



## **ELECTRIC DEPARTMENT**

**2021**

### **BUDGET PRESENTATION TO CITY COUNCIL**

**AS PRESENTED ON:  
SEPTEMBER 21, 2020**



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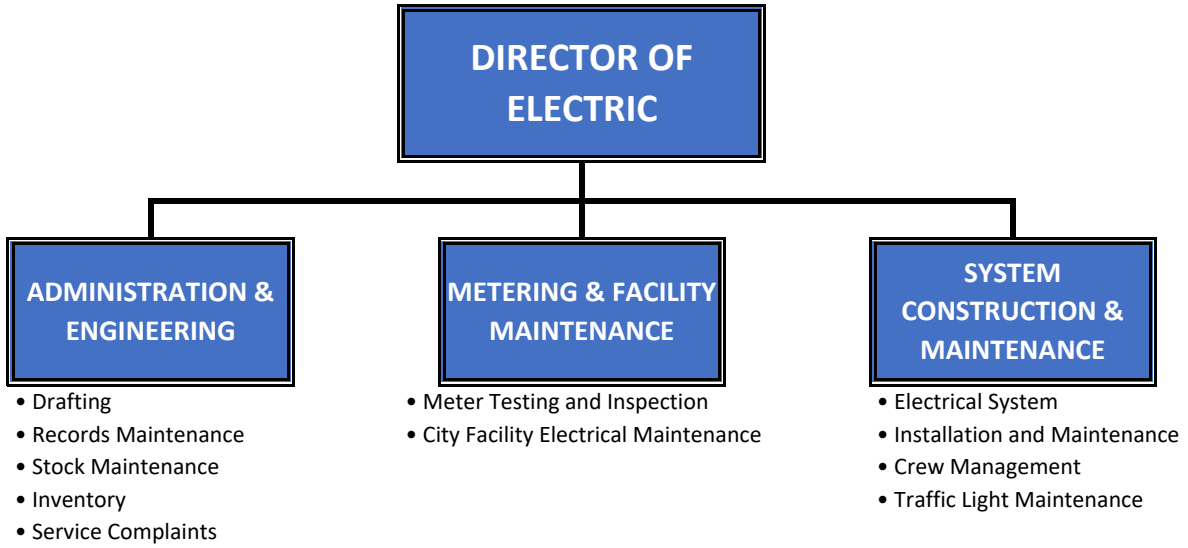
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**CITY OF NEWARK, DELAWARE  
ELECTRIC DEPARTMENT  
ORGANIZATIONAL CHART**



**CITY OF NEWARK, DELAWARE  
ELECTRIC DEPARTMENT  
2021 DEPARTMENTAL NARRATIVE**

The City of Newark operates its own electric utility to provide electric services to 13,000 meters, supporting commercial and residential customers within city limits. Power is purchased on the wholesale power market and delivered by the City. The electric department is responsible for maintaining 175 miles of electric lines and coordinates its services through several programs. They include:

**Meter Relay and Electrical Maintenance Program:**

Responsible for installing and maintaining electrical systems in city buildings, water wells, water and wastewater pumping stations, traffic lights and control systems, meters, and other facilities.

**Electrical Line Construction and Maintenance Program:**

Responsible for maintaining the City's electric lines, substation sites, substation units, circuit breakers, and transformers.

In addition to maintaining the City's electrical distribution system, new power lines, substations and underground electric utilities are constructed and installed to expand services to new customers. Additional departmental responsibilities include maintaining and installing street lights and traffic signals, trimming trees along the electric right-of-way, and providing distribution and sub-transmission switching and sectionalizing. The electric department's staff is also responsible for plans review, drawings, and engineering analysis for construction work.

**CITY OF NEWARK, DELAWARE  
ELECTRIC DEPARTMENT  
2020 DEPARTMENTAL ACCOMPLISHMENTS**

**Key accomplishments in 2020 include:**

- The City had applied for the Reliable Public Power Provider (RP3) program in 2019. In April 2020, City earned a Reliable Public Power designation from the American Public Power Association (APPA) for providing reliable and safe electric service.

The RP3 designation, which lasts for three years, recognizes public power utilities that demonstrate proficiency in four key disciplines: reliability, safety, workforce development, and system improvement. Criteria include sound business practices and a utility-wide commitment to safe and reliable delivery of electricity.

- We are migrating from our existing Supervisory Control and Data Acquisition (SCADA) system to a new Survalent SCADA system. The Survalent SCADA brings cost saving in the future as well as new functionality. Once we completely migrate to Survalent SCADA, our annual SCADA maintenance cost will drop from \$56k to \$19k. We will be able to merge our AMI system to the Survalent SCADA system to improve our system functionality. The project is in progress, and we are on track to complete this project by the end of 2020.
- The new 35kV circuit breaker at the Fremont Road substation will be installed. The new circuit breaker will replace the 45 years old 35kV oil circuit breaker. The project is in progress, and we are on track to complete this project by the first quarter of 2021.
- The installation of 12kV distribution automation system. This system will increase reliability to the UD Center Campus, North Campus, and South Campus as well as minimize our substation outages. The project is in progress, and we are looking to complete this project by the end of 2020.
- The EV charging stations will be installed at the City Hall parking lot and Parking Lot # 1 behind the Galleria. The project is in progress, and we are on track to complete this project by the end of 2020.
- The electric cost of service and rate study is put on hold due to COVID-19.
- We have transferred two of the University buildings (Morris Library and Robinson Hall) from a 4,000 Voltage system to a 12,470 Voltage system.
- We have also completed the following development projects throughout the City:
  - Campus Walk II on New London Road
  - Chase Bank at the Newark Shopping Center on Main Street
  - South Main Street Plaza and Chimney Ridge on South Main Street
  - Mara's Landing on Benny street
  - Phase Sensitive Innovations on Sandy Drive
  - Park N Shop on South Main street
- Due to COVID-19, we had to put a hold on the following CIP projects:
  - E1805 – Line Extension – UD Farm
  - E1808 – Voltage Upgrade – North College Avenue
  - E1807 – Relay Replacements – Kershaw Substation

**CITY OF NEWARK, DELAWARE  
ELECTRIC DEPARTMENT  
2021 DEPARTMENTAL GOALS**

**Goals for 2021 include:**

- An additional underground high voltage cable will be installed in Christianstead to balance the load during emergency conditions when the existing high voltage cable fails.
- The old electromechanical relays on circuit breakers 7, 8, and 9 at the Kershaw Substation will be replaced and added to Supervisory Control and Data Acquisition (SCADA) system.
- The existing 4,000 Voltage cable will be replaced with 12,470 Voltage cable in preparation for a 4160 voltage to 12470 voltage upgrade of University buildings on North College Avenue.
- Installation of electric distribution lines in new developments.
  - 321 Hillside Road - The Rail Yard
  - College Square Shopping Center
  - 62 North Chapel
  - Green Mansion
  - 1364 Marrows Road - Martin Honda
  - 287 East Main Street - Fulton Bank
  - 401 Bellevue Road - SAFStor
  - Fintech at STAR campus





## **ELECTRIC DEPARTMENT**

## **EXECUTIVE SUMMARY**

**CITY OF NEWARK, DELAWARE  
2021 OPERATING BUDGET  
ELECTRIC DEPARTMENT**

**EXECUTIVE SUMMARY**

<b>EXPENDITURE BUDGET</b>					
<b>Object Level Detail:</b>	<b>FY2020 Appr'd</b>	<b>FY2021 Rec'd</b>	<b>FY2020 Appr'd vs. FY2021 Rec'd</b>	<b>% +/- over FY2020 Appr'd</b>	<b>Comments</b>
Full-time Wages	1,818,424	1,826,027	7,603	0.42%	*Step increases and advancements in 2021 along with decreasing staffing by one FTE.
Other Wages	267,836	272,271	4,435	1.66%	*FY2021 increase is largely due to contractual-based increases to items such as 6580 (Service Award), 6590 (Sick Pay) and 6619 (Standby Pay) related to our staff.
Benefits	1,428,638	1,271,223	(157,415)	-11.02%	*These are finance calculations. Large reduction in FY2021 is largely related to staffing changes. Specifically, line items 6940 (City Pension Plan) decreased by -\$124,342, and line item 6960 (Group Hospitalization Ins.) decreased by -\$33,282.
Personnel Services	\$ 3,514,898	\$ 3,369,521	(145,377)	-4.14%	*Sum of above listed wages and benefits
Utility Purchases	\$ 33,674,933	\$ 32,992,386	(682,547)	-2.03%	*Finance Calculation
Materials and Supplies	\$ 303,380	\$ 322,955	19,575	6.45%	*Materials and Supplies increased overall by \$19,575. Larger increases of \$28,450 to line item 7270 (Station Maintenance) and \$17,500 to item 7430 (House Service Maintenance) in FY2021 are offset partially due to a larger decrease of -\$25,000 to item 7131 (IT Supplies).
Contractual Services	\$ 1,690,329	\$ 1,778,995	88,666	5.25%	*Contractual services increased overall by \$88,666. Of this increase, \$29,087 is related to finance calculations related to 8312 (Fleet and Facilities Services) in addition to City-wide changes to our insurance allocations. Department controlled line items stayed flat in 2021 besides item 8120 (Outside Engineering), which increased by \$40,000 and item 8420 (Tree Removal) increased by \$12,075.
Depreciation	\$ 192,675	\$ 194,273	1,598	0.83%	*Finance Calculation
Other Expenditures	\$ 1,072,057	\$ 1,077,451	5,394	0.50%	*Other charges increased overall by \$5,394 due finance calculations related to Bad Debt Expense, Debt Service and the Solar Rebate line items. Department controlled line items stayed flat in 2021 besides item 9070 (Training), which decreased by -\$23,000.
<b>Subtotal:</b>	<b>\$ 40,448,272</b>	<b>\$ 39,735,581</b>	<b>\$ (712,691)</b>	<b>-1.76%</b>	
Inter-Dept. Charges	\$ 832,849	\$ 688,005	(144,844)	-17.39%	Reflects the cost share of City overhead which includes: Administrative Overhead, Billings and Accounting, Electricity, Information Technology, Other Indirect Charges, Printing and Reproduction, Street Lights and Traffic Signals and Warehousing.
Inter-Dept. Sales	\$ 413,100	\$ 413,100	-	0.00%	*No change from FY2020 to FY2021.
<b>Total Operating Expenses:</b>	<b>\$ 41,694,221</b>	<b>\$ 40,836,686</b>	<b>\$ (857,535)</b>	<b>-2.06%</b>	
Full-time Positions	23	22	-1		*Staffing was reduced by one FTE Lineman 2nd Class from FY2020 to FY2021.

