Capital Improvement Program

FY 2018/19
- 2023/24

Lincoln Electric System



Lincoln Electric System

0679 G:LES Operations Center

Description:

Continue phased construction of a second LES operations facility (LOC) at 98th & Rokeby Rd. Upon completion, allocation of a portion of existing staff from the Walter A. Canney (WAC) Service Center, 27th & Fairfield, to the LOC and reallocation of downtown administrative activities to the LOC and WAC. Identify the placement of a location that will accept customer bill payments. This will provide LES with opportunities to better meet the needs of LES customers by providing an increased level of service reliability, mitigate the risk of having all materials and equipment at one location, and prepare for city growth.

Prior appropriations include actual monies spent in 2013-2017 plus the approved 2018 calendar year budgeted amount.

Also included in appropriations is actual monies spent on the purchase of the property. This was originally 0614 – G: Land – Service Center in 2012/2013 CIP

Costs for the LOC are projected to be higher than projected in the 2016 CIP submitted. When the 2016 CIP was developed, a \$72M estimate was based on the original facility study completed in 2012. This study included different phasing, assumed less square footage and did not take into account inflation through 2021 as compared to what is currently being built and designed.

(None)
(None)
12/31/2021
В
Continued
Generally Conforms with Plan

Project Total: \$104,845 Prior Appropriations: \$61,117

Project Total:\$104,845.00 Prior Appropriations \$61,117.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2022/2023 2019/2020 2020/2021 2021/2022 2023/2024 6 yr Total \$19,779.00 \$21,413.00 \$2,536.00 \$0.00 \$0.00 \$0.00 \$43,728.00 Lincoln Electric System

6 yr estimated cost by activity

<u>Activity type</u> <u>2018/2019</u> <u>2019/2020</u> <u>2020/2021</u> <u>2021/2022</u> <u>2022/2023</u> <u>2023/2024</u>

Construction X X X

0792 G:Communications

Description:

Various communication projects that are required to enhance customer service and system reliability. These include, but are not limited to, fiber, radio, and other types of communications equipment.

Group:	(None)
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	A
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$1,800.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2022/2023 2021/2022 2023/2024 6 yr Total \$300.00 \$300.00 \$300.00 \$1,800.00 \$300.00 \$300.00 \$300.00 Lincoln Electric System

6 yr estimated cost by activity

 Activity type
 2018/2019
 2019/2020
 2020/2021
 2021/2022
 2022/2023
 2023/2024

 Construction
 X
 X
 X
 X
 X
 X
 X
 X

0794 G:Meters

Description:

This project anticipates annually the purchase of varying solid state, programmable utility revenue meters for all electric services and all classes of LES customers (residential, commercial & industrial).

Group:	(None)
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	Α
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$1,605.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

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6 yr appropriations

Funding Source	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	6 yr Total
Lincoln Electric System	\$308.00	\$324.00	\$282.00	\$233.00	\$222.00	\$236.00	\$1,605.00
6 yr estimated cost by activity							
Activity type	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	

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0795 G:MMR Project

Description:

Construction

LES has transitioned to MMR meters (Mobile Meter Reading) for all residential and small commercial services in 2015/16.

Funding in 2017/18 & 19 are estimated projections as a continuation of the MMR project (phase 2). Funding allocated in 2017 was necessary for software upgrades which provided for optimization of the MMR meters and data collection. The 2018 MMR project funding will target the exchange of large commercial, industrial class services using cellular technology meters, capturing near real-time energy data and capable of customer event notification. The 2019 projection includes storing, accessing and managing large quantities of interval meter data captured from various metering devices in the LES System.

Note: This project was previously shown as part of "Overhead Transformers & Meters" in the 2012/2013 CIP. It was then shown as item 696, O:AMR Meter Conversion in the 2014/2015 CIP.

Group:	(None)
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	A
	Continued
Comp Plan Conformity:	Generally Conforms with Plan
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Project Total:\$8,300.00 Prior Appropriations \$4,700.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	6 yr Total
Lincoln Electric System	\$500.00	\$800.00	\$800.00	\$500.00	\$500.00	\$500.00	\$3,600.00
6 yr estimated cost by activity							
Activity type	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	
Other	X	X	X	X	X	X	

0117 T:Misc. Construction/Rebuild

Description:

Smaller, miscellaneous 115,000 volt and 345,000 volt transmission construction and rebuild projects that are of a repetitive nature and occur annually. These projects can be related to new construction, upgrades or rebuilds.

Group:	Transmission
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	В
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$537.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

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6 yr appropriations

Funding Source	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	6 yr Total
Lincoln Electric System	\$152.00	\$73.00	\$75.00	\$77.00	\$79.00	\$81.00	\$537.00
6 yr estimated cost by activity							
Activity type	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	

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0213 T:Relocations

Description:

Construction

Relocation of existing 115,000 volt and 345,000 volt transmission lines for external projects, as required.

Group:	Transmission
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	A
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

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Project Total:\$444.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	6 yr Total
Lincoln Electric System	\$69.00	\$71.00	\$73.00	\$75.00	\$77.00	\$79.00	\$444.00

6 yr estimated cost by activity

Activity type	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
Construction	X	X	X	Χ	Χ	Χ

0214 T:Right-of-Way/Easements

Description:

This item provides for purchasing right-of-way (ROW) and easements for transmission lines. Construction damages are also included in these estimates.

Group:	Transmission
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	A
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$876.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 6 yr Total 2023/2024 \$876.00 Lincoln Electric System \$0.00 \$0.00 \$258.00 \$206.00 \$206.00 \$206.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Land Acquisition X X X X X

0639 T:70th&Bluff - 190th&LittleSaltRd Upgrade

Description:

Upgrade about 12 miles of 161kV line from the 70th & Bluff Substation to 190th & Little Salt Road. This is a major upgrade that will replace aging infrastructure along existing corridor.

