



Williams/Fisher

RESOLUTION NO. 6425

WHEREAS, the District was awarded grant funding from the Nebraska Environmental Trust (NET) in June 2020 for its Battery Research Innovation Guided by High-Potential Technologies (BRIGHT) pilot project, a 1 megawatt (MW) battery energy storage pilot project located in Cass County; and

WHEREAS, the District intends to enter into one or more contracts for services, material, and labor to engineer, procure and construct (EPC) the 1 MW battery energy storage facility in Cass County that will interconnect with the existing electrical system of the District; and

WHEREAS, the District's Engineer has certified that the project is unique and complex because of the nature of utility-scale battery storage technologies and the project must be completed within the timelines prescribed by the NET grant; and

WHEREAS, the District's Engineer has certified that compliance with the sealed bidding provisions of the Nebraska Revised Statutes Sections 70-637 through 70-639, as amended, would be impractical and not in the public interest; and

WHEREAS, pursuant to Nebraska Revised Statute Section 70-637 (as amended), and upon approval of the Engineer's Certification by the Board of Directors, the District may negotiate and enter into a contract or contracts related to such project without sealed bidding.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Omaha Public Power District that:

1. The Engineer's Certification requesting that the Board authorize Management to negotiate and enter into one or more contracts to provide services, material, and labor to engineer, procure, and construct the battery energy storage facility without compliance with the sealed bidding provisions of Sections 70-637 to 70-639 of the Nebraska Revised Statutes, is hereby approved.

2. Management is hereby authorized and directed to negotiate and enter into a contract or contracts with a qualified contractor or contractors to provide all engineering, procurement, and construction for the BRIGHT battery pilot project, subject to review and approval of the final contract(s) by the District's General Counsel.

3. The notice required by Nebraska Revised Statutes Section 70-637 shall be published in the Omaha World Herald, or other similar newspaper of general circulation.



Board Action

BOARD OF DIRECTORS

March 16, 2021

ITEM

Procurement of battery asset for Battery Research Innovation Guided by High-Potential Technologies (BRIGHT) battery pilot project.

PURPOSE

Board of Directors authorization for Management to negotiate and enter into contracts for the battery asset for OPPD's pilot project.

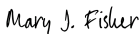
FACTS

- a. OPPD was awarded grant funding for the pilot project through the Nebraska Environmental Trust's (NET) Air Quality Category in June 2020. OPPD's grant application through NET allows for flexibility of battery technology (e.g. Lithium-Ion or Flow) in order to best suit the objectives of the grant and the pilot project.
- b. To support the completion of this new battery energy storage facility that will be interconnected to the existing OPPD system, OPPD intends to enter into one or more contracts for services, material, and labor to engineer, procure and construct (EPC) the battery energy storage facility.
- c. Current battery storage technologies and their specific chemistries vary widely. To ensure the best fit of technology to the application, a negotiated contract process will allow OPPD to leverage an EPC contractor's expertise to optimize the technology selection, design, construction requirements, and schedule risks through contractor communications during the negotiation phase.
- d. Due to the unique and complex nature of utility-scale battery storage technologies, and to ensure completion by the timelines for the NET grant, the District's engineer has certified that compliance with the sealed bidding provisions of the Nebraska Revised Statutes Sections 70-637 through 70-639, as amended, would be impractical and not in the public interest for the battery energy storage facility.

PURPOSE

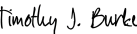
Approval of the Engineer's Certification and authorization for Management to negotiate and enter into a contract or contracts for services, material and construction labor for the battery asset in support of the BRIGHT battery pilot project.

