



REQUEST FOR PROPOSALS
FOR
ELECTRICITY STORAGE FACILITIES

Issue Date: October 23, 2020

Response Deadline: December 4, 2020

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1. Overview & Structure

Vermont Public Power Supply Authority (VPPSA) is a joint action agency and instrumentality of the State of Vermont with broad authority to buy and sell electricity for its eleven non-profit, public power electric utilities (“Members”) in Vermont.

By this Request for Proposals (RFP), **VPPSA is seeking potential development partners for electric storage facilities in its Member service territories.**

VPPSA and its Members are open to a wide variety of proposals as described herein, and have identified potential sites in their service territories that may be suitable for locating storage facilities. These sites are discussed in Section 4.1, and **VPPSA is requesting initial proposals for the feasibility and development cost of these “Existing Sites”.**

- VPPSA is seeking potential development partners for electric storage facilities.
- VPPSA is requesting initial proposals for the feasibility and development cost of Existing Sites.

As described in Section 4.2, “New Sites” may also be identified by potential partners in response to this proposal. Such proposals are encouraged. Finally, VPPSA’s Members are open to a variety of ownership structures, including Purchase Power Agreements (PPAs), direct ownership, and other structures.

1.1 RFP Structure

This Request for Proposals (RFP) is divided into eight sections.

1. Overview & Structure
2. Operational Requirements
3. Facility and Site Requirements
4. RFP Structure and Schedule
5. Proposal Components
6. Evaluation and Selection Process
7. Proposal Submittal Requirements
8. Other Terms

2. Operational Requirements

The primary purpose of the storage facilities is to reduce coincident monthly and annual peaks with ISO New England. Reducing these peak loads reduces transmission and capacity costs in ISO New England’s markets. Other applications for the storage facilities may include renewables integration, microgrid mode for emergency resilience, and other value-added modes of operation.

Table 2-1: Operational Requirements

APPLICATION	DESCRIPTION
Peak Load Reduction	<i>Required.</i> The primary purpose of the storage facility is to reduce coincident monthly and annual peaks.
Renewables Integration	<i>Desired.</i> The secondary purpose of the storage system is to manage the distribution system in the presence of increasing levels of behind-the-meter renewable generation (primarily hydro and solar).
Microgrid for Resiliency	<i>Desired.</i> This mode of operation is desired if the location of the facility is near critical facilities that can be cost-effectively incorporated into a microgrid for use during emergencies.
Other Applications	<i>Optional.</i> Other value-added applications or modes of operation will be considered.

The timing of the coincident peaks is summarized in Table 2-1, and corresponds well with the timing of the annual peaks, which have occurred in July at hour ending (HE) 18 for the past two years. With some exceptions, the storage facility would need to be fully charged by HE 17 and be discharging between HE 18 and 21.

Table 2-2: Timing of Monthly Peaks (Hour Ending)

YEAR	MONTH											
	1	2	3	4	5	6	7	8	9	10	11	12
2015	18	19	19	21	16	19	18	21	20	19	18	18
2016	18	19	19	21	21	21	19	21	20	19	18	19
2017	18	19	19	20	20	15	21	18	20	19	18	18
2018	18	19	8	12	21	21	20	20	20	19	18	18
2019	18	18	19	20	19	21	21	19	19	19	18	8

➤ *The decision to operate the storage facility for peak load reduction may rest with either the Respondent or VPPSA, and Respondents should express their preference for holding this responsibility and the associated performance risk.*

3. Facility and Site Requirements

3.1 General Requirements

1. The Facility or Facilities must be an electric energy storage facility.
2. The Facility or Facilities must be less than or equal to 4.9 MW (AC) in size at any one location, and Facilities less than 1 MW in size may be given preference.
3. The Storage Facility must interconnect with a VPPSA Member utility:
 - Barton Village Inc. Electric Department
 - Northfield Electric Department
 - Swanton Village, Inc. Electric Department
 - Town of Hardwick Electric Department
 - Village of Enosburg Falls Water & Light Department
 - Village of Jacksonville Electric Company
 - Village of Johnson Water and Light Department
 - Village of Ludlow Electric Light Department
 - Village of Lyndonville Electric Department
 - Village of Morrisville Water & Light Department
 - Village of Orleans Electric Department
4. The Delivery Point for the Facility shall be the point where the VPPSA Member distribution system connects with the Seller's Facility, specifically the load side connection of existing Member facilities, to allow Respondent's facility to operate interconnected and in parallel with the Member's electric system.

