

Capital Improvement Program

FY 2022/23 –
2027/28



**Lincoln
Electric
System**

Project Title	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
G:Communications	\$ 630,000	\$ -	\$ 225,000	\$ 225,000	\$ 275,000	\$ 275,000	\$ 1,630,000
G:Meters	\$ 1,500,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 5,000,000	\$ 2,500,000	\$ 39,000,000
G:Service Center Facility Equipment Upgrades	\$ 2,000,000	\$ 5,000,000	\$ 5,000,000	\$ -	\$ -	\$ -	\$ 12,000,000
L:Misc Ongoing Lighting Projects	\$ 23,000	\$ 24,000	\$ 25,000	\$ 26,000	\$ 27,000	\$ 28,000	\$ 153,000
O:Extensions	\$ 188,000	\$ 194,000	\$ 200,000	\$ 206,000	\$ 212,000	\$ 218,000	\$ 1,218,000
O:Major Circuits	\$ 350,000	\$ 361,000	\$ 372,000	\$ 383,000	\$ 394,000	\$ 405,000	\$ 2,265,000
O:Rebuilds	\$ 3,615,000	\$ 2,562,000	\$ 2,640,000	\$ 2,720,000	\$ 2,802,000	\$ 2,886,000	\$ 17,225,000
O:Relocations	\$ 55,000	\$ 56,000	\$ 57,000	\$ 58,000	\$ 59,000	\$ 60,000	\$ 345,000
O:Service Area Adjustments	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000
O:Transformers	\$ 600,000	\$ 600,000	\$ 618,000	\$ 200,000	\$ 206,000	\$ 212,000	\$ 2,436,000
P:Laramie River Station	\$ 5,000,000	\$ 3,500,000	\$ 2,500,000	\$ 3,250,000	\$ 2,500,000	\$ 5,000,000	\$ 21,750,000
P:Local Generation Rokeby Environmental, Regulatory & Safety	\$ 250,000	\$ 255,000	\$ 250,000	\$ 300,000	\$ 325,000	\$ 325,000	\$ 1,705,000
P:Local Generation TBGS Environmental, Regulatory & Safety	\$ 235,000	\$ 245,000	\$ 250,000	\$ 300,000	\$ 325,000	\$ 325,000	\$ 1,680,000
P:Misc Environmental, Safety, Security, & Efficiency	\$ 3,500,000	\$ 3,600,000	\$ 3,700,000	\$ 3,800,000	\$ 4,000,000	\$ 4,000,000	\$ 22,600,000
P:Power Supply Sites	\$ 1,000,000	\$ -	\$ 500,000	\$ -	\$ 250,000	\$ -	\$ 1,750,000
P:Walter Scott Energy Center #4	\$ 1,250,000	\$ 3,000,000	\$ 1,600,000	\$ 1,550,000	\$ 1,500,000	\$ 4,000,000	\$ 12,900,000
S:105th & Pioneers Substation	\$ -	\$ -	\$ 1,396,000	\$ 3,258,000	\$ -	\$ -	\$ 4,654,000
S:134th & Highway 6 Replace Transformer	\$ -	\$ -	\$ -	\$ -	\$ 75,000	\$ 1,610,000	\$ 1,685,000
S:17th & Holdrege Transformer #2	\$ -	\$ -	\$ -	\$ 64,000	\$ 1,378,000	\$ 1,762,000	\$ 3,204,000
S:20th & Pioneers Replace Transformer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,064,000	\$ 1,064,000
S:27th & Fletcher Add Transmission Breaker	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ 294,000	\$ 394,000
S:30th & A Replace Transformer	\$ 981,000	\$ 2,290,000	\$ -	\$ -	\$ -	\$ -	\$ 3,271,000
S:3rd & Van Dorn Add Transmission Breaker	\$ -	\$ 100,000	\$ 550,000	\$ -	\$ -	\$ -	\$ 650,000
S:40th & Gertie Replace Transformer	\$ 1,549,000	\$ 1,982,000	\$ -	\$ -	\$ -	\$ -	\$ 3,531,000
S:56th & Everett Replace Transformer	\$ -	\$ 67,000	\$ 1,450,000	\$ 1,855,000	\$ -	\$ -	\$ 3,372,000
S:56th & Q Replace Transformer	\$ -	\$ 1,540,000	\$ 3,594,000	\$ -	\$ -	\$ -	\$ 5,134,000
S:57th & Garland Replace Transformer	\$ 2,153,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,153,000
S:70th & Bluff Replace Transformer	\$ -	\$ -	\$ -	\$ 577,000	\$ 1,732,000	\$ -	\$ 2,309,000
S:8th & N Replace Transformer	\$ 142,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 142,000
S:91st & A Replace Transformer	\$ -	\$ -	\$ -	\$ -	\$ 964,000	\$ 5,461,000	\$ 6,425,000
S:Misc Ongoing Construction	\$ 308,000	\$ 278,000	\$ 286,000	\$ 294,000	\$ 303,000	\$ 312,000	\$ 1,781,000
S:NW56th & Morton Substation	\$ -	\$ -	\$ 101,000	\$ 2,168,000	\$ 2,773,000	\$ -	\$ 5,042,000
S:Substation Sites	\$ 200,000	\$ 206,000	\$ 212,000	\$ 218,000	\$ 225,000	\$ 232,000	\$ 1,293,000
S:SW27th & F Add Transmission Breaker	\$ -	\$ -	\$ 25,000	\$ 525,000	\$ -	\$ -	\$ 550,000
S:West Lincoln Site Remediation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ 500,000
T: 56th, Q - Everett	\$ -	\$ -	\$ -	\$ -	\$ 82,000	\$ 27,000	\$ 109,000
T:128th & Pioneers - 103rd & Rokeby	\$ -	\$ -	\$ 113,000	\$ 38,000	\$ 2,156,000	\$ 825,000	\$ 3,132,000
T:56th & Everett - Elkcrest / Rebuild L1189T	\$ 30,000	\$ 1,825,000	\$ 688,000	\$ -	\$ -	\$ -	\$ 2,543,000
T:56th, Garland - Q	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 82,000	\$ 82,000
T:Bennet - Martell	\$ -	\$ -	\$ -	\$ 65,000	\$ 22,000	\$ 1,156,000	\$ 1,243,000
T:Martell - Stagecoach	\$ 106,000	\$ 35,000	\$ 1,875,000	\$ 702,000	\$ -	\$ -	\$ 2,718,000
T:Misc. Construction/Rebuild	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 2,100,000
T:Right-of-Way/Easements	\$ 100,000	\$ 100,000	\$ 100,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 900,000
T:Stagecoach - Princeton	\$ -	\$ 65,000	\$ 22,000	\$ 1,873,000	\$ 703,000	\$ -	\$ 2,663,000
U:Extensions	\$ 4,879,000	\$ 5,026,000	\$ 5,177,000	\$ 5,331,000	\$ 5,490,000	\$ 5,655,000	\$ 31,558,000
U:Major Circuits	\$ 2,546,000	\$ 2,209,000	\$ 1,246,000	\$ 1,284,000	\$ 1,323,000	\$ 1,913,000	\$ 10,521,000
U:Rebuilds	\$ 3,964,000	\$ 4,142,000	\$ 3,263,000	\$ 1,083,000	\$ 1,114,000	\$ 1,146,000	\$ 14,712,000
U:Relocations	\$ 4,011,000	\$ 5,522,000	\$ 5,789,000	\$ 4,192,000	\$ 3,391,000	\$ 3,650,000	\$ 26,555,000
U:Transformers	\$ 1,600,000	\$ 1,648,000	\$ 1,697,000	\$ 1,748,000	\$ 1,800,000	\$ 1,854,000	\$ 10,347,000
W:OH Distribution - Waverly	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 60,000
W:Street Light - Waverly	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 66,000
W:UG Distribution - Waverly	\$ 105,000	\$ 690,000	\$ 105,000	\$ 105,000	\$ 105,000	\$ 105,000	\$ 1,215,000
Departmental Totals:	\$ 43,241,000	\$ 58,493,000	\$ 55,997,000	\$ 48,969,000	\$ 42,182,000	\$ 48,453,000	\$ 297,335,000
Fund Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ 43,241,000	\$ 58,493,000	\$ 55,997,000	\$ 48,969,000	\$ 42,182,000	\$ 48,453,000	\$ 297,335,000
Fund Source Totals	\$ 43,241,000	\$ 58,493,000	\$ 55,997,000	\$ 48,969,000	\$ 42,182,000	\$ 48,453,000	\$ 297,335,000