**CITY OF NEWARK, DELAWARE  
2021 OPERATING BUDGET  
ELECTRIC DEPARTMENT**

**EXECUTIVE SUMMARY (continued)**

<b>CAPITAL IMPROVEMENT PLAN (CIP)</b>		
<b>Project ID:</b>	<b>Project Description:</b>	<b>Comments</b>
<u>New projects:</u>		
E2101	New Lines and Services	Perpetual Project
<u>Ongoing projects:</u>		
E2002	New Substation	Project listed in 2021-2025 CIP - (Est. Completion Date: 2024)
E1911	35kV Line 3402 Capacity Upgrade	Project listed in 2021-2025 CIP - (Est. Completion Date: 2023)
E1912	35kV Disconnect Switches Replacement - Kershaw Substation	Project listed in 2021-2025 CIP - (Est. Completion Date: 2024)
E1805	Line Extension across UD Farm	Project listed in 2021-2025 CIP - (Est. Completion Date: 2023)
E1806	Christianstead Underground Primary Cable Addition	Project listed in 2021-2025 CIP - (Est. Completion Date: 2021)
E1807	Relay Replacements - Kershaw Substation	Project listed in 2021-2025 CIP - (Est. Completion Date: 2023)
E1808	Voltage Upgrade - North College Avenue	Project listed in 2021-2025 CIP - (Est. Completion Date: 2021)
E1810	Lightning Arrestor Replacement	Project listed in 2021-2025 CIP - (Est. Completion Date: 2023)
E1602	Circuit Breaker Replacement	Projected to be completed by EOY 2020
E1502	Underground Distribution - UD Star Campus	Project listed in 2021-2025 CIP - (Est. Completion Date: 2025)
E1203	CAD Software	Projected to be completed by EOY 2020
E0503	SCADA and Automatic Switching	Project listed in 2021-2025 CIP - (Est. Completion Date: 2022)
E8510	Transformer Maintenance	Projected to be completed by EOY 2020
EEQSF	Equipment Replacement Program	Perpetual Project



## **ELECTRIC DEPARTMENT**

## **2021 OPERATING EXPENDITURES**

**CITY OF NEWARK, DELAWARE  
2021 OPERATING BUDGET**

**Electric Fund - Electric Department**

**Summary:**

<b>ELECTRIC DEPARTMENT - SUMMARY</b>	<b>2016 ACTUAL</b>	<b>2017 ACTUAL</b>	<b>2018 ACTUAL</b>	<b>2019 ACTUAL</b>	<b>2020 BUDGET AS AMENDED</b>	<b>2021 BUDGET</b>	<b>\$ DIFFERENCE FROM 2020-21</b>	<b>% DIFFERENCE FROM 2020-21</b>
<b><u>REVENUES</u></b>								
Sale of Electricity	\$ 52,629,055	\$ 52,050,273	\$ 51,257,574	\$ 51,944,374	\$ 52,952,562	\$ 52,050,000	\$ (902,562)	-1.7%
No. of K.W.H.'s (Thousands)	417,837	415,969	425,918	436,756	444,863	444,863	(0)	0.0%
Inter-Dept. Sales	733,800	555,400	508,100	506,900	413,100	413,100	-	0.0%
Penalties	108,477	96,723	91,298	125,605	98,800	98,800	-	0.0%
Service Fees	61,452	84,697	99,378	74,543	81,800	81,800	-	0.0%
New Services	3,160	133,631	853,486	437,110	250,000	250,000	-	0.0%
Application Fees	104,820	102,210	100,230	128,070	102,000	102,000	-	0.0%
Solar Revenues	39,340	42,412	37,990	37,286	36,600	36,600	-	0.0%
Other Revenues	290,806	160,523	58,079	105,261	43,210	35,500	(7,710)	-17.8%
Interest Revenue	85,316	122,330	169,286	224,471	151,100	151,100	-	0.0%
<b>Subtotal</b>	<b>\$ 54,056,226</b>	<b>\$ 53,348,199</b>	<b>\$ 53,175,421</b>	<b>\$ 53,583,620</b>	<b>\$ 54,129,172</b>	<b>\$ 53,218,900</b>	<b>\$ (910,272)</b>	<b>-1.7%</b>
Less: Electricity Purchased	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
No. of K.W.H.'s (Thousands)	453,550	460,219	456,650	461,483	470,837	478,577	7,740	1.6%
<b>Gross Operating Revenue</b>	<b>\$ 54,056,226</b>	<b>\$ 53,348,199</b>	<b>\$ 53,175,421</b>	<b>\$ 53,583,620</b>	<b>\$ 54,129,172</b>	<b>\$ 53,218,900</b>	<b>\$ (910,272)</b>	<b>-1.7%</b>
<b><u>OPERATING EXPENSES</u></b>								
Personnel Services	\$ 2,715,030	\$ 2,977,781	\$ 3,324,613	\$ 3,462,234	\$ 3,514,898	\$ 3,369,521	\$ (145,377)	-4.1%
Utility Purchases	35,141,018	33,699,575	33,547,114	31,549,199	33,674,933	32,992,386	(682,547)	-2.0%
Materials and Supplies	176,388	238,318	215,348	286,865	303,380	322,955	19,575	6.5%
Contractual Services	1,040,980	1,330,729	1,862,752	1,434,585	1,690,329	1,778,995	88,666	5.2%
Other Charges	906,670	1,097,567	1,046,899	1,269,135	1,264,732	1,271,724	6,992	0.6%
<b>Subtotal</b>	<b>\$ 39,980,086</b>	<b>\$ 39,343,970</b>	<b>\$ 39,996,726</b>	<b>\$ 38,002,018</b>	<b>\$ 40,448,272</b>	<b>\$ 39,735,581</b>	<b>\$ (712,691)</b>	<b>-1.8%</b>
Inter-Departmental Charges (net of Inter-Departmental Sales)	1,311,472	1,010,354	1,173,798	1,494,948	1,245,949	1,101,105	(144,844)	-11.6%
<b>Total Operating Expenses</b>	<b>\$ 41,291,558</b>	<b>\$ 40,354,324</b>	<b>\$ 41,170,524</b>	<b>\$ 39,496,966</b>	<b>\$ 41,694,221</b>	<b>\$ 40,836,686</b>	<b>\$ (857,535)</b>	<b>-2.1%</b>
<b>Net Operating Margin (Before Capital Costs)</b>	<b>\$ 12,764,668</b>	<b>\$ 12,993,875</b>	<b>\$ 12,004,897</b>	<b>\$ 14,086,654</b>	<b>\$ 12,434,951</b>	<b>\$ 12,382,214</b>	<b>\$ (52,737)</b>	<b>-0.4%</b>

**CITY OF NEWARK, DELAWARE  
2021 OPERATING BUDGET**

**Electric Fund - Electric Department**

**Expenditures:**

<b>PERSONNEL SERVICES</b>		<b>2016 ACTUAL</b>	<b>2017 ACTUAL</b>	<b>2018 ACTUAL</b>	<b>2019 ACTUAL</b>	<b>2020 BUDGET AS AMENDED</b>	<b>2021 BUDGET</b>	<b>\$ DIFFERENCE FROM 2020-21</b>	<b>% DIFFERENCE FROM 2020-21</b>
5195102	6020 Supervisory	\$ 234,376	\$ 308,336	\$ 211,475	\$ 219,566	\$ 233,153	\$ 243,449	\$ 10,296	4.4%
5195102	6030 Engineering/Technical	263,830	285,154	297,420	301,424	323,677	335,552	11,875	3.7%
5195102	6040 Warehousing	55,140	56,197	58,056	61,617	67,579	69,613	2,034	3.0%
5195102	6080 Clerical	59,885	61,977	65,066	65,245	67,766	71,381	3,615	5.3%
5195102	6200 Line Maintenance	693,547	789,806	983,398	912,378	1,126,249	1,106,032	(20,217)	-1.8%
5195102	6580 Service Award	39,367	40,470	37,752	39,484	42,035	45,132	3,097	7.4%
5195102	6590 Sick Pay	21,624	22,798	21,386	21,183	26,518	27,372	854	3.2%
5195102	6619 Standby Pay	33,524	29,658	35,357	38,867	38,083	38,867	784	2.1%
5195102	6620 Overtime	117,524	143,861	141,999	237,848	145,000	145,000	-	0.0%
5195102	6622 Holiday Premium	642	1,283	699	2,837	-	-	-	0.0%
5195102	6880 Uniform Allowance	4,750	9,450	10,600	10,600	10,800	10,200	(600)	-5.6%
5195102	6885 Device Reimbursement	-	-	5,725	5,900	5,400	5,700	300	5.6%
5195102	6920 Unemployment Comp. Ins.	8,580	7,962	6,890	7,118	6,600	6,534	(66)	-1.0%
5195102	6930 Social Security Taxes	113,136	142,315	145,958	156,768	154,059	155,268	1,209	0.8%
5195102	6940 City Pension Plan	516,487	437,000	695,008	777,382	559,161	434,819	(124,342)	-22.2%
5195102	6941 Defined Contribution 401(a) Plan	7,335	21,093	22,360	26,077	30,608	27,461	(3,147)	-10.3%
5195102	6950 Term Life Insurance	6,659	7,485	7,378	8,920	7,680	15,787	8,107	105.6%
5195102	6960 Group Hospitalization Ins.	353,905	405,814	408,707	445,550	500,581	467,299	(33,282)	-6.6%
5195102	6961 Long-Term Disability Ins.	2,681	2,991	2,997	3,882	4,106	7,495	3,389	82.5%
5195102	6962 Dental Insurance	23,999	25,855	23,930	24,417	27,420	24,156	(3,264)	-11.9%
5195102	6963 Flexible Spending Account	168	184	173	189	63	-	(63)	-100.0%
5195102	6964 Health Savings Account	1,438	-	-	-	-	-	-	0.0%
5195102	6965 Post-Employment Benefits	151,300	165,539	132,090	84,405	125,098	120,717	(4,381)	-3.5%
5195102	6966 Retirement Health Savings Account	2,782	6,326	6,350	7,304	8,526	7,215	(1,311)	-15.4%
5195102	6967 Emergency Room Reimbursements	1,180	4,988	2,612	2,000	3,335	3,190	(145)	-4.3%
5195102	6968 Vision Insurance Premiums	1,171	1,239	1,227	1,273	1,401	1,282	(119)	-8.5%
<b>TOTAL PERSONNEL SERVICES</b>		<b>\$ 2,715,030</b>	<b>\$ 2,977,781</b>	<b>\$ 3,324,613</b>	<b>\$ 3,462,234</b>	<b>\$ 3,514,898</b>	<b>\$ 3,369,521</b>	<b>\$ (145,377)</b>	<b>-4.1%</b>