Group:	Transmission
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2023
Rating:	В
	Continued
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$7,260.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

2023/2024 **Funding Source** 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 6 yr Total \$3,630.00 \$3,630.00 \$7,260.00 Lincoln Electric System \$0.00 \$0.00 \$0.00 \$0.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X

0867 T: 56th, Garland - Everett

Description:

Rebuild 2.7 miles of the existing 115kV Line between 56th & Everett and 57th & Garland substations. The original poles were gas treated and do not have the life expectancy of a typical wood pole. The poles were inspected/tested/treated in late 2012. The existing 115kV line was installed in 1969 and 1970, will be 54/55 years old in 2024 and is reaching the end of its useful life. The new line will be constructed along the existing corridor.

Group:	Transmission
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2024
Rating:	В
Status:	
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$2,245.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2021/2022 2022/2023 2020/2021 2023/2024 6 yr Total \$0.00 \$2,245.00 Lincoln Electric System \$0.00 \$0.00 \$0.00 \$0.00 \$2,245.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 Construction X

0237 S:Misc Ongoing Construction

Description:

Various construction, rebuild and communication projects that are required to enhance customer service and reliability. This could include transformer replacement, landscaping/visual screening, terminal modifications, or other changes at existing substations.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	В
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$915.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total \$915.00 Lincoln Electric System \$194.00 \$172.00 \$131.00 \$135.00 \$139.00 \$144.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X X X X X X X X

0238 S:Substation Sites

Description:

Purchase land for substation sites as required for supporting continued growth. In this CIP, new sites are needed for substations near these proposed locations:

- SW 56th & K
- 128th & O
- 105th & Pioneers
- North 57th & Garland
- "Wind Project Interconnection"

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	В
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$1,516.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2021/2022 2022/2023 2020/2021 2023/2024 6 yr Total \$126.00 \$1,516.00 Lincoln Electric System \$430.00 \$534.00 \$138.00 \$142.00 \$146.00

6 yr estimated cost by activity

 Activity type
 2018/2019
 2019/2020
 2020/2021
 2021/2022
 2022/2023
 2023/2024

 Land Acquisition
 X
 X
 X
 X
 X
 X
 X
 X

0638 S:17th & Holdrege Transformer #2

Description:

Add a 115-12kV, 36 MVA transformer and associated switchgear at the existing 17th & Holdrege Substation. This capacity addition will support growth at University of Nebraska (City Campus), research corridor and the Nebraska Innovation Campus.

Sustainability: Substation transformers are economically evaluated including the life-cycle cost of electrical losses. This allows LES to purchase higher quality transformers with lower electrical losses (lower energy use and reduction of greenhouse gasses) while maintaining lowest overall cost for customers.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2027
Rating:	
	Continued
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$3,350.00 Prior Appropriations \$0.00 Costs Beyond: \$3,344.00

6 yr appropriations

2019/2020 **Funding Source** 2018/2019 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total Lincoln Electric System \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$6.00 \$6.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 Construction X

0682 S:91st & A Replace Transformer

Description:

This project will replace the existing 115-12kV, 28 MVA transformer (T721) with a new 36 MVA transformer and 12kV switchgear. Transformer T721 was manufactured in 1969, will be 55 years old in 2024 and is one of the oldest 115-12kV transformers in the system. This project acknowledges the need to start replacing older 115-12kV transformers based on the Substation Transformer Replacement Study. It will also provide additional capacity at the 91st & A Substation.

Sustainability: Substation transformers are economically evaluated including the life-cycle cost of electrical losses. This allows LES to purchase higher quality transformers with lower electrical losses (lower energy use and reduction of greenhouse gasses) while maintaining lowest overall cost for customers.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2024
Rating:	В
	Continued
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$3,581.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2020/2021 2019/2020 2021/2022 2022/2023 6 yr Total 2023/2024 \$0.00 Lincoln Electric System \$0.00 \$0.00 \$436.00 \$1,718.00 \$3,581.00 \$1,427.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X X X

0688 S:120th & Alvo Substation

Description:

Build a new 115-12kV substation near 120th & Alvo including a 115-12kV, 36 MVA transformer and associated switchgear. This substation will absorb all load currently served from the 35kV substation located at 108th & Alvo and provide additional capacity to support future growth in northeast Lincoln.

Sustainability: Substation transformers are economically evaluated including the life-cycle cost of electrical losses. This allows LES to purchase higher quality transformers with lower electrical losses (lower energy use and reduction of greenhouse gasses) while maintaining lowest overall cost for customers.

Prior costs are \$2,390 in 2018.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2019
Rating:	
	Continued
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$2,351.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total Lincoln Electric System \$2,351.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$2,351.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X

0690 S:Wind Project Interconnection

Description:

This project is initiated by the Southwest Power Pool (SPP) generation interconnection process and LES will be reimbursed for all associated project costs. The project adds a 3 terminal 115kV ring-bus switching substation near SW 42nd & West Pella Road connected to L1197. The estimate assumes a location immediately adjacent to the existing transmission line.

