

SECTION 83D
REQUEST FOR PROPOSAL
APPLICATION FORM

Longroad Energy – Weaver Wind Project

Applicant Information

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**Section 1 of Appendix B to the RFP:
Certification, Project and Pricing Data**

The Certification, Project and Pricing Data (“CPPD”) document is a Microsoft Excel workbook that is provided on the website at www.MACleanEnergy.com.

CPPD and Executed Bid Certification forms for the Project are provided by appendix.

Section 2 of Appendix B to the RFP: Executive Summary of the Proposal

The bidder is required to provide an executive summary of the project proposal that includes a complete description of the proposed generation and/or transmission bid, the proposed contract term and pricing schedule, and other factors the bidder deems to be important.

Longroad Energy Partners, LLC, (“Longroad” or the “Bidder”) appreciates the opportunity to respond to the 2017 Section 83D Request for Proposals issued by the Commonwealth of Massachusetts and the Distribution Companies for new clean energy and transmission resources (the “RFP”).

Based in Boston, MA, **Longroad** is focused on the development, construction and operation of utility-scale wind and solar energy projects throughout the United States. Longroad was founded by the former executive team of First Wind Holdings, LLC (“First Wind”). While at First Wind and later at SunEdison (following its acquisition of First Wind), the core members of the Longroad team successfully developed and built over **33** utility-scale solar and wind energy projects totaling more than **3,300 MW** of installed generation capacity, including **664 MW** in ISO New England (“ISO-NE”)¹. Of the 664 MW of projects in ISO-NE, **333 MW** of utility-scale wind capacity was selected for power purchase agreements under Section 83 A (“83A Projects”). Additionally, the Longroad team developed **21 MW** of solar energy facilities sited in Massachusetts. All of the referenced projects in ISO-NE were successfully developed, constructed and operated by the Longroad team.

Exhibit 2.0 – Select Bidder Team Development Experience in New England

Project(s)	State	Size (MWac)	Technology	COD Year	Off-taker
Mars Hill	ME	42	Wind	2007	New Brunswick Power
Stetson I	ME	57	Wind	2009	Constellation Energy
Rollins	ME	60	Wind	2010	CMP, Bangor Hydro
Stetson II	ME	25.5	Wind	2010	Harvard University
Sheffield	VT	40	Wind	2011	BEC, VECO, WECO
Bull Hill	ME	34.5	Wind	2012	NSTAR (Eversource)
Millbury	MA	4	Solar	2013	SREC/Municipal net metering
Warren	MA	17	Solar	2013	SREC/Municipal net metering
Oakfield	ME	148	Wind	2015	Eversource, National Grid (Sec. 83A)
Bingham	ME	185	Wind	2016	Eversource, National Grid (Sec. 83A)
Hancock	ME	51	Wind	2016	MMWEC, Burlington Electric

Longroad is investing in a utility-scale development renewable energy pipeline in New England to help meet continued demand for cost-effective clean energy and enhanced

¹ 664 MW includes the 42 MW Mars Hill project; located in Northern Maine and operates within the Northern Maine Independent System Administrator, Inc.

electric reliability. In this proposal, Longroad is offering **Weaver Wind** (the “Project”), a development-stage [REDACTED] wind energy facility near the Town of [REDACTED], Maine.

As described further in this proposal, the Project will meet the objectives of the Green Communities Act, an Act to Promote Energy Diversity, and the Global Warming Solutions Act (“GWSA”) by:

- Offering direct savings for Massachusetts ratepayers through competitive energy and REC pricing, and reducing volatility and price spikes in wholesale electricity markets through a long-term fixed-price contract structure;
- Making meaningful and timely contributions to GWSA goals by diversifying the New England energy mix and decreasing the region’s reliance on natural gas with a viable and zero carbon project;
- Adding [REDACTED] MW of incremental energy to the ISO-NE region, thereby increasing supply reserve margins, and strengthening system reliability during the winter months when gas supplies tend to be tightest;
- Mobilizing significant investment in New England-based supply chain and local communities;
- Reducing development and contracting risk for the Commonwealth through Longroad’s proven track record of successfully developing projects in New England.

These highlights, described in further detail throughout the proposal, demonstrate that Longroad has the development assets, industry expertise, financial resources, local experience and the established supply chain needed to help the Commonwealth capture the intended environmental, financial, and reliability benefits of this RFP.

Introduction to Weaver Wind Project

The Weaver Wind project is near the Town of [REDACTED] in [REDACTED] County, Maine. Weaver Wind is [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Weaver Wind enjoys strong local support, and we are confident in our ability to permit, finance, build, interconnect, and operate the Project to deliver cost-effective energy under the proposed terms of a PPA.

The Project will be comprised of [REDACTED] wind turbines [REDACTED] associated collection systems, and a facility substation and step-up transformer. The Project will interconnect to ISO-NE at [REDACTED]

[REDACTED]

An independent resource assessment indicates a Net Capacity Factor (“NCF”) of [REDACTED] and annual production of [REDACTED]. More information about the wind resource is provided in Section 4.

The following development attributes demonstrate the Project’s viability and its ability to satisfy the objectives of this RFP:

- **Wind Resource:** Longroad is very familiar with the wind resource in the Project area as Weaver Wind is located [REDACTED]. The first meteorological (“met”) tower was installed on site in 2008 with three additional towers installed in 2013 for a cumulative 240 months of wind resource data.
- **Site Control:** Weaver Wind has lease agreements and easements in place for the full Project site as well as the generator tie.
- **Permitting:** Environmental and permitting studies are underway; [REDACTED]
- **Technical and Financial Ability:** The Longroad team has constructed, financed and operated wind energy projects comparable to Weaver Wind in size and scope, and has operational experience with similar [REDACTED] wind turbine technology.
- **Interconnection status:** The Project holds a valid interconnection queue position in ISO-NE (QP 420) and the System Impact Study commenced in [REDACTED]

Pricing Summary

Longroad is offering the following pricing terms for the Project, consistent with the RFP requirements for minimum nameplate capacity, structure, associated environmental attributes, and contract tenor:

Exhibit 2.1 - Weaver Wind Bid Summary



Project and Proposal Eligibility

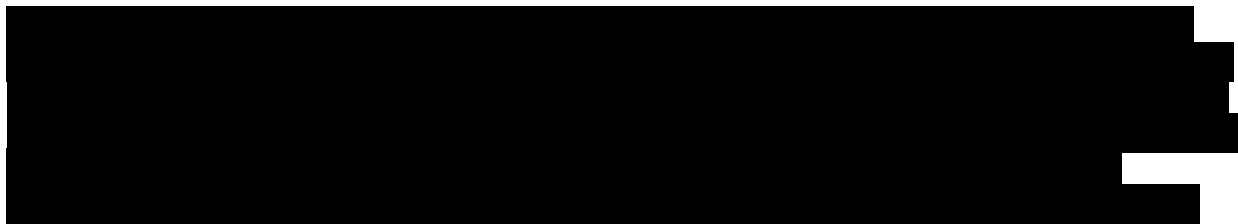
The Project and this proposal conform to the following RFP Eligibility Requirements:

