



New Generation & Transmission Update

Committee Meeting

January 14, 2025



New Generation & Transmission Update

Agenda



- Standing Bear Lake Station & Turtle Creek Stations 1 and 2
- Solar and Storage Resource Update
- New Dual-Fuel Combustion Turbine Update
- North Omaha Station Transition Update

Standing Bear Lake Station and Turtle Creek Station Units 1 and 2



New Generation & Transmission Update

Standing Bear Lake Station



- Site Progress: 99.4%
- Commissioning & Performance Testing
- Next Milestone:
 - Engine Demonstration
 - Performance & Emission Testing
- Substantial Completion: Q1 2025

Turtle Creek Station Units 1 and 2



- Site Progress: 98.5%
- Commissioning & Performance Testing
- Next Milestone:
 - First Fire on Oil
 - Performance & Emission Testing
- Substantial Completion: Q1 2025

Solar and Storage Resource Update



Pierce County Energy Center

New Generation

OPPD RENEWABLE SOURCING

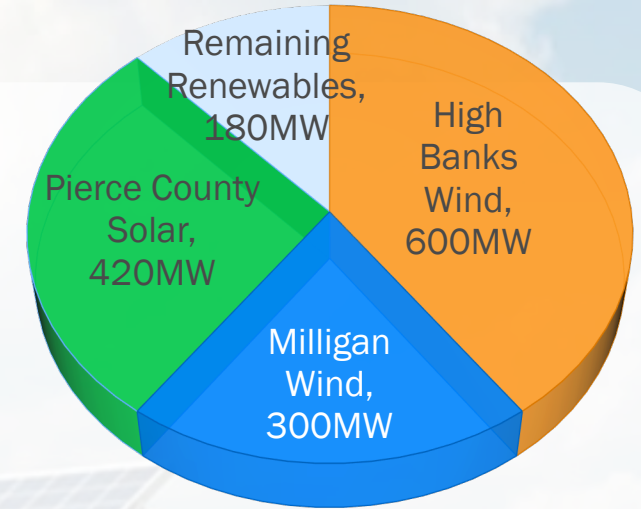


PROJECT OVERVIEW

Nameplate:
420MW Solar &
170MW Storage

Location:
Pierce County

Developer:
NextEra



STATUS

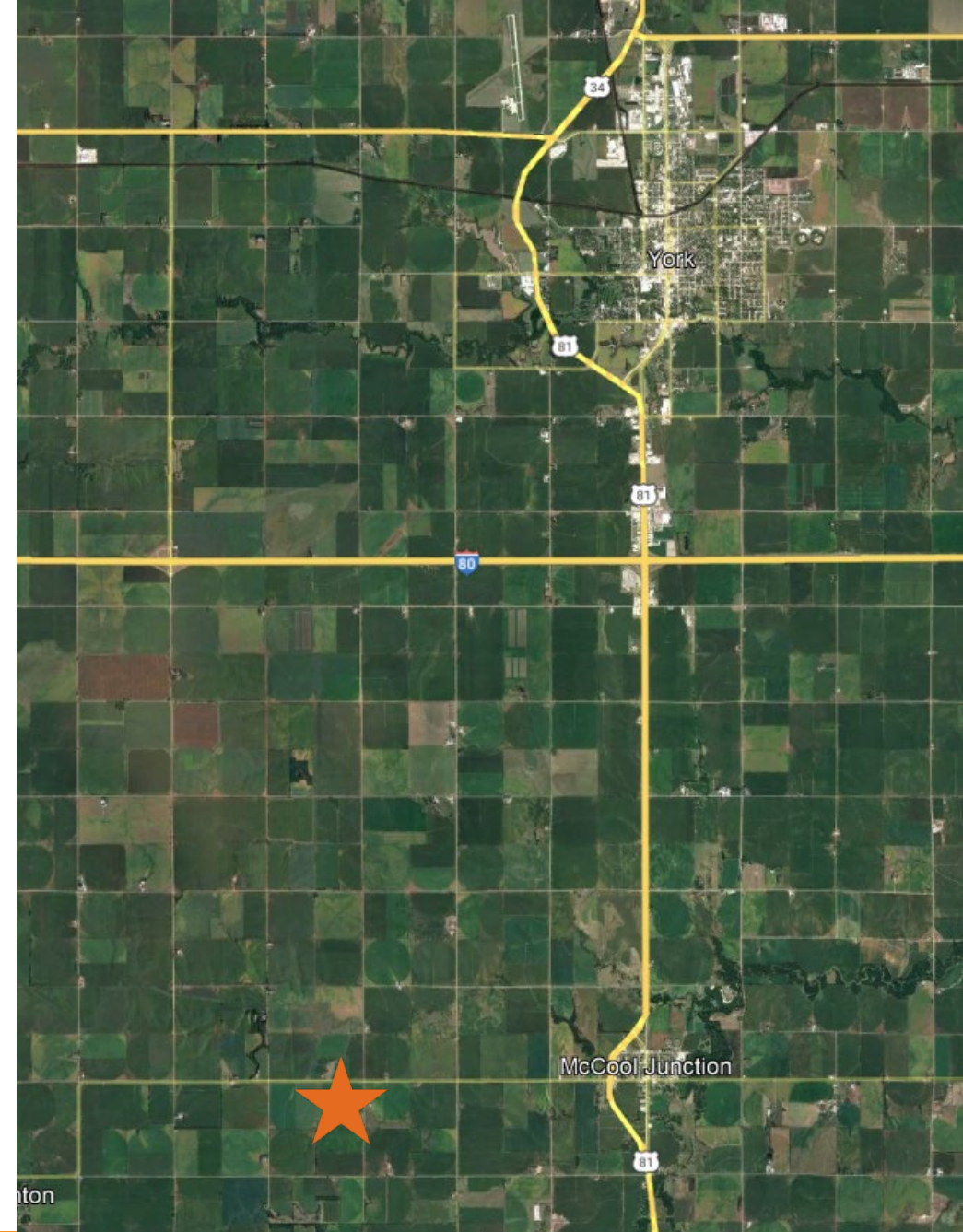
- Unique partnership between Google and OPPD
- Contingent items
 - Generation Interconnection Agreement (GIA) study
 - Firm network transmission service study
- Construction began Q4 2024
 - County road construction
 - Site Civil
- Estimated commercial operation in 2027