The project will happen only if the developer decides to construct the wind farm.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2019
Rating:	
	Continued
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$3,493.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2021/2022 2022/2023 2020/2021 2023/2024 6 yr Total \$3,493.00 \$3,493.00 Lincoln Electric System \$0.00 \$0.00 \$0.00 \$0.00 \$0.00

6 yr estimated cost by activity

<u>Activity type</u> <u>2018/2019</u> <u>2019/2020</u> <u>2020/2021</u> <u>2021/2022</u> <u>2022/2023</u> <u>2023/2024</u>

Construction X

0692 S:40th & Bennet Substation

Description:

This project adds a 3 terminal 115kV ring-bus switching substation near 40th & Bennet connected to 115kV lines to SW 7th & Bennet, 40th & Rokeby and 76th & Rokeby substations. The substation will be configured to accommodate the addition of a 115-12kV transformer and associated switchgear in the future.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2019
Rating:	
Status:	Continued
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$2,181.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total Lincoln Electric System \$2,156.00 \$25.00 \$0.00 \$0.00 \$0.00 \$0.00 \$2,181.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X

0693 S:20th & Pioneers Substation Replace Transformer

Description:

This project will replace the existing 115-12kV, 28 MVA transformer (T381) with a new 36 MVA transformer and 12kV switchgear. Transformer T381 was manufactured in 1970 and will be 51 years old in 2021. This project acknowledges the need to start replacing older 115-12kV transformers based on the Substation Transformer Replacement Study. It will also provide additional capacity at the 20th & Pioneers Substation.

Sustainability: Substation transformers are economically evaluated including the life-cycle cost of electrical losses. This allows LES to purchase higher quality transformers with lower electrical losses (lower energy use and reduction of greenhouse gasses) while maintaining lowest overall cost for customers.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2021
Rating:	
	Continued
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$3,503.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total \$3,503.00 Lincoln Electric System \$23.00 \$470.00 \$3,010.00 \$0.00 \$0.00 \$0.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024
Construction X X X X

0694 S:West Lincoln Substation Rebuild

Description:

Upgrade the 115kV West Lincoln substation which was constructed in approximately 1937. The project will enhance system reliability by reconfiguring the 115kV bus and replacing obsolete equipment. The project also includes retiring 115-35kV transformers T082 (41.6 MVA), T083 (50 MVA) and associated 35 kV bus work removed from service in 2017.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2020
Rating:	В
	Continued
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$6,055.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total Lincoln Electric System \$2,561.00 \$3,380.00 \$114.00 \$0.00 \$0.00 \$0.00 \$6,055.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 Construction X X X X

0790 S:57th & Garland Replace Transformer

Description:

This project will replace the existing 115-12kV, 28 MVA transformer (T621) with a new 36 MVA transformer and 12kV switchgear. This project acknowledges the need to start replacing older 115-12kV transformers based on the Substation Transformer Replacement Study.

Sustainability: Substation transformers are economically evaluated including the life-cycle cost of electrical losses. This allows LES to purchase higher quality transformers with lower electrical losses (lower energy use and reduction of greenhouse gasses) while maintaining lowest overall cost for customers.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2023
Rating:	В
	Continued
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$3,302.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total \$3,302.00 Lincoln Electric System \$0.00 \$0.00 \$15.00 \$421.00 \$2,866.00 \$0.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X X X

0842 S:NW56th & Morton Substation

Description:

Add a 115-12kV, 36 MVA transformer and associated switchgear in a new substation at NW 56th & Morton. This substation will support future growth in northwest Lincoln.

Sustainability: Substation transformers are economically evaluated including the life-cycle cost of electrical losses. This allows LES to purchase higher quality transformers with lower electrical losses (lower energy use and reduction of greenhouse gasses) while maintaining lowest overall cost for customers.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2022
Rating:	
	Continued
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$5,187.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

2018/2019 **Funding Source** 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total Lincoln Electric System \$0.00 \$0.00 \$1,795.00 \$3,392.00 \$0.00 \$0.00 \$5,187.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X

0868 S:56th & Q Replace Transformer

Description:

This project will replace the existing 115-12kV, 28 MVA transformer (T601) with a new 36 MVA transformer and 12kV switchgear. Transformer T601 was manufactured in 1969, will be 56 years old in 2025. This project advances replacement of older 115-12kV transformers in accordance with the Substation Transformer Replacement Study. It will also provide additional capacity at the 56th & Q Substation.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2025
Rating:	В
Status:	
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$3,538.00 Prior Appropriations \$0.00 Costs Beyond: \$3,064.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2021/2022 2022/2023 6 yr Total 2020/2021 2023/2024 \$474.00 Lincoln Electric System \$0.00 \$0.00 \$0.00 \$0.00 \$24.00 \$450.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X X

0869 S:40th & Gertie Replace Transformer

Description:

This project will replace the existing 115-12kV, 28 MVA transformer (T581) with a new 36 MVA transformer and 12kV switchgear. Transformer T581 was manufactured in 1974, will be 51 years old in 2025. This project advances replacement of older 115-12kV transformers in accordance with the Substation Transformer Replacement Study. It will also provide additional capacity at the 40th & Gertie Substation.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2025
Rating:	
Status:	
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$3,313.00 Prior Appropriations \$0.00 Costs Beyond: \$1,508.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total \$1,805.00 Lincoln Electric System \$0.00 \$0.00 \$0.00 \$0.00 \$51.00 \$1,754.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X

0870 S:56th & Everett Replace Transformer

Description:

This project will replace the existing 115-12kV, 28 MVA transformer (T561) with a new 36 MVA transformer and 12kV switchgear. Transformer T561 was manufactured in 1972, will be 54 years old in 2026. This project advances replacement of older 115-12kV transformers in accordance with the Substation Transformer Replacement Study. It will also provide additional capacity at the 56th & Everett Substation.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2026
Rating:	В
Status:	
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$3,725.00 Prior Appropriations \$0.00 Costs Beyond: \$3,678.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2021/2022 2022/2023 2020/2021 2023/2024 6 yr Total Lincoln Electric System \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$47.00 \$47.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X

0871 S:70th & Bluff Replace Transformer

Description:

This project recognizes the possibility of replacing the existing 161-115kV, 100 MVA transformer (T691) which was manufactured in 1956, will be 67 years old in 2023 and is the oldest transformer in the system. This transformer provides an inlet connection with the OPPD service area through 161kV Line 1559 which is proposed to be rebuilt in 2022/2023. LES will coordinate with OPPD to evaluate the appropriate capacity and timing for the transformer and determine if it should be installed at the 70th & Bluff substation or in a new substation constructed closer to the Lancaster-Saunders County line or inside the OPPD service area.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2023
Rating:	
Status:	
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$2,119.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

2018/2019 **Funding Source** 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total Lincoln Electric System \$0.00 \$0.00 \$0.00 \$296.00 \$1,823.00 \$0.00 \$2,119.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 Construction X X X

0872 S:NW68th & Holdrege Install Reactor

Description:

Install a 30 MVAR reactor connected to the 13.8kV tertiary of existing transformer T141 at the NW 68th & Holdrege substation. The reactor will provide additional reactive support on the high voltage transmission system to mitigate high voltage conditions experienced during low system load levels that may exceed the ratings of current 345kV breakers and other equipment.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2019
Rating:	В
Status:	
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$675.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2021/2022 2022/2023 2023/2024 2020/2021 6 yr Total Lincoln Electric System \$675.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$675.00

6 yr estimated cost by activity

<u>Activity type</u> <u>2018/2019</u> <u>2019/2020</u> <u>2020/2021</u> <u>2021/2022</u> <u>2022/2023</u> <u>2023/2024</u>

Construction X

0873 S:84th & Leighton Modifications

Description:

Upgrade the 115kV bus by replacing: aging insulators, breaker disconnect switches, transformer arrestors and neutral reactor at the 84th & Leighton substation. The project will also include: upgrading 115kV protective relays; modifications to increase capacities of 115kV lines currently limited by ampacity restrictions of existing equipment and improvements to enhance site security.

Modify the 35kV bus by: Optimizing the configuration and control of the 35kV capacitor banks.

Group:	Substation
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	12/31/2022
Rating:	В
Status:	
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$1,680.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total Lincoln Electric System \$0.00 \$0.00 \$917.00 \$763.00 \$0.00 \$0.00 \$1,680.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X

0073 O:Transformers

Description:

We will install approximately 100 pole-mounted transformers per year to serve new load and to replace old, deteriorated transformers.

Sustainability: All distribution transformers are economically evaluated including the life-cycle cost of electrical losses. This allows LES to purchase higher quality transformers with lower electrical losses (lower energy use and reduction of greenhouse gasses) while maintaining lowest overall cost for customers.

Group:	Overhead Distribution
•	
Program:	(None)
Budget Outcome:	
g	
Budget Goal:	
Date Anticipated:	
Date / titaloipatoui	
Rating:	A
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan
comp : ian comonnity.	

Project Total:\$1,087.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2021/2022 2019/2020 2020/2021 2022/2023 2023/2024 6 yr Total \$1,087.00 Lincoln Electric System \$168.00 \$173.00 \$179.00 \$184.00 \$189.00 \$194.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 Construction X X X X X X X X X X X

0074 O:Extensions

Description:

RESIDENTIAL EXTENSIONS: The residential extension item provides for the addition of primary (12,500 volt) and secondary lines (low voltage) to new residential customers or to existing residential customers for increased load. This item also covers removal of existing overhead facilities when a service is converted to underground. Most new service conductors are installed underground.

COMMERCIAL/INDUSTRIAL: A commercial/industrial extension is the addition of primary, secondary, or service facilities to a new customer or to an existing customer for increased load, where the customer is commercial or industrial.

Group:	Overhead Distribution
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	Α
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$1,540.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total Lincoln Electric System \$238.00 \$246.00 \$253.00 \$260.00 \$268.00 \$275.00 \$1,540.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X X X X X X X X

0076 O:Service Area Adjustments

Description:

LES and Norris have entered into a Joint Planning Agreement. The agreement calls for the planning in a Joint Planning Area and the orderly transition of service area from Norris to LES as required to keep all of the City of Lincoln within LES' service area. These adjustments will provide a buffer area around the city limits to allow planning for infrastructure in these areas.

Group:	Overhead Distribution
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	С
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$1,335.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 6 yr Total 2023/2024 \$1,050.00 \$1,335.00 Lincoln Electric System \$53.00 \$55.00 \$57.00 \$59.00 \$61.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 Construction X X X X X X X X X X X

0077 O:Rebuilds

Description:

The rebuild budget item is for replacement or removal of deteriorated (or otherwise obsolete) facilities. Some rebuild work will be associated with new or increased loads. Rebuild work will also be required on joint poles with the telephone company. We will also annually test about 2,000 poles and treat about 1,600 of these poles with preservative to extend their life.

Group:	Overhead Distribution
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	A
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$26,056.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total \$3,689.00 \$4,604.00 Lincoln Electric System \$4,211.00 \$4,339.00 \$4,470.00 \$4,743.00 \$26,056.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X X X X X X X X

0078 O:Relocations

Description:

This item provides for the relocation of existing overhead distribution facilities. This item also includes the overhead portion of an overhead-to-underground relocation project. Relocations are generally requested for federal, state, county, or city governmental agencies for road widening, sewer construction, etc. Customers also request relocation work for various projects. An "aid-to-construction", based on non-betterment cost to LES, is usually required for these projects. We anticipate relocating about 3-4 miles of overhead distribution lines annually.