- Longroad is the owner of development rights to, and assets of Weaver Wind (the Clean Energy Generation Project).
- The Project is not currently contracted through Section 83A or Net Metering.
- The Project intends to qualify as New Class I RPS Eligible Resources via a Long Term Contract.
- The Project's proposed pricing structure is on a fixed \$/MWh basis, with separate prices for Clean Energy and REC products.
- Bidder's affiliations are disclosed in Section 5 of the proposal.
- An eligible contract term of [REDACTED] years has been proposed.
- The Project's nameplate capacity exceeds the minimum contract size of 20 MW.
- Bidder provides a commitment to make commercially reasonable efforts to interconnect to the PTF at the Capacity Capability Interconnection Standard.
- Project energy and environmental attributes will remain deliverable, without substitution or added costs, throughout the term of the proposed contract.
- In addition to this proposal document conforming to Appendix B of the RFP, Bidder has submitted:
 - CPPD and Appendix D Forms,
 - Appendix C-1, and
 - Other relevant appendices needed to deliver a complete proposal.
- Bid fees have been delivered according to the instructions and terms described in Section 1.10 of the RFP.

About Longroad

Longroad was founded by the former executive team of First Wind. In addition to the executive team, numerous other former First Wind senior leaders and development professionals are now a part of the Longroad team and directly involved in the development of the Project. For this reason, the experience, track record and assignment of certain development successes of First Wind are often used interchangeably with the experience and credentials of Longroad.

Longroad has the capital needed to complete development, fund PPA security requirements and construct Weaver Wind. Longroad and the Project are principally funded by a subsidiary of [REDACTED] and the Bidder's founders. A company organizational chart is included in Exhibit 5.2-1.



Additionally, through its investment in Longroad Energy Holdings, the Bidder is affiliated with two New Zealand-based funds, Infratil and NZ Superannuation, which hold over \$35

billion in assets. Longroad Energy Holdings develops, constructs and operates utility-scale wind and solar projects.

Longroad has a strong network of financial partners and a proven track record of successfully raising project equity, debt and tax equity as further described in Section 5.

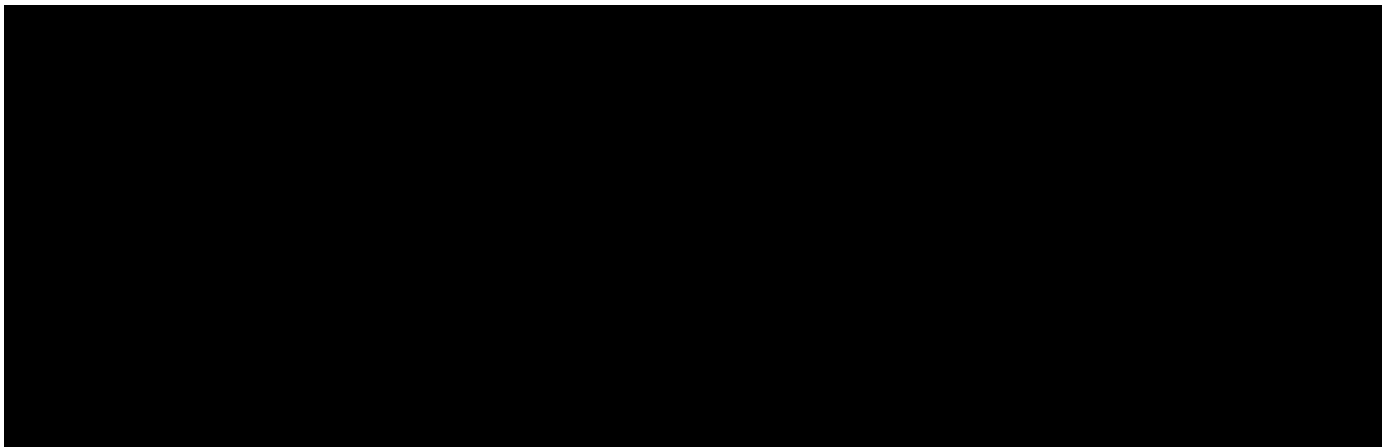
Section 3 of Appendix B to the RFP: Operational Parameters

3.1) Maintenance Outage Requirements - Specify partial and complete planned outage requirements in weeks or days for all generation facilities and transmission facilities. Also, list the number of months required for the cycle to repeat (e.g., list time interval of minor and major overhauls, and the duration of overhauls).

The Longroad team is the most experienced utility-scale wind energy developer and operator in New England. Among the team that has transitioned from First Wind to SunEdison to Longroad is the former leadership of First Wind's former Operations and Maintenance ("O&M") and Commercial Asset Management teams, with experience commissioning and management of over 2.5 GW of renewable energy generation in multiple US markets and Canada.

Operational parameters for our projects are designed to maximize availability and performance. To the greatest extent possible, maintenance activities and outages are planned during no/low wind periods, and economic incentives for our O&M and turbine manufacturer service teams are structured to reflect this priority.

Exhibit 3.1 - Summary of Maintenance Plan



Wind Turbine Maintenance

Wind turbine maintenance follows the schedule provided by the turbine manufacturer. Turbine maintenance will be performed by the manufacturer under an O&M contract. The routine turbine maintenance schedule includes break-in service for new turbines through the earlier of 3-5 months of turbine final commissioning or facility-wide COD.

Once COD has been achieved, the turbines have annual and semi-annual maintenance performed, requiring a total of 36-72 hours per turbine per year. A complete site-wide facility maintenance outage (grid disconnect) is not required for turbine maintenance; rather, routine maintenance results in a partial outage, in which the capacity de-rating is turbine nameplate (in megawatts) multiplied by the number of turbines having

maintenance done concurrently, which is no more than 3 turbines simultaneously, or [REDACTED] MW for Weaver Wind.

Balance of Plant Maintenance

Balance of Plant (“BOP”) infrastructure is defined as: civil work, the substation, collection system, turbine transformers and foundations.

Substation maintenance will be conducted annually, over a 4-6 day continuous time period. A planned maintenance outage of 2-3 days will be scheduled with [REDACTED], the local grid operator, in accordance with the Project’s Interconnection Agreement and applicable regulatory and procedural requirements.

Annual inspection and maintenance of the collection system and low voltage transmission equipment normally requires 1-1.5 days of planned maintenance. This work will be scheduled and performed at the same time as substation maintenance.

The turbine transformers are included in the [REDACTED] nacelles and covered in the turbine maintenance scope. All oil sampling will be conducted during other scheduled outage work. The transformers do have routine condition assessment tasks performed that require an operator to be physically at the unit; examples include oil sampling, physical inspection, and temperature monitoring. These tasks can be performed safely with the wind turbine operating.