[Lincoln Electric System Interactive Project Map](#)

Project: G:Communications

Description:

This project includes various communication projects that are required to enhance customer service and system reliability. These include, but are not limited to, fiber route installations, radio, and other types of communications equipment.	Budget Outcome:	Strong and Resilient City
	Date Anticipated:	NA
	Rating:	A
	Status:	Ongoing
	Comp Plan Conformity:	Generally Conforms with Plan
Prior Appropriations:	X	

6 yr appropriations

Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ 630,000	\$ -	\$ 225,000	\$ 225,000	\$ 275,000	\$ 275,000	\$ 1,630,000

6 yr estimated cost by activity

Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements	x		x	x	x	x	

Project: G:Meters

Description:

This project includes the purchase of various types of programmable electric meters for all classes of LES customers including residential, commercial and industrial. In 2022, LES will continue to expand the automated meter technology throughout the service territory. We are in the process of reviewing our metering roadmap and plan to further evaluate advancing technologies in metering. Enhancements to our enterprise system and communications network will likely be required.	Budget Outcome:	Innovative and Operationally Excellent
	Date Anticipated:	NA
	Rating:	A
	Status:	Ongoing
	Comp Plan Conformity:	Generally Conforms with Plan
Prior Appropriations:	X	

6 yr appropriations

Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ 1,500,000	\$10,000,000	\$ 10,000,000	\$10,000,000	\$5,000,000	\$2,500,000	\$39,000,000

6 yr estimated cost by activity

Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements	x	x	x	x	x	x	

Project: G:Service Center Facility Equipment Upgrades

Description:

Design and construction of major facility equipment updates at the Walter A. Canney Service Center. Updates include, but are not limited to, replacing major electrical, mechanical, and HVAC system components that are 30-40+ years old with more efficient and serviceable equipment.	Budget Outcome:	Strong and Resilient City
	Date Anticipated:	12/31/2025
	Rating:	B
	Status:	New
	Comp Plan Conformity:	Generally Conforms with Plan
Prior Appropriations:		

6 yr appropriations

Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ 2,000,000	\$ 5,000,000	\$ 5,000,000	\$ -	\$ -	\$ -	\$12,000,000

6 yr estimated cost by activity

Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements	x	x	x				

Project: 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.

