

# Economic Impact Analysis

Proposed Electric Power Generating Station  
Lincoln Land Energy Center

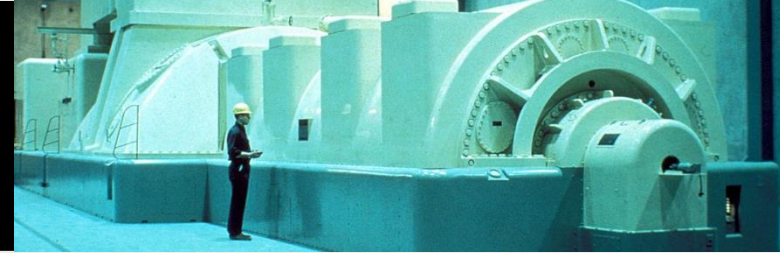


Northern Illinois  
University

*Brian Harger, M.S., EDFP*

*June 2020*

# Key Concepts



- **Employment (Jobs)** – An employee is someone who enters into an agreement formal or informal, to perform work in return for compensation in cash or in kind.
- **Output** is the value of an industry’s production. For a business’ sales plus or minus any change in inventory.
- **Value-Added** in the IMPLAN framework is the same as the official measure of “Gross Domestic Product” or “GDP” at the national or state level. In contrast to the concept of *output*, it represents the difference between the value of goods and services purchased as production inputs and the value of the goods and services produced.
- **Labor Income** includes wages and salaries and the estimated value of all employer provided benefits, plus employer-paid payroll taxes, as well as proprietor income from self-employed workers.
- **The Multiplier Effect** estimates the magnitude of the economic response in a geographic area associated with a change in business activity, either in terms of jobs or spending.



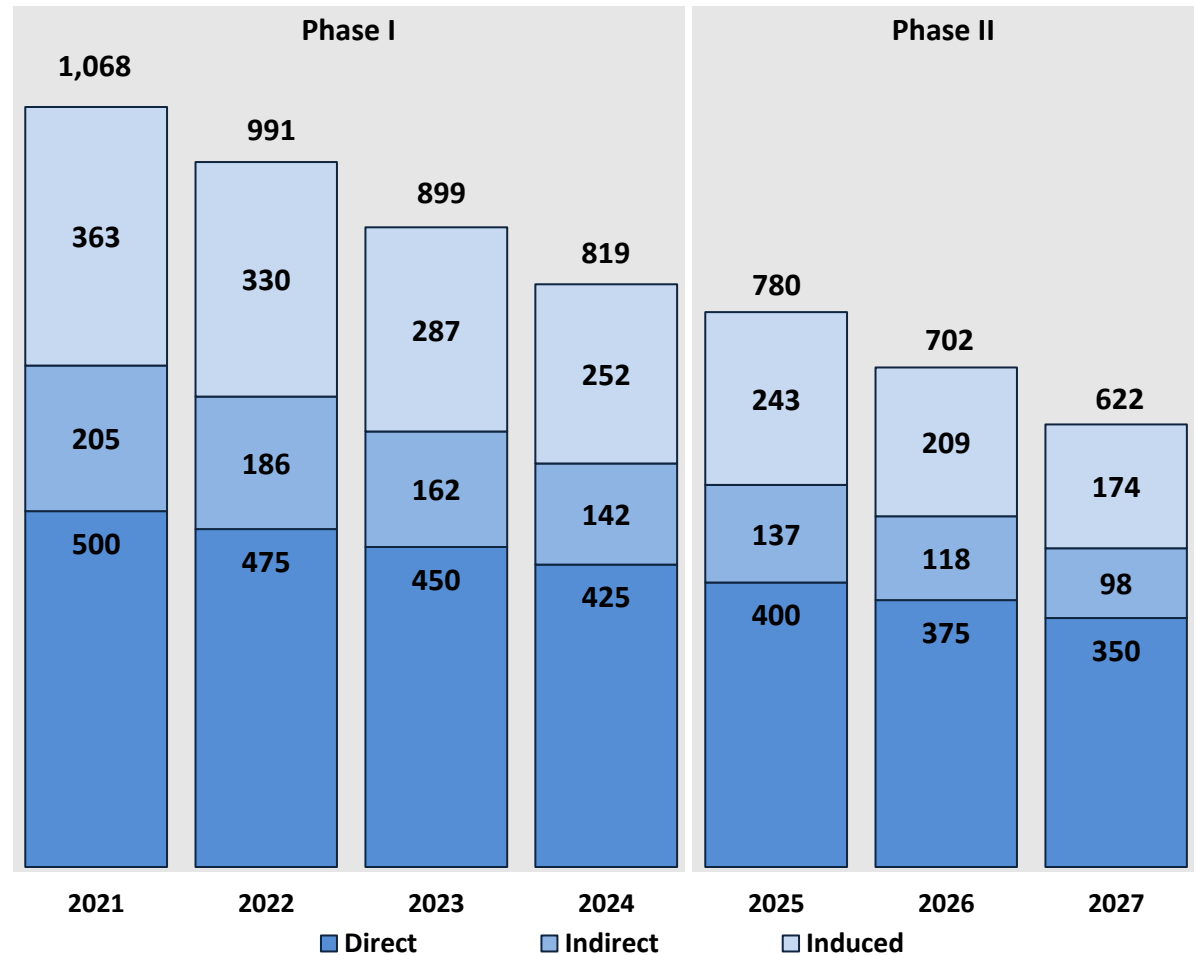
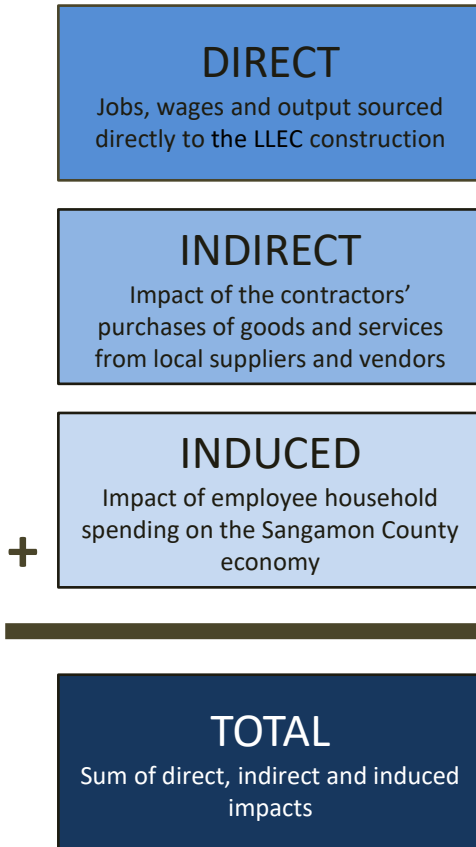
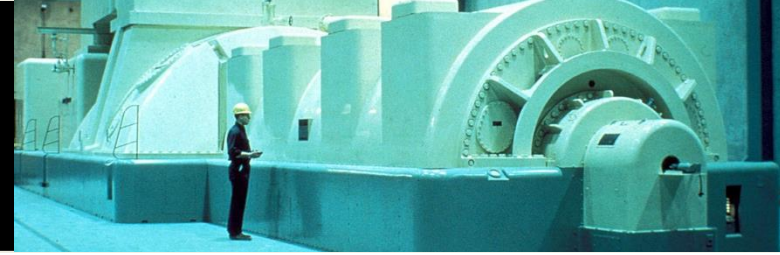
# Facility Construction Overview