**ELECTRIC DEPARTMENT  
WAGE AND SALARY BUDGET - 2021**

Title	Union Affiliation	Grade	2020 # of Positions	2020 Approved	2021 # of Positions	2021 Requested	Position Difference	\$ Difference	% Change
<b>FULL TIME POSITIONS</b>									
Director Of Electric	MGMT	34	1.0	\$ 117,882	1.0	\$ 123,121	0.0	\$ 5,239	4.4%
Deputy Director Of Electric	MGMT	31	1.0	\$ 115,271	1.0	\$ 120,328	0.0	\$ 5,057	4.4%
Electric Superintendent	MGMT	26	1.0	\$ 98,481	1.0	\$ 102,795	0.0	\$ 4,314	4.4%
Engineering Technician	CWA F/T	14	1.0	\$ 69,620	1.0	\$ 73,453	0.0	\$ 3,833	5.5%
Purchasing Assistant	CWA F/T	13	1.0	\$ 67,766	1.0	\$ 71,381	0.0	\$ 3,615	5.3%
Senior Lineman	AFSCME LOCAL 3919 F/T	19	2.0	\$ 178,761	2.0	\$ 182,972	0.0	\$ 4,211	2.4%
Electric Meter Technician	AFSCME LOCAL 3919 F/T	17	1.0	\$ 86,247	1.0	\$ 88,270	0.0	\$ 2,023	2.3%
Electrician	AFSCME LOCAL 3919 F/T	17	3.0	\$ 252,056	3.0	\$ 260,091	0.0	\$ 8,035	3.2%
Lineman 1st Class	AFSCME LOCAL 3919 F/T	17	5.0	\$ 423,704	5.0	\$ 437,833	0.0	\$ 14,129	3.3%
Lineman 2nd Class	AFSCME LOCAL 3919 F/T	14	2.0	\$ 135,659	1.0	\$ 74,673	(1.0)	\$ (60,986)	-45.0%
Junior Lineman	AFSCME LOCAL 3919 F/T	10	2.0	\$ 114,440	2.0	\$ 123,423	0.0	\$ 8,983	7.8%
Storekeeper	AFSCME LOCAL 3919 F/T	10	1.0	\$ 67,579	1.0	\$ 69,613	0.0	\$ 2,034	3.0%
Electric Groundhand	AFSCME LOCAL 3919 F/T	5	2.0	\$ 90,958	2.0	\$ 98,074	0.0	\$ 7,116	7.8%
<b>Total Full Time Positions</b>			<b>23.0</b>	<b>\$ 1,818,424</b>	<b>22.0</b>	<b>\$ 1,826,027</b>	<b>(1.0)</b>	<b>\$ 7,603</b>	<b>0.4%</b>
<b>OTHER</b>									
Service Award				\$ 42,035		\$ 45,132		\$ 3,097	7.4%
Sick Pay				\$ 26,518		\$ 27,372		\$ 854	3.2%
Standby Pay				\$ 38,083		\$ 38,867		\$ 784	2.1%
Overtime				\$ 145,000		\$ 145,000		\$ -	0.0%
Uniform Allowance				\$ 10,800		\$ 10,200		\$ (600)	-5.6%
Device Reimbursements				\$ 5,400		\$ 5,700		\$ 300	5.6%
<b>Total Other</b>				<b>\$ 267,836</b>		<b>\$ 272,271</b>		<b>\$ 4,435</b>	<b>1.7%</b>
<b>Total All</b>			<b>23.0</b>	<b>\$ 2,086,260</b>	<b>22.0</b>	<b>\$ 2,098,298</b>	<b>(1.0)</b>	<b>\$ 12,038</b>	<b>0.6%</b>

**CITY OF NEWARK, DELAWARE  
2021 OPERATING BUDGET**

**Electric Fund - Electric Department**

**Expenditures:**

<b>MATERIALS AND SUPPLIES</b>			<b>2016 ACTUAL</b>	<b>2017 ACTUAL</b>	<b>2018 ACTUAL</b>	<b>2019 ACTUAL</b>	<b>2020 BUDGET AS AMENDED</b>	<b>2021 BUDGET</b>	<b>\$ DIFFERENCE FROM 2020-21</b>	<b>% DIFFERENCE FROM 2020-21</b>
5195103	7110	Safety Shoes and Supplies	\$ 4,250	\$ 5,520	\$ 6,571	\$ 7,425	\$ 6,600	\$ 7,425	\$ 825	12.5%
5195103	7130	Tools, Field Sup., & Small Eq.	29,843	37,819	34,672	33,224	40,000	40,000	-	0.0%
5195103	7131	Information Technology Supplies	-	-	3,227	18,586	30,000	5,000	(25,000)	-83.3%
5195103	7140	Uniforms	15,522	20,840	20,639	18,750	20,800	20,800	-	0.0%
5195103	7150	Office Supplies	2,228	1,257	2,949	3,496	3,500	3,500	-	0.0%
5195103	7160	Books, Periodicals, Etc	716	1,451	462	166	780	780	-	0.0%
5195103	7260	Line Maintenance	80,403	120,782	98,889	136,844	110,000	110,000	-	0.0%
5195103	7270	Station Maintenance	24,322	39,621	26,829	30,449	50,000	78,450	28,450	56.9%
5195103	7300	Machinery & Equip. Maintenance	-	-	-	18	500	500	-	0.0%
5195103	7330	Meter Testing & Repairs	209	225	150	21	2,000	2,000	-	0.0%
5195103	7350	Traffic Signal Maintenance	-	495	-	-	950	-	(950)	-100.0%
5195103	7370	Street Light Maintenance	10,393	8,688	4,200	8,041	13,000	13,000	-	0.0%
5195103	7430	House Service Maintenance	6,647	20,719	19,461	29,423	23,500	41,000	17,500	74.5%
5195103	7480	Communication Equip. Maint.	240	557	-	5,418	500	500	-	0.0%
5195103	7540	Inventory Adjustment	603	(20,648)	(7,970)	(7,756)	-	-	-	0.0%
5195103	7550	Miscellaneous Supplies	1,012	992	5,269	2,760	1,250	-	(1,250)	-100.0%
<b>TOTAL MATERIALS AND SUPPLIES</b>			<b>\$ 176,388</b>	<b>\$ 238,318</b>	<b>\$ 215,348</b>	<b>\$ 286,865</b>	<b>\$ 303,380</b>	<b>\$ 322,955</b>	<b>\$ 19,575</b>	<b>6.5%</b>



**CITY OF NEWARK, DELAWARE  
2021 OPERATING BUDGET**

**Electric Fund - Electric Department**

**Expenditures:**

<b>CONTRACTUAL SERVICES</b>		<b>2016 ACTUAL</b>	<b>2017 ACTUAL</b>	<b>2018 ACTUAL</b>	<b>2019 ACTUAL</b>	<b>2020 BUDGET AS AMENDED</b>	<b>2021 BUDGET</b>	<b>\$ DIFFERENCE FROM 2020-21</b>	<b>% DIFFERENCE FROM 2020-21</b>
5195104	8010 Freight	\$ 202	\$ 115	\$ 848	\$ 722	\$ 950	\$ 950	\$ -	0.0%
5195104	8020 Advertising	1,418	749	641	1,745	800	800	-	0.0%
5195104	8030 Casualty Insurance	93,522	19,923	18,083	18,613	20,700	24,100	3,400	16.4%
5195104	8031 Insurance - Property	-	27,864	44,008	40,028	40,470	64,952	24,482	60.5%
5195104	8032 Insurance - Auto	-	12,740	24,682	23,740	25,327	25,796	469	1.9%
5195104	8033 Insurance - Broker	-	6,660	8,072	8,054	7,936	5,356	(2,580)	-32.5%
5195104	8035 Insurance - Worker's Compensation	-	-	-	66,080	93,500	93,500	-	0.0%
5195104	8040 Merchant Fees and Discounts	465,655	529,143	531,696	520,238	590,000	590,000	-	0.0%
5195104	8050 Phone/Communications	8,613	10,203	4,434	4,605	2,950	2,950	-	0.0%
5195104	8120 Outside Engineering (1)	67,232	40,428	62,430	35,660	50,000	90,000	40,000	80.0%
5195104	8130 Building & Equipment Rental	10,079	10,264	10,888	11,104	14,000	14,000	-	0.0%
5195104	8131 Information Technology Cont'l	78,984	168,469	143,454	156,254	216,276	223,780	7,504	3.5%
5195104	8190 Refuse Disposal	3,425	4,063	3,197	3,663	3,425	3,425	-	0.0%
5195104	8260 Line Maintenance	27,710	62,826	38,282	62,893	53,200	53,200	-	0.0%
5195104	8270 Station Maintenance	66,975	44,479	40,446	25,959	75,000	75,000	-	0.0%
5195104	8300 Machinery & Equip. Maintenance	5,772	5,927	4,992	4,392	8,120	8,120	-	0.0%
5195104	8311 Vehicle Accidents	-	-	(1,450)	-	-	-	-	0.0%
5195104	8312 Fleet & Facilities Services	-	167,153	716,786	239,348	227,041	230,357	3,316	1.5%
5195104	8313 Self-Insurance Services	-	-	75	1,876	-	-	-	0.0%
5195104	8420 Tree Removal	197,123	214,520	206,555	202,639	241,500	253,575	12,075	5.0%
5195104	8480 Communication Equip. Maint.	-	-	1,115	1,291	1,200	1,200	-	0.0%
5195104	8550 Misc. Contracted Services	13,036	4,203	2,402	4,425	5,000	5,000	-	0.0%
5195104	8570 Public Relations	-	-	116	256	10,000	10,000	-	0.0%
5195104	8899 Facilities Mowing	1,234	1,000	1,000	1,000	2,934	2,934	-	0.0%
<b>TOTAL CONTRACTUAL SERVICES</b>		<b>\$ 1,040,980</b>	<b>\$ 1,330,729</b>	<b>\$ 1,862,752</b>	<b>\$ 1,434,585</b>	<b>\$ 1,690,329</b>	<b>\$ 1,778,995</b>	<b>\$ 88,666</b>	<b>5.2%</b>

(1) Includes additional funding for 2017 rate study.