Budget Outcome:	Safe and Healthy City
Date Anticipated:	NA
Rating:	B
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X						
6 yr appropriations								
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>	
LES Revenue	\$ 23,000	\$ 24,000	\$ 25,000	\$ 26,000	\$ 27,000	\$ 28,000	\$ 153,000	
6 yr estimated cost by activity								
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>		
Capital Improvements	x	x	x	x	x	x		

Project: O:Extensions

Description:

RESIDENTIAL EXTENSIONS: The residential extension item provides for the addition of overhead 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 overhead primary, secondary, or service facilities to a new customer or to an existing customer for increased load, where the customer is commercial or industrial.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	NA
Rating:	A
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X						
6 yr appropriations								
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>	
LES Revenue	\$ 188,000	\$ 194,000	\$ 200,000	\$ 206,000	\$ 212,000	\$ 218,000	\$ 1,218,000	
6 yr estimated cost by activity								
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>		
Capital Improvements	x	x	x	x	x	x		

Project: O:Major Circuits

Description:

FEEDERS This item provides for ongoing construction of new overhead 12kV and 35kV feeders (main distribution circuits). Reconductoring of existing overhead feeders for capacity requirements and the installation of 600 amp disconnect switches for manual or automated sectionalizing are also covered by this project. Distribution feeder conductors are economically evaluated including the life-cycle cost of electrical losses. This allows LES to improve automated voltage/VAR control and 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 overhead pole-mounted distribution capacitor banks. Capacitors are used for power factor correction on the distribution system. These capacitors provide more economical operation and reduced greenhouse gases by reducing unmetered electric losses in the distribution and transmission system. They also provide needed voltage support at peak load conditions.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	NA
Rating:	A
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X					
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ 350,000	\$ 361,000	\$ 372,000	\$ 383,000	\$ 394,000	\$ 405,000	\$ 2,265,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements	x	x	x	x	x	x	

Project: O:Rebuilds

Description:

Replacement or removal of deteriorated (or otherwise obsolete) overhead 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 and treat poles with preservative to extend their life.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	NA
Rating:	A
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X					
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ 3,615,000	\$ 2,562,000	\$ 2,640,000	\$ 2,720,000	\$2,802,000	\$2,886,000	\$17,225,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements	x	x	x	x	x	x	

Project: O:Relocations							
Description:							
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.				Budget Outcome:		Strong and Resilient City	
				Date Anticipated:		NA	
				Rating:		A	
				Status:		Ongoing	
				Comp Plan Conformity:		Generally Conforms with Plan	
	Prior Appropriations:	X					
6 yr appropriations							
Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ 55,000	\$ 56,000	\$ 57,000	\$ 58,000	\$ 59,000	\$ 60,000	\$ 345,000
6 yr estimated cost by activity							
Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
Capital Improvements	x	x	x	x	x	x	

Project: 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.				Budget Outcome:		Strong and Resilient City	
				Date Anticipated:		NA	
				Rating:		C	
				Status:		Ongoing	
				Comp Plan Conformity:		Generally Conforms with Plan	
	Prior Appropriations:	X					
6 yr appropriations							
Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000
6 yr estimated cost by activity							
Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
Capital Improvements		x					

Project: O:Transformers							
Description:							
Installation of overhead distribution transformers to serve new load and to replace old, deteriorated transformers. LES plans to remove all PCB-contaminated distribution transformers from the system during this next CIP 6-year period. 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.				Budget Outcome:		Strong and Resilient City	
				Date Anticipated:		NA	
				Rating:		A	
				Status:		Ongoing	
				Comp Plan Conformity:		Generally Conforms with Plan	
	Prior Appropriations:	X					
6 yr appropriations							
Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ 600,000	\$ 600,000	\$ 618,000	\$ 200,000	\$ 206,000	\$ 212,000	\$ 2,436,000
6 yr estimated cost by activity							
Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
Capital Improvements	x	x	x	x	x	x	

Project: P:Laramie River Station

Description:

LES' share of anticipated annual capital expenditures for the Laramie River Station (LRS), a three-unit 1670 MW plant. The LRS 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 plant's facilities are in good working condition and in compliance with all environmental and other regulatory requirements. The plant just completed installation of the new NOx emissions control systems on all three units. After 40 years of operation, the system is beginning to show its age. This fact, coupled with technological advances, is cause for additional investments in the Plant. A number of significant plant improvement are scheduled for the 2022 through 2028-time frame, including upgrades which will improve plant efficiency, reliability, as well as reduce environmental impacts. Major projects include: upgrading multiple electrical distribution systems, 345 kV substation equipment upgrades and remediation of coal storage ponds (installing better pond liners).	Budget Outcome:	Strong and Resilient City
	Date Anticipated:	NA
	Rating:	A
	Status:	Ongoing
	Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X						
6 yr appropriations								
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>	
LES Revenue	\$ 5,000,000	\$ 3,500,000	\$ 2,500,000	\$ 3,250,000	\$ 2,500,000	\$ 5,000,000	\$ 21,750,000	
6 yr estimated cost by activity								
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>		
Other Services & Charges	x	x	x	x	x	x		

Project: P:Local Generation Rokeby Environmental, Regulatory & Safety

Description:

This item covers a variety of projects at local gas fired power plants: Rokeby Station and J Street Station. These plant improvements and upgrades are necessary to maintain the operating reliability, efficiency and market economics for these critical generating assets. Estimates are based on historical expenditures.	Budget Outcome:	Strong and Resilient
	Date Anticipated:	NA
	Rating:	B
	Status:	Ongoing
	Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X						
6 yr appropriations								
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>	
LES Revenue	\$ 250,000	\$ 255,000	\$ 250,000	\$ 300,000	\$ 325,000	\$ 325,000	\$ 1,705,000	
6 yr estimated cost by activity								
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>		
Other Services & Charges	x	x	x	x	x	x		

Project: P:Local Generation TBGS Environmental, Regulatory & Safety

Description:

This item addresses a variety of projects at the Terry Bundy Generating Station. These plant improvements and upgrades are necessary to maintain operating reliability, efficiency and market economics for these critical generating assets. Estimates are based on historical expenditures.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	NA
Rating:	B
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X					
6 yr appropriations							
Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ 235,000	\$ 245,000	\$ 250,000	\$ 300,000	\$ 325,000	\$ 325,000	\$ 1,680,000
6 yr estimated cost by activity							
Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
Other Services & Charges	x	x	x	x	x	x	

Project: P:Misc Environmental, Safety, Security, & Efficiency

Description:

Provides for both planned and unanticipated capital expenditures imposed by regulatory or operational requirements, equipment upgrades or to address critical safety issues. Based on operating experience in the Southwest Power Pool (SPP) Integrated Market (IM), LES' local generating assets have reached a new level of required performance and availability. With requirements of the SPP Market, it will be critical to maintain these generating assets at a high operational level. Changing environmental regulations and permitting mandates often require unit modifications. Physical and cyber security requirements for the sites' and associated control systems have become a significant driver for capital investments. It is anticipated the security mandates from organizations such as NERC, FERC and Homeland Security will only grow in scope. Equipment upgrades to improve plant performance is also covered in this item.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	NA
Rating:	B
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X					
6 yr appropriations							
Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ 3,500,000	\$ 3,600,000	\$ 3,700,000	\$ 3,800,000	\$4,000,000	\$4,000,000	\$22,600,000
6 yr estimated cost by activity							
Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
Other Services & Charges	x	x	x	x	x	x	

Project: P:Power Supply Sites								
Description:								
Real property acquisitions for new, and expansion of existing, generation related sites as required for supporting continued growth and efficient and safe operation.				Budget Outcome:		Strong and Resilient City		
				Date Anticipated:		NA		
				Rating:		B		
				Status:		New		
				Comp Plan Conformity:		Generally Conforms with Plan		
	Prior Appropriations:							
6 yr appropriations								
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>	
LES Revenue	\$ 1,000,000	\$ -	\$ 500,000	\$ -	\$ 250,000	\$ -	\$ 1,750,000	
6 yr estimated cost by activity								
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>		
Capital Improvements	x		x		x			

Project: P:Walter Scott Energy Center #4									
Description:									
Ongoing capital investments in LES' newest base load power plant. LES is responsible for a 100 MW (12.76%) share of the WSEC Unit #4 capital investments. WSEC #4 uses a high efficiency, super critical steam boiler design and extensive emissions control systems, which significantly reduces fuel consumption and air emissions, compared to standard coal plant designs. As the plant ages additional investments will be required to maintain plant efficiency, reliability and market economics. Major projects include a waste ash pond closure and control system upgrades.					Budget Outcome:		Strong and Resilient City		
					Date Anticipated:		NA		
					Rating:		A		
					Status:		Ongoing		
					Comp Plan Conformity:		Generally Conforms with Plan		
	Prior Appropriations:		X						
6 yr appropriations									
Funding Source			<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue			\$ 1,250,000	\$ 3,000,000	\$ 1,600,000	\$ 1,550,000	\$1,500,000	\$4,000,000	\$12,900,000
6 yr estimated cost by activity									
Activity type			<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Other Services & Charges			x	x	x	x	x	x	

