\$ 938,500</b>	<b>\$ 912,063</b>	<b>\$ 698,875</b>	<b>\$ 310,625</b>
\$1.0M Bond 2007-17 - UG REPLACEMENT PROJECTS	-	-	-	-	-	-
\$3.9M Bond 2014-27 - WRHSE + STA 219	334,875	325,875	318,000	311,063	303,750	-
\$400K Bond 2015-21 - WR GRACE	-	-	-	-	-	-
\$172K Bond 2019-24 - WR GRACE 2	37,475	32,800	-	-	-	-
\$4.0M Bond 2011-26 - SMART GRID	206,625	202,750	193,750	189,625	-	-
\$3.0M Bond 2023-2032 - SMART-GRID METERS	581,800	461,300	426,750	411,375	395,125	310,625

**CMLP - CONCORD MUNICIPAL LIGHT PLANT** **2022 OPERATING FORECAST**

**DEBT SERVICE**

**ELECTRIC DEPARTMENT**

Description	2023	2024	2025	2026	2027	2028
<b>TOTAL DEBT SERVICE EXPENSE</b>	<b>\$ 1,160,775</b>	<b>\$ 1,022,725</b>	<b>\$ 938,500</b>	<b>\$ 912,063</b>	<b>\$ 698,875</b>	<b>\$ 310,625</b>
<b>Debt Service Principle</b>	<b>920,000</b>	<b>877,000</b>	<b>815,000</b>	<b>810,000</b>	<b>625,000</b>	<b>\$ 255,000</b>
1-1280.1001 \$1.0M Bond 2007-17 - UG REPLACEMENT PROJECTS	-	-	-	-	-	-
1-1280.1012 \$3.9M Bond 2014-27 - WRHSE + STA 219	300,000	300,000	300,000	300,000	300,000	-
1-1280.1013 \$400K Bond 2015-21 - WR GRACE	-	-	-	-	-	-
1-1280.1015 \$172K Bond 2019-24 - WR GRACE 2	35,000	32,000	-	-	-	-
1-1280.1020 \$4.0M Bond 2011-26 - SMART GRID	175,000	180,000	180,000	185,000	-	-
1-1280.xxxx \$3.0M Bond 2023-2032 - SMART-GRID METERS	410,000	365,000	335,000	325,000	325,000	255,000
<b>Debt Service Interest</b>	<b>240,775</b>	<b>145,725</b>	<b>123,500</b>	<b>102,063</b>	<b>73,875</b>	<b>\$ 55,625</b>
1-1280.1001 \$1.0M Bond 2007-17 - UG REPLACEMENT PROJECTS	-	-	-	-	-	-
1-1280.1012 \$3.9M Bond 2014-27 - WRHSE + STA 219	34,875	25,875	18,000	11,063	3,750	-
1-1280.1013 \$400K Bond 2015-21 - WR GRACE	-	-	-	-	-	-
1-1280.1015 \$172K Bond 2019-24 - WR GRACE 2	2,475	800	-	-	-	-
1-1280.1020 \$4.0M Bond 2011-26 - SMART GRID	31,625	22,750	13,750	4,625	-	-
1-1280.xxxx \$3.0M Bond 2023-2032 - SMART-GRID METERS	171,800	96,300	91,750	86,375	70,125	55,625



CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

5 - YEAR CAPITAL PLAN

ELECTRIC DEPARTMENT

Description	2022	2023	2024	2025	2026	2027
<b>TOTAL CAPITAL PLAN COSTS BY CATEGORY</b>	<b>\$ 3,440,984</b>	<b>\$ 3,770,783</b>	<b>\$ 2,126,122</b>	<b>\$ 1,585,528</b>	<b>\$ 770,230</b>	<b>\$ 791,656</b>
Intangible Plant	-	-	-	-	-	-
Transmission Plant	-	-	-	-	-	-
Subtransmission Plant	210,000	220,000	100,000	-	-	-
Distribution Plant	2,624,484	2,933,283	1,833,122	676,528	575,230	595,656
General Plant	606,500	617,500	193,000	909,000	195,000	196,000
<b>TOTAL CAPITAL PLAN COSTS</b>	<b>\$ 3,440,984</b>	<b>\$ 3,770,783</b>	<b>\$ 2,126,122</b>	<b>\$ 1,585,528</b>	<b>\$ 770,230</b>	<b>\$ 791,656</b>
<b>Intangible Plant</b>	-	-	-	-	-	-
1-3030.0000 Misc Intangible Plant	-	-	-	-	-	-
1-3400.0000 Land & Land Rights Generation	-	-	-	-	-	-
1-3500.0000 Land & Land Rights	-	-	-	-	-	-
<b>Transmission Plant</b>	-	-	-	-	-	-
1-3520.0000 Trans Structures & Improvements	-	-	-	-	-	-
1-3530.0000 Trans Station Equipment	-	-	-	-	-	-
1-3570.0000 Trans Underground Conduit	-	-	-	-	-	-
1-3580.0000 Trans Underground Conductors	-	-	-	-	-	-
<b>Subtransmission Plant</b>	<b>210,000</b>	<b>220,000</b>	<b>100,000</b>	-	-	-
1-3521.0000 Subtrans - Structures & Improvement	-	-	-	-	-	-
1-3531.0000 Subtrans - Station Equipment	210,000	220,000	100,000	-	-	-
1-3571.0000 Subtrans - Underground Conduit	-	-	-	-	-	-
1-3581.0000 Subtrans - Underground Conductors	-	-	-	-	-	-