3.2) Operating Constraints - Specify all the expected operating constraints and operational restrictions for the project (i.e., limits on the number of hours a unit may be operated per year or unit of time). If the bid includes firm deliveries, list the anticipated situations and frequency of interruptions of transmission sources which would affect power deliveries.

Wind turbines typically have standard operating limits related to wind speed. Generally, the turbines cannot run when wind speed is less than 3 meters/second or when wind speed exceeds 22.5 meters/second, in which case the turbines must be shut down for safety reasons. Other adverse site conditions such as lightning, wind shear, severe icing or turbulence may cause immediate shut down of the wind turbines. The wind turbines have protective systems designed to safely shut down under site conditions outside their operating limits.

To ensure turbine longevity, the turbine manufacturer has advised an operational curtailment plan for the Project, whereby turbines may be shut down when the wind blows from a certain wind direction above a certain wind speed. Further and ongoing analysis by the manufacturer may reduce these limitations.

Additionally, an environmental curtailment plan has been assumed for the Project whereby turbines will be shut down under certain low wind speed conditions to reduce bat mortality.

Loss factors, which include operational curtailment and bat curtailment assumptions, are described in Section 4.

3.3) Reliability - Describe how the proposal would provide enhanced electricity reliability to Massachusetts, including its impact on transmission constraints.

Weaver Wind will provide reliability benefits by adding incremental energy generation to the ISO-NE region, thereby increasing supply reserve margins. As has been well documented, New England is dependent on natural gas for heating as well as electricity generation, particularly in the winter months. The lack of local gas supply and regional pipeline constraints has raised reliability concerns. As a winter peaking resource, the Project will enhance electric reliability within New England during those months when gas supplies tend to be tightest.

Longroad filed Weaver Wind as a Capacity Network Resource (CNR) with ISO-NE in anticipation of making commercially reasonable efforts to qualify Weaver Wind in the ISO-NE Forward Capacity Market. Longroad will submit a qualification application for an appropriate Forward Capacity Auction (“FCA”) and if qualified, Longroad intends to have Weaver Wind participate in the FCA. Whether Weaver Wind will qualify and clear is uncertain, and Longroad cannot make any further commitments as to whether the Project will indeed qualify or clear.

Longroad has also submitted an Elective Transmission Upgrade request with the ISO (QP 657) to identify upgrades necessary for increasing the export capacity on the Downeast Loop and ensuring full deliverability of Weaver Wind.

3.4) Moderation of System Peak Load - Describe how the proposal would contribute to moderating system peak load requirements and provide the following information:

- i. Estimated average output for each summer period (June- September) from 1:00 - 6:00pm
- ii. Estimated average output for each winter period (October-May) from 5:00 - 7:00 pm

Adding additional, cost effective (*i.e.* fixed price) resources such as Weaver Wind to the supply stack can help moderate system peak loads by displacing expensive peaking units that would typically run during high demand periods, resulting in lower net electricity costs to ratepayers during peak periods.

Estimated average Project output during peak load periods is as follows:

- Estimated average output for each summer period (June-September) from 1:00 pm-6:00 pm: [REDACTED]
- Estimated average output for each winter period (October-May) from 5:00 pm-7:00 pm: [REDACTED]

The peak load values above represent the Project’s average hourly net output. Longroad calculated the values utilizing the 12x24 matrix produced by [REDACTED] of the Project’s P50 average hourly net energy output.

3.5) Development Stage of all physical aspects of the bid - Describe whether the project is in

operation, in construction or in the development phase.

- a) If in operation, when did the project achieve commercial operation
- b) If in construction, when did construction commence and what are the projected dates for initial testing and commercial operation.
- c) If the project is partly in one development stage and partly in another, please explain in detail the status of the project

If the proposed project is an expansion, repowering, environmental investment or other modification of an existing Facility, please describe the project in detail, the total cost and cost on a \$/kW basis specifying the existing project and the proposed expansion, repowering or other modification. Indicate any incremental or decremental capacity.

Weaver Wind is in the development stage and is scheduled to achieve commercial operation in [REDACTED]. Longroad has over three years of on-site wind resource data from each of the four installed met towers.

The Weaver Wind permitting requirements are well understood and the methodology learned by the Longroad team from developing and successfully permitting 643 MW of renewable generation capacity in Maine, [REDACTED] will be applied to the Project. Environmental resource assessments, including surveys for wildlife, rare and threatened plants, wetland delineations, and a visual analysis are complete. Longroad will continue to advance interconnection studies and submit a permit application to the Maine Department of Environmental Protection ("MDEP"). Longroad previously submitted a permit application to MDEP, which was withdrawn due to cumulative impact concerns. Longroad has been working closely with MDEP to ensure a successful permit resubmittal to address these concerns.

Site control, permitting, engineering design, interconnection studies, host community support, financing commitments, supply chain agreements, and operational plans are scheduled in a manner to meet the Project Schedule (Section 10).

A PPA is the critical instrument for financing and building the Project.

Section 4 of Appendix B to the RFP: Energy Resource and Delivery Plan

4.1) Energy Resource Plan

For Eligible Facilities, the bidder is required to provide an energy resource or fuel supply plan for its proposed project, including supporting documentation. The fuel supply/energy resource profile information should be consistent with the type of technology/resource option proposed and the term proposed. The information requested is organized according to the type of project or energy resource. Bidders should respond to all information requests which are relevant to the bid in a timely manner.

Wind Energy Projects

- Provide a summary of all collected wind data for the proposed site. Identify when the data was collected and by whom.

Longroad's wind resource personnel, formerly of First Wind and SunEdison, have managed the wind monitoring campaign and resource analysis for the Project. The team is comprised of meteorologists with expertise in the latest wind industry modeling techniques and analysis. The Project's wind monitoring campaign was carried out in the field by the same met tower installer over the Project's development cycle, in coordination with Longroad's wind resource personnel, and executed at a high standard. These teams have designed and executed wind monitoring campaigns, designed turbine layouts, and produced wind resource and energy production assessments for many projects totaling more than 750 MW of installed wind project capacity.

Project Area

The project area is located within ██████████ County, Maine, in the southeastern region of the state. The Project is located west and northwest of ██████████. The terrain characteristic of the project area is similar to ██████████: gently rolling hills and ridge tops with comparable ground elevations (e.g. ██████████). The land surrounding Weaver Wind ██████████ is almost completely forested with extensive logging roads and activity.

Wind Monitoring Campaign

The fuel supply is wind; the source/supply is described below.

Wind monitoring at the project area began in September 2008 with the installation of a 60-meter met tower on ██████████. Additional 60-meter met towers were subsequently installed in January 2013 and December 2013 for a total of four met towers within the project area (Exhibit 4.1-1). All met towers were decommissioned in June 2017. The oldest

met tower collected more than eight years of data while the other met towers each collected more than three years of data. A cumulative total of 240 months of met tower data were collected.