Project: S:105th & Pioneers Substation								
Description:								
Add a 115-12kV, 36 MVA transformer and associated switchgear in a new substation at 105th & Pioneers. This substation will provide additional capacity to support future growth in southeast Lincoln as well as contingent support to the 91st & Hwy 2 and 81st & Old Cheney Substations.					Budget Outcome:		Strong and Resilient City	
					Date Anticipated:		12/31/2026	
					Rating:		B	
					Status:		Continued	
					Comp Plan Conformity:		Generally Conforms with Plan	
	Prior Appropriations:							
6 yr appropriations								
Funding Source		<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue		\$ -	\$ -	\$ 1,396,000	\$ 3,258,000	\$ -	\$ -	\$ 4,654,000
6 yr estimated cost by activity								
Activity type		<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements				x	x			

Project: S:134th & Highway 6 Replace Transformer

Description:

Replace the existing 115/12kV, 22.4 MVA transformer (T831) with a new 36 MVA transformer. Transformer T831 was manufactured in 1971, and will be 58 years old in 2029. LES assumes an average life of 55 years for power transformers in accordance with the Substation Transformer Replacement Study. It will also provide additional capacity for the City of Waverly and northeast Lincoln. Currently, there are no indications of imminent failure of the unit. LES will continue to monitor the transformer test data and may adjust the replacement order and schedule.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2029
Rating:	B
Status:	New
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:						
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ -	\$ -	\$ -	\$ -	\$ 75,000	\$1,610,000	\$ 1,685,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements					x	x	

Project: 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.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2028
Rating:	B
Status:	Continued
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:						
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ -	\$ -	\$ -	\$ 64,000	\$1,378,000	\$1,762,000	\$ 3,204,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements				x	x	x	

Project: S:20th & Pioneers Replace Transformer

Description:

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 59 years old in 2029. LES assumes an average life of 55 years for power transformers in accordance with the Substation Transformer Replacement Study. It will also provide additional capacity at the 20th & Pioneers Substation. Currently, there are no indications of imminent failure of the unit. LES will continue to monitor the transformer test data and may adjust the replacement order and schedule.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2029
Rating:	B
Status:	New
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:						
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$1,064,000	\$ 1,064,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements						x	

Project: S:27th & Fletcher Add Transmission Breaker

Description:

An LES sub-group evaluated existing two-terminal "tap" distribution substations to identify locations that would experience a significant increase in reliability by adding a transmission breaker. This site was identified as one of the top 4 sites in that evaluation in terms of benefit vs. cost of performing the upgrade. This project will install a 115kV transmission breaker to further segment the transmission system. Adding a breaker will allow for autoisolation to re-energize all transformers quickly in the event of a transmission fault. The design standard for new two-terminal distribution substations now includes a transmission breaker to increase reliability.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2028
Rating:	B
Status:	NA
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:						
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ 294,000	\$ 394,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements					x	x	

Project: S:30th & A Replace Transformer

Description:

Replace the existing 115/12kV, 45 MVA transformer (T521) with a new 36 MVA transformer and 12kV switchgear. Transformer T521 was manufactured in 1978, and will be 46 years old in 2024. LES assumes an average life of 55 years for power transformers accordance with the Substation Transformer Replacement Study. However, this unit was identified as one of the top 10 transformers to be considered for replacement based on health, system impact, and age in Substation's annual assessment.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2024
Rating:	B
Status:	Continued
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:						
6 yr appropriations							
Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ 981,000	\$ 2,290,000	\$ -	\$ -	\$ -	\$ -	\$ 3,271,000
6 yr estimated cost by activity							
Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
Capital Improvements	x	x					

Project: S:3rd & Van Dorn Add Transmission Breaker

Description:

An LES sub-group evaluated existing two-terminal "tap" distribution substations to identify locations that would experience a significant increase in reliability by adding a transmission breaker. This site was identified as one of the top 4 sites in that evaluation in terms of benefit vs. cost of performing the upgrade. This project will install a 115kV transmission breaker to further segment the transmission system. Adding a breaker will allow for auto-isolation to re-energize all transformers quickly in the event of a transmission fault. The design standard for new two-terminal distribution substations now includes a transmission breaker to increase reliability.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2025
Rating:	B
Status:	New
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:						
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	6 yr Total
LES Revenue	\$ -	\$ 100,000	\$ 550,000	\$ -	\$ -	\$ -	\$ 650,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements		x	x				

Project: S:40th & Gertie Replace Transformer

Description:

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 50 years old in 2024. This project provides replacement of older 115-12kV transformers in accordance with the Substation Transformer Replacement Study.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2024
Rating:	B
Status:	Continued
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X					
6 yr appropriations							
Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ 1,549,000	\$ 1,982,000	\$ -	\$ -	\$ -	\$ -	\$ 3,531,000
6 yr estimated cost by activity							
Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
Capital Improvements	x	x					

Project: S:56th & Everett Replace Transformer

Description:

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 provides 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.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2026
Rating:	B
Status:	Continued
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:						
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ -	\$ 67,000	\$ 1,450,000	\$ 1,855,000	\$ -	\$ -	\$ 3,372,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements		x	x	x			

Project: S:56th & Q Replace Transformer

Description:

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 provides 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.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2025
Rating:	B
Status:	Continued
Comp Plan Conformity:	Generally Conforms with Plan