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

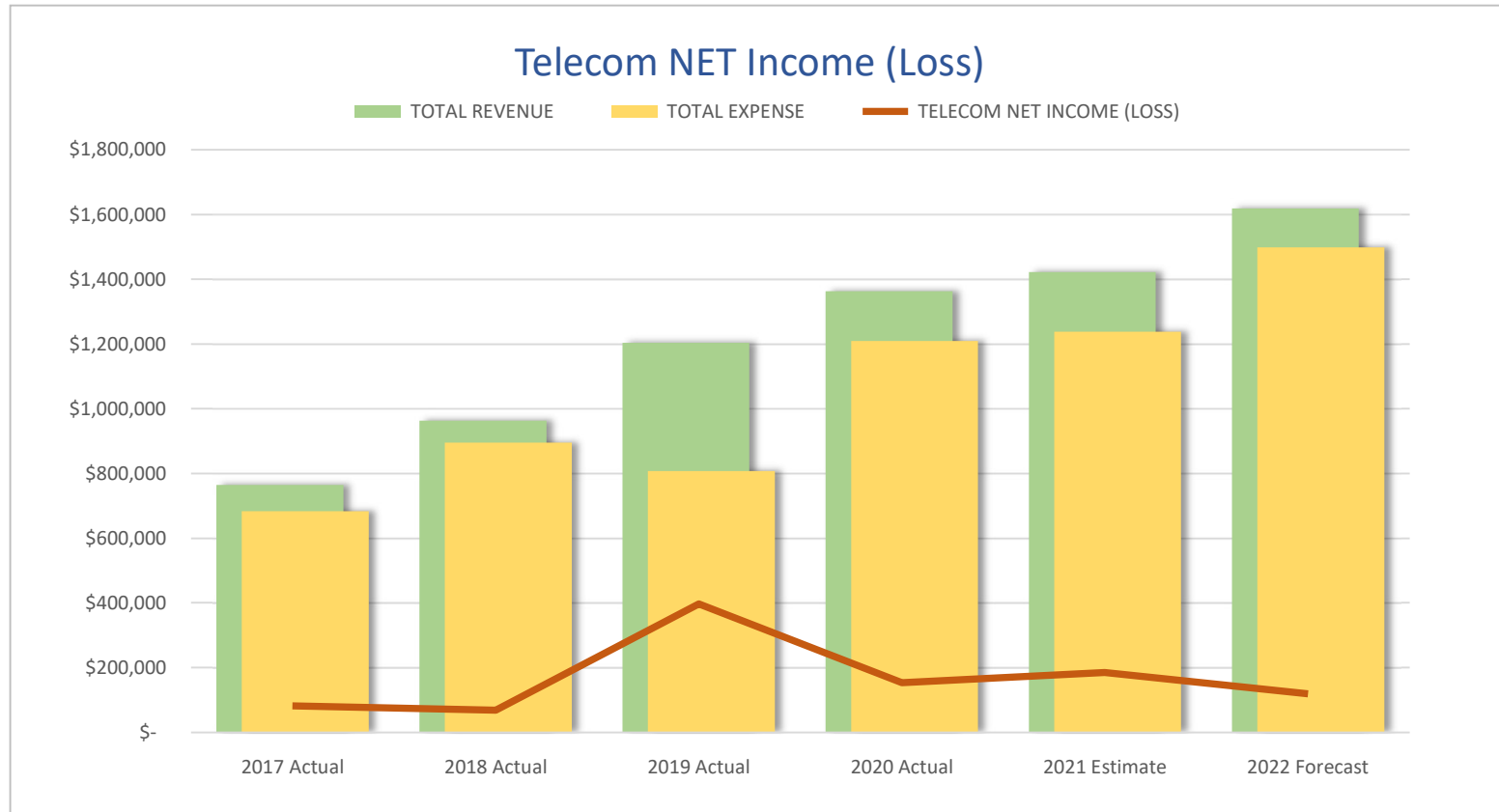
**5 - YEAR CAPITAL PLAN**

**ELECTRIC DEPARTMENT**

Description	2022	2023	2024	2025	2026	2027
<b>Distribution Plant</b>	<b>2,624,484</b>	<b>2,933,283</b>	<b>1,833,122</b>	<b>676,528</b>	<b>575,230</b>	<b>595,656</b>
1-3600.0000 Distribution Land & Land Rights	-	-	-	-	-	-
1-3610.0000 Distribution Structures & Improvements	-	-	-	-	-	-
1-3620.0000 Distribution Station Equipment	310,000	120,000	-	-	-	-
1-3640.0000 Poles, Towers & Fixtures	42,000	44,100	46,305	48,620	51,051	53,604
1-3642.0000 Distribution JO Anchors & Guys	10,000	12,000	12,000	12,000	14,000	14,000
1-3650.0000 Overhead Conductors & Devices	110,000	115,500	121,275	127,339	133,706	140,391
1-3660.0000 Distribution UG Conduit	115,500	121,500	127,500	134,000	140,700	148,000
1-3670.0000 UG Conductors/FO	625,000	750,000	750,000	50,000	50,000	50,000
1-3680.0000 Distribution Line Xformer	200,000	75,000	75,000	200,000	75,000	75,000
1-3690.0000 Distribution - Services	63,984	67,183	70,542	74,069	77,773	81,661
1-3691.0000 Distr Svs - Conversions	15,000	15,000	17,500	17,500	20,000	20,000
1-3692.0000 Distr Services - House Service Reimbur	-	-	-	-	-	-
1-3700.0000 Dist - Meters	1,012,000	1,512,000	12,000	12,000	12,000	12,000
1-3710.0000 Install Customers Premises	-	100,000	200,000	-	-	-
1-3730.0000 Street Lighting & Signal System	121,000	1,000	401,000	1,000	1,000	1,000
<b>General Plant</b>	<b>606,500</b>	<b>617,500</b>	<b>193,000</b>	<b>909,000</b>	<b>195,000</b>	<b>196,000</b>
1-3900.0000 General Plant - Structure & Improvemen	35,000	35,000	35,000	750,000	35,000	35,000
1-3910.0000 Office Furniture & Equipment	5,000	5,000	5,000	5,000	5,000	5,000
1-3911.0000 Computer Equipment & Software	20,000	20,000	20,000	20,000	20,000	20,000
1-3912.0000 SG Office & Equipment	-	-	-	-	-	-
1-3913.0000 SG Computer Equipment	-	-	-	-	-	-
1-3920.0000 Transportation Equipment	425,000	525,000	100,000	100,000	100,000	100,000
1-3930.0000 General Plant - Store Equipment	-	-	-	-	-	-
1-3940.0000 Tools, Shop & Garage Equipment	5,000	5,000	5,000	5,000	5,000	5,000
1-3950.0000 Laboratory Equipment	100,000	10,000	10,000	10,000	10,000	10,000
1-3960.0000 Power Operated Equipment	-	-	-	-	-	-
1-3970.0000 Communication Equipment	-	-	-	-	-	-
1-3972.0000 Fiber Optics-Town Loop Comm Equip	-	-	-	-	-	-
1-3974.0000 Comm Equip FO School	-	-	-	-	-	-
1-3975.0000 Comm Equip -Telephone	-	-	-	-	-	-
1-3976.0000 Comm Smart Grid	16,500	17,500	18,000	19,000	20,000	21,000
1-3980.0000 Misc Equip - General Plant	-	-	-	-	-	-