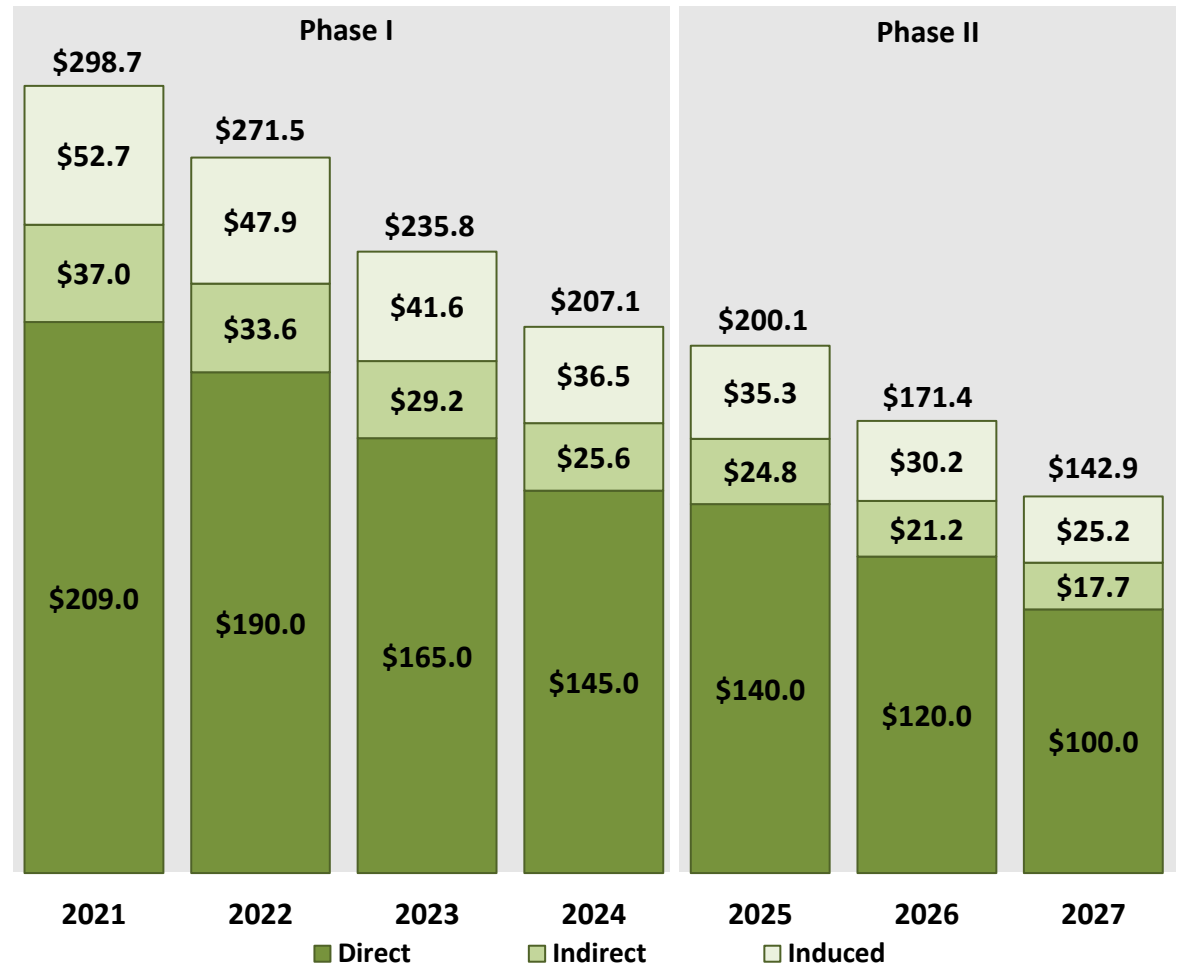
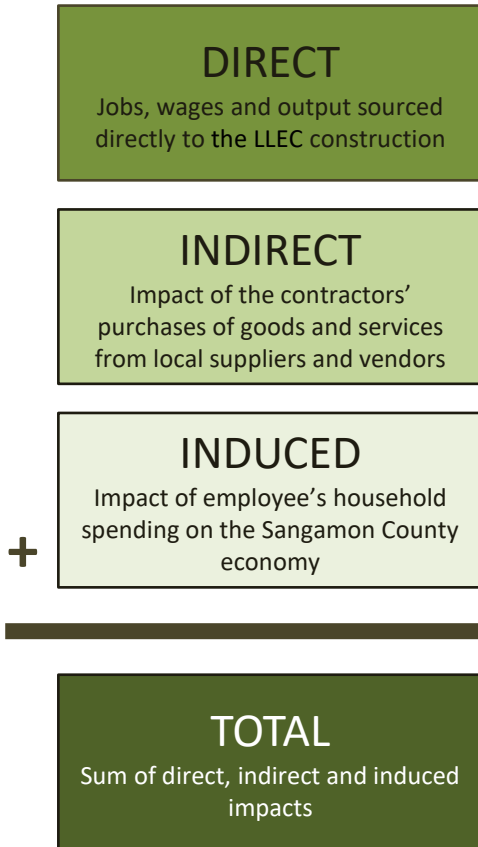
- Lincoln Land Energy Center is proposing to build and operate a natural gas-powered power generation facility in the Sangamon County, Illinois approximately 20 miles south of Springfield.
- Construction costs for the facility are estimated at \$1 Billion and will employ approximately 350 – 500 construction workers per year.
- The construction will occur in two phases. The first is anticipated to begin in 2021 and conclude in 2024. The second phase will take place from 2025 through 2027.
- For the purposes of the analysis, employment and expenditures were distributed according to the formula shown in the table below.