**CITY OF NEWARK, DELAWARE  
2021 OPERATING BUDGET**

**Electric Fund - Electric Department**

**Expenditures:**

<b>OTHER CHARGES</b>		<b>2016 ACTUAL</b>	<b>2017 ACTUAL</b>	<b>2018 ACTUAL</b>	<b>2019 ACTUAL</b>	<b>2020 BUDGET AS AMENDED</b>	<b>2021 BUDGET</b>	<b>\$ DIFFERENCE FROM 2020-21</b>	<b>% DIFFERENCE FROM 2020-21</b>
5195105	9001 Subvention - Utility Assistance	\$ -	\$ -	\$ -	\$ 24,720	\$ 25,000	\$ 25,000	\$ -	0.0%
5195105	9002 Subvention - Aetna Hook and Ladder	-	-	-	43,464	48,400	48,400	-	0.0%
5195105	9004 Subvention - Newark Senior Center	-	-	-	52,832	60,000	60,000	-	0.0%
5195105	9010 Bad Debt Expense	12,385	190,119	129,369	277,917	170,769	188,909	18,140	10.6%
5195105	9020 Mileage & Small Bus. Expense	82	87	2	127	140	140	-	0.0%
5195105	9040 Dues & Professional Organizations	3,562	-	-	-	-	-	-	0.0%
5195105	9056 Debt Service Principal - Smart Meters	516,064	526,828	537,805	549,024	560,477	572,183	11,706	2.1%
5195105	9057 Debt Service Interest - Smart Meters	104,081	93,307	82,305	71,075	60,171	48,486	(11,685)	-19.4%
5195105	9060 Depreciation Expense	178,349	189,580	201,740	206,585	192,675	194,273	1,598	0.8%
5195105	9070 Training & Continuing Educ/Conf	3,392	11,228	9,891	10,833	25,100	10,833	(14,267)	-56.8%
5195105	9091 Solar Rebate	1,597	1,516	1,754	1,442	-	1,500	1,500	100.0%
5195105	9092 Notional Solar Cost	26,452	23,724	22,552	21,723	22,000	22,000	-	0.0%
5195105	9093 Subvention Expense	60,000	60,134	60,321	5,140	-	-	-	0.0%
5195105	9094 Conservation Advisory Committee	-	1,044	1,160	4,253	100,000	100,000	-	0.0%
5195105	9099 Contingencies	706	-	-	-	-	-	-	0.0%
<b>TOTAL OTHER CHARGES</b>		<b>\$ 906,670</b>	<b>\$ 1,097,567</b>	<b>\$ 1,046,899</b>	<b>\$ 1,269,135</b>	<b>\$ 1,264,732</b>	<b>\$ 1,271,724</b>	<b>\$ 6,992</b>	<b>0.6%</b>

<b>INTER-DEPT. CHARGES</b>		<b>2016 ACTUAL</b>	<b>2017 ACTUAL</b>	<b>2018 ACTUAL</b>	<b>2019 ACTUAL</b>	<b>2020 BUDGET AS AMENDED</b>	<b>2021 BUDGET</b>	<b>\$ DIFFERENCE FROM 2020-21</b>	<b>% DIFFERENCE FROM 2020-21</b>
	Administrative Overhead	\$ 494,824	\$ 672,271	\$ 700,685	\$ 1,151,962	\$ 797,579	\$ 743,127	\$ (54,452)	-6.8%
	Billings and Accounting	364,211	308,049	492,026	391,988	459,021	438,450	(20,571)	-4.5%
	Buildings and Grounds	46,011	-	-	-	-	-	-	0.0%
	Electricity	(449,229)	(397,166)	(387,895)	(363,400)	(331,319)	(364,285)	(32,966)	9.9%
	Information Technology	244,142	83,848	86,381	58,119	90,640	91,699	1,059	1.2%
	Other Indirect Charges	(17,550)	(40,022)	(65,069)	(55,541)	(24,700)	(21,650)	3,050	-12.3%
	Printing and Reproduction	2,644	135	125	116	182	130	(52)	-28.6%
	Street Lights and Traffic Signals	(192,973)	(143,745)	(169,331)	(166,221)	(134,512)	(171,965)	(37,453)	27.8%
	Vehicles and Equipment	125,256	-	-	-	-	-	-	0.0%
	Warehousing	(39,664)	(28,416)	(38,464)	(28,975)	(24,042)	(27,501)	(3,459)	14.4%
<b>TOTAL INTER-DEPT. CHARGES</b>		<b>\$ 577,672</b>	<b>\$ 454,954</b>	<b>\$ 618,458</b>	<b>\$ 988,048</b>	<b>\$ 832,849</b>	<b>\$ 688,005</b>	<b>\$ (144,844)</b>	<b>-17.4%</b>

<b>OPERATING EXPENSES - ELECTRIC DEPARTMENT</b>		<b>2016 ACTUAL</b>	<b>2017 ACTUAL</b>	<b>2018 ACTUAL</b>	<b>2019 ACTUAL</b>	<b>2020 BUDGET AS AMENDED</b>	<b>2021 BUDGET</b>	<b>\$ DIFFERENCE FROM 2020-21</b>	<b>% DIFFERENCE FROM 2020-21</b>
<b>TOTAL OPERATING EXPENSES</b>		<b>\$ 5,416,740</b>	<b>\$ 6,099,349</b>	<b>\$ 7,068,070</b>	<b>\$ 7,440,867</b>	<b>\$ 7,606,188</b>	<b>\$ 7,431,200</b>	<b>\$ (174,988)</b>	<b>-2.3%</b>

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## **ELECTRIC DEPARTMENT**

# **2021-2025 CAPITAL IMPROVEMENT PROGRAM**

**CITY OF NEWARK, DELAWARE**  
**CAPITAL IMPROVEMENTS PROGRAM 2021-2025**  
(with current year amended budget)

**ELECTRIC FUND - ELECTRIC DEPARTMENT**

**FUNDING SUMMARY**

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	\$ 600,000	\$ 1,630,000	\$ 1,288,000	\$ 16,215,000	\$ 265,000	\$ 19,998,000
*Prior Authorized Balance:	\$ 70,000	\$ 320,000	\$ 2,000,000	\$ -	\$ -	\$ 2,390,000
2021-2025 Funding:	\$ 670,000	\$ 1,950,000	\$ 3,288,000	\$ 16,215,000	\$ 265,000	\$ 22,388,000

\*Prior Authorized Balance includes 2020 carryover funding only.

PROJECT NUMBER	PROJECT NAME	2020 BUDGET AS AMENDED	2021		2021	2022	2023	2024	2025	TOTAL
			RESERVES AND OTHER FUNDING	CURRENT FUNDING						
E2101	New Lines and Services	D \$ 130,000	\$ -	\$ 135,000	\$ 135,000	\$ 140,000	\$ 145,000	\$ 145,000	\$ 145,000	\$ 710,000
E2002	New Substation	B 300,000	-	200,000	200,000	-	2,000,000	15,700,000	-	17,900,000
E1911	35kV Line 3402 Capacity Upgrade	D -	-	-	-	250,000	250,000	-	-	500,000
E1912	35kV Disconnect Switches Replacement - Kershaw Substation	D -	-	-	-	150,000	150,000	150,000	-	450,000
E1805	Line Extension across UD Farm	D 150,000	-	-	-	320,000	-	-	-	320,000
E1806	Christianstead Underground Primary Cable Addition	D -	-	60,000	60,000	-	-	-	-	60,000
E1807	Relay Replacements - Kershaw Substation	D 50,000	-	50,000	50,000	50,000	50,000	-	-	150,000
E1808	Voltage Upgrade - North College Avenue	D 50,000	-	75,000	75,000	-	-	-	-	75,000
E1810	Lightning Arrestor Replacement	D -	-	-	-	-	235,000	-	-	235,000
E1602	Circuit Breaker Replacement	D 70,000	-	-	-	-	-	-	-	-
E1502	Underground Distribution - UD Star Campus	D 120,000	120,000	-	120,000	120,000	120,000	120,000	120,000	600,000
E1203	CAD Software	D 40,444	-	-	-	-	-	-	-	-
E0503	SCADA and Automatic Switching	D 250,000	-	-	-	450,000	-	-	-	450,000
E8510	Transformer Maintenance	B 24,162	-	-	-	-	-	-	-	-
EQSF	Equipment Replacement Program	D 297,000	11,281	18,719	30,000	470,000	338,000	100,000	-	938,000
<b>Total Electric Fund - Electric Department</b>		<b>\$ 1,481,606</b>	<b>\$ 131,281</b>	<b>\$ 538,719</b>	<b>\$ 670,000</b>	<b>\$ 1,950,000</b>	<b>\$ 3,288,000</b>	<b>\$ 16,215,000</b>	<b>\$ 265,000</b>	<b>\$ 22,388,000</b>

**PLANNED FINANCING SOURCES**

GROSS CAPITAL IMPROVEMENTS	\$ 1,481,606	\$ 131,281	\$ 538,719	\$ 670,000	\$ 1,950,000	\$ 3,288,000	\$ 16,215,000	\$ 265,000	\$ 22,388,000
LESS: USE OF RESERVES	(64,606)	-	-	-	(170,000)	(2,000,000)	-	-	(2,170,000)
VEHICLE & EQUIPMENT REPLACEMENT	(239,284)	(11,281)	-	(11,281)	(339,261)	(216,230)	(56,576)	-	(623,348)
GRANTS	-	-	-	-	-	-	-	-	-
BOND ISSUES	-	-	-	-	-	-	(15,700,000)	-	(15,700,000)
OTHER FINANCING SOURCES	(120,000)	(120,000)	-	(120,000)	(120,000)	(120,000)	(120,000)	(120,000)	(600,000)
<b>NET CAPITAL IMPROVEMENTS</b>	<b>\$ 1,057,716</b>	<b>\$ -</b>	<b>\$ 538,719</b>	<b>\$ 538,719</b>	<b>\$ 1,320,739</b>	<b>\$ 951,770</b>	<b>\$ 338,424</b>	<b>\$ 145,000</b>	<b>\$ 3,294,652</b>

\* Justification Codes:  
A - Return on Investment  
B - Public Safety  
C - Community Health  
D - Efficiency/Other



**PROJECT NO:** E2101  
**PROJECT TITLE:** New Lines and Services  
**PROJECT STATUS:** Reoccurring (with no end date)

**FUNDING SUMMARY:**

\*Prior Authorized Balance includes 2020 carryover funding only.

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	\$ 135,000	\$ 140,000	\$ 145,000	\$ 145,000	\$ 145,000	\$ 710,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2021-2025 Funding:	\$ 135,000	\$ 140,000	\$ 145,000	\$ 145,000	\$ 145,000	\$ 710,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Various locations in the City
PROJECT PRIORITY:	1 - Highest Priority Level Project underway and must be completed
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:
Installation of electric distribution lines in new developments. This includes both overhead and underground primary and secondary service lines. This project is required based on the obligation to serve new customers in the City.