RECOMMENDED:

DocuSigned by:


 Mary J. Fisher
 Vice President – Energy Production and
 Nuclear Decommissioning

APPROVED FOR BOARD CONSIDERATION:

DocuSigned by:


 Timothy J. Burke
 President and Chief Executive Officer

MJF:cmk

Attachments: Letter of Recommendation
Engineer's Certificate
Legal Opinion
Resolution



Date: March 16, 2021

From: C. M. Kennedy

To: M. J. Fisher

Subject: BRIGHT Battery Project : Procurement and Installation of Battery Energy Storage System in Cass County, NE

1.00 GENERAL

In June 2020, The Omaha Public Power District (OPPD or the District) obtained grant support for a 1 megawatt (MW) battery energy storage pilot project located in Cass County. The project, “OPPD Battery Research Innovation Guided by High-Potential Technologies (BRIGHT)” will provide innovative research benefitting all Nebraskans. OPPD BRIGHT will achieve results in Nebraska Environmental Trust’s (NET) Air Quality Category by supporting clean air strategies and reducing greenhouse gases. The pilot will test how battery energy storage will integrate on OPPD’s grid, provide critical learning in support of OPPD’s strategic initiatives, such as Pathways to Decarbonization and Grid Modernization, as well as future resource planning decisions. This research is vital to the District’s understanding of procurement, construction, and operations with a pilot energy storage application in learning how to scale for future applications.

To support the completion of this new battery energy storage facility that will be interconnected to the existing substation and distribution systems, OPPD intends to enter into one or more contracts for services, material, and labor to engineer, procure and construct the battery energy storage facility as determined necessary by analysis. OPPD will solicit competitive proposals from qualified suppliers for this new battery energy storage facility using contracting strategies that best support the project and timeline, including the use of engineer, procure, and construct (EPC) contracting processes. The substation and distribution interconnection facilities are not included in this procurement effort and will be sourced separately or performed by OPPD.

Battery projects are highly nuanced due to the fact that variability in technology, when combined with numerous use cases, will create complex interdependencies. A negotiated contract process will allow OPPD to leverage an EPC contractor’s expertise to optimize the design, construction requirements, and schedule risks through contractor communications during the negotiation phase.

While the exact capital cost for the new battery energy storage facility will not be known until final proposals are received, the engineer's estimate for battery energy storage facility exceeds \$500,000, requiring compliance with Nebraska Statutes.

Compliance with the sealed bidding requirement of the Nebraska Statutes is impractical and not in the public interest based upon the technical complexity and unique nature of this project. Use of negotiated contract processes will allow OPPD to take advantage of an EPC contractor's expertise to optimize the overall design, construction requirements, and schedule risks through contractor communications during the negotiation phase. Use of negotiated contract processes will allow OPPD additional contract mechanisms to expedite material and construction schedules if warranted to support timelines of the NET grant.

Therefore, it is in the District's and public's best interest to forgo the sealed bidding process. Instead, competitive bids will be sought through publically available RFPs and negotiation processes. The contracts will be awarded to the vendors with the best evaluated bids.

2.00 RECOMMENDATION

An Engineer's Certification documenting the above points in greater detail has been prepared. We recommend and request the Board of Directors approve the Engineer's Certification authorizing Management to negotiate and award competitively bid contracts for the battery asset in support of the BRIGHT battery pilot project.



Courtney M. Kennedy, P.E.
Manager, Alternative Energy Program

ENGINEER'S CERTIFICATION

The Omaha Public Power District (OPPD) obtained grant support for a 1 megawatt (MW) battery energy storage pilot project located in Cass County. The project, "OPPD Battery Research Innovation Guided by High-Potential Technologies (BRIGHT)" will provide innovative research benefitting all Nebraskans. OPPD BRIGHT will achieve results in Nebraska Environmental Trust's (NET) Air Quality Category by supporting clean air strategies and reducing greenhouse gases. Additionally, this pilot project will test how battery energy storage will integrate on OPPD's grid and provide critical learning in support of OPPD's strategic initiatives, such as Pathways to Decarbonization and Grid Modernization, as well as future resource planning decisions. This research is vital to OPPD's understanding of procurement, construction, and operations with a small pilot energy storage application in learning how to scale for future applications.