Facility Construction	Phase I	Phase I	Phase I	Phase I	Phase II	Phase II	Phase II
	2021	2022	2023	2024	2025	2026	2027
Employment	500	475	450	425	400	375	350
Expenditures	\$209,000,000	\$190,000,000	\$165,000,000	\$145,000,000	\$140,000,000	\$120,000,000	\$100,000,000

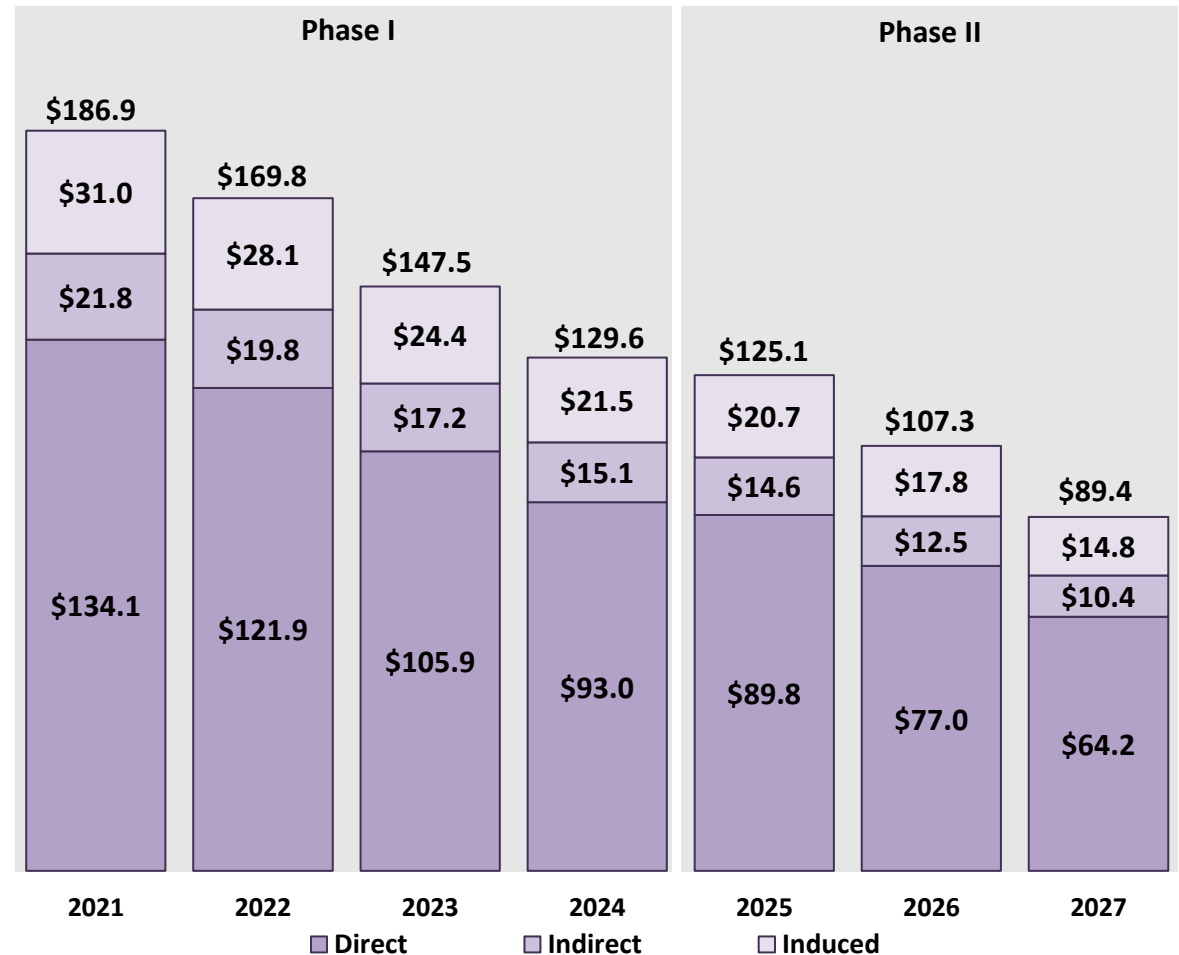
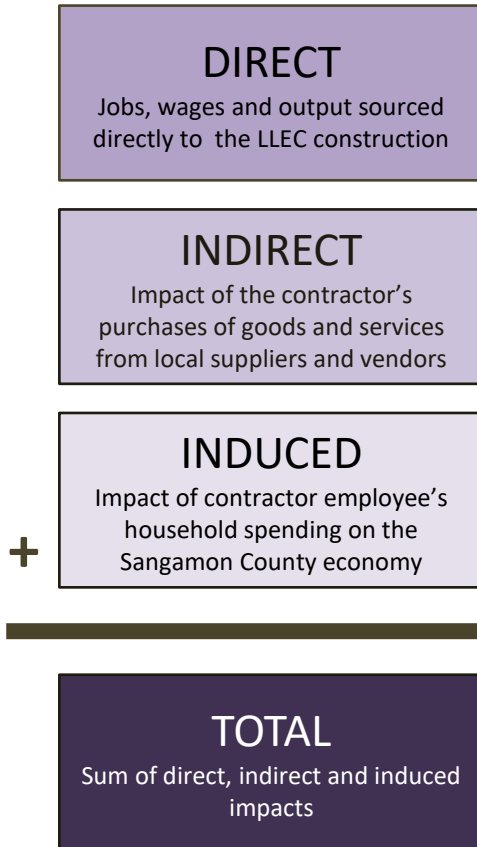
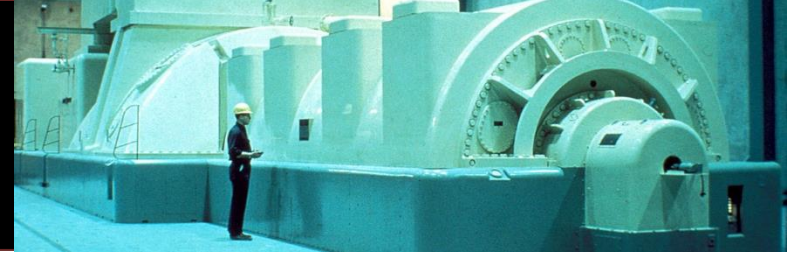
# Facility Construction Employment Impacts