Prior Appropriations:

6 yr appropriations

Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ -	\$ 1,540,000	\$ 3,594,000	\$ -	\$ -	\$ -	\$ 5,134,000

6 yr estimated cost by activity

Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
Capital Improvements		x	x				

Project: S:57th & Garland Replace Transformer

Description:

Replace an existing 115-12kV transformer (T622) with a new 36 MVA transformer and 12kV switchgear. This project provides replacement of older 115-12kV transformers in accordance with the Substation Transformer Replacement Study.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2023
Rating:	B
Status:	Continued
Comp Plan Conformity:	Generally Conforms with Plan

Prior Appropriations:

X

6 yr appropriations

Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ 2,153,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,153,000

6 yr estimated cost by activity

Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
Capital Improvements	x						

Project: 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 70 years old in 2026 and is the oldest transformer in the system. This transformer provides a connection with the OPPD service area through 161kV Line 1559 which is proposed to be rebuilt in the future. 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.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2027
Rating:	B
Status:	Continued
Comp Plan Conformity:	Generally Conforms with Plan

Prior Appropriations:

6 yr appropriations

Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ -	\$ -	\$ -	\$ 577,000	\$1,732,000	\$ -	\$ 2,309,000

6 yr estimated cost by activity

Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
Capital Improvements				x	x		

Project: S:8th & N Replace Transformer

Description:

Replace the existing 115/34.5/12kV, 45 MVA transformer (T171) with a new transformer and 12kV switchgear. Transformer size estimated at 36MVA however final size to be determined. Transformer T171 was manufactured in 1978, and will be 44 years old in 2022. LES assumes an average life of 55 years for power transformers in accordance with the Substation Transformer Replacement Study. However, this unit was identified as one of the top 10 transformers to be considered for replacement based on health, system/environment impact, and age in Substation's 2018 assessment.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2023
Rating:	B
Status:	Continued
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X					
6 yr appropriations							
Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ 142,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 142,000
6 yr estimated cost by activity							
Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
Capital Improvements	x						

Project: S:91st & A Replace Transformer

Description:

Replace the existing 115-12kV, 28 MVA transformer (T721) with a new 36 MVA transformer and 12kV switchgear. Transformer T721 was manufactured in 1969, and will be 62 years old in 2031. The existing 28 MVA transformer may be retained on site for use as a second spare due to smaller physical size and bushing configuration. 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. Currently, there are no indications of imminent failure of the unit. LES will continue to monitor the transformer test data and may adjust the replacement order and schedule.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2031
Rating:	B
Status:	New
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:						
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ -	\$ -	\$ -	\$ -	\$ 964,000	\$5,461,000	\$ 6,425,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements					x	x	

Project: S:Misc Ongoing Construction

Description:

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

Budget Outcome:	Strong and Resilient City
Date Anticipated:	NA
Rating:	B
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X						
6 yr appropriations								
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>	
LES Revenue	\$ 308,000	\$ 278,000	\$ 286,000	\$ 294,000	\$ 303,000	\$ 312,000	\$ 1,781,000	
6 yr estimated cost by activity								
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>		
Capital Improvements	x	x	x	x	x	x		

Project: 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 as well as provide contingent support to the NW 70th & Fairfield and NW 12th & Arbor Substations.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2027
Rating:	B
Status:	Continued
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:							
6 yr appropriations								
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>	
LES Revenue	\$ -	\$ -	\$ 101,000	\$ 2,168,000	\$ 2,773,000	\$ -	\$ 5,042,000	
6 yr estimated cost by activity								
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>		
Capital Improvements			x	x	x			

Project: S:Substation Sites

Description:

Real property acquisitions for new, and expansion of existing, substation related sites as required for supporting continued growth and efficient and safe operation.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	NA
Rating:	B
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X						
6 yr appropriations								
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>	
LES Revenue	\$ 200,000	\$ 206,000	\$ 212,000	\$ 218,000	\$ 225,000	\$ 232,000	\$ 1,293,000	
6 yr estimated cost by activity								
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>		
Capital Improvements	x	x	x	x	x	x		

Project: S:SW27th & F Add Transmission Breaker

Description:

An LES sub-group evaluated existing two-terminal "tap" distribution substations to identify locations that would experience a significant increase in reliability by adding a transmission breaker. This site was identified as one of the top 4 sites in that evaluation in terms of benefit vs. cost of performing the upgrade. This project will install a 115kV transmission breaker to further segment the transmission system. The design standard for new two-terminal distribution substations now includes a transmission breaker to increase reliability.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2026
Rating:	B
Status:	New
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:						
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ -	\$ -	\$ 25,000	\$ 525,000	\$ -	\$ -	\$ 550,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements			x	x			

Project: S:West Lincoln Site Remediation

Description:

Retire foundations and underground facilities in the original West Lincoln substation which was constructed in the 1930's. The equipment and above ground structures were retired in 2021 after the replacement substation was constructed east of the original location in 2020. The original substation design included a masonry control building with a transformer repair facility, underground storage tanks and an oil circulation piping system between the building and transformers in the yard. The building basement contains a synchronous capacitor with identified PCB contamination which will be removed for appropriate disposal. After the facilities and foundations are removed, the surrounding soil and surface rock will be tested to identify any contaminated areas requiring additional remediation which will be conducted in accordance with established policies and practices.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2028
Rating:	B
Status:	New
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:						
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ 500,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements						x	