# TELECOM DIVISION



**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

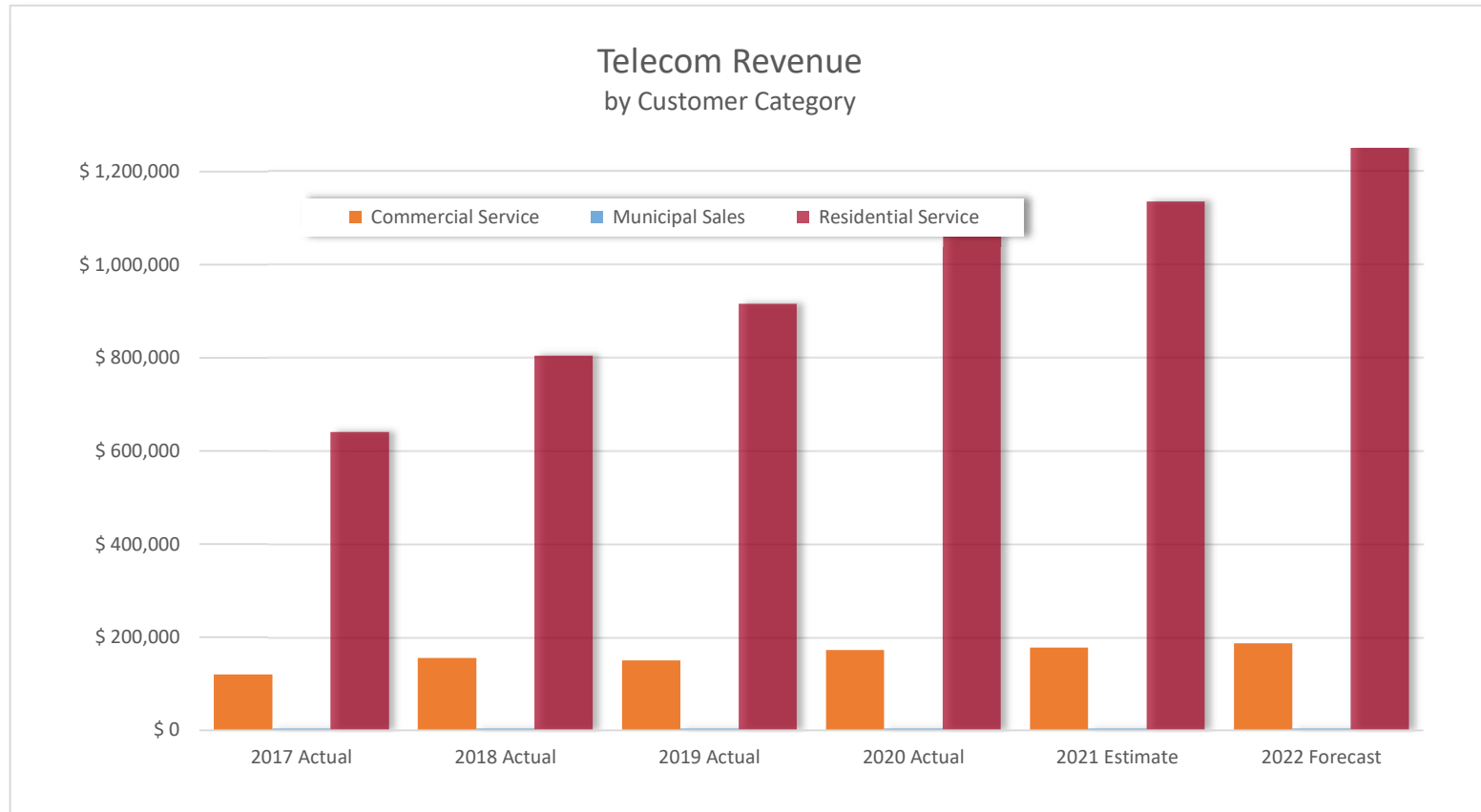
**2022 OPERATING FORECAST**

**INCOME AND EXPENSE SUMMARY**

**TELECOM DIVISION**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>TELECOM RATE OF RETURN</b>	<b>11 %</b>	<b>7 %</b>	<b>33 %</b>	<b>11 %</b>	<b>13 %</b>	<b>7 %</b>
<b>TELECOM NET INCOME (LOSS)</b>	<b>\$ 81,746</b>	<b>\$ 68,235</b>	<b>\$ 396,424</b>	<b>\$ 153,759</b>	<b>\$ 184,938</b>	<b>\$ 119,228</b>
<b>TOTAL REVENUE</b>	<b>\$ 764,422</b>	<b>\$ 963,439</b>	<b>\$ 1,203,850</b>	<b>\$ 1,362,826</b>	<b>\$ 1,423,038</b>	<b>\$ 1,618,394</b>
Sales	764,332	963,026	1,128,726	1,242,267	1,316,382	1,461,519
Other Revenues	91	413	75,125	120,559	106,655	156,875
<b>TOTAL EXPENSE</b>	<b>\$ 682,676</b>	<b>\$ 895,204</b>	<b>\$ 807,427</b>	<b>\$ 1,209,067</b>	<b>\$ 1,238,099</b>	<b>\$ 1,499,166</b>
Resource Costs	129,235	183,432	183,502	209,390	195,220	201,077
Operating + Maintenance Costs	516,156	641,181	542,803	906,764	933,628	1,170,623
Depreciation Expense	37,286	50,465	65,747	73,697	67,342	86,097
Debt Service Interest	-	20,125	15,375	19,215	23,275	19,447
PILOF - Payment In Lieu of Franchise Tax	-	-	-	-	18,634	21,923





**CMLP - CONCORD MUNICIPAL LIGHT PLANT** **2022 OPERATING FORECAST**

**REVENUE**

**TELECOM DIVISION**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>ANNUAL % CHANGE IN TOTAL OPERATING REVENUE ↑(↓)</b>	x	98.7 %	114.1 %	46.8 %	(5.9 %)	41.9 %
■ Sales	x	20.6 %	14.7 %	9.1 %	5.6 %	9.9 %
■ Other Revenues	x	78.1 %	99.4 %	37.7 %	(11.5 %)	32.0 %
<b>ANNUAL \$ CHANGE IN TOTAL OPERATING REVENUE ↑(↓)</b>	x \$	(199,017) \$	(240,411) \$	(158,976) \$	(60,212) \$	(195,357) \$
■ Sales	x	(198,694)	(165,700)	(113,542)	(74,115)	(145,137)
■ Other Revenues	x	(323)	(74,711)	(45,434)	13,903	(50,220)
<b>RATIOS OF TOTAL OPERATING REVENUE</b>	100 %	100 %	100 %	100 %	100 %	100 %
■ Sales	100 %	100 %	94 %	91 %	93 %	90 %
■ Other Revenues	0 %	0 %	6 %	9 %	7 %	10 %
<b>TOTAL OPERATING REVENUE</b>	\$ 764,422	\$ 963,439	\$ 1,203,850	\$ 1,362,826	\$ 1,423,038	\$ 1,618,394
■ Sales	764,332	963,026	1,128,726	1,242,267	1,316,382	1,461,519
■ Other Revenues	91	413	75,125	120,559	106,655	156,875

