

NEBRASKA ETHANOL EMERGING ISSUES FORUM

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Nebraska Public Power District
Always there when you need us

ABOUT NPPD



Generating Facilities

31



Residential, Commercial and Industrial Customers

92,000



NPPD's Chartered Territory

84 of Nebraska's 93 counties



Retail Communities

79



Total Operating Revenues

\$1.1 billion



Works in Partnership with Other Utilities to Serve More Than

600,000 Nebraskans



Wholesale Power Supply Agreements

46 Municipalities

24 Public Power Districts



Govered by Elected Board of Directors Representing

11 Subdivisions

Why We're Involved In Economic Development

- Enhance the quality of life
- Lower electric rates (costs) for all
- Job creation/wealth creation
- Build revenue
- Foster good government and community relations
- Diversify state's economy
- Expand tax base



Nebraska Ethanol Industry 1985-2022

- Just one Nebraska ethanol plant in 1985 has grown to 24 ethanol plants today. Spread throughout much of the state, these plants have a capacity of more than 2.5 billion gallons – making Nebraska the No. 2 ethanol-producing state in the country.
- Combined, these plants use more than 700 million bushels of corn per year – and produce more than 6 million tons of distillers grains, a high protein feed ingredient used for cattle.
- These ethanol plants represent a \$5 billion economic impact in the state and provide direct full-time employment for more than 1,400 Nebraskans.



What's Next for Nebraska's Ethanol Industry

- Higher grades of alcohols
- Clean sugar technology
- Higher protein products
- Increased corn oil production
- Carbon capture



Lowering Ethanol Carbon Intensity with CO₂ Capture and Sequestration





Economic Impacts of Adding Carbon Capture Technologies to Nebraska Ethanol Plants

Conestoga Energy Partners Carbon Capture Project

- A joint project between Gary Climate Solutions, LLC and Conestoga Energy Partners
- Began in 2012
- Roughly 150,000 tons of CO₂ are captured annually from the Bonanza BioEnergy plant in Garden City, Kansas.
- The CO₂ is transported and injected via a 14-mile transmission system and utilized for enhanced oil recovery.





Conestoga Energy Partners Carbon Capture Project

Impact Analysis Data

- Data for Impact based on information received from Gary Climate Solutions and Pelican Engineering
- Impact is for Carbon Capture systems installed at our 24 plants
- Impact does not include investments in pipeline or sequestration wells