Group:	Overhead Distribution
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	Α
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$914.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source	<u>2018/2019</u>	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	6 yr Total
Lincoln Electric System	\$142.00	\$146.00	\$150.00	\$154.00	\$159.00	\$163.00	\$914.00
6 yr estimated cost by activity							
Activity type	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	
Construction	X	X	X	X	X	X	

0079 O:Major Circuits

Description:

FEEDERS

This budget item provides for ongoing construction of new 12kV and 35kV feeders (main distribution circuits). Reconductoring of existing overhead feeders for capacity requirements and the installation of 600 amp disconnect switches for sectionalizing are also covered by this project.

Sustainability: Distribution feeder conductors are economically evaluated including the life-cycle cost of electrical losses. This allows LES to install higher capacity lines with lower electrical losses (lower energy use and reduction of greenhouse gasses) while maintaining lowest overall cost for customers.

CAPACITORS

This item provides for the installation of pole-mounted distribution capacitor banks. Capacitors are used for power factor correction on the distribution system. These capacitors provide a more economic operation by reducing unmetered electric losses in the distribution and transmission system. They also provide needed voltage support at peak load conditions. We plan to install 2 - 1,200 kVAR, radio-controlled, switched overhead capacitor banks per year. This item also includes funding to convert the existing radio-controlled system and some fixed banks to a new radio-controlled system due to obsolete equipment and lack of support.

Group:	Overhead Distribution
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	В
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$3,203.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source	2018/2019	<u>2019/2020</u>	<u>2020/2021</u>	<u>2021/2022</u>	<u>2022/2023</u>	<u>2023/2024</u>	<u>6 yr Total</u>
Lincoln Electric System	\$987.00	\$1,015.00	\$303.00	\$291.00	\$299.00	\$308.00	\$3,203.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X X X X X X X X X X

0081 U:Transformers

Description:

Based on projected customer growth, pad-mounted transformers will be purchased each year to serve new load and to replace existing transformers that are damaged or fail in service. Disposal of PCB-contaminated transformers is included in this project. This item also covers the standard installation charge for the new transformers (per FERC accounting).

Sustainability: All distribution transformers are economically evaluated including the life-cycle cost of electrical losses. This allows LES to purchase higher quality transformers with lower electrical losses (lower energy use and reduction of greenhouse gasses) while maintaining lowest overall cost for customers.

Group:	Underground Distribution
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	Α
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$7,925.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

2020/2021 **Funding Source** 2018/2019 2019/2020 2021/2022 2022/2023 6 yr Total 2023/2024 \$1,262.00 \$1,225.00 \$1,300.00 \$1,379.00 \$7,925.00 Lincoln Electric System \$1,339.00 \$1,420.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X X X X X X X X X

0082 U:Extensions

Description:

RESIDENTIAL EXTENSION: A projected 1,200 new residential customers per year will be served from proposed, new underground primary, secondary or service additions. Also covered by this budget item are about 300 existing customers that request overhead to underground conversions of their electric service or upgrades for increased load.

RESIDENTIAL DEVELOPMENT: This provides primary and secondary extensions to new residential developments and apartment complexes.

COMMERCIAL EXTENSION: About 150 new commercial and industrial customers per year will require new underground primary, secondary or service installations. Other commercial customers will expand their business and will require upgraded service conductors and transformer capacities.

COMMERCIAL DEVELOPMENT: Newly platted commercial and industrial developments, including small shopping centers and offices are covered in this budget item.

Group:	Underground Distribution
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	A
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$34,497.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total \$5,332.00 \$5,493.00 \$5,657.00 \$5,829.00 \$6,003.00 \$6,183.00 \$34,497.00 Lincoln Electric System

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X X X X X X X X

0083 U:Rebuilds

Description:

This item provides for replacement of existing underground facilities due to age, deterioration, or other operating problems. This budget item also includes replacing deteriorated overhead facilities with underground, when feasible. The identified projects are general system upgrades that will extend the life of existing underground facilities. LES has about 1,300 circuit miles of underground primary distribution conductor in service. We recognize that some of our underground cable and equipment is approaching the end of its useful life. We anticipate the increased need to replace deteriorating underground cable and obsolete equipment to maintain adequate reliability levels for our customers. Replacement will be done on an "as required" basis. We are also continuing a program to install duct (about 60 miles per year) along existing older cable to facilitate rapid installation in a future failure event.

Costs for Rebuilds are lower than the 2016 CIP submitted primarily due to the completion of the Duct Installation Project in 2020. In addition, estimated replacement costs are reduced with the duct having been installed (which saves installation cost) and having made significant replacements of the 1970s and 1960s cable, ongoing replacement costs are limited each year moving forward. Testing of remaining cables is being investigated to avoid replacing cables that may still have useful life to defer costs.

Group:	Underground Distribution
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	Α
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Cooks Davisandi, CO OO

Project Total:\$20,910.00	Prior Appropriations \$0.00	Costs Beyond: \$0.00
r appropriations		

Dries Assessmentians CO OO

6 yr appropriations

Funding Source 2018/2019 2019/2020 2022/2023 2020/2021 2021/2022 2023/2024 6 yr Total \$8,135.00 \$4,961.00 \$3,488.00 Lincoln Electric System \$3,352.00 \$3,387.00 \$3,593.00 \$26.916.00

6 yr estimated cost by activity

Decident Tetal \$26,016,00

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X X X X X X X X

0085 U:Relocations

Description:

This item provides for the relocation of existing underground distribution facilities. This item also includes the underground portion of an overhead-to-underground relocation project. Relocations are generally requested by federal, state, county, or city governmental agencies for road widening, sewer construction, etc. Other relocation work is requested by customers. An "aid-to-construction", based on non-betterment cost to LES, is usually required for these projects. Typically we will:

- \cdot Relocate 3 to 4 miles of existing overhead and underground lines and associated transformers and equipment for road widening projects and customer requests.
- · Convert to underground about 1 mile of existing overhead lines and associated transformers and equipment in the discretionary overhead to underground conversion program.

