



# BRIGHT Battery Update

March Committee Meeting

March 16, 2021



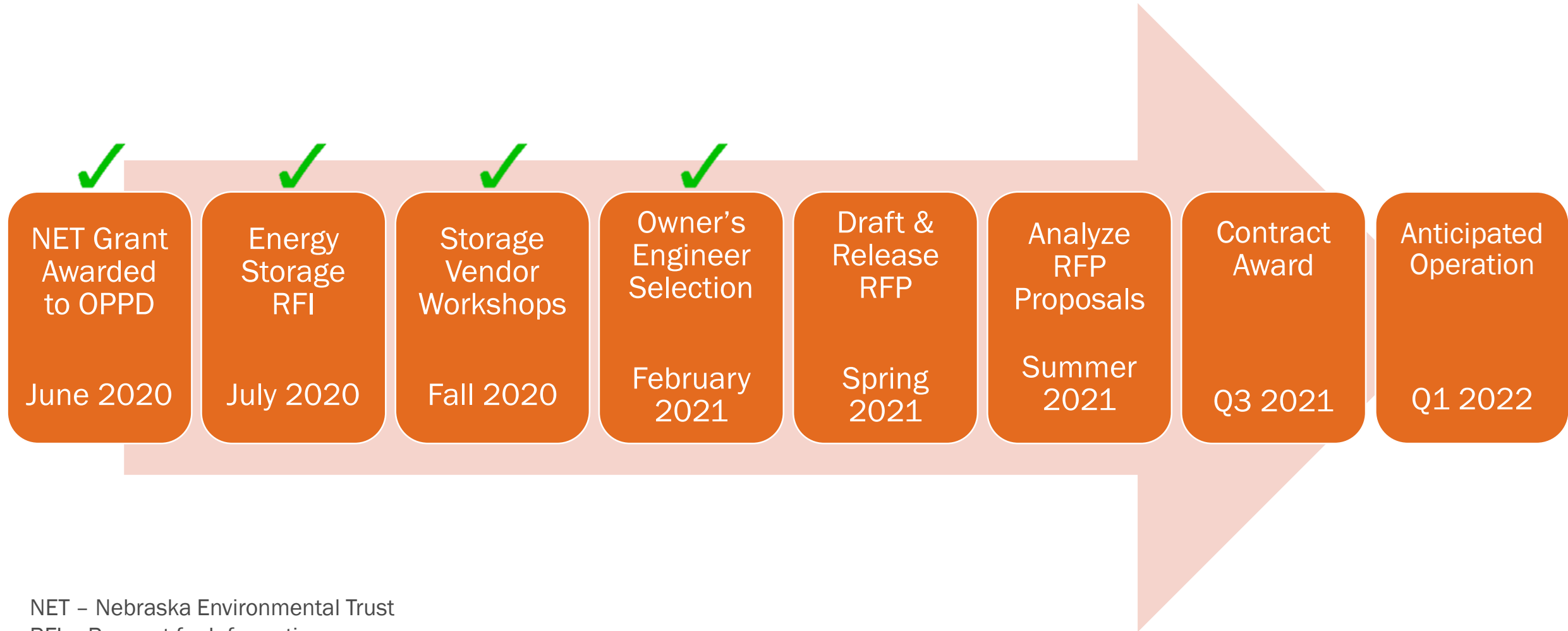
# BRIGHT Grant & Project Scoping

## 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](http://www.oppdcommunityconnect.co/bright-pilot)