A Sonic Detection and Ranging device (“SoDAR”) was deployed adjacent to all four of the Project’s met towers (Exhibit 4.1-2). SoDAR is a form of remote sensing technology which emits acoustic sound pulses to measure wind speed and direction at heights comparable to the sensors on the met tower, as well as at heights well above the met tower. The SoDAR is used to reduce uncertainty in predicting hub height wind speeds at the met tower locations.

The instruments on all met towers were selected and configured to observe or exceed standard industry practices. All met towers were equipped with anemometers and wind vanes to measure wind speed and direction at the top of each met tower and at various heights below (Exhibit 4.1-2). Additional sensors measured temperature at the base of each met tower. All data were recorded by a data logger in the form of 10-minute average data.

- **Indicate where the data was collected and its proximity to the proposed site. Include an identification of the location and height for the anemometers that were used to arrive at an assessment of the site generation capability.**

Wind resource data have been collected on-site; met tower and remote sensing locations are shown on the map in Exhibit 4.1-1 and described in Exhibit 4.1-2 below.

Exhibit 4.1-1 - Met Tower, Remote Sensing Device, and Turbine Placement

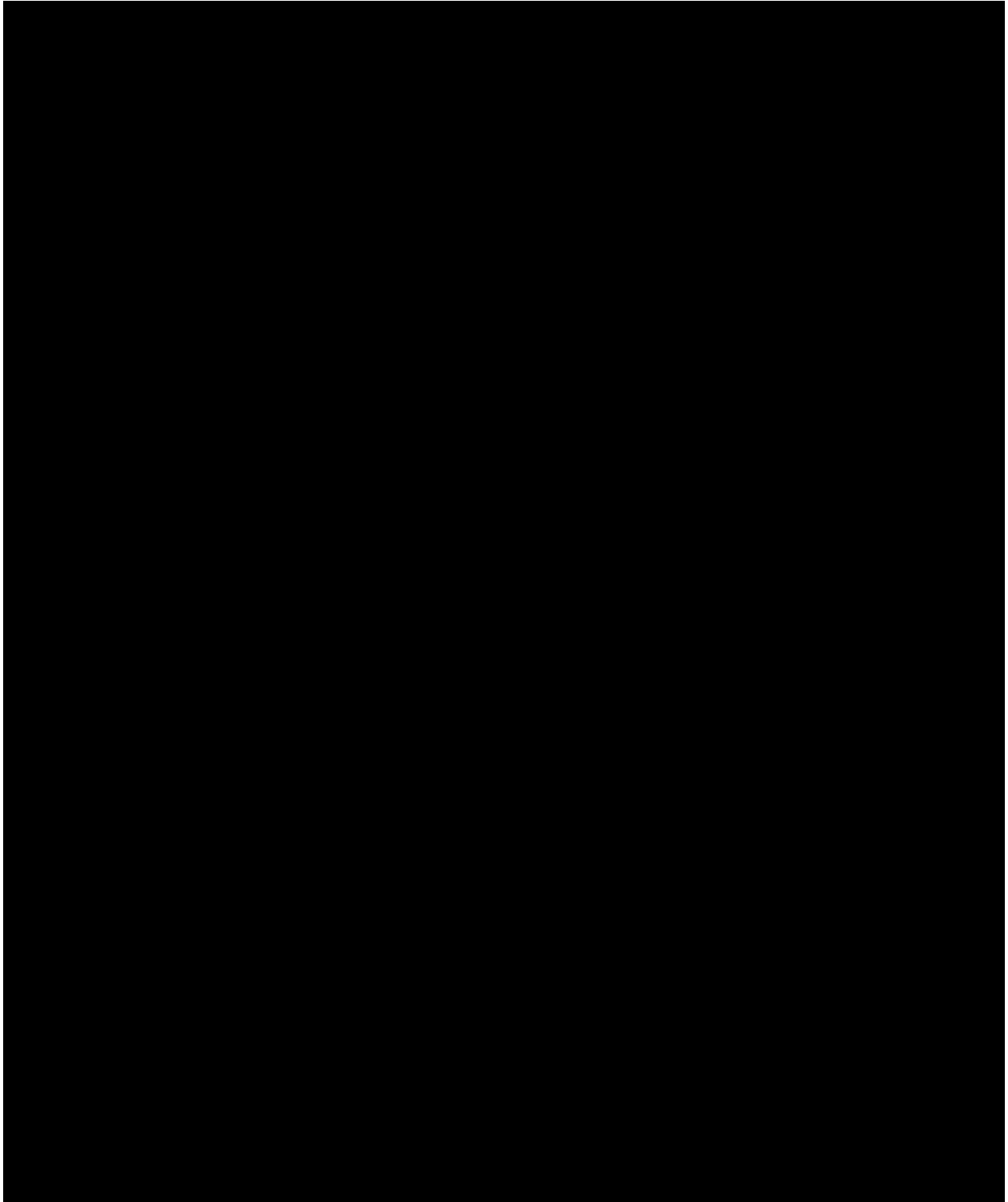


Exhibit 4.1-2 - Met Tower and Remote Sensing Device Summary

- Provide (a) at least one year of hourly wind resource data, and (b) a wind resource assessment report from a qualified unaffiliated third-party wind resource assessment firm. Include an analysis of the available wind data which addresses the relationship between wind conditions and electrical output. Provide a projection of net annual energy production, including projections of average net hourly energy production, based on the wind resource data (a 12 x 24 energy projection) at both P50 and P90 levels.

The [REDACTED] wind resource and energy production assessment report is provided as Appendix 4.1.i; met tower data are provided as Appendix 4.1.ii; the 12x24 matrix of P50 average hourly net energy output is provided as Appendix 4.1.iii; the 12x24 matrix of average hourly net energy output at the 1-year P90 level is provided as Appendix 4.1.iv.

Wind Resource Analysis

A wind resource assessment of the Project was concluded in November 2015 by [REDACTED] an independent meteorological and energy assessment consulting firm serving the wind industry. For their study, [REDACTED] utilized at least one year of data from each met tower. The study also utilized a total of 35 months of data from four SoDAR deployments.