Project: T: 56th, Q - Everett

Description:

Rebuild 1.4 miles of the existing 115kV Line 5660 between 56th & Everett and 56th & Q 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 1970, will be 55 years old in 2025 and is reaching the end of its useful life.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2030
Rating:	B
Status:	Continued
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:							
6 yr appropriations								
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	6 yr Total	
LES Revenue	\$ -	\$ -	\$ -	\$ -	\$ 82,000	\$ 27,000	\$ 109,000	
6 yr estimated cost by activity								
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>		
Capital Improvements					x	x		

Project: T:128th & Pioneers - 103rd & Rokeby

Description:

Rebuild 4.7 miles of the existing 345kV Line 8589 between the vicinity of 128th & Pioneers and the 103rd & Rokeby substation. The 345kV line between Mark Moore and 128th & Pioneers was installed in 1971 using wood pole H-frame structures. This segment will be 57 years old in 2028 and is reaching the end of its useful life. In 2021, LES made the decision to rebuild lines along diagonal corridors in place rather than re-routing along section and half-section lines. This approach generally minimizes overall impacts to the community and greatly reduces project costs.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2028
Rating:	B
Status:	New
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:						
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	6 yr Total
LES Revenue	\$ -	\$ -	\$ 113,000	\$ 38,000	\$2,156,000	\$ 825,000	\$ 3,132,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements			x	x	x	x	

Project: T:56th & Everett - Elkcrest / Rebuild L1189T

Description:

Rebuild 2.4 miles of the existing 115kV Line 1189T between 56th & Everett and the 115kV three line tap at 56th & Elkcrest. 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 2012, and again in 2018. The existing 115kV line was installed in 1971, will be 55 years old in 2026, and is reaching the end of its useful life.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2025
Rating:	B
Status:	Continued
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X					
6 yr appropriations							
Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ 30,000	\$ 1,825,000	\$ 688,000	\$ -	\$ -	\$ -	\$ 2,543,000
6 yr estimated cost by activity							
Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
Capital Improvements	x	x	x				

Project: T:56th, Garland - Q

Description:

Rebuild 1.3 miles of the existing 115kV Line between 56th & Everett and 56th & Q 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 55/56 years old in 2025 and is reaching the end of its useful life.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2031
Rating:	B
Status:	Continued
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:						
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	6 yr Total
LES Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 82,000	\$ 82,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements						x	

Project: T:Bennet - Martell

Description:

Rebuild 3.1 miles of the existing 345kV Line 3503 with bundled T2 IBIS conductors from structure 87 to structure 68. The poles were inspected/tested/treated in 2012 and 2018. The original 345 kV line between Mark Moore and 128th & Pioneers was installed in 1971 using wood pole K-frame structures, will be 56 years old in 2027, and is reaching the end of its useful life.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2029
Rating:	B
Status:	New
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:						
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	6 yr Total
LES Revenue	\$ -	\$ -	\$ -	\$ 65,000	\$ 22,000	\$1,156,000	\$ 1,243,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements				x	x	x	

Project: T:Martell - Stagecoach

Description:

Rebuild 4.6 miles of the existing 345kV Line 3503 with bundled T2 IBIS conductors from structure 67 to structure 34. The poles were inspected/tested/treated in 2012 and 2018. The original 345 kV line between Mark Moore and 128th & Pioneers was installed in 1971 using wood pole K-frame structures, will be 55 years old in 2026, and is reaching the end of its useful life.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2026
Rating:	B
Status:	New
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:						
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	6 yr Total
LES Revenue	\$ 106,000	\$ 35,000	\$ 1,875,000	\$ 702,000	\$ -	\$ -	\$ 2,718,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements	x	x	x	x			

Project: T:Misc. Construction/Rebuild

Description:

Smaller, miscellaneous 115kV and 345kV 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.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	NA
Rating:	B
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X					
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 2,100,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements	x	x	x	x	x	x	

Project: 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.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	NA
Rating:	A
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X					
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ 100,000	\$ 100,000	\$ 100,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 900,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements	x	x	x	x	x	x	

Project: T:Stagecoach - Princeton

Description:

Rebuild 4.7 miles of the existing 345kV Line 3503 with bundled T2 IBIS conductors from structure 33 to structure 1. The poles were inspected/tested/treated in 2012 and 2018. The original 345 kV line between Mark Moore and 128th & Pioneers was installed in 1971 using wood pole K-frame structures, will be 58 years old in 2029, and is reaching the end of its useful life.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	12/31/2027
Rating:	B
Status:	New
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:						
6 yr appropriations							
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>
LES Revenue	\$ -	\$ 65,000	\$ 22,000	\$ 1,873,000	\$ 703,000	\$ -	\$ 2,663,000
6 yr estimated cost by activity							
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	
Capital Improvements		x	x	x	x		

Project: U:Extensions

Description:

RESIDENTIAL EXTENSION: This provides new underground primary, secondary or service additions. Also covered by this item are existing customers that request overhead to underground conversions of their electric service or upgrades for increased load.