3.2 Products Requirements

Responses should assume that VPPSA or its Member utility will retain the peak-reducing benefits of the Facility, and may propose to retain any or all of the other products associated with the Facility.

3.3 Physical Requirements

The preferred location, capabilities and ISO market participation of the Facility are listed in Table 3-1. The preferred location is on the distribution system, but colocation with new or existing generation will be considered as will large customer sites. The capacity of the Facility should be less than 5 MW, and longer durations are preferred. Finally, unless greater value can be captured by participating in ISO-NE markets, the storage system is expected to operate independent of ISO-NE energy, capacity and ancillary markets.

Table 3-1: Physical Requirements

TERM	DESCRIPTION
LOCATION	1. Distribution systems of VPPSA municipal utilities, and/or 2. Renewable generators on municipal distribution systems, or 3. Large customers of VPPSA municipal utilities.
CAPACITY	100 - 4,900 kW.
DURATION	4+ hours
ENERGY	TBD based on the optimal capacity and duration of the system.
ISO-NE	Unless greater value can be captured by participating in ISO-NE markets, the storage system will operate independent of ISO-NE energy, capacity and ancillary markets.

3.4 Financial Requirements

Table 3-2 summarizes the high-level financial terms that are being sought. The preferred ownership option is a 10+ year PPA with a purchase option where O&M costs are the responsibility of the Seller. However, direct ownership by VPPSA or one of its individual Members will be considered. Respondents are encouraged to offer their preferred ownership structure. In terms of pricing, a fixed \$/kW-month charge is preferred, but other pricing structures will be considered.

Table 3-2: Financial Requirements

TERM	DESCRIPTION
BUYER	Vermont Public Power Supply Authority and/or VPPSA Member
SELLER	To be determined (TBD)
TERM	10 years. Longer terms will be considered.
OWNERSHIP	A PPA is preferred where O&M is the responsibility of the Seller. Other structures, including direct ownership, may be considered.
PRICE	A fixed \$/kW-month charge is preferred. Other price structures will be considered.

3.5 Existing Sites

Table 3-3 lists Existing Sites that have been identified as having potential for storage development. Respondents may focus their proposals on these sites or propose a New Site as described in the next section. These sites have established or can readily establish site control and are located close to the indicated substation.

Table 3-3: Existing Sites

UTILITY	SITE NAME	ADDRESS	SUBSTATION	VOLTAGE
Enosburg Falls	Waste Water Pumping Station	387 St. Albans St.	Enosburg Substation	46 kV
Enosburg Falls	Public Works Building	210 Dickenson Ave.	Enosburg Substation	46 kV
Lyndonville	National Guard Garage	Hill St., Lyndonville	VELCO's Lyndonville Substation	115 - 34.5 kV
Northfield	King St. Substation	150 King St., Northfield	King St. Substation	12.47 kV
Barton & Orleans	Heath Substation	Baird Road, Orleans	Heath Substation	46 kV
Morrisville	Trombley Hill	Trombley Hill, Morrisville	Morrisville's Substation #5	34.5 - 12.5 kV

Neither VPPSA nor any of its Members have conducted any analysis of the sites identified in Table 3-3, nor has VPPSA or any Member evaluated any interconnection constraints at these locations. Interconnection cost estimates and any feasibility analyses will need to be completed before a proposals is chosen.

In preparing responses to this RFP, respondents will not be allowed to perform detailed site visits of any identified sites. Such detailed site visits will be limited to respondents that reach the second round of screening. However, municipal sites are open to the public, and many sites can be viewed from various nearby locations, or via desktop methods. Any observed unique features of a site relevant to development should be clearly described.

3.6 New Sites

In addition to sites identified Section 3.5, Respondents are encouraged to offer New Sites for development of storage facilities. If a Respondent offers a New Site, a description of the site including physical address (and/or GPS coordinates), level of Respondent site control, unique features of the site, and any other relevant information should be included in the RFP response. To the extent that these features require additional cost, this should be clearly described in the response.

