Reporting Item

BOARD OF DIRECTORS

December 14, 2021

ITEM

Update for the Battery Research Innovation Guided by High-Potential Technologies (BRIGHT) battery project.

PURPOSE

Contract award update for the battery asset for the BRIGHT project.

FACTS

a. On March 18, 2021, the OPPD Board of Directors approved Resolution No. 6425 authorizing Management to negotiate and enter into a contract or contracts for services, material and labor to engineer, procure, and construct the battery energy storage facility in support of the BRIGHT battery project.

b. A Request for Proposals (RFP) for an Engineer, Procure, and Construct (EPC) contract was released in May 2021, resulting in four competitive proposals.

c. OPPD Management evaluated the proposals, entered negotiations, and executed a contract.

d. In December 2021, OPPD executed an EPC contract with WEG Electric Corp, a subsidiary of WEG S.A.

RECOMMENDED:

Brad R. Underwood
Senior Director – Systems Transformation

APPROVED FOR REPORTING TO BOARD:

L. Javier Fernandez
President and Chief Executive Officer
BRIGHT Battery Update
Battery Research Innovation Guided by High-Potential Technologies (BRIGHT)

Board of Directors
All Committee Meeting
December 14, 2021
BRIGHT Project Overview

- Nebraska Environmental Trust (NET) grant
  - NET approved funds in June 2020
  - Grant project funding: $600,000

- Project location: Cass County, NE
  - OPPD’s substation near Weeping Water
  - Distribution interconnection

- Standalone battery storage project on OPPD’s system will enhance operations and enable operational learning
## Project Milestones

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET Grant Awarded to OPPD</td>
<td>June 2020</td>
</tr>
<tr>
<td>Energy Storage RFI</td>
<td>July 2020</td>
</tr>
<tr>
<td>Storage Vendor Workshops</td>
<td>Fall 2020</td>
</tr>
<tr>
<td>Owner’s Engineer Evaluation</td>
<td>January 2021</td>
</tr>
<tr>
<td>Draft &amp; Release RFP</td>
<td>Spring 2021</td>
</tr>
<tr>
<td>Power Review Board Approval</td>
<td>July 2021</td>
</tr>
<tr>
<td>Analyze RFP Proposals</td>
<td>Summer 2021</td>
</tr>
<tr>
<td>Award Battery Contract</td>
<td>Fall 2021</td>
</tr>
<tr>
<td>Battery Begins Operation</td>
<td>Fall 2022</td>
</tr>
</tbody>
</table>

**Abbreviations:**
- **NET** – Nebraska Environmental Trust
- **RFI** – Request for Information
- **RFP** – Request for Proposals
Battery Contract Milestone

• OPPD executed an Engineer, Procure, Construct (EPC) contract with WEG Electric Corp, a subsidiary of WEG S.A.
  – WEG will manufacture the transformers to be included with this project
• BYD (Build Your Dreams) will provide the battery container and cells
• Indie Energy will provide the battery Energy Management System (EMS)
• Interconnection Systems Incorporated (ISI) will perform civil and electrical
  – ISI is based out of Central City, NE
Battery Characteristics

- BYD CubePro battery container and BYD Lithium Iron Phosphate, LiFePO4 (LFP) battery cells
  - CubePro battery containers use a liquid cooling system to regulate the battery packs and include multiple levels of integrated fire protection

- 1 MW capacity with a 2.4 hour duration

- 20-year battery life
  - Beginning-of-life overbuild ensures greater than 80% capacity for the life
Next Steps: Communication & Outreach

OPPD Publications:
- OPPD the Wire Story – December 20th
- January Outlets bill update

Outreach:
- Community Connect updates
- Ongoing outreach to stakeholders and public officials