ASSUMPTIONS



50 MGY

PLANT SIZE



120,500

TONS OF CO₂ PER YEAR



\$12M

INVESTMENT

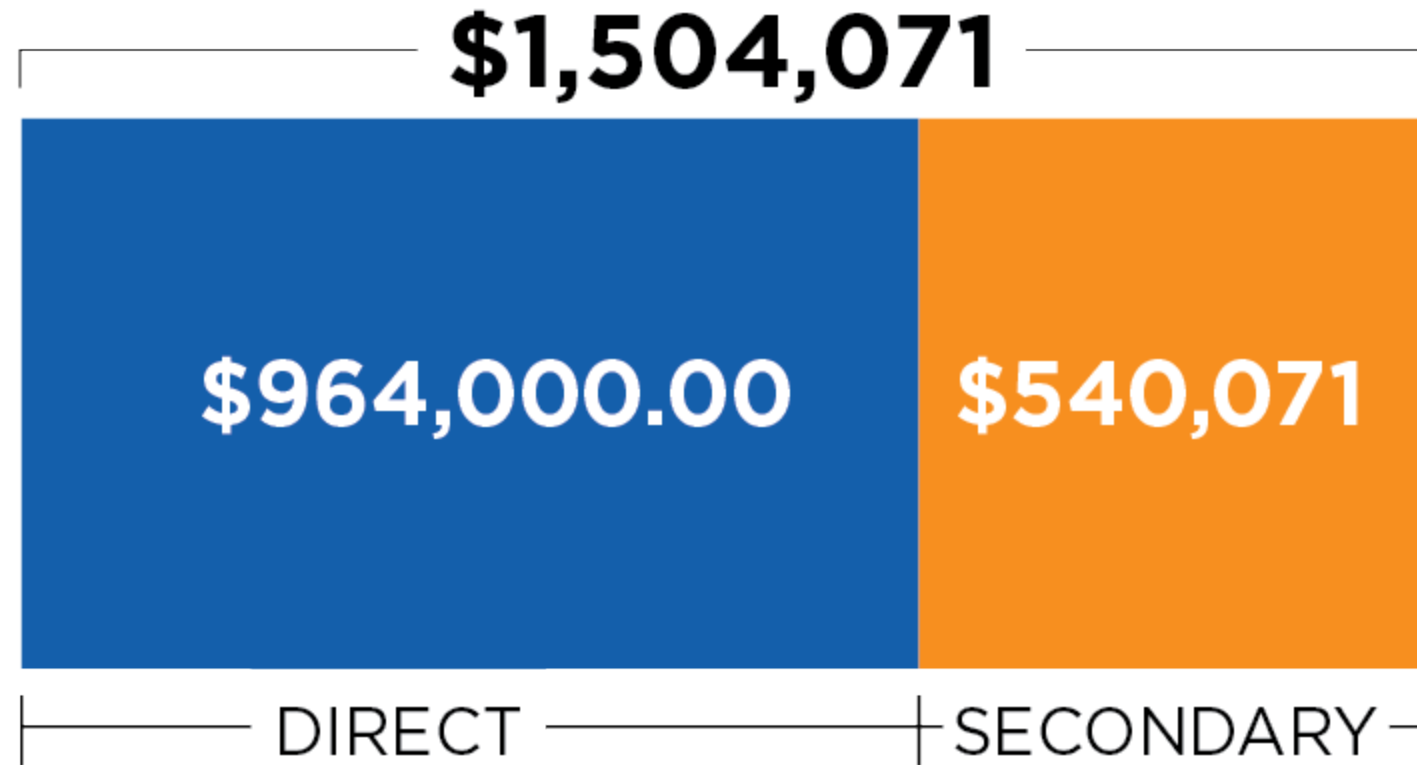


\$964,000

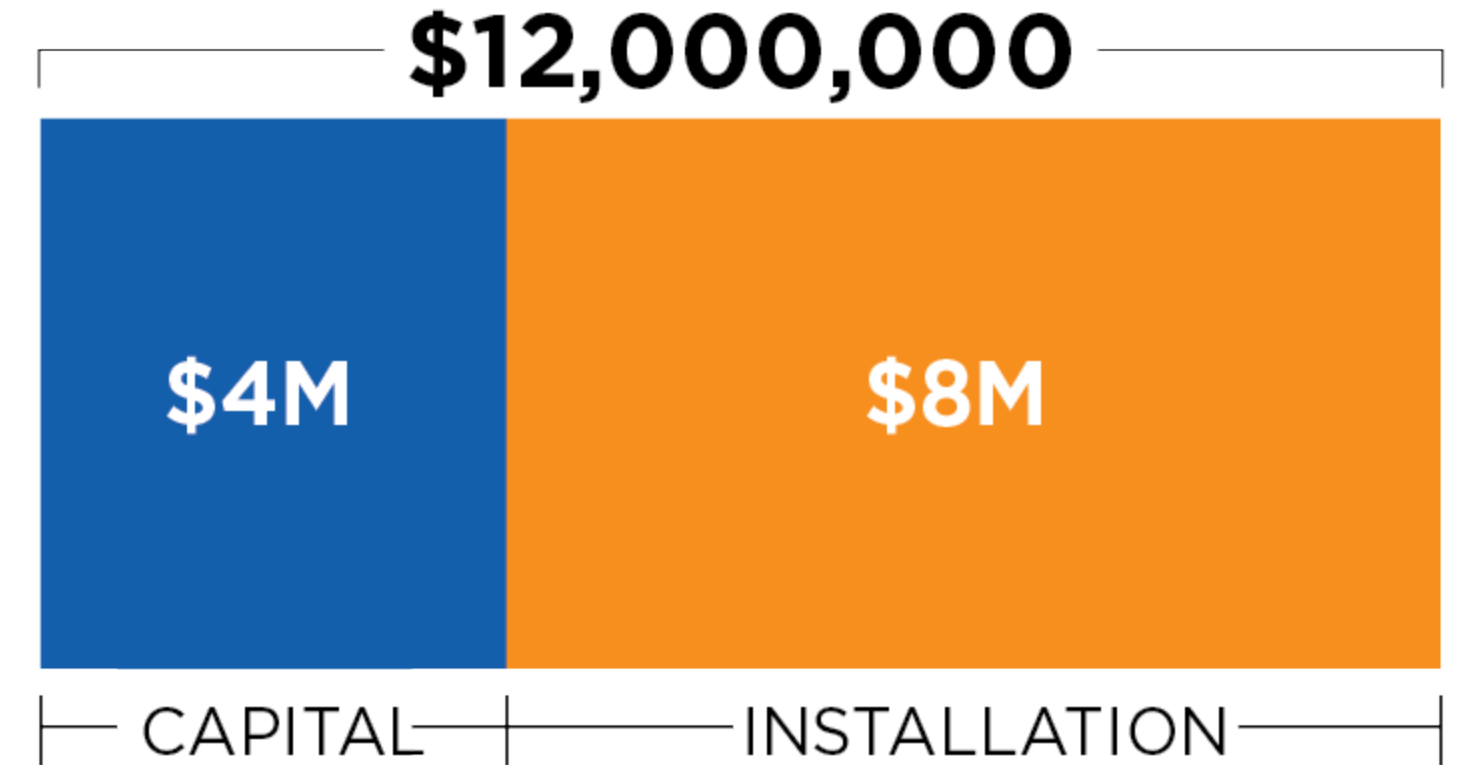
ANNUAL COST OF OPERATION

OPERATION IMPACT

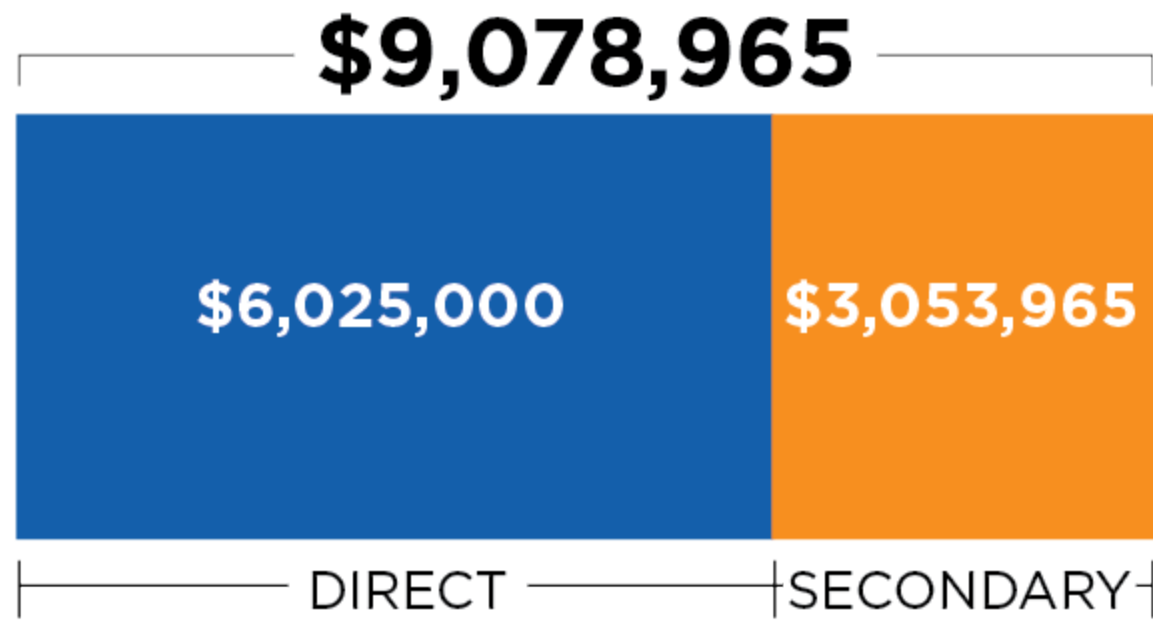