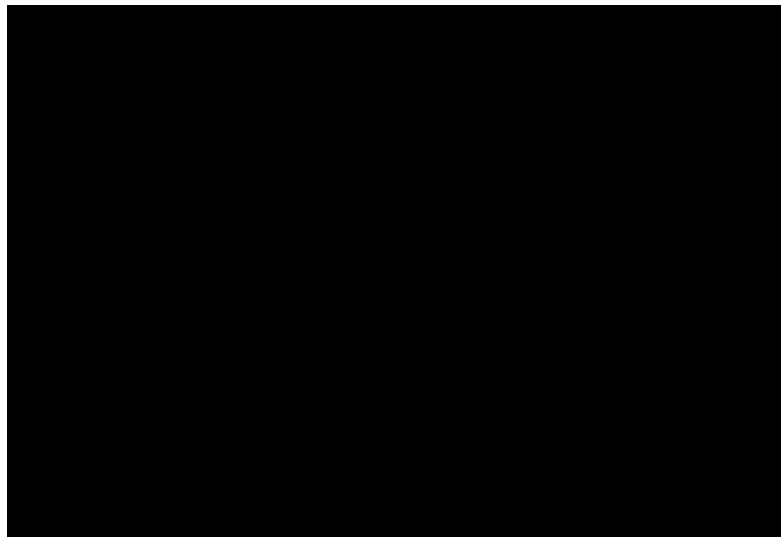
[REDACTED] validated all met tower data. The data were long-term adjusted by [REDACTED] using both the *MERRA* and *ERA-I* global re-analysis atmospheric datasets, each dataset going back to 1997 representing an 18-year period of record. These datasets are produced by NASA and the European Center for Medium-Range Weather Forecasts ("ECMWF"), respectively. The correlation between Weaver and *MERRA/ERA-I* had an r^2 value of 0.87.

[REDACTED] then extrapolated the long-term adjusted wind data at the met towers to hub height by applying a wind shear. Wind shear describes how the wind speed changes with height. [REDACTED] utilized data from SoDAR devices deployed adjacent to all four of the Weaver met

towers in order to more reliably determine the wind shear. All SoDAR data were validated by [REDACTED].

A high-resolution wind map of the project area was created by [REDACTED] using their proprietary SiteWind model, the results of which were adjusted to the hub height wind speeds at the met tower locations. Prevailing winds at the Weaver site are out of the northwest and south/southwest. The turbine layout has been designed accordingly in order to minimize wake losses. In an energy production assessment concluded in January 2016, [REDACTED] used the Project's wind map to model the gross energy production of the Weaver turbine layout designed by Longroad.

Exhibit 4.1-3 - Project Wind Rose



The Project's wake losses were estimated by [REDACTED] using the *openWind Deep Array Wake Model* ("DAWM"), a standard wake model utilized by the wind industry which includes the ability to more accurately capture wake effects deep within the turbine array, or layout. Included were additional wake effects imparted on the Project by the nearby [REDACTED] facilities. Finally, [REDACTED] made site-specific estimates of other relevant loss factors (Exhibit 4.1-6) appropriate for the northeastern United States. These additional loss factors were applied to determine the Project's net annual energy production (Exhibit 4.1-4).

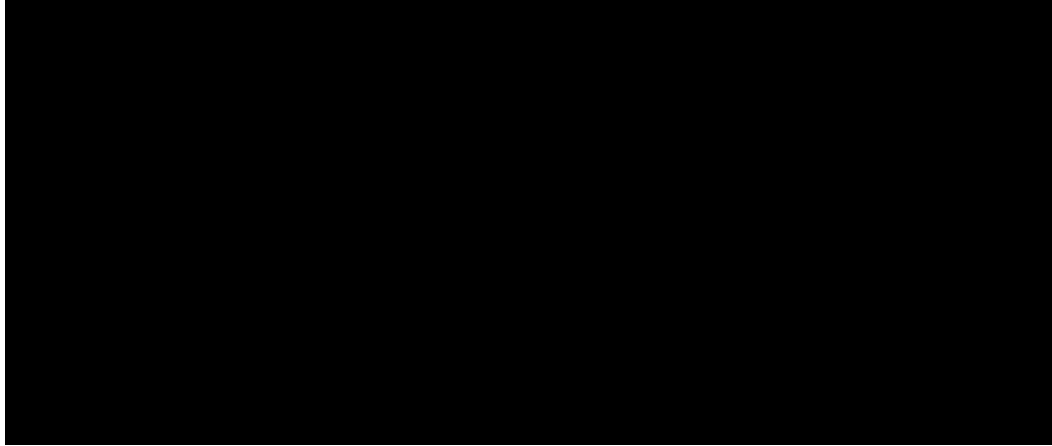
[REDACTED] also completed an uncertainty analysis for their energy production estimate, including an estimate of the 1-year P90 net annual energy production.

The 12x24 matrix of P50 average hourly net energy output was produced by [REDACTED]. Longroad scaled this matrix by the ratio of the [REDACTED] 1-year P90 net annual energy production to the [REDACTED] P50 net annual energy production. This resulted in a 12x24 matrix of average hourly net energy output at the 1-year P90 level.

[REDACTED]

[REDACTED] t is not uncommon for turbine manufacturers to advise operational curtailment plans for their customers' wind farms. Additionally, a bat curtailment plan has been developed for the Project, the impacts of which have been modeled by Longroad and included in the [REDACTED] wind report (included in "Curtailment" line, Exhibit 4.1-6).

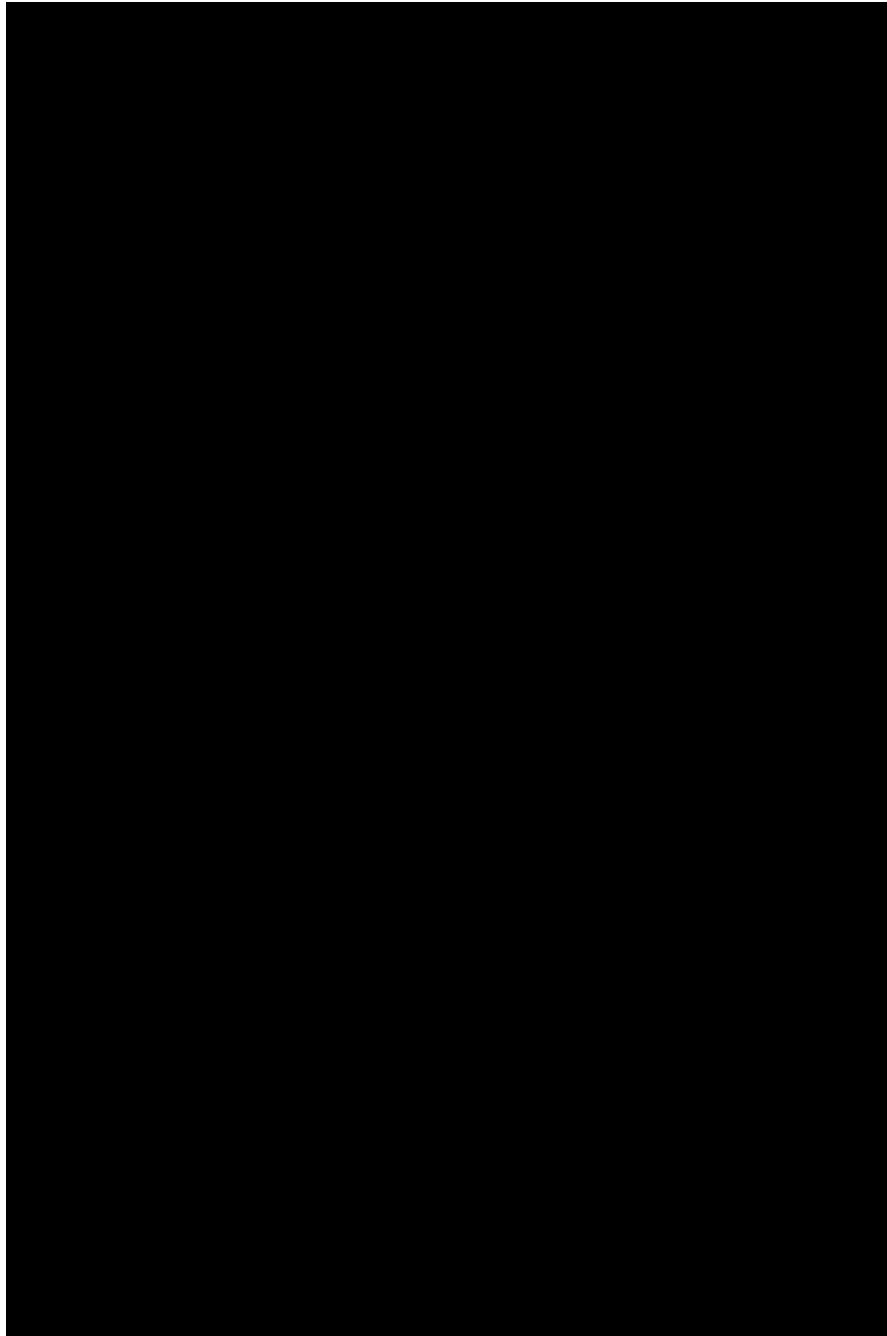
Exhibit 4.1-4 - Energy Production Analysis Summary