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	Perpetual
Est. Completion Date:	Perpetual
Est. Useful Life (in years):	30 Yrs.
Est. Total Cost:	\$ 695,000
Est. Spend @ 12/31/2020 (if underway) <sup>1</sup> :	\$ 130,000
% Complete (if underway):	18.7%
Balance to be funded <sup>1</sup> :	\$ 565,000

<sup>1</sup> For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9860	\$ 305,100
Materials:	5195106.9760	\$ 259,900
Other Contracts:		\$ -
<b>TOTAL PROJECT COST</b>		<b>\$ 565,000</b>

<sup>2</sup> Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized <sup>2</sup>	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance <sup>2</sup> 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	130,000	238	129,762	\$ -	135,000	140,000	145,000	145,000	145,000	\$ 710,000
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
<b>TOTAL:</b>	<b>\$ 130,000</b>	<b>\$ 238</b>	<b>\$ 129,762</b>	<b>\$ -</b>	<b>\$ 135,000</b>	<b>\$ 140,000</b>	<b>\$ 145,000</b>	<b>\$ 145,000</b>	<b>\$ 145,000</b>	<b>\$ 710,000</b>
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET					2021	2022	2023	2024	2025	TOTAL
OPERATING IMPACT:										
INCREMENTAL COSTS (NET SAVINGS)					-	-	-	-	-	\$ -

**E2101: New Lines and Services**  
**Supporting Documentation - Page 1**

E2101





**PROJECT NO:** E2002  
**PROJECT TITLE:** New Substation  
**PROJECT STATUS:** In Progress (with end date)

**FUNDING SUMMARY:**

\*Prior Authorized Balance includes 2020 carryover funding only.

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	\$ 180,000	\$ -	\$ -	\$ 15,700,000	\$ -	\$ 15,880,000
*Prior Authorized Balance:	\$ 20,000	\$ -	\$ 2,000,000	\$ -	\$ -	\$ 2,020,000
2021-2025 Funding:	\$ 200,000	\$ -	\$ 2,000,000	\$ 15,700,000	\$ -	\$ 17,900,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Transfer Station on Old S. Chapel St.
PROJECT PRIORITY:	2 - High Priority Level
Critical need to remediate failing service, prevent failure, or generate savings	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:
The city needs a new substation to increase system reliability. Our existing Kershaw substation which feeds the entire city is almost 40 years old. Adding another substation as a source improves system reliability as well as the capacity. Our existing infrastructure is not capable of handling the load increase at the STAR campus. This new substation will help with load increase at the STAR campus as well.

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2019
Est. Completion Date:	2024
Est. Useful Life (in years):	50
Est. Total Cost:	\$ 18,000,000
Est. Spend @ 12/31/2020 (if underway) <sup>1</sup> :	\$ 100,000
% Complete (if underway):	0.6%
Balance to be funded <sup>1</sup> :	\$ 17,900,000

<sup>1</sup> For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:		
Materials:		
Other Contracts:	5195106.9730	\$ 17,900,000
TOTAL PROJECT COST		\$ 17,900,000

<sup>2</sup> Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized <sup>2</sup>	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance <sup>2</sup> 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	300,000	-	100,000	\$ 200,000	200,000	-	-	-	-	\$ 200,000
CAPITAL RESERVES	2,000,000	-	-	\$ 2,000,000	-	-	2,000,000	-	-	\$ 2,000,000
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	15,700,000	-	\$ 15,700,000
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER Future Capital Projects Reserve	-	-	-	\$ -	-	-	-	-	-	\$ -
<b>TOTAL:</b>	<b>\$ 2,300,000</b>	<b>\$ -</b>	<b>\$ 100,000</b>	<b>\$ 2,200,000</b>	<b>\$ 200,000</b>	<b>\$ -</b>	<b>\$ 2,000,000</b>	<b>\$ 15,700,000</b>	<b>\$ -</b>	<b>\$ 17,900,000</b>
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:				2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)				-	-	-	-	-	\$ -



E2002: New Substation  
Supporting Documentation - Page 1





**PROJECT NO:** E1911  
**PROJECT TITLE:** 35kV Line 3402 Capacity Upgrade  
**PROJECT STATUS:** In Progress (with end date)

**FUNDING SUMMARY:**

\*Prior Authorized Balance includes 2020 carryover funding only.

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	\$ -	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ 500,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2021-2025 Funding:	\$ -	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ 500,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Various locations in the City
PROJECT PRIORITY:	4 - Medium
<small>This project is a NEED and not a WANT, but no significant risk in the deferral of this item</small>	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:
This project will upgrade the aerial and underground cable on 35kV line 3402 to ensure capacity and reliable back-up capacity to the Phillips substation, Chestnut Hill substation, Sandy Brae substation and West Main substation. This upgrade will also allow us to tie this feeder to the new substation in the future if needed.

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2019
Est. Completion Date:	2023
Est. Useful Life (in years):	30
Est. Total Cost:	\$ 500,000
Est. Spend @ 12/31/2020 (if underway) <sup>1</sup> :	\$ -
% Complete (if underway):	0.0%
Balance to be funded <sup>1</sup> :	\$ 500,000

<sup>1</sup> For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

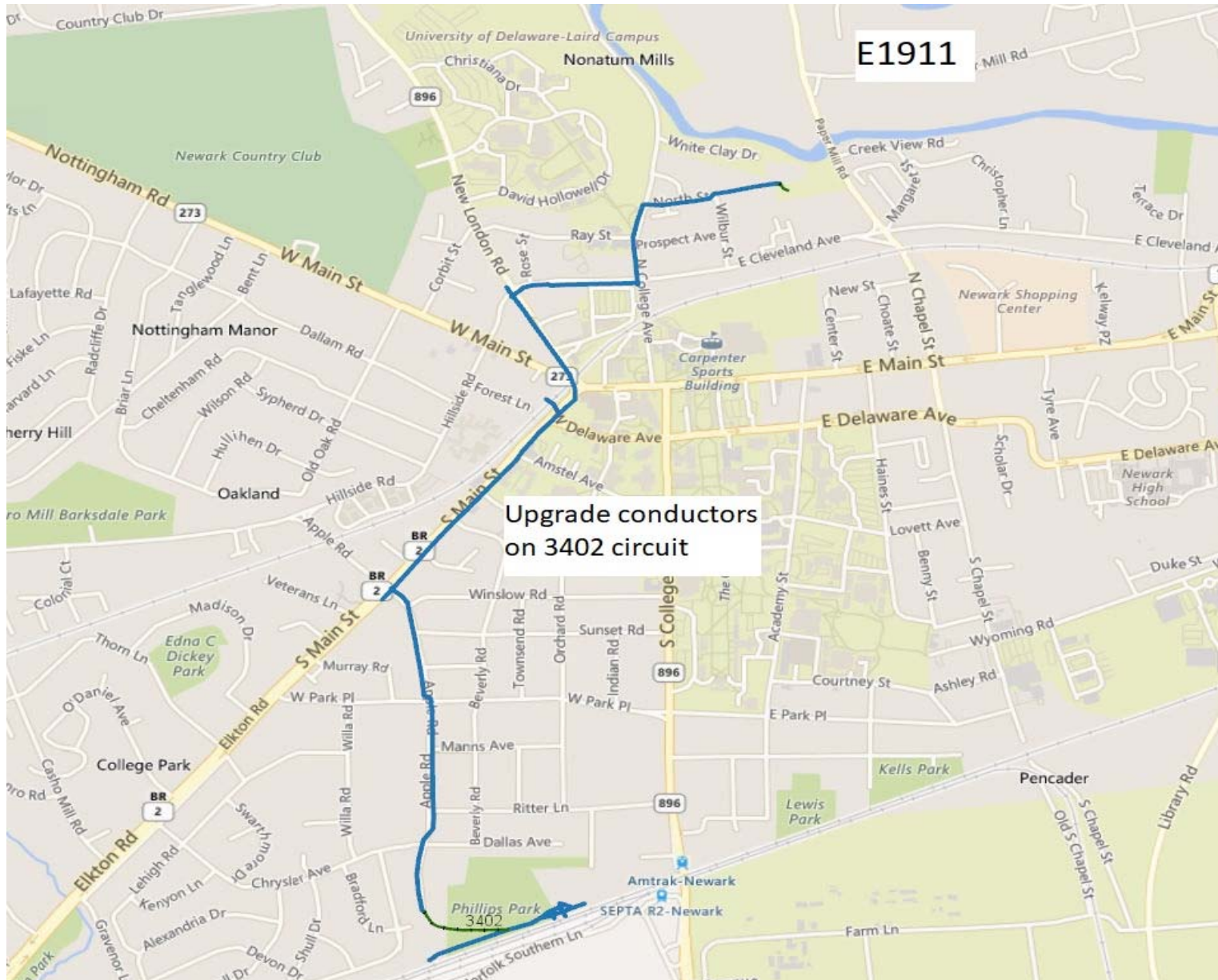
PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9860	\$ 160,000
Materials:	5195106.9760	\$ 340,000
Other Contracts:		\$ -
<b>TOTAL PROJECT COST</b>		<b>\$ 500,000</b>

<sup>2</sup> Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized <sup>2</sup>	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance <sup>2</sup> 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	\$ -	-	250,000	250,000	-	-	\$ 500,000
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
<b>TOTAL:</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 250,000</b>	<b>\$ 250,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 500,000</b>
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET			OPERATING IMPACT:		2021	2022	2023	2024	2025	TOTAL
			INCREMENTAL COSTS (NET SAVINGS)		-	-	-	-	-	\$ -



# E1911: 35kV Line 3402 Capacity Upgrade Supporting Documentation - Page 1





**PROJECT NO:** E1912  
**PROJECT TITLE:** 35kV Disconnect Switches Replacement - Kershaw Substation  
**PROJECT STATUS:** In Progress (with end date)

**FUNDING SUMMARY:**

\*Prior Authorized Balance includes 2020 carryover funding only.

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	\$ -	\$ 150,000	\$ 150,000	\$ 150,000	\$ -	\$ 450,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2021-2025 Funding:	\$ -	\$ 150,000	\$ 150,000	\$ 150,000	\$ -	\$ 450,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Kershaw Substation
PROJECT PRIORITY:	3 - Medium-High
The City would be taking a calculated risk in the deferral of this item	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:
This project will replace 40 year old 35kV disconnect switches at Kershaw Substaion.

