

# Clean Sustainable Energy Authority

## Grant Program Overview

Jordan Kannianen, NDIC Deputy Executive Director

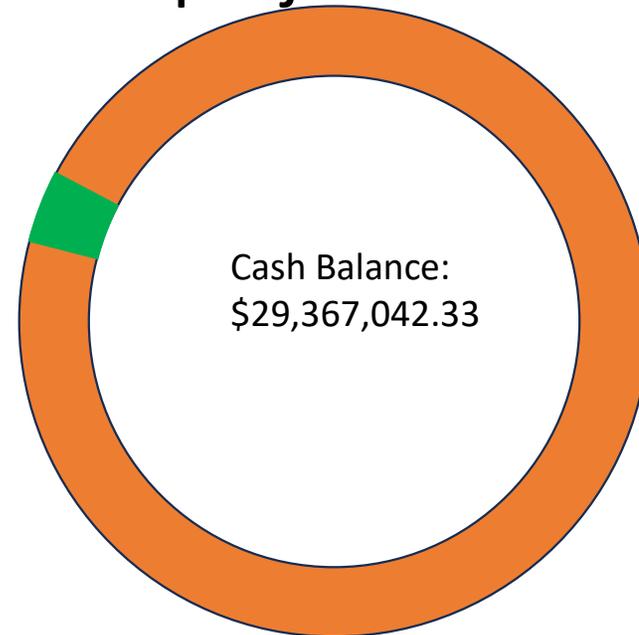
## History of CSEA

- 2021 Session: Created with HB 1452
  - \$25M for grants (General Fund), \$250 LOC from BND for loans
- 2021 Special Session:
  - Additional \$20M of ARPA funds earmarked for Hydrogen projects.
- 2023 Session:
  - Additional \$30M for grants (SIIF), and LOC expanded to \$390M
  - \$5.3M authorized to SERC for underground storage projects (from Hydrogen grant funds)
- 2023 Special Session:
  - \$125M forgivable loan for fertilizer project
- 2025 Session:
  - Proposal of \$30M for grants and \$100M additional loan authority

# Current Status

20 Cumulative Projects  
\$74.5M in total grant awards  
\$12.1M in returned commitments  
\$545.5M loaned  
\$6.2B project value

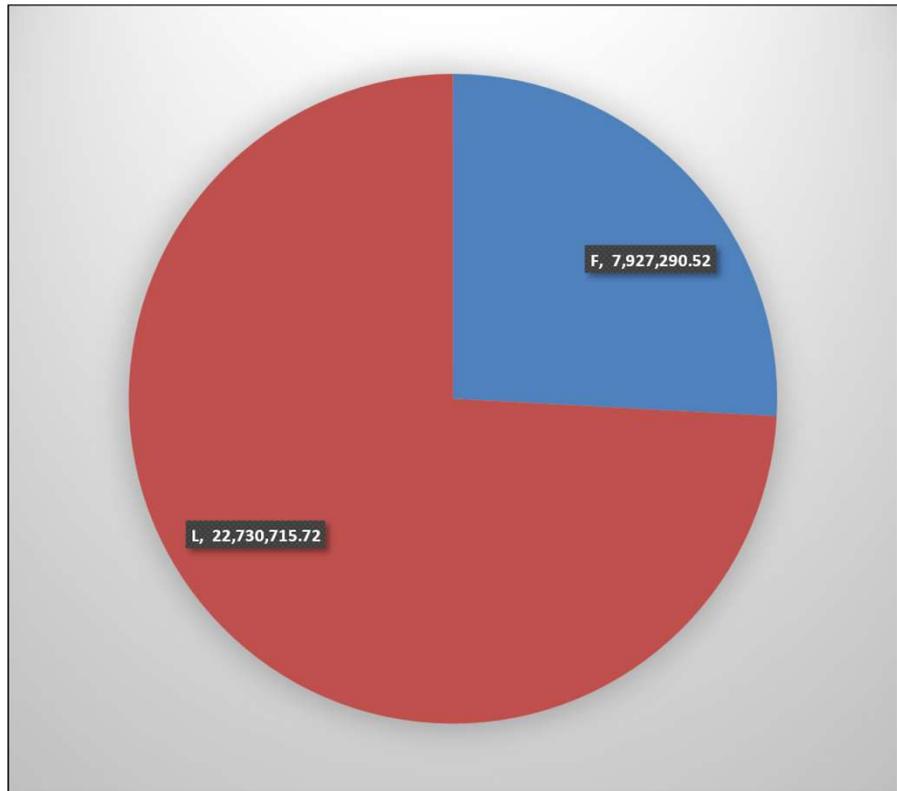
Uncommitted  
Cash Available:  
\$477,157.73



Outstanding  
Commitments/  
Expenses:  
\$28,889,884.60

Total Dollars  
Spent Since  
Program  
Inception  
in 2021

<b>Total Dollars Spent</b>	<b>30,658,006.24</b>
Hydrogen Funding (Federal)	7,927,290.52
Legislatively Directed	22,730,715.72