Group:	Underground Distribution
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	A
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$16,167.00	Prior Appropriations \$0.00	Costs Beyond: \$0.00
. reject retain	Appropriations	00010 20 01101

6 yr appropriations

 Funding Source
 2018/2019
 2019/2020
 2020/2021
 2021/2022
 2022/2023
 2023/2024
 6 yr Total

 Lincoln Electric System
 \$3,440.00
 \$2,114.00
 \$2,583.00
 \$2,629.00
 \$2,676.00
 \$2,725.00
 \$16,167.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X X X X X X X X X X

0086 U:Major Circuits

Description:

FEEDER

This project provides for construction of new 12kV and 35kV feeders (main distribution lines) as needed to serve system growth areas. The installation of switchgears on existing feeders is also included in this budget item.

Sustainability: Distribution feeder conductors are economically evaluated including the life-cycle cost of electrical losses. This allows LES to install higher capacity lines with lower electrical losses (lower energy use and reduction of greenhouse gasses) while maintaining lowest overall cost for customers.

PADMOUNT CAPACITORS

This item provides for the installation of padmounted capacitor banks on the underground distribution system. Capacitors are used for power factor correction on the distribution system. These capacitors provide a more economic operation by reducing unmetered electric losses in the distribution and transmission system. They also provide needed voltage support at peak load conditions. We plan to install 2 - 1,200 kVAR, radio-controlled, padmounted capacitor banks per year.

Group:	Underground Distribution
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	В
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$11,419.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	6 yr Total
Lincoln Electric System	\$1,602.00	\$2,176.00	\$2,225.00	\$1,752.00	\$1,805.00	\$1,859.00	\$11,419.00

6 yr estimated cost by activity

Activity type	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
Construction	X	X	X	X	Χ	X

0070 W:OH Distribution - Waverly

Description:

Various overhead distribution projects in Waverly city limits. This includes services for new customers as well as rebuilding existing facilities to maintain a reliable system.

Group:	Waverly
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	A
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$96.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	6 yr Total
Lincoln Electric System	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$96.00

6 yr estimated cost by activity

Activity type	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
Construction	Χ	X	Χ	Χ	X	X

0071 W:UG Distribution - Waverly

Description:

Various underground distribution projects in Waverly city limits. This includes services for new customers as well as rebuilding existing facilities to maintain a reliable system.

Group:	Waverly
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	Α
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$1,400.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total \$1,400.00 \$301.00 \$301.00 \$301.00 \$98.00 Lincoln Electric System \$301.00 \$98.00

6 yr estimated cost by activity

 Activity type
 2018/2019
 2019/2020
 2020/2021
 2021/2022
 2022/2023
 2023/2024

 Construction
 X
 X
 X
 X
 X
 X
 X

0072 W:Street Light - Waverly

Description:

Various street light projects in Waverly city limits.

Group:	Waverly
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	В
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$66.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total \$11.00 \$66.00 Lincoln Electric System \$11.00 \$11.00 \$11.00 \$11.00 \$11.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Construction X X X X X X X X X

0089 L:Misc Ongoing Lighting Projects

Description:

SECURITY LIGHTS

Security lighting provides for lighting of private property, as requested by customers, for which they are charged a monthly fee.

COUNTY STREET LIGHTS

This budget item provides for street light facilities for Lancaster County roads. LES accounts for these facilities separately from City of Lincoln street light facilities.

Group:	Street Light
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	В
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$378.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	6 yr Total
Lincoln Electric System	\$58.00	\$60.00	\$62.00	\$64.00	\$66.00	\$68.00	\$378.00
6 yr estimated cost by activity							

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 Construction X X X X X X X X X X X

0067 P:Laramie River Station

Description:

This item represents LES' share of anticipated annual capital expenditures for the Laramie River Station. The Laramie River facility consistently ranks among the lowest cost generating stations in the United States. This performance record is a result of efficient and effective design and the continued review and upgrade of facility systems. The Project's facilities are in good condition and in compliance with environmental and other regulatory requirements. However, after over twenty five years of operation the system is beginning to show its age. This fact, coupled with technological advances, is cause for additional investments in the Project. A number of significant plant improvements are scheduled for the 2019 through 2024 time frame, including upgrades which will improve plant efficiency, reliability as well as reduce environmental impacts. The single largest investment will be for new environmental systems to reduce NOx emissions.

Costs for Laramie River Station are lower than the 2016 CIP submitted due to the reduction in further selective catalytic reduction (SCR) system installation.

Group:	Power Supply
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	Α
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Χ

Project Total:\$54,500.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Other

Funding Source Lincoln Electric System	<u>2018/2019</u>	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	6 yr Total
	\$15,000.00	\$9,500.00	\$7,500.00	\$7,500.00	\$7,500.00	\$7,500.00	\$54,500.00
6 yr estimated cost by activity	2018/2010	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	

0137 P:Walter Scott Energy Center #4

Description:

This item covers ongoing capital investments in LES' newest base load power plant. LES has a 100 MW share of the Walter Scott Energy Center output. WSEC #4 uses a high efficiency, super critical steam boiler design and extensive emissions controls which significantly reduces fuel consumption and air emissions compared to standard coal plant designs.