CMLP - CONCORD MUNICIPAL LIGHT PLANT

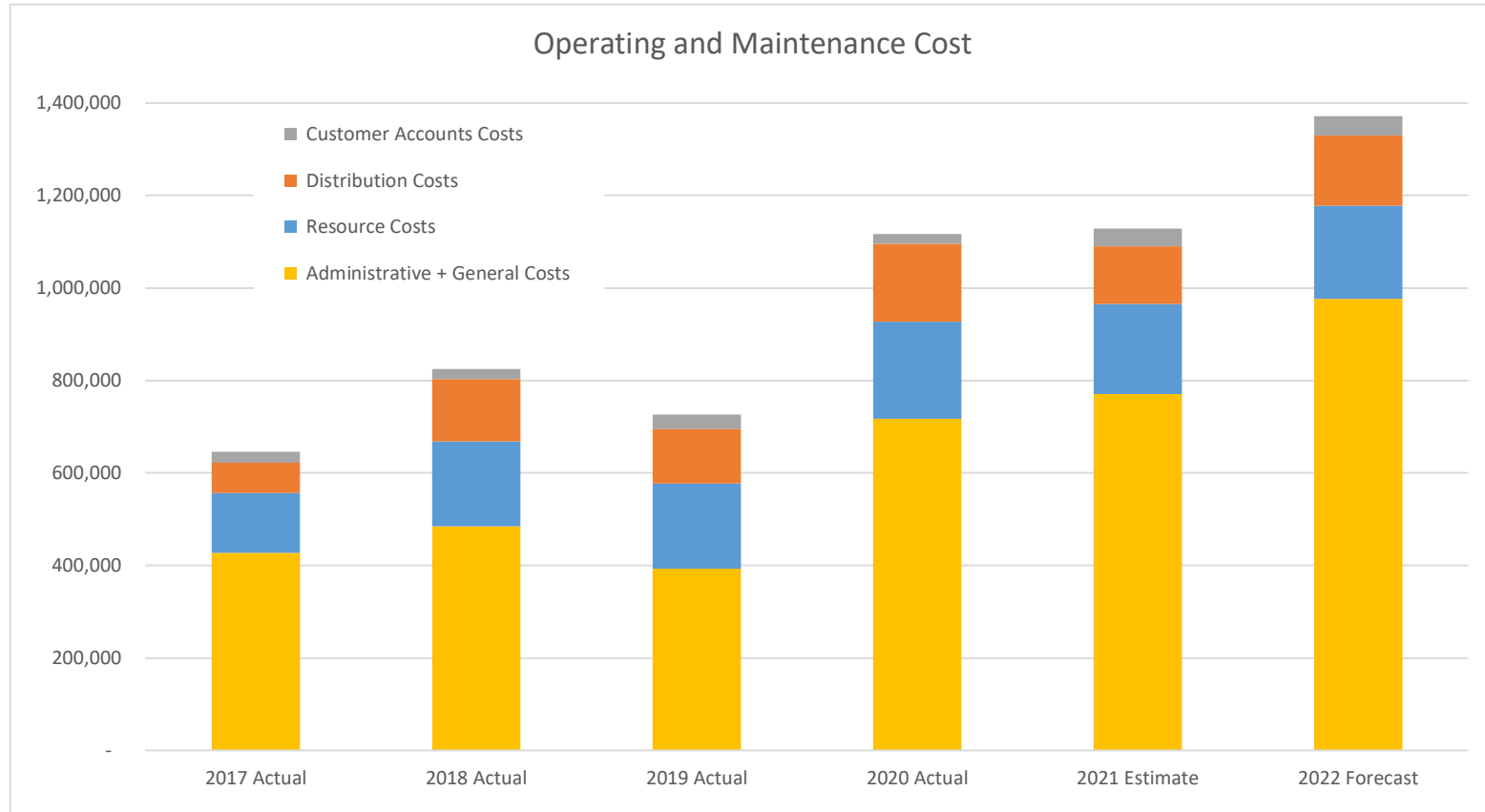
2022 OPERATING FORECAST

REVENUE

TELECOM DIVISION

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>TOTAL OPERATING REVENUE</b>	\$ 764,422	\$ 963,439	\$ 1,203,850	\$ 1,362,826	\$ 1,423,038	\$ 1,618,394
<b>Sales</b>	<b>764,332</b>	<b>963,026</b>	<b>1,128,726</b>	<b>1,242,267</b>	<b>1,316,382</b>	<b>1,461,519</b>
4-4400.0000 Residential Service	640,822	804,438	915,982	1,066,677	1,135,559	1,271,826
4-4400.0800 Revenue Conversion Difference Balance	-	-	59,297	-	-	-
4-4410.0000 Commercial Service	119,910	154,912	149,967	172,171	177,403	186,273
4-4410.0001 Private VLAN Provision C	-	-	-	-	-	-
4-4440.0000 Municipal Sales	3,600	3,675	3,480	3,420	3,420	3,420
<b>Other Revenues</b>	<b>91</b>	<b>413</b>	<b>75,125</b>	<b>120,559</b>	<b>106,655</b>	<b>156,875</b>
4-4150.0000 Income - M&J	-	-	46,745	98,475	111,040	101,316
4-4500.0000 Finance Charge	91	413	1,761	230	-	1,000
4-4500.0001 NSF CHECK CHARGE	-	-	3,800	75	(125)	1,250
4-4510.0000 Installation Fee	-	-	13,050	20,100	19,650	52,500
4-4510.0001 Reconnection Charge	-	-	1,190	2,810	4,027	2,809
4-4510.0002 Installation Fees	-	-	8,550	-	-	-
4-4510.0099 Misc Charge/Credit	-	-	29	(1,131)	(27,936)	(2,000)





