REPORTING ITEM

BOARD OF DIRECTORS

August 16, 2022

ITEM

Power with Purpose: Natural Gas Generation, Energy Delivery and Solar Updates

PURPOSE

Provide updates on Power with Purpose projects for August 2022.

TURTLE CREEK STATION & STANDING BEAR LAKE STATION FACTS

1. Engineering, procurement, and construction activities are in progress by Zachry Group, as the Engineer, Procure, and Construct (EPC) vendor for both the Turtle Creek and Standing Bear Lake Stations’ generation facilities and substation infrastructure. Activities include grounding work in the substations, underground piping, foundation work at the sites, and preparations for major equipment deliveries.

2. Preliminary grading concluded at both Turtle Creek Station and Standing Bear Lake Station. This activity (in part) has caused delays at both sites that will push the expected in service dates out.

3. Shipment of major equipment from Siemens Energy and Wärtsilä has commenced.

ENERGY DELIVERY FACTS

1. Construction on both the transmission and substation work has remained on target with the 144th and Capehart Road Substation fully commissioned and energization scheduled for August 2022.

SOLAR FACTS

1. The 81-megawatt Platteview Solar facility in Saunders County continues to make progress. OPPD signed a power purchase agreement with Community Energy, which is now part of Applied Energy Services (AES). AES will lead the construction, and will be the long-term owner and operator of the facility. Construction is expected to begin at the site in the first quarter of 2023.

2. In addition to Platteview Solar, OPPD continues to pursue the remaining solar generation previously approved in the 2019 Power with Purpose resolution. Supply chain issues, generation interconnection study backlogs and the United States Department of Commerce’s anti-circumvention investigation have caused national delays to solar projects across the country and have challenged OPPD’s efforts to date.

3. OPPD staff continues to monitor federal policy, work with local officials on solar regulations and pursue future sites that help to mitigate project risks.

RECOMMENDED:

Troy R. Via
Chief Operating Officer & Vice President
Utility Operations

APPROVED FOR REPORTING TO BOARD:

L. Javier Fernandez
President and Chief Executive Officer

TRV:maw
Power with Purpose Update

Agenda

• Standing Bear Lake Station & Turtle Creek Station
• Transmission & Substation
• Solar
• Stakeholder Outreach & Communication
Standing Bear Lake Station & Turtle Creek Station
Power with Purpose Update
Standing Bear Lake Station

- Preliminary grading complete
- EPC full site control: June 24, 2024
- Wartsila equipment delivery: Q3 2022–Q1 2023
  - Engines to site September 2022
- Substation Completion: Q2 2023
- Site Completion: Early Q1 2024

(Wartsila Engines on vessel)
Power with Purpose Update
Turtle Creek Station

• Preliminary grading complete
• EPC full site control: June 24, 2024
• Siemens equipment delivery: Fall 2022
• Substation Completion: Q2 2023
• Site Completion: Early Q1 2024

(Site pipeline construction, Looking East)

(July 22 Site Tours with ELT Members)
Power with Purpose Update
SBLS/TCS Collaboration with Internal Stakeholders

Operations:
• Operations readiness planning: procedures, operating instructions, cold weather preps

Asset Management:
• Identify major maintenance schedules from Siemens & Wartsila

Training:
• Wartsila training (scope, schedule)
• Siemens training (scope, schedule)
• EPC training (scope, schedule)

Maintenance
• Maintenance team members to observe major equipment assembly

Engineering
• Design transmittals and reviews

Operation Technology
• Coordination with Owner Furnished Equipment (OFE) Vendors and Engineer, Procure, Construct (EPC) Contractor
• Service agreements and cyber security

Technology and Security
• Design transmittals and reviews
• Security

Project Management Office
• Project scheduling and metrics
• Project management standards and best practices
Transmission & Substation
Transmission and Substation

Transmission:
- 2 circuits (~4.5 miles) Construction Complete
- Energization: 8/8, 10/4

Remote End Substations:
- 144th and Capehart: Commissioned 7/29
- 180th and I-80: ~70% complete
Solar
Updates to Platteview Solar