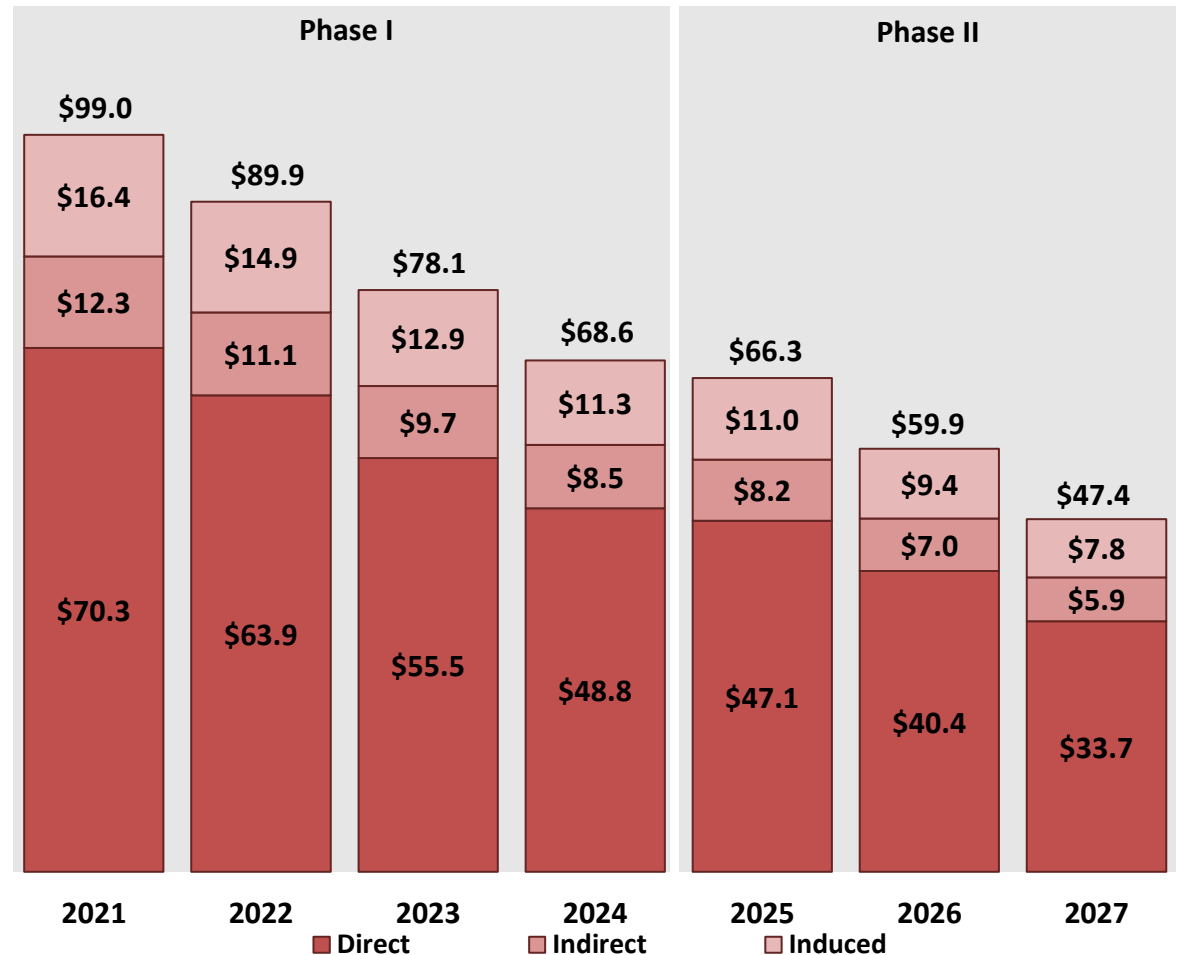
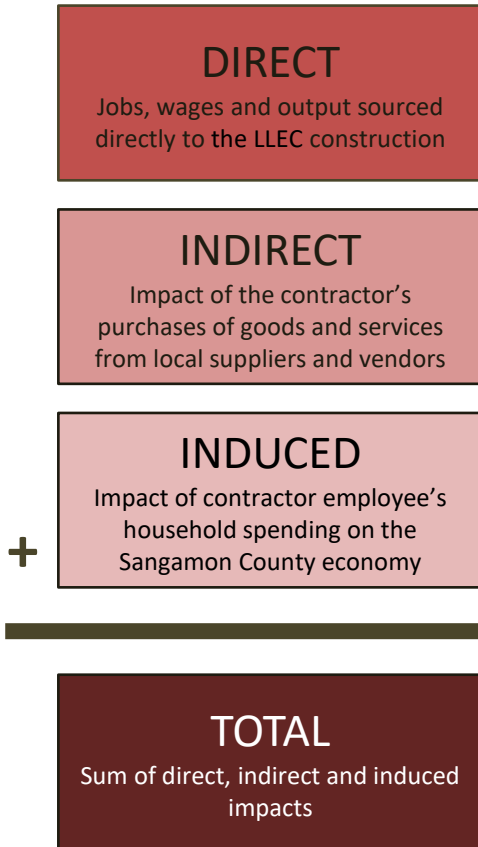
# Facility Construction Output Impacts



# Facility Construction Value-Added Impacts



# Facility Construction Labor Income Impacts



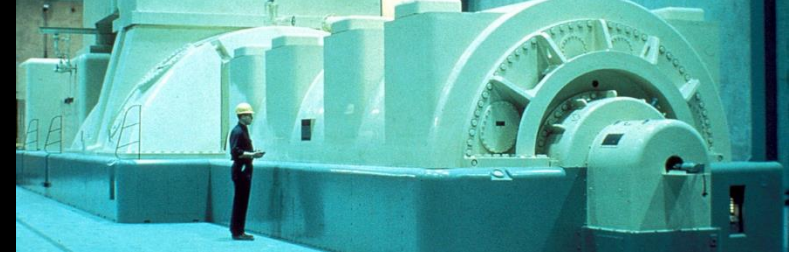
# Facility Operations Overview



- The facility operations in will commence in two phases (Trains).
- Train 1 operations will begin in 2024 employing 30 workers.
- Train 2 will begin in 2028 and will employ an additional 4 workers, A total of 34 workers will be employed at the facility when Trains 1& 2 are in full operation.
- These will be full-time permanent positions paying between \$100,000 and \$120,000 per year.
- Including the cost of benefits, total estimated employee compensation costs will be \$3,740,000 per year.
- Summary impacts of each operation phase are on the next slide.
- The detailed impacts that follow are for Trains 1 and 2 operations