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2019
Est. Completion Date:	2024
Est. Useful Life (in years):	20
Est. Total Cost:	\$ 450,000
Est. Spend @ 12/31/2020 (if underway) <sup>1</sup> :	\$ -
% Complete (if underway):	0.0%
Balance to be funded <sup>1</sup> :	\$ 450,000

<sup>1</sup> For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9830	\$ 150,000
Materials:	5195106.9730	\$ 300,000
Other Contracts:		\$ -
<b>TOTAL PROJECT COST</b>		<b>\$ 450,000</b>

<sup>2</sup> Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized <sup>2</sup>	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance <sup>2</sup> 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	\$ -	-	150,000	150,000	150,000	-	\$ 450,000
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
<b>TOTAL:</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 150,000</b>	<b>\$ 150,000</b>	<b>\$ 150,000</b>	<b>\$ -</b>	<b>\$ 450,000</b>
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET			OPERATING IMPACT:		2021	2022	2023	2024	2025	TOTAL
			INCREMENTAL COSTS (NET SAVINGS)		-	-	-	-	-	\$ -

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**PROJECT NO:** E1805  
**PROJECT TITLE:** Line Extension across UD Farm  
**PROJECT STATUS:** In Progress (with end date)

**FUNDING SUMMARY:**

\*Prior Authorized Balance includes 2020 carryover funding only.

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
*Prior Authorized Balance:	\$ -	\$ 320,000	\$ -	\$ -	\$ -	\$ 320,000
2021-2025 Funding:	\$ -	\$ 320,000	\$ -	\$ -	\$ -	\$ 320,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	University of Delaware: Farm
PROJECT PRIORITY:	4 - Medium
<small>This project is a NEED and not a WANT, but no significant risk in the deferral of this item</small>	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:
To ensure capacity and reliable back-up capacity to the Star Campus, the University of Delaware South Campus and City customers on South College Avenue, it is proposed to install a new 12,470 volt circuit from Old South Chapel Street to South College Avenue through the University of Delaware Farm. This project is based on approval from the University of Delaware.

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2018
Est. Completion Date:	2023
Est. Useful Life (in years):	30
Est. Total Cost:	\$ 320,000
Est. Spend @ 12/31/2020 (if underway) <sup>1</sup> :	\$ -
% Complete (if underway):	0.0%
Balance to be funded <sup>1</sup> :	\$ 320,000

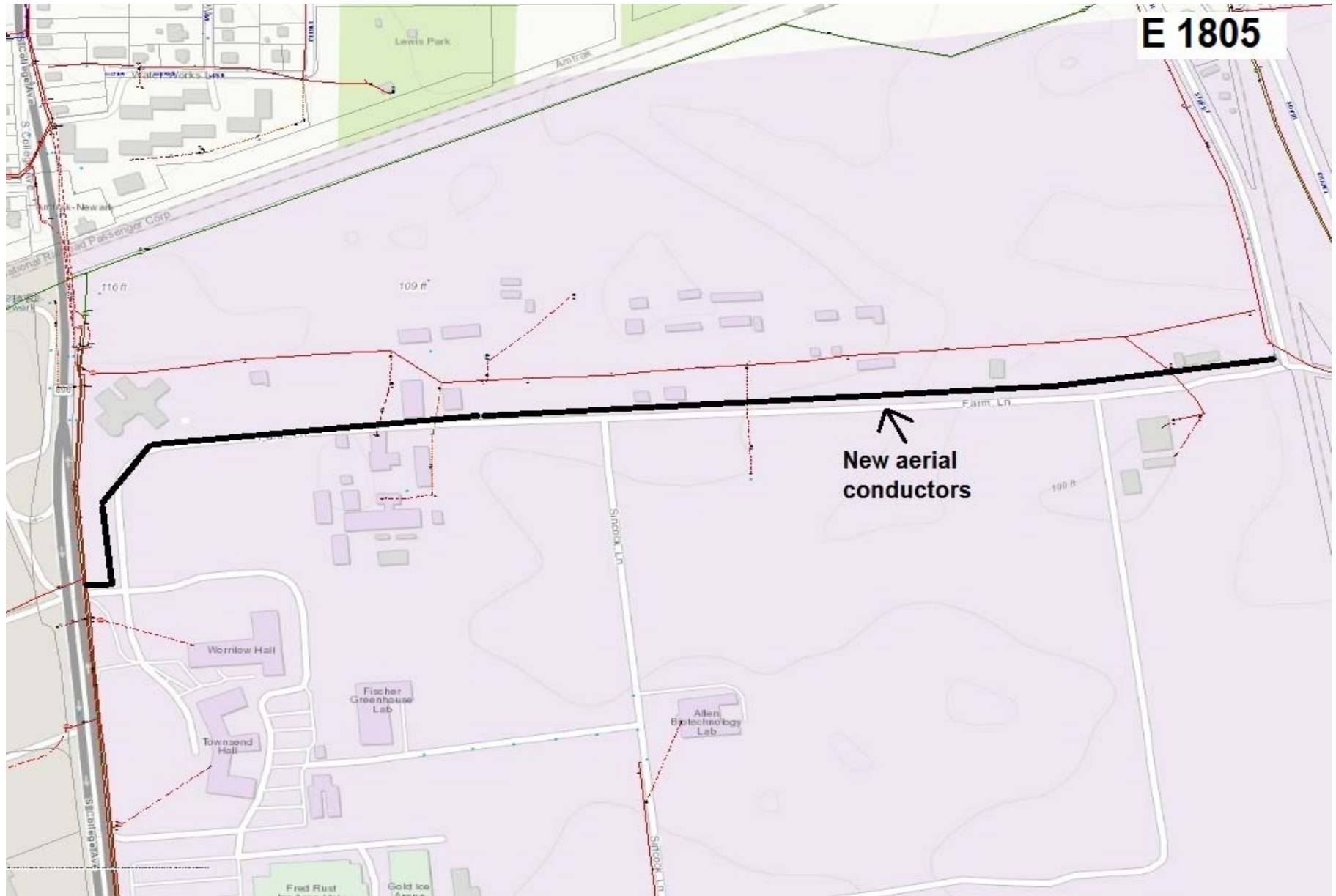
<sup>1</sup> For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9860	\$ 160,000
Materials:	5195106.9760	\$ 160,000
Other Contracts:		\$ -
<b>TOTAL PROJECT COST</b>		<b>\$ 320,000</b>

<sup>2</sup> Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized <sup>2</sup>	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance <sup>2</sup> 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	150,000	-	-	\$ 150,000	-	150,000	-	-	-	\$ 150,000
CAPITAL RESERVES	170,000	-	-	\$ 170,000	-	170,000	-	-	-	\$ 170,000
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
<b>TOTAL:</b>	<b>\$ 320,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 320,000</b>	<b>\$ -</b>	<b>\$ 320,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 320,000</b>
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:				2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)				-	-	-	-	-	\$ -

**E1805: Line Extension - UD Farm  
Supporting Documentation - Page 1**





**PROJECT NO:** E1806  
**PROJECT TITLE:** Christianstead Underground Primary Cable Addition  
**PROJECT STATUS:** In Progress (with end date)

**FUNDING SUMMARY:**

\*Prior Authorized Balance includes 2020 carryover funding only.

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ 60,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2021-2025 Funding:	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ 60,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Christianstead
PROJECT PRIORITY:	4 - Medium
<small>This project is a NEED and not a WANT, but no significant risk in the deferral of this item</small>	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:
An additional underground high voltage cable is needed in Christianstead to balance load during emergency conditions when an existing high voltage cable fails. When we experience a cable failure, the remaining cable can not be fused properly to coordinate with upstream fuses.

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2018
Est. Completion Date:	2021
Est. Useful Life (in years):	30
Est. Total Cost:	\$ 60,000
Est. Spend @ 12/31/2020 (if underway) <sup>1</sup> :	\$ -
% Complete (if underway):	0.0%
Balance to be funded <sup>1</sup> :	\$ 60,000

<sup>1</sup> For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

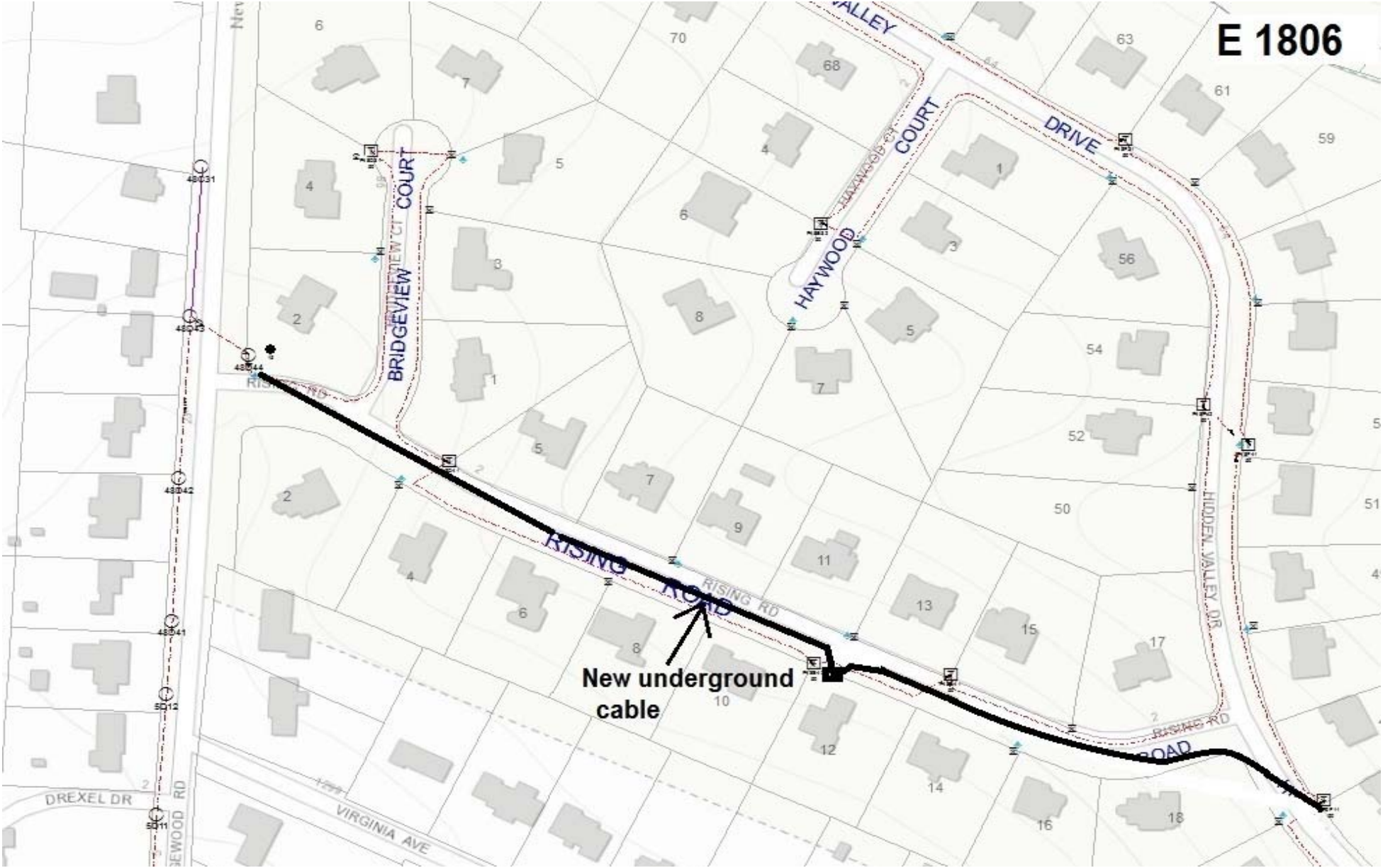
PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9860	\$ 15,000
Materials:	5195106.9760	\$ 45,000
Other Contracts:		\$ -
<b>TOTAL PROJECT COST</b>		<b>\$ 60,000</b>