- OPPD is excited to partner with AES, which will be responsible for the construction of the facility, and will be the long-term owner and operator of Platteview Solar
  - OPPD executed a PPA with the solar developer, Community Energy, which was then acquired by AES

Platteview Solar Project

- **Size:** 81 MW<sub>AC</sub>
- **Location:** Saunders County, NE
- **Planned operation date:** Spring 2024
- **OPPD Contract term:** 20 years

*Rendering of future solar site south of Yutan, Nebraska*
Design, Engineering & Construction Preparation
Currently ongoing through early 2023

• Updated schedule
  – New anticipated operation date is Spring 2024
  – Supply chain delays (equipment lead times) and impacts from federal solar policy pushed the schedule
  – Continues to progress through SPP’s Generation Interconnection study backlog; has an executed Interim Generation Interconnection Agreement

• Activity at the site will begin early 2023
  – First visible activities will be site preparation and equipment deliveries
  – Allows time for 2022 harvest
Photovoltaic (PV) Solar Technology Components

- Central Power Inverter and Step Up Transformer
- Interior Access Road
- Single Axis Tracker Row
- Perimeter Security Fence
- Driven Steel Piles
- PV Panels
Photovoltaic (PV) Solar Panel

- Aluminum Frame
- Tempered Glass
- Encapsulant - EVA
- Solar Cells
- Encapsulant - EVA
- Back Sheet
- Junction Box

Glass ~ 85%
Aluminum ~ 8%
Silicon ~ 6%
Wiring ~ 1%

Major Equipment

Currently Ongoing
- Piling

OPPD’s Fort Calhoun Community Solar

Single-Axis Tracking
Construction Phase: Civil, Mechanical & Electrical

Expected to begin early 2023 (after equipment deliveries to the site) through Fall 2023
OPPD Substation & Interconnection

Expected to begin in the Spring of 2023

In parallel to construction activity at the solar site, OPPD teams will work on interconnection facilities required to connect to OPPD’s 69 kV system.
Commissioning & Energization

Fall – Winter 2023

Design & Engineering

Construction

Operation

Site Preparation

Commissioning
Commercial Operation

Expected Spring 2024

Pollinator and native habitat is planned and will take a couple of years to establish at the site.
Platteview Solar is powering economic activity in Saunders County

$100M+
capital investment in Saunders County

$75M
Local spend during project construction

150+ local jobs
Use local contractors (electrical, site work, landscaping)
Local spend for hotels, restaurants, entertainment

$2.5M
local economic impact annually

$300K+
Estimated annual new property tax revenue

$200K+
to local schools

$14K
to local volunteer fire department

$50K
to Saunders County

Impact data from: UNL Impact Study (IMPLAN), Baird Holm and Community Energy
Beyond Platteview Solar

• OPPD is still pursuing up to 600 MW of solar. This is needed to serve its customers with both accredited capacity and on-peak energy for its growing load

• The portfolio has experienced delays that are being experienced nationally
  – Generation Interconnection backlog is impacting ALL new generation to the transmission grid
  – Development and implementation of local solar zoning regulations
  – Supply chain challenges
  – Federal policy changes and focus on solar imports

• Engaged in local, state, and federal policies for impacts to solar projects
  – US Department of Commerce to announce anti-circumvention investigation decision in late August
  – Monitoring potential outcomes from the Inflation Reduction Act of 2022
  – Engaged with local jurisdictions to support regulation development

• Continuing to study sites and develop risk mitigation strategies for solar deployment
  – Progress on sourcing and specific sites will be announced in the coming months
Stakeholder Outreach & Communication
Stakeholder Outreach and Communication
SBLS/TCS

- OPPDCommunityConnect additional signage at each location

- OPPDCommunityConnect continued project page updates
  - Standing Bear Lake project page
  - Turtle Creek Station project page
  - Sarpy Southwest Transmission Project

- 1:1 touchpoints with M.U.D., HOAs, neighbors and stakeholders as needed
Solar Community Outreach – Ongoing

• OPPD continues advocacy and education to community leaders, customers and stakeholders across the service territory and on a statewide level

• Further development of outreach materials and education including a new video on our YouTube page

• These ongoing, coordinated efforts ensure OPPD is the best source of information

• Follow our journey at OPPDCommunityConnect.com