# Facility Operations Summary of Impacts



## DIRECT

Jobs, wages and output sourced directly to the LLEC

## INDIRECT

Impact the LLEC's purchases from local suppliers and vendors

## INDUCED

Impact of the LLEC employee's spending on the Sangamon County economy

+

## TOTAL

Sum of direct, indirect and induced impacts

### Estimated Impacts the Facility Operations - Train 1 (2024)

Sangamon County, Illinois	Direct	Indirect	Induced	Total	Multiplier
Employment	30	66	33	129	4.30
Output (\$ Millions)	\$43.7	\$21.9	\$4.8	\$70.4	1.61
Value-Added (\$ Millions)	\$15.0	\$10.0	\$2.8	\$27.8	1.85
Labor Income (\$ Millions)	\$3.4	\$4.3	\$1.5	\$9.2	2.69

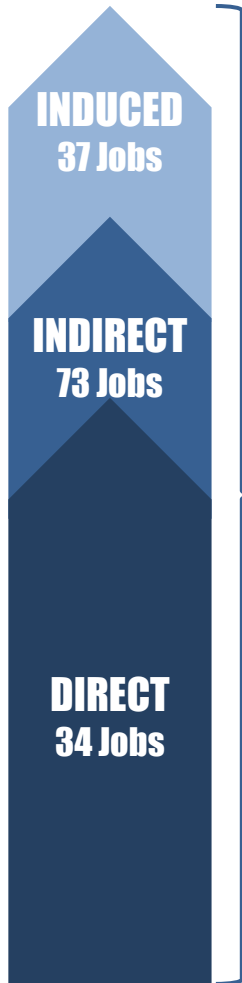
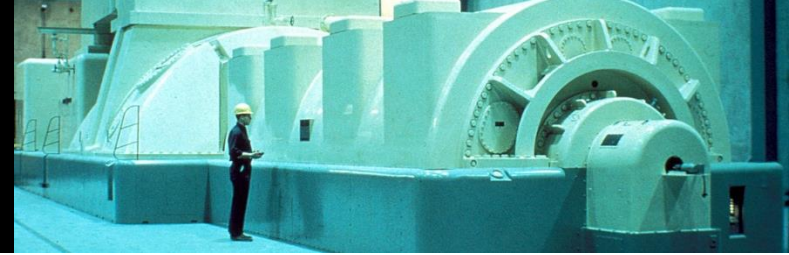
### Estimated Impacts the Facility Operations - Trains 1 & 2 (2028)

Sangamon County, Illinois	Direct	Indirect	Induced	Total	Multiplier
Employment	34	73	37	144	4.24
Output (\$ Millions)	\$48.7	\$24.5	\$5.4	\$78.6	1.61
Value-Added (\$ Millions)	\$16.7	\$11.1	\$3.2	\$31.0	1.85
Labor Income (\$ Millions)	\$3.8	\$4.7	\$1.7	\$10.2	1.61

Source: IMPLAN, 2020.



# Facility Operations Employment Impacts



Source: IMPLAN,  
2020..

Every **10 jobs** at the  
Lincoln Land Energy  
Center...



...supports another **32 jobs**  
are in other industries.



*A jobs multiplier of*  
**4.24**

# Facility Operations

## Employment Impacts by Industry



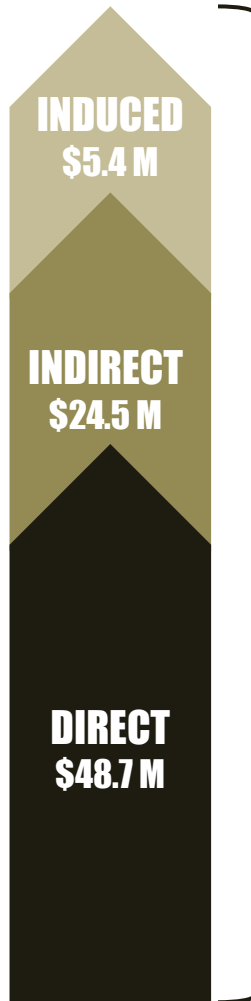
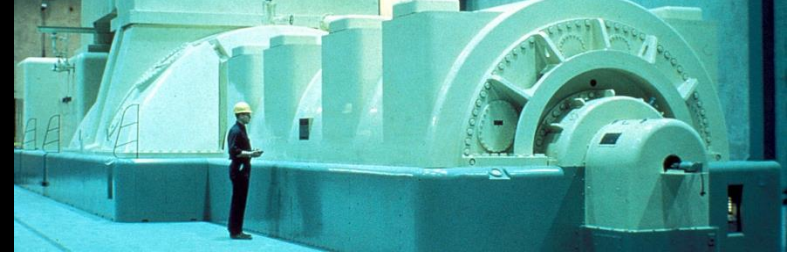
### Industries experiencing the greatest **indirect employment impacts**:

Employment services	12 Jobs
20 - Oil and gas extraction	9 Jobs
Electric power transmission and distribution	8 Jobs
Marketing research and all other miscellaneous professional, scientific, and technical services	6 Jobs
Support activities for transportation	3 Jobs
Full-service restaurants	3 Jobs
Rail transportation	2 Jobs
Monetary authorities and depository credit intermediation	2 Jobs
Other real estate	2 Jobs
Pipeline transportation	2 Jobs