# Great Plains Hydrogen Hub project

- Bakken Energy, LLC was going to purchase the Great Plains Synfuels Plant from Basin Electric
- Awarded \$10M grant and \$80M loan
- Contract signed Feb 2022
- Deal fell through due to changing gas and hydrogen markets
- Contract terminated April 2023
- \$4,763,929.12 of the grant was spent
- \$5,236,070.88 of the grant was decommitted
- Entire \$80M loan was decommitted

# Cerilon GTL Phase 1

- Proposed project would use natural gas to create synthetic products
- Awarded \$7M grant and \$40M loan
- Contract signed April 2022
- Front-End Loading Stage 2 completed
- Grant paid out and completed

Wellspring  
Hydro

Produced  
Water

- Using produced water from the Bakken to produce lithium and chlor-alkali, etc.
- Awarded \$1M grant.
- Contract signed January 2022.
- Completed Front-End Loading Phase 3
- Grant paid out and completed.

# Midwest Ag Energy

# Blue Flint Carbon Capture

- Awarded \$3M grant and \$100M loan
- Contract signed January 2022
- Constructed Capture Compression & Dehydration Facility, an injection well, a monitoring well, and a CO2 transport line.
- Obtained Class VI permit
- Successfully executed project demonstrated CO2 emissions could be managed successfully, enhancing ethanol production
- Grant paid out and Completed

EERC

Coal Creek  
CCUS  
Design

- Front-end Engineering and Design (FEED) for CO2 capture project at Coal Creek Station.
- Awarded \$7M grant
- Contract signed February 2022
- Remaining Commitment: \$1,582,099.63

# Enerplus

## Engine Carbon Capture

- Awarded \$1M Grant
- Evaluate and test industrial scale carbon capture from natural gas power generators
- Chord Energy subsequently purchased Enerplus
- No contract was signed
- Company will need to reapply for grant funds

EERC

Liberty  
H2 Hub

- Awarded \$10M ARPA grant
- Contract signed November 2022
- FEED study supporting large-scale H2 production, transport, and storage at the Prairie Horizon facility
- Chose to halt further spend due to premature hydrogen markets
- Returned Commitment of \$6,836,638.60

# Newlight Project Phoenix

- Awarded \$4,185,625 grant and \$30M loan
- Contract signed November 2022
- Large-scale facility to produce AirCarbon (carbon-negative polymer) from renewable natural gas
- Remaining Grant Commitment: \$771,604.33
- FEED 97% complete

# Enerplus Geothermal Power

- Awarded Grant of \$1,098,500
- Contract signed January 2024
- Replace conventional water coolers with geothermal power production skids, enhancing operational energy efficiency and sustainability
- Remaining Commitment: \$948,249.00
- Pilot Project installed on well pad.
- Results expected in early 2025.
- Final Report due July 2026.

# Bushel Farm Traceability Dashboard

- Develop a grain traceability dashboard that facilitates farm data sharing.
- Awarded Grant of \$3.5M
- Contract signed November 2023
- Remaining Commitment: \$3,415,090.12
- Progress towards software development.
- Final Report due December 2026.

# Wellspring Hydro

## Produced Water 2

- Continued project to use produced water to manufacture commercial products
- Awarded \$5M grant and \$2.5M loan
- Contract signed September 2023.
- Remaining Grant Commitment: \$4,862,898.40
- Progress toward Front-End Loading Stage 3
- Final Report due December 2025.

# Scranton Metals

## Green Pig Iron

- Awarded Grant of \$7M
- Contract signed February 2024
- Aiming to create near-carbon-neutral iron production facility
- Remaining Commitment:  
\$5,959,594.99
- Mineral Testing 85% complete;  
Regulatory Tasks 50% complete
- Final Report due October 2025

EERC

Marathon  
Renewable  
Fuels

- Awarded \$3.3M grant in Jan. 2024
- Proposed to expand the Dickinson Renewable Fuel Facility and add aviation fuel
- Project sponsor pulled out due to market challenges
- Decommitted Award

# Dakota Lithium Lithium Battery Manu- facturing

- Awarded Grant of \$2M
- Contract signed February 2024
- Looking to produce lithium iron phosphate cathode materials using a novel dry-process technology.
- Remaining Commitment: \$1,828,646.17
- Secured manufacturing facility and equipment; initial material testing favorable
- Final Report due May 2027

# Cerilon

## GTL FEL-3

- Awarded \$9.5M grant and \$8M loan
- Contract signed September 2024.
- Continuing project into Front-end Loading 3 phase.
- Remaining Grant Commitment: \$9.5M
- Final Report due July 2026.

# Benefit/ROI to ND

## Needs of the State:

- Use excess natural gas; create value-added opportunities in ND
- Enhanced Oil Recovery through CCUS
- Lignite industry being proactive through Carbon Capture projects, etc.
- Electrical power generation – natural gas baseload power
- Create value from waste products (produced water, CO<sub>2</sub>)

CSEA is helping to accelerate all these things.

Questions?



Combined-cycle natural gas generators in Florida (photo by Claire Vigesaa).