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

COMMERCIAL EXTENSION: This provides for new commercial and industrial customers who 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 item.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	NA
Rating:	A
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X					
6 yr appropriations							
Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ 4,879,000	\$ 5,026,000	\$ 5,177,000	\$ 5,331,000	\$5,490,000	\$5,655,000	\$31,558,000
6 yr estimated cost by activity							
Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
Capital Improvements	x	x	x	x	x	x	

Project: U:Major Circuits

Description:

FEEDERS: This project provides for construction of new underground 12kV and 35kV feeders (main distribution lines) as needed to serve system growth areas. The installation of manual or automated switchgear on new or existing feeders is also included in this item. Distribution feeder conductors are economically evaluated including the life-cycle cost of electrical losses. This allows LES to improve automated voltage/VAR control and 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 and reduced greenhouse gases by reducing unmetered electric losses in the distribution and transmission system. They also provide needed voltage support at peak load conditions.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	NA
Rating:	A
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X					
6 yr appropriations							
Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ 2,546,000	\$ 2,209,000	\$ 1,246,000	\$ 1,284,000	\$1,323,000	\$1,913,000	\$10,521,000
6 yr estimated cost by activity							
Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
Capital Improvements	x	x	x	x	x	x	

Project: U:Rebuilds

Description:								
This item provides for replacement of existing underground facilities due to age, deterioration, or other operating problems. The identified projects are general system upgrades that will extend the life of existing underground facilities. Some of the underground cable and equipment is approaching the end of its useful life. The need is increasing to replace deteriorating underground cable and obsolete equipment to maintain adequate reliability levels for our customers. Replacements for some facilities are being installed due to indications that they have reached the end of their service life. Other replacement will be done on an "as required" basis.				Budget Outcome:		Strong and Resilient City		
				Date Anticipated:		NA		
				Rating:		A		
				Status:		Ongoing		
				Comp Plan Conformity:		Generally Conforms with Plan		
	Prior Appropriations:	X						
6 yr appropriations								
Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total	
LES Revenue	\$ 3,964,000	\$ 4,142,000	\$ 3,263,000	\$ 1,083,000	\$1,114,000	\$1,146,000	\$14,712,000	
6 yr estimated cost by activity								
Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028		
Capital Improvements	x	x	x	x	x	x		

Project: 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. Project steps include: · Relocate existing overhead and underground lines and associated transformers and equipment for road widening projects, customer requests, and where economical. · Convert to underground about \$1M per year of existing overhead lines and associated transformers and equipment in the discretionary overhead to underground conversion program, but this is increasing to about \$2M per year during a portion of the current CIP 6-year window.					Budget Outcome:		Strong and Resilient City	
					Date Anticipated:		NA	
					Rating:		A	
					Status:		Ongoing	
					Comp Plan Conformity:		Generally Conforms with Plan	
	Prior Appropriations:	X						
6 yr appropriations								
Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total	
LES Revenue	\$ 4,011,000	\$ 5,522,000	\$ 5,789,000	\$ 4,192,000	\$3,391,000	\$3,650,000	\$26,555,000	
6 yr estimated cost by activity								
Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028		
Capital Improvements	x	x	x	x	x	x		

Project: 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). LES plans to remove all PCB-contaminated distribution transformers from the system during this next CIP 6-year period. 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.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	NA
Rating:	A
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X						
6 yr appropriations								
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>	
LES Revenue	\$ 1,600,000	\$ 1,648,000	\$ 1,697,000	\$ 1,748,000	\$1,800,000	\$1,854,000	\$10,347,000	
6 yr estimated cost by activity								
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>		
Capital Improvements	x	x	x	x	x	x		

Project: 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.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	NA
Rating:	A
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X						
6 yr appropriations								
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>	
LES Revenue	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 60,000	
6 yr estimated cost by activity								
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>		
Capital Improvements	x	x	x	x	x	x		

Project: W:Street Light - Waverly

Description:

Various street light projects in Waverly city limits.

Budget Outcome:	Safe and Healthy City
Date Anticipated:	NA
Rating:	B
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X						
6 yr appropriations								
Funding Source	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>	<u>6 yr Total</u>	
LES Revenue	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 66,000	
6 yr estimated cost by activity								
Activity type	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>2027/2028</u>		
Capital Improvements	x	x	x	x	x	x		

Project: 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.

Budget Outcome:	Strong and Resilient City
Date Anticipated:	NA
Rating:	A
Status:	Ongoing
Comp Plan Conformity:	Generally Conforms with Plan

	Prior Appropriations:	X					
6 yr appropriations							
Funding Source	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	6 yr Total
LES Revenue	\$ 105,000	\$ 690,000	\$ 105,000	\$ 105,000	\$ 105,000	\$ 105,000	\$ 1,215,000
6 yr estimated cost by activity							
Activity type	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
Capital Improvements	x	x	x	x	x	x	