### Industries experiencing the greatest **induced employment impacts**:

Hospitals	2 Jobs
Limited-service restaurants	2 Jobs
Full-service restaurants	2 Jobs
Offices of physicians	1 Job
Retail - General merchandise stores	1 Job
Personal care services	1 Job
Retail - Food and beverage stores	1 Job
All other food and drinking places	1 Job
Nursing and community care facilities	1 Job
Automotive repair and maintenance, except car washes	1 Job

# Facility Operations Output Impacts

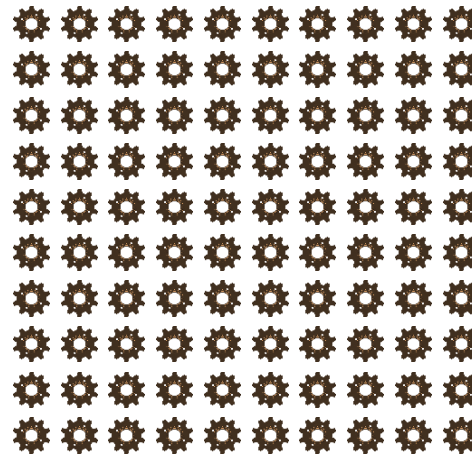


**TOTAL**  
**\$78.6 M**

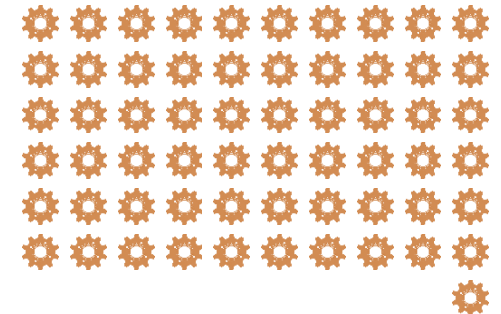


Source: IMPLAN,  
2020.

For every \$100 in output  
from Lincoln Land Energy  
Center's operations...



...supports in an additional \$61  
in the output of other business  
sectors.



*An output multiplier of*  
**1.61**

# Facility Operations

## Output Impacts by Industry



### Industries experiencing the greatest **indirect output impacts**:

Electric power transmission and distribution	\$10,350,395
Oil and gas extraction	\$2,418,284
Pipeline transportation	\$1,629,564
Employment services	\$1,199,593
Rail transportation	\$1,072,861
Local government electric utilities	\$758,985
Monetary authorities and depository credit intermediation	\$639,672
Coal mining	\$517,391
Support activities for transportation	\$513,628
Marketing research and all other miscellaneous professional, scientific, and technical services	\$461,004

### Industries experiencing the greatest **induced output impacts**:

Owner-occupied dwellings	\$728,209
Hospitals	\$419,826
Offices of physicians	\$246,201
Monetary authorities and depository credit intermediation	\$206,012
Insurance carriers, except direct life	\$195,760
Limited-service restaurants	\$164,230
Tenant-occupied housing	\$135,827
Full-service restaurants	\$130,734
Other real estate	\$122,311
Retail - General merchandise stores	\$85,060

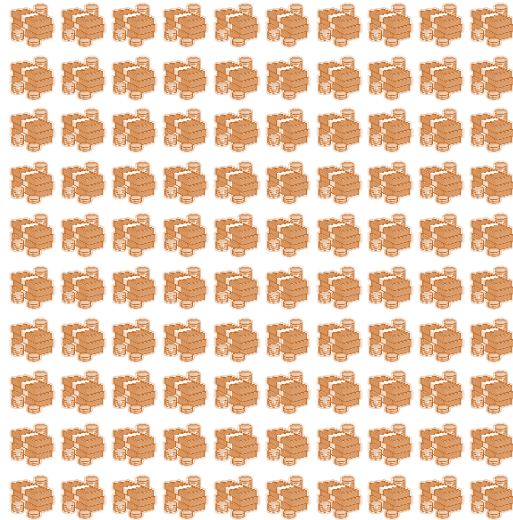
# Facility Operations Value-Added Impacts



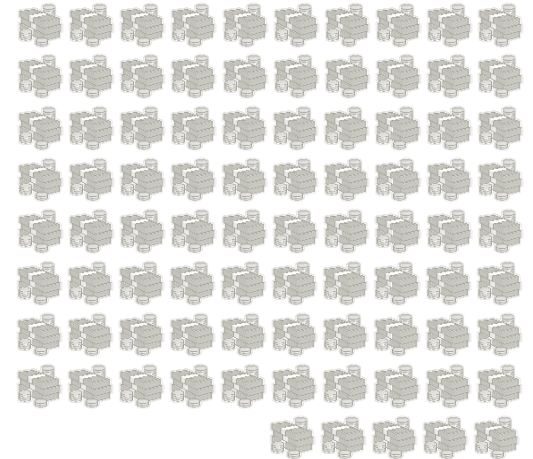
**TOTAL  
\$31.0 M**

Source: IMPLAN,  
2020.

For every \$100 in value-added created the Lincoln Land Energy Center's operations...



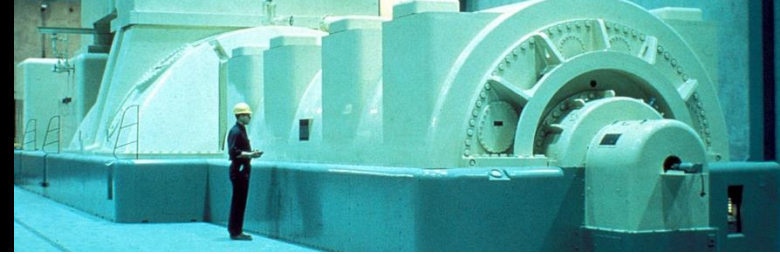
...supports in an additional \$85 in value-added in related business sectors.