Group:	Power Supply
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	Α
	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$6,625.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source 2018/2019 2021/2022 2019/2020 2020/2021 2022/2023 2023/2024 6 yr Total \$760.00 \$6,625.00 Lincoln Electric System \$1,125.00 \$475.00 \$950.00 \$2,690.00 \$625.00 6 yr estimated cost by activity Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/202
Other X X X X X X X X X

0156 P:Local Generation Capital Projects

Description:

This Budget item covers a variety of projects at the three local gas fired power plants: Rokeby Station, 8th & J Street Station and the Terry Bundy Generating Station. These plant improvements and upgrades are necessary to maintain the operating reliability as well as environmental and security requirements for these critical assets. Budget estimates are based on historical expenditures.

Group:	Power Supply
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	В
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$21,750.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

2018/2019 **Funding Source** 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024 6 yr Total \$3,000.00 \$4,000.00 Lincoln Electric System \$3,250.00 \$3,500.00 \$3,750.00 \$4,250.00 \$21,750.00

6 yr estimated cost by activity

Activity type 2018/2019 2019/2020 2020/2021 2021/2022 2022/2023 2023/2024
Other X X X X X X X X X

0157 P:Misc Env., Safety, Security

Description:

The purpose of this budget item is to provide for unanticipated capital expenditures imposed by regulatory or operational requirements, unplanned equipment upgrades or to address critical safety issues. Based on operating experience in the SPP Integrated Market (IM), the local LES generation assets have reached a new level of required performance and availability. With requirements of the SAP Energy Market it will be critical to maintain these generating units at a high operational level. Changing environmental regulations and permitting mandates often require unanticipated unit modifications. It is also anticipated that site and system security upgrades could be dictated by any number of regulatory agencies (FERC, NERC, Homeland Security Agency, etc.).

Group:	Power Supply
Program:	(None)
Budget Outcome:	
Budget Goal:	
Date Anticipated:	
Rating:	В
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

Project Total:\$2,850.00 Prior Appropriations \$0.00 Costs Beyond: \$0.00

6 yr appropriations

Funding Source	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	6 yr Total
Lincoln Electric System	\$425.00	\$450.00	\$450.00	\$475.00	\$500.00	\$550.00	\$2,850.00
6 yr estimated cost by activity							
Activity type	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	
Other	X	X	X	X	X	X	

Funding Summary - By Project

* Amounts are in thousands of dollars

Lincoln Electric System

	Project Title	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	Total
0679	G:LES Operations Center	19,779.00	21,413.00	2,536.00	0.00	0.00	0.00	\$43,728.0
0792	G:Communications	300.00	300.00	300.00	300.00	300.00	300.00	\$1,800.0
0794	G:Meters	308.00	324.00	282.00	233.00	222.00	236.00	\$1,605.0
0795	G:MMR Project	500.00	800.00	800.00	500.00	500.00	500.00	\$3,600.0
0117	T:Misc. Construction/Rebuild	152.00	73.00	75.00	77.00	79.00	81.00	\$537.0
0213	T:Relocations	69.00	71.00	73.00	75.00	77.00	79.00	\$444.0
0214	T:Right-of-Way/Easements	0.00	0.00	258.00	206.00	206.00	206.00	\$876.0
0639	T:70th&Bluff - 190th&LittleSaltRd Upgrade	0.00	0.00	0.00	3,630.00	3,630.00	0.00	\$7,260.0
0867	T: 56th, Garland - Everett	0.00	0.00	0.00	0.00	0.00	2,245.00	\$2,245.0
0237	S:Misc Ongoing Construction	194.00	172.00	131.00	135.00	139.00	144.00	\$915.0
0238	S:Substation Sites	126.00	430.00	534.00	138.00	142.00	146.00	\$1,516.0
0638	S:17th & Holdrege Transformer #2	0.00	0.00	0.00	0.00	0.00	6.00	\$6.0
0682	S:91st & A Replace Transformer	0.00	0.00	0.00	436.00	1,718.00	1,427.00	\$3,581.0
0688	S:120th & Alvo Substation	2,351.00	0.00	0.00	0.00	0.00	0.00	\$2,351.0
0690	S:Wind Project Interconnection	3,493.00	0.00	0.00	0.00	0.00	0.00	\$3,493.0
0692	S:40th & Bennet Substation	2,156.00	25.00	0.00	0.00	0.00	0.00	\$2,181.0
0693	S:20th & Pioneers Substation Replace	23.00	470.00	3,010.00	0.00	0.00	0.00	\$3,503.0
0694	S:West Lincoln Substation Rebuild	2,561.00	3,380.00	114.00	0.00	0.00	0.00	\$6,055.0
0790	S:57th & Garland Replace Transformer	0.00	0.00	15.00	421.00	2,866.00	0.00	\$3,302.0
0842	S:NW56th & Morton Substation	0.00	0.00	1,795.00	3,392.00	0.00	0.00	\$5,187.0
0868	S:56th & Q Replace Transformer	0.00	0.00	0.00	0.00	24.00	450.00	\$474.0