<sup>2</sup> Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized <sup>2</sup>	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance <sup>2</sup> 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	\$ -	60,000	-	-	-	-	\$ 60,000
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
<b>TOTAL:</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 60,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 60,000</b>
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:				2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)				-	-	-	-	-	\$ -



E1806: Christianstead Underground Primary Cable Addition  
Supporting Documentation - Page 1





**PROJECT NO:** E1807  
**PROJECT TITLE:** Relay Replacements - Kershaw Substation  
**PROJECT STATUS:** In Progress (with end date)

**FUNDING SUMMARY:**

\*Prior Authorized Balance includes 2020 carryover funding only.

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	\$ 50,000	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ 150,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2021-2025 Funding:	\$ 50,000	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ 150,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Kershaw Substation
PROJECT PRIORITY:	2 - High Priority Level
Critical need to remediate failing service, prevent failure, or generate savings	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2018
Est. Completion Date:	2023
Est. Useful Life (in years):	20
Est. Total Cost:	\$ 200,000
Est. Spend @ 12/31/2020 (if underway) <sup>1</sup> :	\$ 50,000
% Complete (if underway):	25.0%
Balance to be funded <sup>1</sup> :	\$ 150,000

<sup>1</sup> For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9830	\$ 52,500
Materials:	5195106.9730	\$ 97,500
Other Contracts:		\$ -
<b>TOTAL PROJECT COST</b>		<b>\$ 150,000</b>

<sup>2</sup> Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:
This project will replace electro mechanical relays on circuit breakers 7, 8 and 9 at Kershaw Substation and connect them to the SCADA system. This will allow us to see breaker status and also have remote control.

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized <sup>2</sup>	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance <sup>2</sup> 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	50,000	-	50,000	\$ -	50,000	50,000	50,000	-	-	\$ 150,000
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
<b>TOTAL:</b>	<b>\$ 50,000</b>	<b>\$ -</b>	<b>\$ 50,000</b>	<b>\$ -</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 150,000</b>
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET			OPERATING IMPACT:		2021	2022	2023	2024	2025	TOTAL
			INCREMENTAL COSTS (NET SAVINGS)		-	-	-	-	-	\$ -



**PROJECT NO:** E1808  
**PROJECT TITLE:** Voltage Upgrade - North College Avenue  
**PROJECT STATUS:** In Progress (with end date)

**FUNDING SUMMARY:**

\*Prior Authorized Balance includes 2020 carryover funding only.

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ 25,000
*Prior Authorized Balance:	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000
2021-2025 Funding:	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ 75,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	North College Avenue
PROJECT PRIORITY:	5 - Low
This project is a NEED and not a WANT, but it can start in year two of this CIP or later	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:
Replace poles on North College Avenue and install a primary metering pole in preparation for a 4160 volt to 12470 volt upgrade of University buildings on North College Avenue.

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2018
Est. Completion Date:	2021
Est. Useful Life (in years):	30
Est. Total Cost:	\$ 75,000
Est. Spend @ 12/31/2020 (if underway) <sup>1</sup> :	\$ -
% Complete (if underway):	0.0%
Balance to be funded <sup>1</sup> :	\$ 75,000

<sup>1</sup> For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9860	\$ 25,000
Materials:	5195106.9760	\$ 50,000
Other Contracts:		\$ -
<b>TOTAL PROJECT COST</b>		<b>\$ 75,000</b>

<sup>2</sup> Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized <sup>2</sup>	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance <sup>2</sup> 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	50,000	-	-	\$ 50,000	75,000	-	-	-	-	\$ 75,000
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
<b>TOTAL:</b>	<b>\$ 50,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 50,000</b>	<b>\$ 75,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 75,000</b>
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET			OPERATING IMPACT:		2021	2022	2023	2024	2025	TOTAL
			INCREMENTAL COSTS (NET SAVINGS)		-	-	-	-	-	\$ -



**PROJECT NO:** E1810  
**PROJECT TITLE:** Lightning Arrestor Replacement  
**PROJECT STATUS:** In Progress (with end date)

**FUNDING SUMMARY:**

\*Prior Authorized Balance includes 2020 carryover funding only.

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	\$ -	\$ -	\$ 235,000	\$ -	\$ -	\$ 235,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2021-2025 Funding:	\$ -	\$ -	\$ 235,000	\$ -	\$ -	\$ 235,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Various locations in the City
PROJECT PRIORITY:	5 - Low
This project is a NEED and not a WANT, but it can start in year two of this CIP or later	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:
Replace older lightning arrestors on the 12.47kV system. This will prevent power outages and improve lightning protection on the distribution system.

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2018
Est. Completion Date:	2023
Est. Useful Life (in years):	30
Est. Total Cost:	\$ 235,000
Est. Spend @ 12/31/2020 (if underway) <sup>1</sup> :	\$ -
% Complete (if underway):	0.0%
Balance to be funded <sup>1</sup> :	\$ 235,000

<sup>1</sup> For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9860	\$ 180,000
Materials:	5195106.9760	\$ 55,000
Other Contracts:		\$ -
<b>TOTAL PROJECT COST</b>		<b>\$ 235,000</b>

<sup>2</sup> Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized <sup>2</sup>	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance <sup>2</sup> 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	\$ -	-	-	235,000	-	-	\$ 235,000
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
<b>TOTAL:</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 235,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 235,000</b>
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET			OPERATING IMPACT:		2021	2022	2023	2024	2025	TOTAL
			INCREMENTAL COSTS (NET SAVINGS)		-	-	-	-	-	\$ -



**PROJECT NO:** E1502  
**PROJECT TITLE:** Underground Distribution - UD Star Campus  
**PROJECT STATUS:** In Progress (with end date)

**FUNDING SUMMARY:**

\*Prior Authorized Balance includes 2020 carryover funding only.

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 600,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2021-2025 Funding:	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 600,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	University of Delaware: Star Campus
PROJECT PRIORITY:	1 - Highest Priority Level Project underway and must be completed
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:	
Underground electrical distribution equipment needed for the Star Campus. Expenditures to be reimbursed by the Developer or Customer.	

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2015
Est. Completion Date:	2025
Est. Useful Life (in years):	30
Est. Total Cost:	\$ 720,000
Est. Spend @ 12/31/2020 (if underway) <sup>1</sup> :	\$ 120,000
% Complete (if underway):	0.0%
Balance to be funded <sup>1</sup> :	\$ 600,000

<sup>1</sup> For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:		\$ -
Materials:		\$ -
Other Contracts:	5195106.9760	\$ 600,000
<b>TOTAL PROJECT COST</b>		<b>\$ 600,000</b>

<sup>2</sup> Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized <sup>2</sup>	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance <sup>2</sup> 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	\$ -	-	-	-	-	-	\$ -
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER Developer or Customer	120,000	-	120,000	\$ -	120,000	120,000	120,000	120,000	120,000	\$ 600,000
<b>TOTAL:</b>	<b>\$ 120,000</b>	<b>\$ -</b>	<b>\$ 120,000</b>	<b>\$ -</b>	<b>\$ 120,000</b>	<b>\$ 120,000</b>	<b>\$ 120,000</b>	<b>\$ 120,000</b>	<b>\$ 120,000</b>	<b>\$ 600,000</b>
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:				2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)				-	-	-	-	-	\$ -



**PROJECT NO:** E0503  
**PROJECT TITLE:** SCADA and Automatic Switching  
**PROJECT STATUS:** In Progress (with end date)

**FUNDING SUMMARY:**

\*Prior Authorized Balance includes 2020 carryover funding only.

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	\$ -	\$ 450,000	\$ -	\$ -	\$ -	\$ 450,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2021-2025 Funding:	\$ -	\$ 450,000	\$ -	\$ -	\$ -	\$ 450,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Various locations in the City
PROJECT PRIORITY:	3 - Medium-High
The City would be taking a calculated risk in the deferral of this item	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2005
Est. Completion Date:	2022
Est. Useful Life (in years):	20
Est. Total Cost:	\$ 2,574,217
Est. Spend @ 12/31/2020 (if underway) <sup>1</sup> :	\$ 2,124,217
% Complete (if underway):	82.5%
Balance to be funded <sup>1</sup> :	\$ 450,000

<sup>1</sup> For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9860	\$ 90,000
Materials:	5195106.9760	\$ 310,500
Other Contracts:	5195106.9960	\$ 49,500
TOTAL PROJECT COST		\$ 450,000

<sup>2</sup> Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:	
<p>The auto transfer system will allow intelligent transfer of substations on the 34.5kV subtransmission system using reclosers to isolate a faulted circuit and switch a substation to a different circuit if all logic conditions are met. Large outages will be reduced to about a minute and a notification of a transfer will be sent to on call personnel to investigate.</p> <p>Also includes (previous CIP E1802) - 15kV Automatic Switching:</p> <p>This project will add 8 - 15kV reclosers to the existing automation software in 2018 to improve reliability to customers at the Delaware Technology Park and customers on Bellevue Road. The reclosers will automatically isolate a faulted circuit and switch the customers to a different circuit if the alternate circuit is available. In 2019, 11 reclosers (roughly \$22,700 each) will be installed to improve reliability to the UD Center Campus and North Campus. In 2022, 10 reclosers (roughly \$45,000 each) were installed on South College and the Christina Parkway to improve reliability to the UD South Campus and the Star Campus.</p> <p>Our existing SCADA system has become a legacy system so our SCADA provider has proposed to the City to upgrade our existing SCADA system to a newer platform in order to keep up with the industrial standards.</p>	

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized <sup>2</sup>	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance <sup>2</sup> 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	250,000	-	250,000	\$ -	-	450,000	-	-	-	\$ 450,000
CAPITAL RESERVES	650,026	100,817	549,209	\$ -	-	-	-	-	-	-
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	-
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	-
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	-
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	-
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	-
<b>TOTAL:</b>	<b>\$ 900,026</b>	<b>\$ 100,817</b>	<b>\$ 799,209</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 450,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 450,000</b>
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:				2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)				-	-	-	-	-	\$ -

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**PROJECT NO:** EEQS  
**PROJECT TITLE:** Equipment Replacement Program  
**PROJECT STATUS:** Reoccurring (with no end date)

**FUNDING SUMMARY:**

\*Prior Authorized Balance includes 2020 carryover funding only.