*An employee compensation multiplier of*  
**1.85**

# Facility Operations

## Value-Added Impacts by Industry



### Industries experiencing the greatest **indirect value-added impacts**:

Electric power transmission and distribution	\$4,006,698
Pipeline transportation	\$1,420,884
Employment services	\$741,088
Rail transportation	\$491,037
Local government electric utilities	\$443,565
Monetary authorities and depository credit intermediation	\$343,460
Coal mining	\$319,857
Wholesale - Petroleum and petroleum products	\$296,968
Marketing research and all other miscellaneous professional, scientific, and technical services	\$292,636
Support activities for transportation	\$270,185

### Industries experiencing the greatest **induced value-added impacts**:

Owner-occupied dwellings	\$576,348
Hospitals	\$216,483
Offices of physicians	\$175,154
Tenant-occupied housing	\$118,384
Monetary authorities and depository credit intermediation	\$110,615
Insurance carriers, except direct life	\$91,871
Limited-service restaurants	\$74,322
Full-service restaurants	\$71,924
Automotive repair and maintenance, except car washes	\$53,203
Retail - General merchandise stores	\$52,550

# Facility Operations Labor Income Impacts

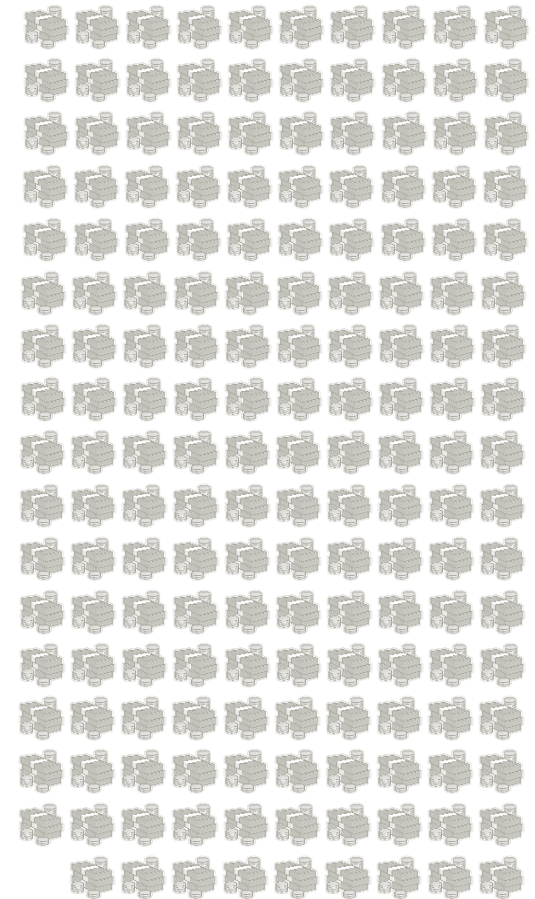


Source: IMPLAN,  
2020.

For every \$100 in labor income paid to the employees of the Lincoln Land Energy Center...



...supports in an additional \$169 in labor income in related business sectors.



*A labor income multiplier of*  
**2.69**



# Facility Operations

## Labor Income Impacts by Industry



### Industries experiencing the greatest **indirect labor income impacts**:

Electric power transmission and distribution	\$1,048,490
Employment services	\$463,682
Marketing research and all other miscellaneous professional, scientific, and technical services	\$388,390
Rail transportation	\$319,818
Pipeline transportation	\$247,338
Support activities for transportation	\$232,642
Local government electric utilities	\$157,813
Monetary authorities and depository credit intermediation	\$134,931
Legal services	\$106,901
Management of companies and enterprises	\$92,827

### Industries experiencing the greatest **induced labor income impacts**:

Hospitals	\$171,911
Offices of physicians	\$146,059
Religious organizations	\$47,261
Automotive repair and maintenance, except car washes	\$45,556
Monetary authorities and depository credit intermediation	\$43,456
Full-service restaurants	\$43,245
Limited-service restaurants	\$40,671
Nursing and community care facilities	\$33,668
Retail - General merchandise stores	\$33,091
Personal care services	\$31,616

# Facility Operations

## Right-of-Way Lease



LLEC will purchase water from the City of Springfield providing an additional \$450,000 in yearly revenue.

LLEC will lease right-of-way from the City of Springfield which will include:

- An upfront payment of \$3 million for ROW easements in 2021 and,
- Annual payments of \$800,000 escalating at 2% each year for 25 years (a total of \$25,624,240) as shown in the table below:

R-O-W Lease	2021	2022	2023	2024	2025	2026	2027	2028	...	2047
<b>Upfront Payment</b>	\$3,000,000									
<b>Annual Payment</b>			\$800,000	\$816,000	\$832,320	\$848,966	\$865,946	\$883,265	...	\$1,286,750
<b>Development Phases</b>	Phase I Construction				Phase II Construction					
				Train 1 Operations						
								Train 2 Operations		



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