- Provide a site-adjusted power curve. Each curve should list the elevation, temperature and air density used.

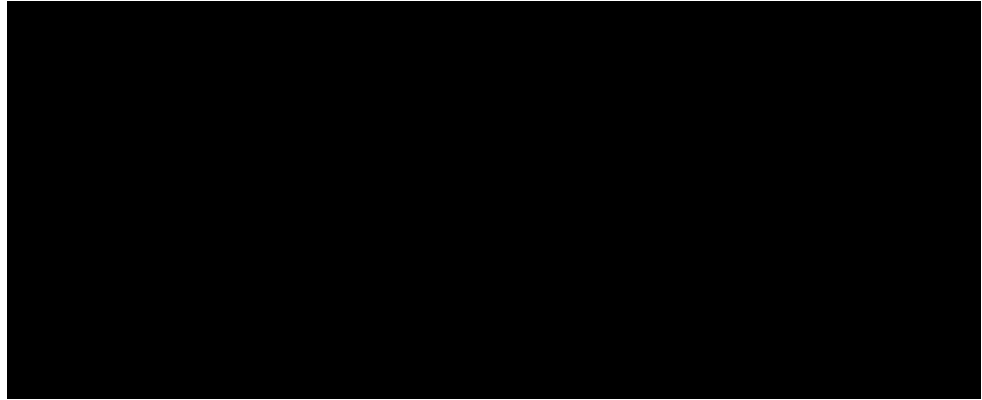
Exhibit 4.1-5 - Site-Adjusted Power Curve

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- Identify the assumptions for losses in the calculation of projected annual energy production, including each element in the calculation of losses.

Exhibit 4.1-6 - Loss Factors Summary



Availability

Availability losses account for lost production due to wind turbine maintenance, grid outages, and other events which keep turbines offline.

Electrical

This factor accounts for electrical losses experienced through the collection system and on-site transformer (up to the high-voltage side of the on-site transformer). It also includes power consumption from the wind turbines' cold weather package.

Turbine Performance

This loss factor accounts for lost production due to sub-optimal performance of the wind turbines compared to their warranted power curve.

Environmental

The environmental losses account for impacts of the natural environment on plant performance. This includes effects such as icing events on the wind turbines, blade degradation experienced over the lifetime of the project, and site access issues.

Curtailement

Curtailement accounts for lost production due to restricted operation of the turbines or otherwise restricted performance of the wind farm. Both an operational curtailement plan and bat curtailement plan have been assumed for the Project.

Wake Effect

Wake effect losses account for lost energy production within the wind farm due to shading effects the wind turbines impart on one another which can result in reduced effective wind speeds. Also included in the Project's wake losses are additional wake effects imparted on the Project by [REDACTED].

- If your bid includes a delivery forecast which is substantially different than NREL data would suggest, please reconcile the differences.

N/A

Landfill Gas

N/A

Biomass

N/A

Solar

Provide an assessment of the available solar incidence or resource. Describe any trends in generation capability over time (i.e., annual decline rate of expected output).

Describe the methodology used to generate the projected generation and describe the in-house or consulting expertise used to arrive at the generation estimates.

Hydropower

N/A

Other information as required to describe the energy resource plan

- Identification of fuel supply (if applicable)
- What is the availability of the fuel supply?
- Does the bidder have any firm commitments from fuel suppliers? If so, please provide a copy of any agreements with confidential information redacted if necessary.

4.2) Clean Energy Generation Delivery Plan

Please provide documentation that any clean energy plan delivery plan that includes hydroelectric generation meets the definition of "Incremental Hydroelectric Generation" as defined in the body of the RFP

Please provide an energy delivery plan and profile for the proposed project, including supporting documentation. The energy delivery profile must provide the

expected Clean Energy Generation to be Delivered into the ISO-NE market settlement system and permit the Evaluation Team to determine the reasonableness of the projections for purposes of Sections 2.2.1.3 Eligible Bid Categories and 2.2.1.7 Minimum Contract Size of the RFP. Such information should be consistent with the energy resource plan provided above and also considering any and all constraints to physical delivery into ISO-NE.

N/A – Project is not Incremental Hydroelectric Generation

Clean Energy Generation for projects containing new Class I eligible resources only must comply with Section 2.2.2.7 of the RFP. They must submit a delivery profile guaranteeing 70% of the energy in their delivery profile for the Winter Peak Period over the course of every Winter Peak Period on the CPPD form in their bidder response package.

Weaver Wind commits to the winter guarantee provided in the CPPD delivery profile.

Clean Energy Generation for projects containing firm service hydroelectric generation, and Clean Energy from new Class I RPS eligible resources paired with firm service hydroelectric generation must comply with section 2.2.2.7 of the RFP. They will be required to submit a delivery profile with no Winter Peak Period hour less than 60% of their highest annual single hourly delivery claimed in their annual delivery profile as submitted as a part of their CPPD form in their bidder response package. Bidders will be required to guarantee the submitted delivery profile in all hours during the Winter Peak Period. Bidders should supply any studies performed to support this profile. Bidders should respond to all information requests which are relevant to the bid in a timely manner.