To support the completion of this new battery energy storage facility and its interconnection to OPPD's existing distribution system, OPPD intends to enter into one or more contracts for services, material, and labor to engineer, procure and construct the battery energy storage facility as determined by analysis. OPPD will solicit competitive proposals from qualified suppliers for this new facility using contracting strategies that best support the project and timeline, including the use of engineer, procure, and construct (EPC) contracting processes.

The undersigned certifies that compliance with the sealed bidding requirements of Nebraska statutes, specifically Nebraska Revised Statutes 70-637 to 639, is impractical and not in the public interest for the sourcing of the battery asset for the following reasons:

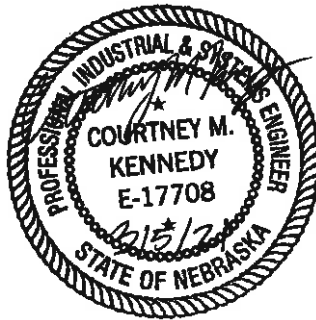
- A utility-scale battery asset is technically complex and requires integration with OPPD's existing substation and distribution facilities to optimize site layouts, enhance performance, and achieve schedule requirements.
- Current battery storage technologies and their specific chemistries vary widely. OPPD's grant application through NET allows for flexibility of battery technology (e.g. Lithium-Ion or Flow) in order to best suit the objectives of the grant and the pilot project. To ensure the best fit of technology to the application, a negotiated contract process will allow OPPD to leverage an EPC contractor's expertise to optimize the technology selection, design, construction requirements, and schedule risks through contractor communications during the negotiation phase.
- Negotiated contract processes would provide additional mechanisms to expedite material and construction schedules if warranted to support the timelines for completing the battery project in accordance with the grant funding timeline.
- Negotiated contract processes would provide additional mechanisms to develop optimal pricing, terms and conditions with acceptable contractual risk mitigation.

Pursuant to Section 70-637 of the Nebraska Revised Statutes, as amended, the District's Board of Directors is requested to approve this Engineer's Certification and authorize Management to negotiate and enter into a contract or contracts with qualified suppliers to provide the requisite engineering, procurement and construction for the BRIGHT battery project without compliance with the sealed bidding requirements of Sections 70-637 to 70-639 of the Nebraska Revised Statutes.

I, Courtney M. Kennedy (registered Professional Engineer in the State of Nebraska), certify the above to be true and correct to the best of my knowledge and belief.

Courtney M. Kennedy
Courtney M. Kennedy, P.E.

3/5/2021
Date





FRASER STRYKER

PC LLO

LAWYERS

500 ENERGY PLAZA
409 SOUTH 17TH STREET
OMAHA, NEBRASKA 68102-2663
TELEPHONE 402.341.6000
TELEFAX 402.341.8290
WWW.FRASERSTRYKER.COM

STEPHEN M. BRUCKNER
DIRECT DIAL: 402.978.5225
SBRUCKNER@FRASERSTRYKER.COM

March 4, 2021

Omaha Public Power District
444 South 16th Street
Omaha, NE 68102

RE: BRIGHT battery project; Engineer's Certification

Ladies and Gentlemen:

We have reviewed the Engineer's Certification of Courtney M. Kennedy, P.E., a registered professional engineer in the State of Nebraska employed by the District. Ms. Kennedy's Engineer's Certification states that OPPD has received grant funds from the Nebraska Environmental Trust to pursue the installation of a one megawatt battery energy storage pilot project located in Cass County. The Certification explains that OPPD intends to contract for services, material, and labor to engineer, procure and construct the battery energy storage facility. The Certification states that the use of sealed bidding for this project would be impractical and not in the public interest because the project is technically complex and requires integration with OPPD's existing substation and distribution facilities, and because a negotiated contract process will enable OPPD to leverage contractor expertise to procure optimal equipment, design, and construction services, and develop optimal pricing, scheduling, and risk mitigation for the project.