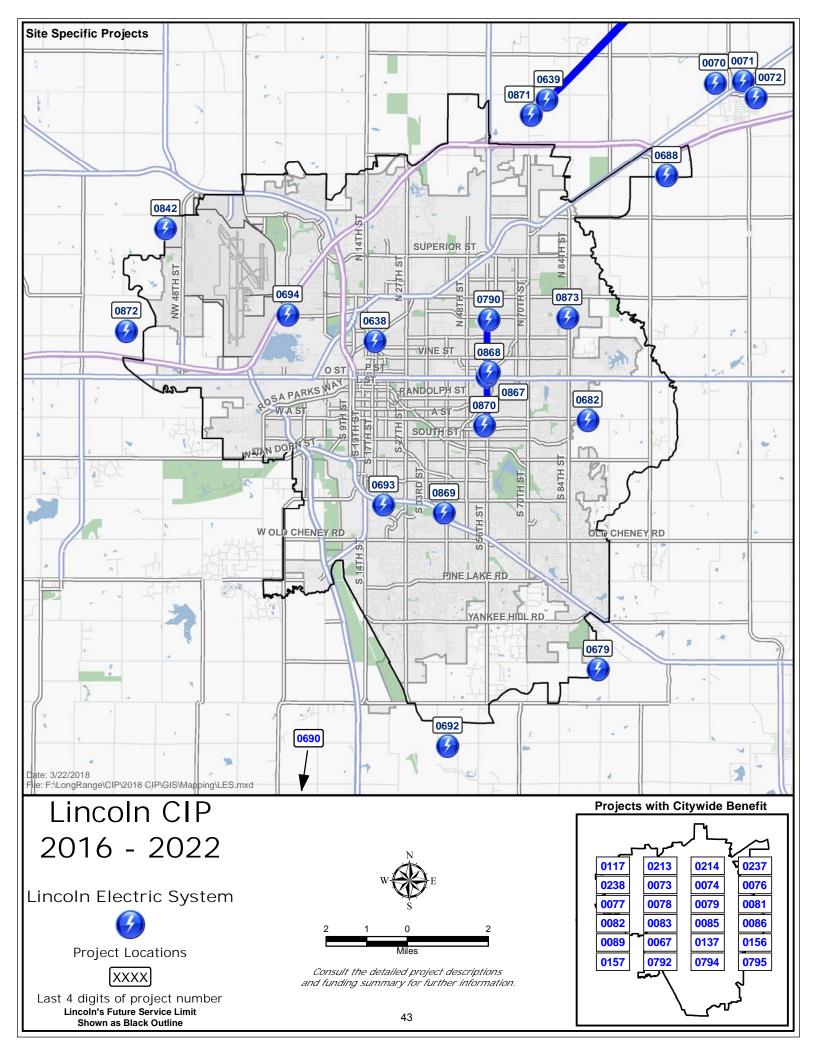
		2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	Total
0869	S:40th & Gertie Replace Transformer	0.00	0.00	0.00	0.00	51.00	1,754.00	\$1,805.0
0870	S:56th & Everett Replace Transformer	0.00	0.00	0.00	0.00	0.00	47.00	\$47.0
0871	S:70th & Bluff Replace Transformer	0.00	0.00	0.00	296.00	1,823.00	0.00	\$2,119.0
0872	S:NW68th & Holdrege Install Reactor	675.00	0.00	0.00	0.00	0.00	0.00	\$675.0
0873	S:84th & Leighton Modifications	0.00	0.00	917.00	763.00	0.00	0.00	\$1,680.0
0073	O:Transformers	168.00	173.00	179.00	184.00	189.00	194.00	\$1,087.0
0074	O:Extensions	238.00	246.00	253.00	260.00	268.00	275.00	\$1,540.0
0076	O:Service Area Adjustments	1,050.00	53.00	55.00	57.00	59.00	61.00	\$1,335.0
0077	O:Rebuilds	3,689.00	4,211.00	4,339.00	4,470.00	4,604.00	4,743.00	\$26,056.0
0078	O:Relocations	142.00	146.00	150.00	154.00	159.00	163.00	\$914.0
0079	O:Major Circuits	987.00	1,015.00	303.00	291.00	299.00	308.00	\$3,203.0
0081	U:Transformers	1,225.00	1,262.00	1,300.00	1,339.00	1,379.00	1,420.00	\$7,925.0
0082	U:Extensions	5,332.00	5,493.00	5,657.00	5,829.00	6,003.00	6,183.00	\$34,497.0
0083	U:Rebuilds	8,135.00	4,961.00	3,352.00	3,387.00	3,488.00	3,593.00	\$26,916.0
0085	U:Relocations	3,440.00	2,114.00	2,583.00	2,629.00	2,676.00	2,725.00	\$16,167.0
0086	U:Major Circuits	1,602.00	2,176.00	2,225.00	1,752.00	1,805.00	1,859.00	\$11,419.0
0070	W:OH Distribution - Waverly	16.00	16.00	16.00	16.00	16.00	16.00	\$96.0
0071	W:UG Distribution - Waverly	301.00	301.00	301.00	301.00	98.00	98.00	\$1,400.0
0072	W:Street Light - Waverly	11.00	11.00	11.00	11.00	11.00	11.00	\$66.0
0089	L:Misc Ongoing Lighting Projects	58.00	60.00	62.00	64.00	66.00	68.00	\$378.0
0067	P:Laramie River Station	15,000.00	9,500.00	7,500.00	7,500.00	7,500.00	7,500.00	\$54,500.0
0137	P:Walter Scott Energy Center #4	760.00	1,125.00	475.00	950.00	2,690.00	625.00	\$6,625.0
0156	P:Local Generation Capital Projects	3,000.00	3,250.00	3,500.00	3,750.00	4,000.00	4,250.00	\$21,750.0

		2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	Total
0157	P:Misc Env.,Safety,Security	425.00	450.00	450.00	475.00	500.00	550.00	\$2,850.0
	Department Totals:	78,266.00	64,021.00	43,551.00	44,021.00	47,587.00	42,263.00	\$319,709.0

Funding Sources

Fund Source	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	Total
Lincoln Electric System	\$78,266.0	\$64,021.0	\$43,551.0	\$44,021.0	\$47,587.0	\$42,263.0	\$319,709.0
	\$78,266.0	\$64,021.0	\$43,551.0	\$44,021.0	\$47,587.0	\$42,263.0	\$319,709.0

	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	Total
Report Total:	\$78,266.0	\$64,021.0	\$43,551.0	\$44,021.0	\$47,587.0	\$42,263.0	\$319,709.0



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