**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**OPERATIONS + MAINTENANCE**

**TELECOM DIVISION**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>RATIOS OF OPERATING + MAINTENANCE COSTS</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>
■ Resource Costs	20 %	22 %	25 %	19 %	17 %	15 %
■ Distribution Costs	10 %	16 %	16 %	15 %	11 %	11 %
■ Customer Accounts Costs	4 %	3 %	4 %	2 %	3 %	3 %
■ Administrative + General Costs	66 %	59 %	54 %	64 %	68 %	71 %
<b>OPERATING + MAINTENANCE COSTS</b>	<b>\$ 645,391</b>	<b>\$ 824,614</b>	<b>\$ 726,305</b>	<b>\$ 1,116,154</b>	<b>\$ 1,128,848</b>	<b>\$ 1,371,700</b>
■ Resource Costs	129,235	183,432	183,502	209,390	195,220	201,077
■ Distribution Costs	65,471	135,225	118,776	168,863	124,051	151,431
■ Customer Accounts Costs	23,109	21,471	30,762	20,605	38,776	42,237
■ Administrative + General Costs	427,575	484,486	393,265	717,295	770,801	976,955
<b>TOTAL BASE OPERATING + MAINTENANCE COSTS</b>	<b>\$ 645,391</b>	<b>\$ 824,614</b>	<b>\$ 726,305</b>	<b>\$ 1,116,154</b>	<b>\$ 1,128,848</b>	<b>\$ 1,371,700</b>
<b>Resource Costs</b>	<b>129,235</b>	<b>183,432</b>	<b>183,502</b>	<b>209,390</b>	<b>195,220</b>	<b>\$ 201,077</b>
4-5500.0000 Bandwidth	129,235	183,432	183,502	209,390	195,220	201,077
<b>Distribution Costs</b>	<b>65,471</b>	<b>135,225</b>	<b>118,776</b>	<b>168,863</b>	<b>124,051</b>	<b>\$ 151,431</b>
4-5810.0000 Line and Station Supplies and Expenses	8,526	32,028	56,678	63,034	49,155	54,071
4-5820.0000 Station Expenses	18,807	29,524	11,285	61,053	45,446	49,991
4-5860.0000 In Home Maintenance	10,345	23,277	16,351	11,133	12,860	14,793
4-5930.0000 Maintenance of Overhead Lines	1,009	26,541	16,432	28,249	6,573	15,761
4-5940.0000 Maintenance of Underground Lines	26,785	23,854	18,030	5,394	10,018	16,816

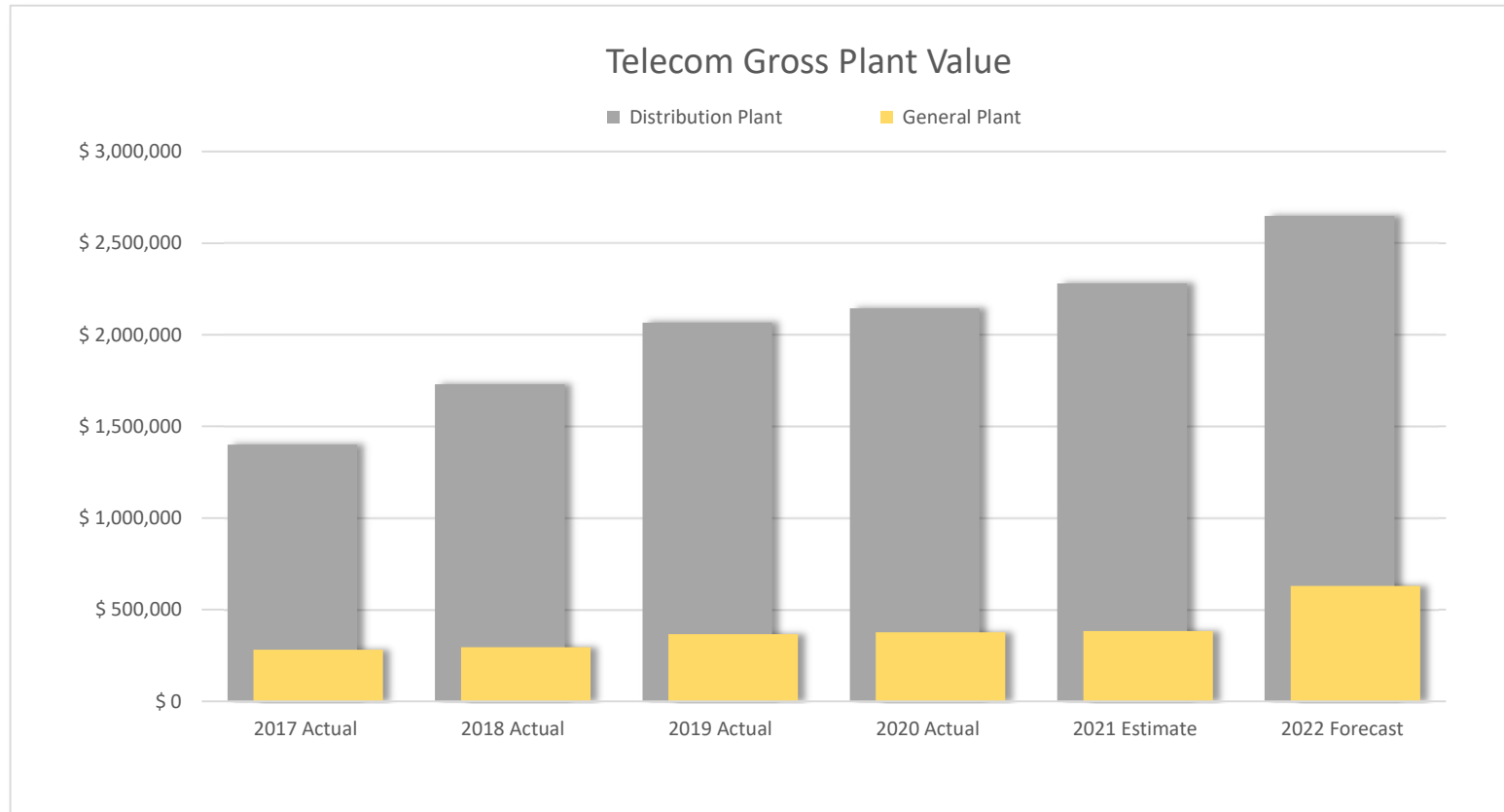
**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**OPERATIONS+MAINTENANCE**