4. RFP Structure and Schedule

VPPSA intends to hold a two (2) round process.

4.1 Round One

This RFP represents the first round, and its purpose is two-fold.

- i. The primary purpose is to identify a short list of qualified development partners.
- ii. The secondary purpose is to identify a short list of potential sites, and to prioritize them by their feasibility, cost, and other characteristics.

➤ Round 1 requires an initial *non-binding* cost estimate and site feasibility assessment. Through these estimates and assessments, Respondents have the opportunity to make a show of interest in the RFP and to illustrate their qualifications.

4.2 Round Two

The second round will consist of a Requests for Proposals that is issued only to selected Respondents.

- i. The goal of this round is to select a partner or partners to develop site(s) in 2021.
- ii. Responses to this round will be binding, and may include site visits.

4.3 Schedule

The schedule is illustrated in the table below. VPPSA reserves the right to modify this schedule at its sole discretion.

Table 4-1: RFP Schedule

DATE	EVENT
October 23, 2020	Round One begins. VPPSA issues the RFP.
November 13, 2020	Pre-bid conference call at 2:00 PM
December 4, 2020	Round One ends. Deadline to respond to RFP.
January 15, 2021	VPPSA issues second round RFP to selected respondents.
February 26, 2021	Round Two ends. Deadline to respond to RFP.
March 26, 2021	Project awards are announced. (Tentative)

5. Proposal Components

5.1 Statement of Qualifications

Respondents shall provide a statement of qualifications containing the following elements (maximum of 5 pages):

- (a) **Experience:** Respondents must include a description of similar projects, including experience with public entities and experience in Vermont.
- (b) **Project Team/Partner Resources:** Respondents must include a proposed project team, including known financial partners. Include a brief summary of the project team's professional background and experience.
- (c) **References:** Respondents must include at least three client or partner references. Public partner references are preferred.

5.2 Site by Site Proposal(s)

Each site identified as viable for a storage facility should be developed as a standalone proposal that can be evaluated individually. For each location that is proposed for development, the Response should include the following.

- (a) **Project Proposal:** Respondents must include a detailed description of the existing sites for which the Respondent believes a storage facility is feasible and/or any New Sites. Proposals should include the type of storage technology, manufacturer, description of all anticipated equipment, and an explanation of any modifications of the property that might be required, required permitting, and any other relevant conditions.
- (b) **Operating & Dispatch Plan:** Respondents must include a detailed operating and dispatch plan that illustrates what time of day and how often each month the facility would be operating in a particular mode. In addition, the plan must address which entity holds the power to make dispatch decisions and how the operating risk(s) (peak forecasting risk, primarily) is borne by the parties.
- (c) **Finance and Ownership Structure:** Respondents must include the type of ownership structure proposed and the estimated cost associated with that structure. Multiple ownership structures for the same site may be proposed. Any financing vehicles expected to be utilized should be clearly described. The information submitted must be sufficient for VPPSA to determine the total estimated project cost. Interconnection cost estimates should be made and included in the overall cost; interconnection agreements and interconnection applications are not required for this RFP.

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- (d) **Operations and Maintenance Costs**: Respondents must include estimated operations and maintenance costs, and if the Respondent has the capability to provide O&M Services.
- (e) **Development Risk**: Respondents must identify the risks to the project's development and provide a plan for managing them.
- (f) **Estimated Timeframe**: Respondents should include an anticipated timeline for development of the project.

5.3 Required Agreements

Respondents should identify any contracts and agreements that need to be in place with VPPSA and/or its Member to facilitate project development.