N/A

4.3) REC/Environmental Attribute Delivery Plan

Please provide documentation demonstrating that the project will Deliver GIS Certificates representing those RECs or Environmental Attributes. For projects located outside of the ISO-NE control area, describe how the Delivered energy and associated RECs or Environmental Attributes will satisfy NEPOOL-GIS rules for the Delivery of GIS Certificates.

This project is located in the ISO-NE control area. NEPOOL-GIS will be the system of record for RECs and all RECs will be delivered to counterparties through NEPOOL GIS. See section 7.6 for more information.

Section 5 of Appendix B to the RFP: Financial/Legal

Bidders are required to demonstrate the financial viability of their proposed project. Bidders should provide the following information:

5.1) Each bidder is required to submit information and documentation that demonstrates that a long term contract resulting from this RFP Process would either permit the bidder to finance its proposal that would otherwise not be financeable, or assist the bidder in obtaining financing of its proposal.

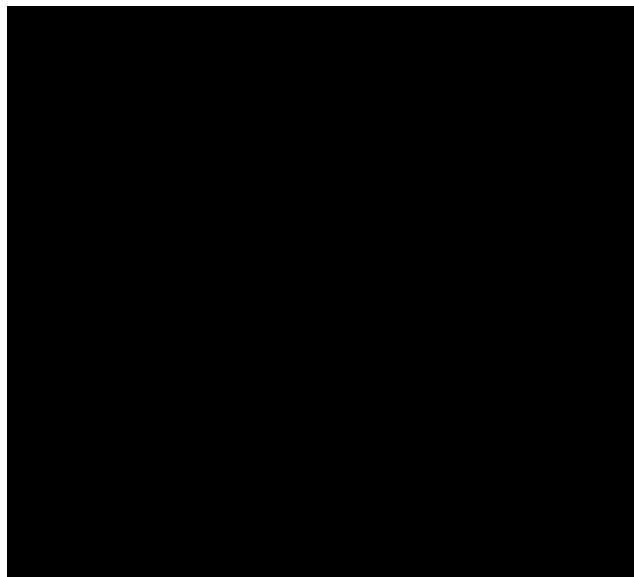
The Project's estimated capital cost is approximately [REDACTED]. Funding projects purely with equity capital is not customary for the construction of renewable energy projects. Consistent with our approach for the 83A Projects, we will secure project debt and tax equity facilities for the majority of the Project capital cost. Such facilities require a "financeable" long-term contract (e.g., PPA) with high quality credit-worthy counterparties, such as the Distribution Companies.

5.2) Please provide a description of the business entity structure of the bidder's organization from a financial and legal perspective, including all general and limited partners, officers, directors, managers, members and shareholders, involvement of any subsidiaries supporting the project, and the providers of equity and debt during project development. Provide an organization chart showing the relationship between the equity and debt participants and an explanation of the relationships. For jointly owned facilities, identify all owners and their respective interests, and document the Bidder's right to submit a binding proposal.

Weaver Wind, LLC is a Delaware limited liability company, and is a special purpose vehicle that owns the Project. Weaver Wind, LLC is wholly owned by Longroad Development Holdings, LLC, a Delaware limited liability company, which is a wholly owned subsidiary of Longroad.

Longroad is a Delaware limited liability company that is indirectly owned by four individuals: Paul Gaynor, Michael Alvarez, Peter Keel and Charles Spiliotis (the "Founders") with an additional investment by [REDACTED]. Each of the Founders is an officer of both Longroad Energy Partners, LLC and Weaver Wind, LLC. Please see Section 11 for their biographical summaries.

Exhibit 5.2-1 – Bidder Organizational Chart



Financial Qualifications and Structure

If selected for a PPA, Longroad is well-positioned to complete development, post needed security, arrange construction and permanent financing, and build the Project on schedule. The Longroad team has a consistent track record of successfully financing utility-scale wind and solar projects.

The Longroad team has successfully financed 33 utility-scale wind and solar projects encompassing over 3,300 MW of nameplate capacity, including three high-voltage transmission lines. The team has never had a situation where an economically viable project could not be brought to operation due to an inability to secure financing.

Since 2008, the Longroad team's collective track record of raising capital includes:

- Over \$11 billion of capital raised at First Wind, including project finance debt, tax equity, corporate debt, partnerships, and sponsor equity
- In 2015, over \$4 billion of capital raised under the SunEdison umbrella

To complete development and post needed security for Weaver Wind, Longroad will utilize capital provided by its financial investors (i.e., its founders and [REDACTED]). As development nears completion, the team will launch its standard process to structure the most cost-effective and efficient capital structure available. Longroad has strong relationships with numerous financial partners and has closed both debt and tax equity financings with diverse set of counterparties, featured in Section 11.6.

5.2) For projects that include new facilities or capital investment, provide a description of the financing plan for the project, including construction and term financing. The financing plan should address the following:

- i. Who will finance the project and the related financing mechanism or mechanisms that will be used (i.e. convertible debenture, equity or other) including repayment schedules and conversion features
- ii. The project's existing initial financial structure and projected financial structure
- iii. Expected sources of debt and equity financing
- iv. Estimated construction costs
- v. The projected capital structure
- vi. Describe any agreements, both pre and post commercial operation date, entered into with respect to equity ownership in the proposed project and any other financing arrangement.

In addition, the financing plan should address the status of the above activities as well as the financing of development and permitting costs. All bidders are required to provide this information.

Financing Plan

The Project is currently funded with Longroad equity via its financial investors. Weaver Wind is an advanced development wind project and has incurred substantial costs consistent with development progress made since on-site activities began in 2008. Any remaining development expenditures, including required PPA security, will continue to be funded by Longroad.

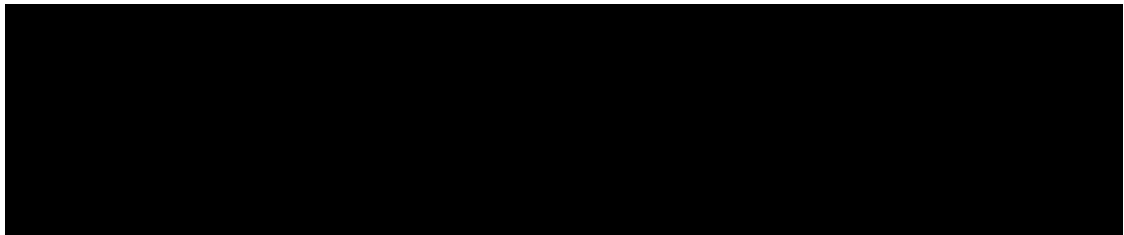
Weaver Wind is expected to have the structure typical of a non/limited-recourse project financing, including construction debt coupled with tax equity and long-term debt commitments. Sponsor equity will fill the remainder of the funding need. We anticipate that roughly 20% of the construction costs will be funded with equity and the balance funded by debt and tax equity.