**TELECOM DIVISION**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>Customer Accounts Costs</b>	<b>23,109</b>	<b>21,471</b>	<b>30,762</b>	<b>20,605</b>	<b>38,776</b>	<b>\$ 42,237</b>
4-9020.0000 Meter Reading	-	-	308	-	-	-
4-9030.0000 Accounting, Collection Expense	448	-	8,528	8,639	28,925	30,151
4-9040.0000 Uncollectable Accounts	-	1,324	(449)	1,037	-	637
4-9040.0001 Small Balance Write Off	-	-	(92)	1	1	5
4-9060.0000 Customer Service and Informational	21,160	19,329	22,468	10,754	9,850	10,835
4-9080.0000 Customer Education	-	668	-	-	-	-
4-9080.0001 SmartHub Sign Up Credit	-	-	-	-	-	-
4-9130.0000 Advertising	1,501	150	-	175	-	609
<b>Administrative + General Costs</b>	<b>427,575</b>	<b>484,486</b>	<b>393,265</b>	<b>717,295</b>	<b>770,801</b>	<b>\$ 976,955</b>
4-4160.0000 M&J Operating Expenses	-	1,710	4,952	8,321	19,241	20,203
4-9200.0000 Administration & General Salaries	203,051	205,424	208,898	369,597	364,198	551,055
4-9200.0002 G & A IS Dept Transfer	27,080	34,264	362	53,052	51,541	52,686
4-9210.0000 Office Supplies & Expenses	2,670	2,760	6,620	31,079	5,171	5,688
4-9230.0000 Misc Outside Services	32,727	31,540	32,038	43,945	65,351	66,658
4-9230.0002 Outside SVS Legal	-	-	-	-	-	-
4-9240.0000 Property Insurance	-	1,888	1,965	2,608	4,221	4,241
4-9250.0000 Employee Injuries & Damages	3,823	3,986	4,185	5,797	5,023	5,777
4-9260.0000 Employee Pension & Benefits	71,410	86,304	17,929	129,203	178,530	187,457
4-9260.0001 Employee Sick Leave	13,051	7,925	13,798	4,197	14,774	15,513
4-9260.0002 Employee Vacation & Holiday	34,184	50,141	40,837	51,399	55,501	58,276
4-9260.0003 Employee Benefits Training	21,683	13,270	7,699	504	3,450	9,321
4-9300.0000 Misc General Expense	-	-	-	964	-	-
4-9310.0000 Contribution to the Town	-	-	-	81	-	81
4-9320.0000 Maint General Plant	27,403	58,190	72,215	22	-	-
4-9330.0000 Transportation Expense	(9,508)	(12,916)	(10,898)	1,043	3,773	-
4-9340.0000 Inventory Adjustment	-	-	(7,335)	15,485	26	-



**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**GROSS PLANT VALUE**

**TELECOM DIVISION**

	Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
1	<b>ANNUAL % CHANGE IN TOTAL PLANT VALUE ↑(↓)</b>	x	430 %	536 %	2749 %	1578 %	682 %
2	■ Distribution Plant	x	425 %	512 %	2746 %	1576 %	618 %
3	■ General Plant	x	5 %	24 %	3 %	2 %	65 %
4							
5	<b>ANNUAL \$ CHANGE IN TOTAL PLANT VALUE ↑(↓)</b>	x \$	344,009 \$	407,360 \$	86,059 \$	142,647 \$	616,454 \$
6	■ Distribution Plant	x	329,530	337,603	75,298	135,977	368,984
7	■ General Plant	x	14,479	69,757	10,761	6,671	247,470
8							
9							
10	<b>RATIOS OF GROSS PLANT VALUE</b>	100 %	100 %	100 %	100 %	100 %	100 %
11	■ Distribution Plant	83 %	85 %	85 %	85 %	86 %	81 %
12	■ General Plant	17 %	15 %	15 %	15 %	14 %	19 %
13							
14	<b>GROSS VALUE OF PLANT IN SERVICE</b>	\$ 1,682,167	\$ 2,026,176	\$ 2,433,536	\$ 2,519,595	\$ 2,662,242	\$ 3,278,696
15	■ Distribution Plant	1,400,643	1,730,173	2,067,776	2,143,074	2,279,050	2,648,034
16	■ General Plant	281,524	296,003	365,760	376,521	383,192	630,662
17							
18							