K Junction Solar



- Generation Interconnection Agreement (GIA) between OPPD, NPPD and SPP effective August 2023
- Supporting York County on the development of reasonable regulations
 - Regulations were sent back to the Planning & Zoning Commission in July 2024
 - Planning & Zoning Commission began meeting monthly starting in November 2024
 - County brought on Marvin Consulting – help with comprehensive plan and advise on solar regulations
 - No set date from the Planning & Zoning Commission on when regulations will be completed
- Project Team evaluating contingencies and next steps

★ General solar facility location



Solar Corner Grant



- Grant through the Nebraska Environment Trust (NET)
- Project Intent
 - Install a one-time solar array in the corner of a center-pivot irrigation field
 - Utilize low-yielding agriculture land
- Estimated Commercial Operation: 2027



Annual grants are funded through the proceeds of the Nebraska Lottery, meaning that people who enjoy the fun and excitement of the Lottery also know they are helping keep the state's land, air and water clean for future generations. The Nebraska Environmental Trust receives 44.5% of the profits of the Nebraska Lottery.



**The Nebraska
Environmental Trust**

preserving NATURAL NEBRASKA™ for future generations

Energy Storage Update



Near Term Generation Resource Plan

- Approx. 125 MW of energy storage at 4-hour equivalent
- Pierce County Energy Center materially satisfies the required storage volumes in SD-9 but the feasibility study at North Omaha will continue

Feasibility Study

- In progress with results expected Q1 2025
- Evaluate:
 - Location
 - Estimated site preparation
 - Layout of equipment
 - Interconnection considerations
 - Major equipment supply
 - Construction timelines
 - Budgetary estimates
 - Market Revenues



New Dual-Fuel Combustion Turbine Update



New Generation and Dual-Fuel Update

Kiewit EPC Contract

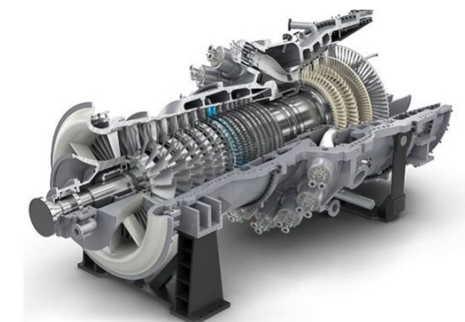


- On Jan. 2, OPPD executed a contract with Kiewit Corp. for the Engineer, Procure, and Construct (EPC) of two new generation facilities and dual-fuel conversion of Cass County Station existing units
- Combined, the new generation turbines generate around 900MW
 - Turtle Creek Station (225MW)
 - Cass County Station (675MW)
- Air permit applications submitted for both sites

Project Schedule	Milestone (Past/Future)	
NTG Board Resolution	Aug.-23	✓
Siemens Combustion Turbine Contract Award	Feb.-24	✓
Nebraska Power Review Board Approval	March-24	✓
EPC RFQ/RFP Process Begins	Aug.-24	✓
Dual Fuel Siemens Contract Award	Sept.-24	✓
EPC Contract Award	Jan.-25	✓
Cass County Station Project Construction Start	Q1 2025	
Turtle Creek Station Project Construction Start	Q2 2025	
Commercial Operation	By 2029	

New Generation and Dual-Fuel Conversion

- OPPD has already acquired the four new combustion SGT6-5000F turbines from Siemens Energy
- Unlike other sources that might take hours to generate at full capacity, each turbine offers rapid startup and shutdown capabilities
- Balancing generation provides fast acting resources to help provide uninterrupted power to customers when other assets, such as wind, solar, battery storage or coal aren't immediately available



SGT6-5000F turbine

North Omaha Station Transition Update



North Omaha Station Transition Project Update

Construction / In progress:

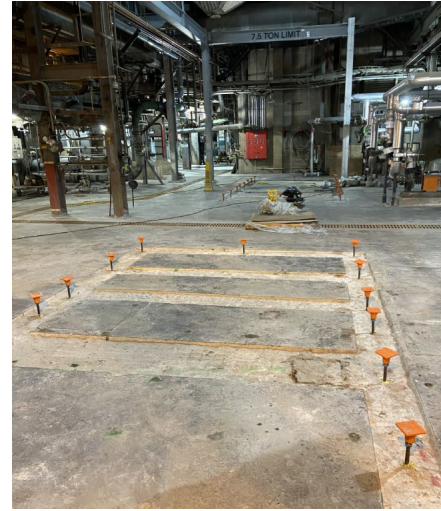
- Effluent Limitation Guideline Compliance Project

Completed in 2024:

- Ash landfill closure
- Clean Water Act compliant intake screen materials delivered to site
- Unit 5 natural gas burners being shipped from Europe
- Fans to support natural gas conversion partially installed



Unit 5 basement - March 2024



Basement prep and fan installation – October 2024



Unit 5 natural gas burners post fabrication at factory



Unit 5 control valve skid and piping run for conversion staged at North Omaha Station