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	\$ 30,000	\$ 470,000	\$ 338,000	\$ 100,000	\$ -	\$ 938,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2021-2025 Funding:	\$ 30,000	\$ 470,000	\$ 338,000	\$ 100,000	\$ -	\$ 938,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Various
PROJECT PRIORITY:	1 - Highest Priority Level Project underway and must be completed
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	Perpetual
Est. Completion Date:	Perpetual
Est. Useful Life (in years):	Various
Est. Total Cost:	\$ 1,444,078
Est. Spend @ 12/31/2020 (if underway) <sup>1</sup> :	\$ 506,078
% Complete (if underway):	35.0%
Balance to be funded <sup>1</sup> :	\$ 938,000

<sup>1</sup> For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:		\$ -
Materials:		\$ -
Other Contracts:	5195106.9623	\$ 938,000
<b>TOTAL PROJECT COST</b>		<b>\$ 938,000</b>

<sup>2</sup> Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:	
Planned advance funding accumulated through depreciation to replace essential equipment when necessary.	
Please reference the supporting documentation on the following page for the Vehicle Replacement Program Schedule (2021-2025).	

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized <sup>2</sup>	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance <sup>2</sup> 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	57,716	-	57,716	\$ -	18,719	130,739	121,770	43,424	-	\$ 314,652
CAPITAL RESERVES	209,078	-	209,078	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	239,284	-	239,284	\$ -	11,281	339,261	216,230	56,576	-	\$ 623,348
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
<b>TOTAL:</b>	<b>\$ 506,078</b>	<b>\$ -</b>	<b>\$ 506,078</b>	<b>\$ -</b>	<b>\$ 30,000</b>	<b>\$ 470,000</b>	<b>\$ 338,000</b>	<b>\$ 100,000</b>	<b>\$ -</b>	<b>\$ 938,000</b>
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:				2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)				-	-	-	-	-	\$ -



**CITY OF NEWARK, DELAWARE  
VEHICLE REPLACEMENT PROGRAM SCHEDULE 2021-2025  
ELECTRIC UTILITY**

VEHICLE NUMBER	DESCRIPTION	PURCHASE DATE	PURCHASE PRICE	MILEAGE AS OF 7/31/2019	RECOM'D MILEAGE AT REPL	NORMAL YEARS LIFE	NORMAL REPL YEAR	BUDGET REPL YEAR	EQUIPMENT SINKING FUND BASIS	REPLACEMENT COSTS					
										2021	2022	2023	2024	2025	
<b>STAFF VEHICLES</b>															
103	2018 Dodge Ram 2500, 4x4 Crew Cab	09/07/18	31,676	9,547	70,000	5	2018	2024	31,676				50,000		
116	2008 Ford Focus Sedan	06/06/08	11,281	64,640	60,000	9	2017	2021	11,281	30,000					
120	2012 Toyota Camry Hybrid	03/19/12	24,718	14,806	70,000	10	2022	2023	24,718			38,000			
<b>LINE TRUCKS</b>															
100	1997 Int'l 4700 Stake Truck	d. 03/14/97	39,285	57,370	110,000	--	--	--	39,285						
101	2017 Int'l 4300 Bucket Truck	c. 01/13/17	174,983	18,011	75,000	8	2025	2025	174,983						
104	2013 International 7400 Digger	a. 09/21/12	228,003	40,690	75,000	8	2020	2020	228,003						
105	2020 Freightliner M2 Class 8	10/28/19	267,258	--	--	8	2019	2027	267,258						
115	2008 EZ Hauler 4100 Mini Digger Derrick	09/12/08	120,732	--	--	8	2016	2022	120,732		155,000				
122	2017 Int'l 4300 Bucket Truck	c. 01/13/17	197,637	14,304	65,000	8	2025	2025	197,637						
124	2020 Int'l MV607 Versalift VN-55	b. --	--	--	--	8	2018	2020	-						
126	2018 Dodge Ram 2500, 4x4 Crew Cab	09/07/18	32,729	10,980	90,000	8	2018	2027	32,729						
130	2013 Ford F750 Aerial Lift	01/14/14	176,500	29,627	75,000	8	2022	2022	176,500		250,000				
147	2015 Ford F750 Bucket Truck	07/31/15	164,100	23,211	75,000	8	2023	2023	164,100			250,000			
<b>PICK-UPS &amp; VANS</b>															
129	2011 Ford 3/4 Ton Utility Body	07/02/10	27,412	40,660	90,000	10	2020	2023	27,412			50,000			
132	2008 GMC Sierra 2500 Pickup Truck	10/03/08	20,579	42,861	65,000	10	2018	2022	20,579		35,000				
145	2017 Ford F250 Super Duty Utility Body 4x4	08/11/17	37,552	7,982	65,000	10	2027	2027	37,552						
<b>OTHER EQUIPMENT</b>															
154	2005 Daewoo 5K Forklift	10/14/05	21,450	--	--	10	2015	2022	21,450		30,000				
155	2008 Komatsu FG45T 10K Forklift	11/30/15	24,900	--	--	10	2019	2024	24,900				50,000		
<b>TOTAL ELECTRIC UTILITY</b>															
										<b>GROSS ACQUISITION COST</b>	<b>\$ 30,000</b>	<b>\$ 470,000</b>	<b>\$ 338,000</b>	<b>\$ 100,000</b>	<b>\$ -</b>
										LESS: USE OF CAPITAL RESERVES	-	-	-	-	-
										LESS: USE OF CURRENT RESOURCES	(18,719)	(130,739)	(121,770)	(43,424)	-
										<b>NET EQUIPMENT SINKING FUND TOTAL</b>	<b>\$ 11,281</b>	<b>\$ 339,261</b>	<b>\$ 216,230</b>	<b>\$ 56,576</b>	<b>\$ -</b>

- a. This vehicle is scheduled to be replaced in 2020.
- b. This vehicle was recently replaced in 2020. Details to be provided.
- c. 2025 Replacement Cost will be added when estimate received
- d. This vehicle will not be replaced.



## **ELECTRIC DEPARTMENT**

### **APPENDICES**

CITY OF NEWARK, DELAWARE  
ELECTRIC DEPARTMENT  
APPENDIX A - OBJECT CODE 7131 AND 8131 - (2020 AND 2021 BUDGET COMPARISON)

ELECTRIC DEPARTMENT

Code	2021 IT Annual Operating Expense	Renewal	2020 Budget	2021 Budget	+/- Prior Year	Description
7131	Smart Meter Equipment Maintenance	As Needed	30,000.00	5,000.00	(25,000.00)	Proactive maintenance on smart meter wifi-network as well as batteries for 17 gatekeepers
8131	Auto Restoration System Software Maintenance	Annual	15,570.00	16,600.00	1,030.00	Electric Service Auto Restoration Software
8131	CYME Software Annual Maintenance	Annual	10,700.00	11,000.00	300.00	Electric Outage Simulation Software
8131	Elster License Fee (SLA) Tropos Software Maintenance - Allocated	Annual	35,000.00	35,000.00	-	Smart-Meter System (Wireless Infrastructure)
8131	Elster Software Maintenance - EAMS Allocated	Annual	13,000.00	13,742.00	742.00	Smart-Meter System (Radio Infrastructure)
8131	Esri Small Government ELA - Allocated	Annual	5,000.00	5,000.00	-	GIS Server, Client, Cloud Licensing
8131	FieldSense Application & Implementation	One Time	6,721.50	-	(6,721.50)	
8131	FieldSense Maintenance	Annual	1,750.00	1,850.00	100.00	
8131	Harris - Smartworks - Oracle Database Tuning - Allocated	Annual	8,700.00	8,936.00	236.00	Smart Meter System - Proactive Oracle Database Maintenance
8131	Harris - Smartworks Software Maintenance - Allocated	Annual	13,600.00	13,150.00	(450.00)	Smart-Meter System (Middleware)
8131	Harris - NorthStar Annual Maintenance - Allocated	Annual	30,753.00	37,920.00	7,167.00	Utility Billing Software (including Smart-Meter System)
8131	Oracle Software Subscription Renewal (Not Harris) - Allocated	Annual	2,500.00	2,584.00	84.00	Smart Meter - Oracle Database Software License
8131	Redhat Software Maintenance - Allocated	Annual	1,100.00	1,100.00	-	Smart Meter - Linux Operating System for Servers
8131	SagLine Software	Annual	1,000.00	1,000.00	-	Electrical Engineering Utility Weight and Span Software
8131	Scada System Licensing Maintenance	Annual	51,400.00	53,400.00	2,000.00	Electric SCADA HMI and Device Licenses
8131	Tyler Technologies Munis Annual Maintenance - Allocated	Annual	8,309.54	8,309.54	-	Tyler Technologies Munis - Finance and Accounting, Taxes, Permitting, Licenses, Work Order Management
8131	Verizon - Cellular/Data - Allocated	Monthly	7,700.00	10,716.00	3,016.00	Computer Mobile Internet Connectivity
8131	VOIP Networks - Cloud9 VOIP Subscription - Allocated	Monthly	3,472.22	3,472.22	-	VOIP Phone System
<i>7131 and 8131 Subtotals:</i>			246,276.26	228,779.76	(17,496.50)	
			<b>\$ 246,276.00</b>	<b>\$ 228,780.00</b>	<b>\$ (17,496.00)</b>	
<i>7131 Subtotal:</i>			30,000.00	5,000.00	(25,000.00)	
<i>8131 Subtotal:</i>			216,276.00	223,780.00	7,504.00	