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

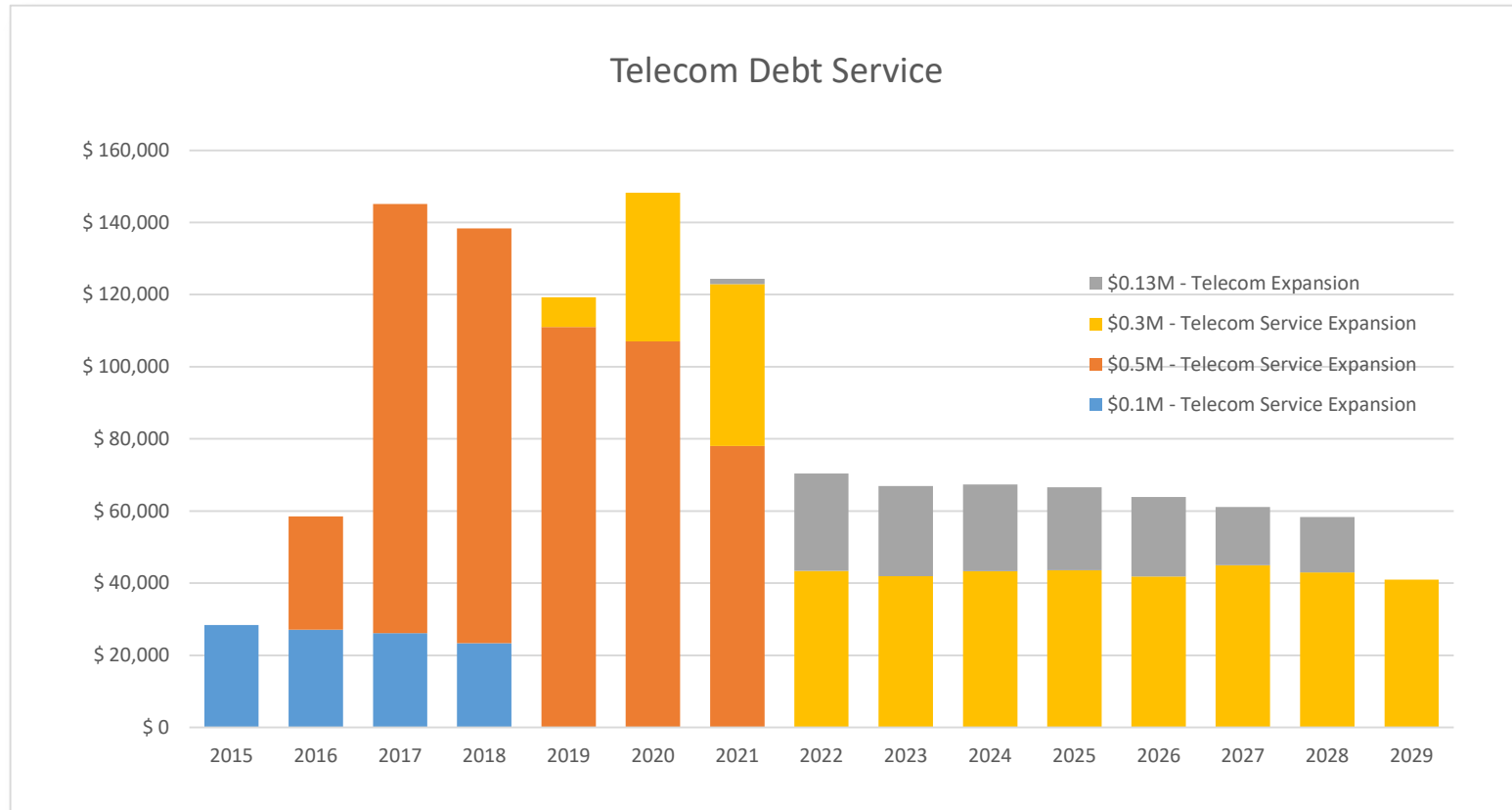
**2022 OPERATING FORECAST**

**GROSS PLANT VALUE**

**TELECOM DIVISION**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>TOTAL GROSS VALUE OF PLANT IN SERVICE</b>	\$ 1,682,167	\$ 2,026,176	\$ 2,433,536	\$ 2,519,595	\$ 2,662,242	\$ 3,278,696
<b>Distribution Plant</b>	<b>1,400,643</b>	<b>1,730,173</b>	<b>2,067,776</b>	<b>2,143,074</b>	<b>2,279,050</b>	<b>\$ 2,648,034</b>
4-3650.0000 Overhead Conductors & Devices	5,294	5,294	5,294	5,687	5,687	16,937
4-3660.0000 Distribution UG Conduit	11,915	16,190	16,190	19,541	19,541	19,430
4-3670.0000 UG Conductors/FO	2,679	2,825	2,825	2,825	2,825	2,825
4-3690.0000 Distribution - Services	909,112	1,137,578	1,301,534	1,345,191	1,416,984	1,592,879
4-3720.0000 ONT Installation	471,643	568,286	741,933	769,830	834,013	1,015,964
<b>General Plant</b>	<b>281,524</b>	<b>296,003</b>	<b>365,760</b>	<b>376,521</b>	<b>383,192</b>	<b>\$ 630,662</b>
4-3910.0000 Office Furniture & Equipment	2,860	4,042	4,042	4,042	4,042	4,042
4-3910.0001 Computer Equipment & Software	49,392	51,102	-	-	-	-
4-3910.0021 SG Computer Equipment	-	-	-	-	-	-
4-3911.0000 Computer Equipment & Software	-	-	51,102	51,102	51,102	173,572
4-3920.0000 Transportation Equipment	92,097	92,097	92,097	92,530	92,530	217,530
4-3940.0000 Tools, Shop & Garage Equipment	37,868	37,868	55,545	55,545	55,545	55,545
4-3970.0000 Communication Equipment	99,307	110,894	162,974	173,302	179,973	179,973





CMLP - CONCORD MUNICIPAL LIGHT PLANT

2022 OPERATING FORECAST

DEBT SERVICE

TELECOM DIVISION

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>ANNUAL % CHANGE IN TOTAL DEBT SERVICE EXPENSE ↑(↓)</b>	x	(24 %)	105 %	246 %	(32 %)	(52 %)
■ Debt Service Principle	x	0 %	(20 %)	125 %	(16 %)	(51 %)
■ Debt Service Interest	x	(24 %)	125 %	121 %	(16 %)	(0 %)
<b>ANNUAL \$ CHANGE IN TOTAL DEBT SERVICE EXPENSE ↑(↓)</b>	x \$	(4,750) \$	(21,160) \$	29,060 \$	(23,828) \$	(54,022) \$
■ Debt Service Principle	x	-	(25,000)	25,000	(20,000)	(54,000)
■ Debt Service Interest	x	(4,750)	3,840	4,060	(3,828)	(22)
<b>RATIOS OF DEBT SERVICE EXPENSE BY OBLIGATION</b>	100 %	100 %	100 %	100 %	100 %	100 %
\$100,000 Bond Fund 6/2014-6/2018	18 %	18 %	0 %	0 %	0 %	0 %
\$500,000 BOND 5/16-9/21	82 %	82 %	93 %	87 %	83 %	0 %
\$338,000 BOND 6/19-6/29	0 %	0 %	7 %	13 %	16 %	33 %
\$131,000 BOND	0 %	0 %	0 %	0 %	2 %	67 %
<b>TOTAL DEBT SERVICE EXPENSE BY OBLIGATION</b>	\$ 145,125	\$ 140,375	\$ 119,215	\$ 123,275	\$ 94,447	\$ 40,425
\$100,000 Bond Fund 6/2014-6/2018	26,125	25,375	-	-	-	-
\$500,000 BOND 5/16-9/21	119,000	115,000	111,000	107,000	78,000	-
\$338,000 BOND 6/19-6/29	-	-	8,215	16,275	14,900	13,400
\$131,000 BOND	-	-	-	-	1,547	27,025
<b>RATIOS OF DEBT SERVICE EXPENSE BY TYPE</b>	100 %	100 %	100 %	100 %	100 %	100 %
■ Debt Service Principle	86 %	89 %	84 %	84 %	84 %	72 %
■ Debt Service Interest	14 %	11 %	16 %	16 %	16 %	28 %
<b>TOTAL DEBT SERVICE EXPENSE BY TYPE</b>	\$ 145,125	\$ 140,375	\$ 119,215	\$ 148,275	\$ 124,447	\$ 70,425
■ Debt Service Principle	125,000	125,000	100,000	125,000	105,000	51,000
■ Debt Service Interest	20,125	15,375	19,215	23,275	19,447	19,425

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**DEBT SERVICE**

**TELECOM**

Description	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Estimate	2022 Forecast
<b>TOTAL DEBT SERVICE EXPENSE</b>	<b>\$ 145,125</b>	<b>\$ 140,375</b>	<b>\$ 119,215</b>	<b>\$ 148,275</b>	<b>\$ 123,673</b>	<b>\$ 67,413</b>
<b>Debt Service Principle</b>	<b>125,000</b>	<b>125,000</b>	<b>100,000</b>	<b>125,000</b>	<b>105,000</b>	<b>51,000</b>
4-1280.1001 \$100,000 Bond Fund 6/2014-6/2018	25,000	25,000	-	-	-	-
4-1280.1002 \$500,000 BOND 5/16-9/21	100,000	100,000	100,000	100,000	75,000	-
4-1280.1003 \$338,000 BOND 6/19-6/29	-	-	-	25,000	30,000	30,000
4-1280.1004 \$131,000 BOND	-	-	-	-	-	21,000
<b>Debt Service Interest</b>	<b>20,125</b>	<b>15,375</b>	<b>19,215</b>	<b>23,275</b>	<b>19,447</b>	<b>19,425</b>
4-1280.1001 \$100,000 Bond Fund 6/2014-6/2018	1,125	375	-	-	-	-
4-1280.1002 \$500,000 BOND 5/16-9/21	19,000	15,000	11,000	7,000	3,000	-
4-1280.1003 \$338,000 BOND 6/19-6/29	-	-	8,215	16,275	14,900	13,400
4-1280.1004 \$131,000 BOND	-	-	-	-	1,547	6,025