6. Proposal Submittal

6.1 Submission of Responses

- (a) Name and Address of the Respondent's primary contact should be clearly identified on the first page of the proposal.
- (b) Proposals for more than one site and/or ownership structure should be included in a single package response to the RFP.
- (c) Respondents shall submit one digital, e-mailed copy of the proposal. Paper copies will not be accepted.
- (d) All proposals must be received by VPPSA no later than **December 4st, 2020, as indicated on the timestamp on the submitting e-mail.** Proposals and/or modifications received after this time will not be accepted or reviewed.
- (e) Proposals and Questions should be directed to:

Shawn Enterline
Senior Power Supply Analyst
Vermont Public Power Supply Authority
5195 Waterbury Stowe Road
Waterbury Center, VT 05677
senterline@vppsa.com

6.2 Question Submittal and Pre-Bid conference

Entities considering responding to this RFP who provide a notice of interest via email to the contact listed in Section 6.1 not later than **November 10th, 2020** will be invited to the pre-bid conference call on **November 13th at 2:00 PM.**

Such notice will enable the Respondent to receive any additional communications from VPPSA related to this RFP, including, but not limited to answers to questions raised by other potential Respondents.

Questions may be submitted in advance of any pre-bid conference call to senterline@vppsa.com. Responses to questions, to the extent provided, will be provided to all who have provided notice of interest.

7. Evaluation Process

Proposals will be opened and reviewed for completeness immediately following the submittal deadline. VPPSA will review the proposals for economic viability and intends to select multiple Respondents for each viable location for Round Two.

VPPSA reserves the right to reject proposals or eliminate sites from further consideration at its own discretion. VPPSA reserves the right, where it serves its interest, to request additional information or clarification from Respondents. VPPSA understands that the initial round of RFP is very broad in scope, and further clarity may be required as options are explored. Respondents are urged to make their proposals as detailed as possible, while identifying areas where further detail is required or risks are apparent.

The RFP process may result in multiple Respondents being chosen for one or more sites and ownership structures.

There will not be a public bid opening.

7.1 Evaluation Criteria

Proposals will be evaluated on the following criteria.

- (a) Total Project Cost,
- (b) Net cost, including risk, to VPPSA and/or Members,
- (c) Location - Member Existing Sites or desirable New Sites,
- (d) Qualifications of Respondents and Personnel assigned to project,
- (e) Ownership Structure,
- (f) Community Support.

In addition, the overall fit of the proposal will be considered, including combinations of siting, experience, ownership structure(s) and cost.

The lowest cost may not necessarily be chosen.

8. Other Terms

8.1 Conflicts of Interest

Respondents must certify that no elected official from a VPPSA Member system will benefit financially or materially from acceptance for this procurement.

Any alleged oral agreement or arrangement by a Respondent with any employee of VPPSA or VPPSA Member will be considered grounds to reject a proposal.

8.2 Confidentiality

Due regard will be given for the protection of proprietary information contained in all proposals received. However, Respondents should be aware that all materials associated with their submittals are subject to the terms of the Vermont Access to Public Records Act (1 V.S.A. Chapter 5, Subchapter 3) and all rules, regulations and interpretations resulting from, and any other applicable rules, regulations or judicial decisions regarding access to the records of government.

If confidential treatment is requested as part of the proposal, it will not be sufficient for Respondents to merely state generally that the proposal is proprietary in nature and not therefore subject to release to third parties. The pages or sections which a Respondent believes to be proprietary must be specifically identified as such and must be separated from other sections or pages of their proposal. Convincing explanation and rationale sufficient to justify each exemption from release consistent with Section 316 of Title 1 of the Vermont Statutes Annotated must accompany the proposal.

The rationale and explanation must be stated in terms of the prospective harm to the competitive position of the Respondent that would result if the material were to be released and the reasons why the materials are legally exempt from release pursuant to the above cited statute. The final administrative authority to release or exempt any or all material so identified, rests with VPPSA.

8.3 Collusion

By responding to this RFP, the Respondent implicitly states that the proposal is not made in conjunction with any competing Respondent submitting a separate response to this RFP and that it is in all respects fair and without collusion or fraud.

8.4 VPPSA's Rights

Neither VPPSA nor VPPSA Members shall be liable for any costs incurred by Respondents in the preparation of proposals or for any work performed prior to the approval of any executed contract.

All proposals upon submission become the property of VPPSA. VPPSA reserves the right to request additional information to assess and evaluate proposals.

VPPSA reserves the right to reject any or all responses to the RFP, to partner with Respondent(s) best suited to VPPSA or VPPSA Member interests, or re-issue the RFP.

This RFP in no way obligates VPPSA to contract with or otherwise partner with any Respondent.