Section 70-637 of the Nebraska Revised Statutes authorizes the District's Board of Directors, by a two-thirds vote, to approve an Engineer's Certification for technologically complex or unique projects, and to authorize the District to enter into a contract to complete the project. The District is required to advertise its intention to enter into any such contract in three (3) newspapers of general circulation within the District's service area, with not less than seven (7) days between issues. The contract cannot be entered into sooner than twenty (20) days after the last advertisement.

It is our opinion that Ms. Kennedy's Engineer's Certification complies with Section 70-637 and is in a form that is appropriate for approval by the District's Board of Directors. Therefore, the Board of Directors may approve the Engineer's Certification and authorize Management to negotiate and enter into the necessary contract(s) for the engineering, procurement, and construction of the battery storage project. We recommend that any such contract(s) be subject to review and approval by the District's general counsel.

Very truly yours,

A handwritten signature in blue ink, appearing to read "Stephen M. Bruckner". The signature is fluid and cursive, with a long horizontal stroke at the end.

Stephen M. Bruckner
FOR THE FIRM

SMB/sac
2531526

BRIGHT Battery Update

March Committee Meeting

March 16, 2021



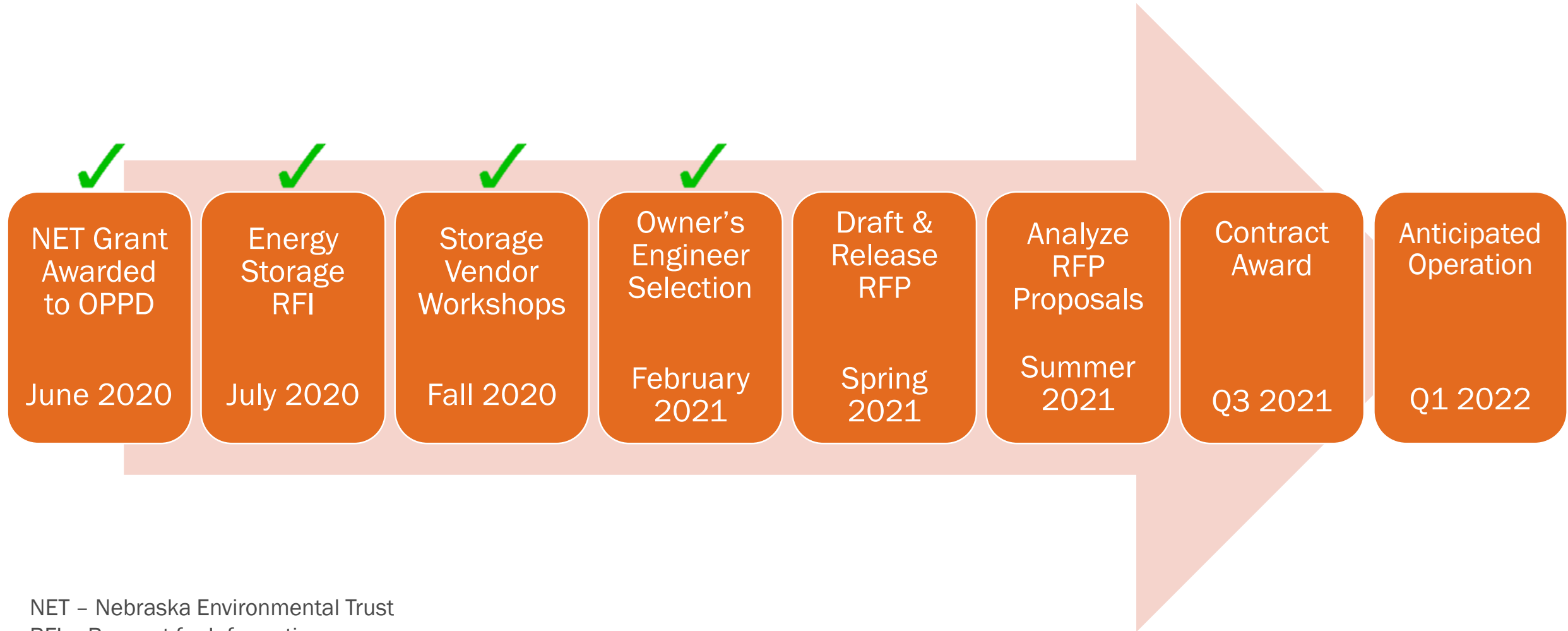
BRIGHT Grant & Project Scoping

Battery Research Innovation Guided by High-Potential Technologies (BRIGHT)

- Nebraska Environmental Trust (NET) Air Quality Category
 - OPPD submitted application in September 2019
 - NET approved funds in June 2020
 - Grant project funding: \$600,000 in fiscal years 2020 and 2021
- Pilot project to facilitate OPPD technology and operational learning
 - Provides learning for Decarbonization efforts and other Strategic Initiatives
 - Allows OPPD to learn about interconnection, permitting, engineering, construction, operations, and safety requirements
- Project specifics based on grant application
 - Size will be ~1MW, with a duration up to 4 hours
 - Location to be at OPPD substation in Cass County
 - Grant application does not specify technology



Milestones



NET – Nebraska Environmental Trust
RFI – Request for Information
RFP – Request for Proposals

Key Takeaways from Technology Exploration

The following summarizes key takeaways and considerations for OPPD's pilot project based on OPPD's Request For Information (RFI) and supplier workshops in 2020:

Technology	Lithium Ion and Flow batteries are the most developed technology that are currently suitable for the project application.
Cost	Inconsistent and varies based on size, application, specific technology, among other factors. Estimates provided in the RFI ranged from \$220 - \$850/kWh.
Schedule	Varies based on design, size, specific technology, sourcing, and many other factors.
Use Cases	Technology, cost, and other project characteristics are dependent on how the asset is ultimately used. <i>Projects must have very clear use cases before design work occurs.</i>
Lifecycle	Highly dependent on how the battery is used (e.g. frequency of cycling and depth of discharge)
Recycling	Battery recycling is in its infancy and is an important environmental consideration for projects.
Safety	Safety is evolving and the industry has made great strides in standardization. The National Fire Protection Association (NFPA) and Underwriter Laboratories (UL) standards have been developed to address safety concerns with energy storage.

Project Updates

February

- Selected Owner's Engineer: Fractal Energy Storage Consultants
- Commenced Request for Proposals (RFP) development

March

- Continue RFP development and defining use cases
- Seek BOD approval to negotiate and award contract

Community Engagement



[Home](#) [OPPD.com](#) [About this Site](#)

Search



[Sign In](#) | [Register](#)

OPPD BRIGHT Pilot

[Home](#) » [BRIGHT Pilot](#)

BRIGHT Pilot



OPPD Battery Storage Pilot (BRIGHT)

The future is very BRIGHT indeed as OPPD embarks on its first battery storage pilot called BRIGHT (Battery Research Innovation Guided by High-Potential Technologies). In September 2019, OPPD applied for a Nebraska Environmental Trust (NET) grant to support a pilot project on battery storage.



The utility was officially awarded the \$600,000 grant on June 11, 2020 and is grateful to NET for the support. This is the largest grant OPPD has received from NET.

Who's Listening

Courtney Kennedy

Manager, Alternative Energy Program
OPPD



Karisa Vlasek

Coordinator-Grants & Stakeholder
Outreach
OPPD



IDEAS

Please share your ideas on what you would consider if you were conducting this pilot.



3 months ago



To add your idea
[Sign In / Register](#)



Too Tall Sid

about 1 month ago

Consider how this could be part of a microgrid for the surrounding customers during an outage and to facilitate alt energy and cogeneration

0 Comment



[View All Ideas](#)

www.oppdcommunityconnect.co/bright-pilot