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**FUTURE DEBT SERVICE**

**TELECOM**

Description	2023	2024	2025	2026	2027	2028
<b>ANNUAL % CHANGE IN TOTAL DEBT SERVICE EXPENSE ↑(↓)</b>	x	7 %	3 %	(4 %)	(4 %)	(5 %)
■ Debt Service Principle	x	1 %	(1 %)	(4 %)	(4 %)	(5 %)
■ Debt Service Interest	x	6 %	4 %	0 %	0 %	0 %
<b>ANNUAL \$ CHANGE IN TOTAL DEBT SERVICE EXPENSE ↑(↓)</b>	x \$	425 \$	(700) \$	(2,750) \$	(2,750) \$	(2,750)
■ Debt Service Principle	x	-	-	-	-	-
■ Debt Service Interest	x	425	(700)	(2,750)	(2,750)	(2,750)
<b>RATIOS OF FUTURE DEBT SERVICE EXPENSE</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>
\$100,000 Bond Fund 6/2014-6/2018	0 %	0 %	0 %	0 %	0 %	0 %
\$500,000 BOND 5/16-9/21	0 %	0 %	0 %	0 %	0 %	0 %
\$338,000 BOND 6/19-6/29	32 %	30 %	27 %	24 %	24 %	16 %
\$131,000 BOND	68 %	70 %	73 %	76 %	76 %	84 %
<b>TOTAL FUTURE DEBT SERVICE EXPENSE BY OBLIGATION</b>	<b>\$ 36,900</b>	<b>\$ 34,325</b>	<b>\$ 31,625</b>	<b>\$ 28,875</b>	<b>\$ 21,125</b>	<b>18,375</b>
\$100,000 Bond Fund 6/2014-6/2018	-	-	-	-	-	-
\$500,000 BOND 5/16-9/21	-	-	-	-	-	-
\$338,000 BOND 6/19-6/29	11,900	10,325	8,625	6,875	5,000	3,000
\$131,000 BOND	25,000	24,000	23,000	22,000	16,125	15,375
<b>RATIOS OF FUTURE DEBT SERVICE EXPENSE BY TYPE</b>	<b>109 %</b>	<b>106 %</b>	<b>104 %</b>	<b>102 %</b>	<b>101 %</b>	<b>100 %</b>
■ Debt Service Principle	75 %	79 %	83 %	86 %	90 %	94 %
■ Debt Service Interest	34 %	27 %	21 %	16 %	11 %	6 %
<b>TOTAL FUTURE DEBT SERVICE EXPENSE BY TYPE</b>	<b>\$ 66,900</b>	<b>\$ 67,325</b>	<b>\$ 66,625</b>	<b>\$ 63,875</b>	<b>\$ 61,125</b>	<b>58,375</b>
■ Debt Service Principle	50,000	53,000	55,000	55,000	55,000	55,000
■ Debt Service Interest	16,900	14,325	11,625	8,875	6,125	3,375

**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**FUTURE DEBT SERVICE**

**TELECOM**

Description	2023	2024	2025	2026	2027	2028
<b>TOTAL FUTURE DEBT SERVICE EXPENSE</b>	<b>\$ 66,900</b>	<b>\$ 67,325</b>	<b>\$ 66,625</b>	<b>\$ 63,875</b>	<b>\$ 61,125</b>	<b>\$ 58,375</b>
<b>Debt Service Principle</b>	<b>50,000</b>	<b>53,000</b>	<b>55,000</b>	<b>55,000</b>	<b>55,000</b>	<b>55,000</b>
4-1280.1001 \$100,000 Bond Fund 6/2014-6/2018	-	-	-	-	-	-
4-1280.1002 \$500,000 BOND 5/16-9/21	-	-	-	-	-	-
4-1280.1003 \$338,000 BOND 6/19-6/29	30,000	33,000	35,000	35,000	40,000	40,000
4-1280.1004 \$131,000 BOND	20,000	20,000	20,000	20,000	15,000	15,000
<b>Debt Service Interest</b>	<b>16,900</b>	<b>14,325</b>	<b>11,625</b>	<b>8,875</b>	<b>6,125</b>	<b>3,375</b>
4-1280.1001 \$100,000 Bond Fund 6/2014-6/2018	-	-	-	-	-	-
4-1280.1002 \$500,000 BOND 5/16-9/21	-	-	-	-	-	-
4-1280.1003 \$338,000 BOND 6/19-6/29	11,900	10,325	8,625	6,875	5,000	3,000
4-1280.1004 \$131,000 BOND	5,000	4,000	3,000	2,000	1,125	375



**CMLP - CONCORD MUNICIPAL LIGHT PLANT**

**2022 OPERATING FORECAST**

**5 - YEAR CAPITAL PLAN**

**TELECOM DIVISION**

Description	2022	2023	2024	2025	2026	2027
<b>TOTAL CAPITAL PLAN COSTS BY CATEGORY</b>	<b>\$ 625,158</b>	<b>\$ 393,353</b>	<b>\$ 801,459</b>	<b>\$ 821,519</b>	<b>\$ 842,582</b>	<b>\$ 475,699</b>
<span style="color: yellow;">■</span> <b>Distribution Plant</b> <span style="color: blue;">■</span> <b>General Plant</b>	375,158	393,353	801,459	821,519	842,582	475,699
	250,000	-	-	-	-	-
<b>TOTAL CAPITAL PLAN COSTS</b>	<b>\$ 625,158</b>	<b>\$ 393,353</b>	<b>\$ 801,459</b>	<b>\$ 821,519</b>	<b>\$ 842,582</b>	<b>\$ 475,699</b>
<b>Distribution Plant</b>	<b>375,158</b>	<b>393,353</b>	<b>801,459</b>	<b>821,519</b>	<b>842,582</b>	<b>475,699</b>
4-3650.0000 Overhead Conductors & Devices	11,250	11,250	11,250	11,250	11,250	11,250
4-3660.0000 Distribution UG Conduit	-	-	135,000	135,000	135,000	-
4-3670.0000 UG Conductors/FO	-	-	200,000	200,000	200,000	-
4-3690.0000 Distribution - Services	176,000	184,800	248,040	257,742	267,929	224,625
4-3720.0000 ONT Installation	187,908	197,303	207,169	217,527	228,403	239,824
<b>General Plant</b>	<b>250,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
4-3910.0000 Office Furniture & Equipment	-	-	-	-	-	-
4-3911.0000 Computer Equipment & Software	125,000	-	-	-	-	-
4-3920.0000 Transportation Equipment	125,000	-	-	-	-	-
4-3940.0000 Tools, Shop & Garage Equipment	-	-	-	-	-	-
4-3970.0000 Communication Equipment	-	-	-	-	-	-