OPERATING COSTS



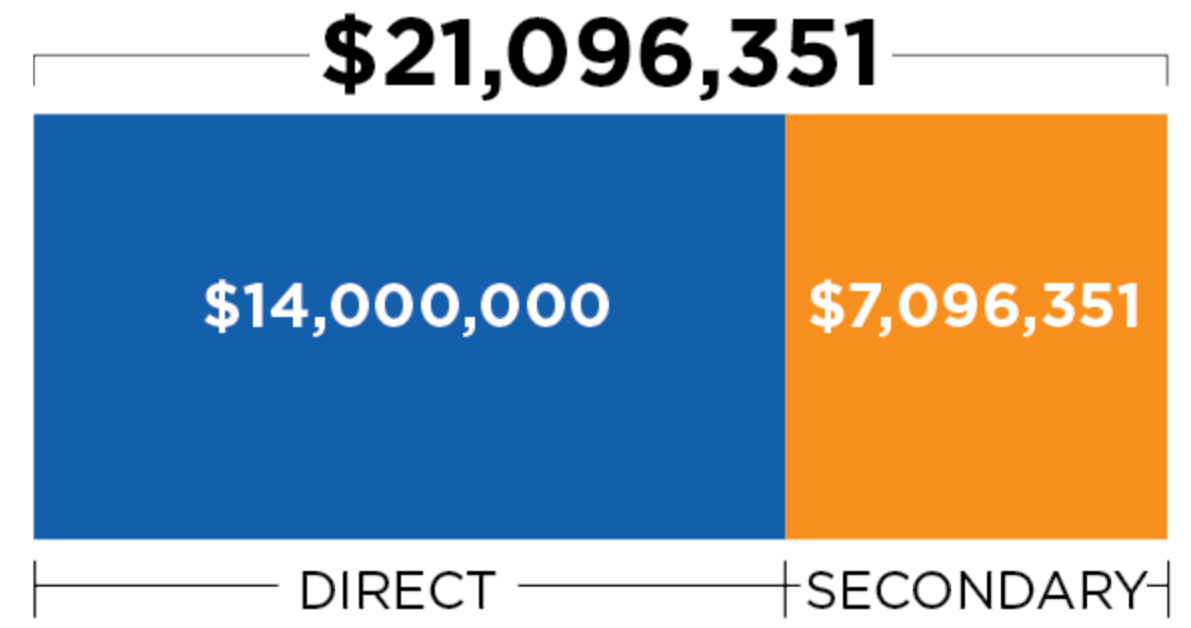
INVESTMENT



**45Q TAX
CREDIT
IMPACT**

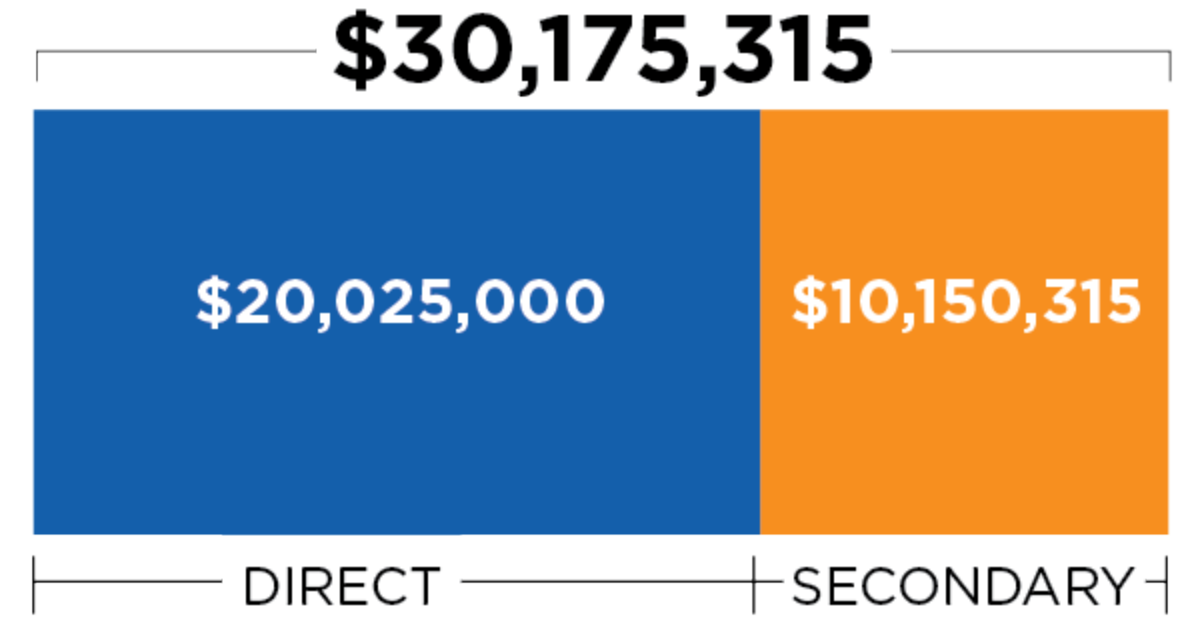


**LCFS
IMPACT**



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**TOTAL PLANT
REVENUE IMPACT**



POTENTIAL ANNUAL IMPACT

\$1.5 BILLION

**Carbon capture and sequestration
is not only good for the environment,
it's good for Nebraska's economy.**

Questions?

Stay connected with us.



Nebraska Public Power District

Always there when you need us