The construction loan (and any remaining sponsor equity) will be funded at financial close/FNTP and monthly loan draws will be utilized to back construction activities until the project reaches COD. Shortly after COD, the construction loan will be replaced by a combination of tax equity and long-term debt. This financing plan is customary for utility scale wind and solar projects and is one that the Longroad team has implemented for several GW of projects it has developed. Providers of debt and tax equity have not yet been selected, but we anticipate working with financial counterparties where we have a strong relationship and proven track record of success. As an example, debt and tax equity Letters of Intent are provided as Appendix 5.2.i and Appendix 5.2.ii.

Estimated Construction Costs

The project is estimated to have a total cost of approximately [REDACTED] (see Exhibit 5.2-2). This cost is inclusive of all development, engineering and construction, and financing costs.

Exhibit 5.2-2 - Estimated Project Construction Costs

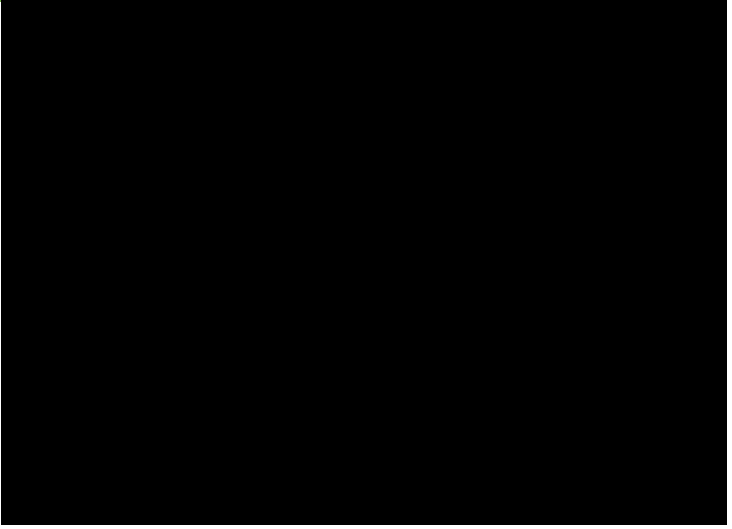
A large black rectangular box redacting the content of Exhibit 5.2-2.

5.3) Provide documentation illustrating the experience of the project sponsor in securing financing for projects of similar size and technology. For each project previously financed provide the following information:

- i. Project name and location
- ii. Project type and size
- iii. Date of construction and permanent financing
- iv. Form of debt and equity financing
- v. Current status of the project

In New England, the Longroad team secured over \$1 billion of project financing for an operational wind fleet. This track record enhances the likelihood of successful and cost-effective financing alternatives for the Project.

Exhibit 5.3 - Longroad Team's New England Project Financing Activity

Project	Location	Type	Size (MW)	Construction Financing (\$ million)	Permanent Financing (\$ million)
Mars Hill	Mars Hill, ME	Wind	42		
Stetson I and II	Washington County, ME	Wind	82.5		
Rollins	Lincoln, ME	Wind	60		
Sheffield	Sheffield, VT	Wind	40		
Bull Hill	Hancock County, ME	Wind	34.5		
Warren & Millbury	Warren and Millbury, MA	Solar	21		
Oakfield	Aroostook County, ME	Wind	148		
Bingham	Somerset County, ME	Wind	185		

Total

5.4) For projects that include new facilities or capital investment, provide evidence that the bidder has the financial resources and financial strength to complete and operate the project as planned.

Provided in reply to 5.2 and 11.6, and by Appendix 5.2.i and 5.2.ii.

5.5) Provide complete copies of the most recent audited financial statement or annual report for each bidder for each of the past three years; including affiliates of the bidder (if audited statements are not available, reviewed or compiled statements are to be provided). Also, provide the credit ratings from Standard & Poor's and Moody's (the senior unsecured long term debt rating or if not available, the corporate rating) of the bidder and any affiliates and partners.

Longroad was formed in 2016 and does not have three years of audited financial statements available. Year-end 2016 financial statements are provided as Appendix 5.5.

5.6) Please also include a list of the board of directors, officers and trustees for the past three years and any persons who the bidder knows will become officers, board members or trustees.

The officers of Bidder and Weaver Wind are:

Paul Gaynor	Chief Executive Officer
Peter Keel	Chief Financial Officer
Michael Alvarez	Chief Operating Officer
Charles Spiliotis	Chief Investment Officer

The founders also make up members of the Management Committee of Bidder.

5.7) The bidder should demonstrate its ability (and/or the ability of its credit support provider) to provide the required security, including its plan for doing so.

At \$20,000 per MWh per hour, the Credit Support required to be posted by Weaver Wind is expected to be [REDACTED]. Prior to financial close, Longroad will satisfy the development period Credit Support requirements through either (i) a letter of credit or (ii) a cash deposit. Longroad financial statements have been attached via Appendix 5.5.

Following the close of the Project's construction and permanent financing commitments, Longroad's development period Credit Support will be replaced via a project letter of credit facility, to be provided by the construction and term lenders.

5.8) Provide a description of any current or recent credit issues/credit rating downgrade events regarding the bidder or affiliate entities raised by rating agencies, banks, or accounting firms.

None, Longroad does not have a credit rating.

5.9) Describe the role of the Federal Production Tax Credit or Investment Tax Credit (or other incentives) on the financing of the project.

Availability of the PTC/ITC provides access to tax equity investment, an instrument Longroad has utilized in various capacities for many project finance transactions.

As part of the Protecting Americans from Tax Hikes Act of 2015, the PTC/ITC for wind energy projects was extended to projects that start construction before January 1, 2020. Under the extension, the tax credit will phase out for projects that start construction after December 31, 2017. Under the current project schedule and based on Weaver Wind construction activities completed to-date, Longroad expects that Weaver Wind will qualify for the PTC/ITC consistent with the phased schedule under the terms of the IRS guidance.

5.10) Bidders must disclose any pending (currently or in the past three years) litigation or disputes related to projects developed, owned or managed by Bidder or any of its affiliates in the United States, or related to any energy product sale agreement.

None, there are no such disputes for the Bidder or its affiliate entities.

5.11) What is the expected operating life of the proposed project?

What is the depreciation period for all substantial physical aspects of the bid, including generation facilities, transmission lead lines to move power to the grid, transmission proposals, and mandatory and voluntary transmission system upgrades?

The expected operating life and depreciation period for the Project is at least [REDACTED].

5.12) For projects that include new facilities or capital investment, has the bidder already obtained financing, or a commitment of financing, for the project? If financing has not been obtained, explain how obtaining a long-term agreement as proposed will help you in obtaining financing for the proposed project, in obtaining more favorable terms for the financing of the proposed project, or in supporting the future capital investment.

Longroad has not obtained a contracted financing commitment for this Project. As previously mentioned, Longroad has relationships with leading financial institutions and lenders (Provided in reply to 5.2, 5.3 and 11.6, and by Appendix 5.2.i and 5.2.ii). Financing commitments require a long-term revenue commitment, such as a PPA. Thus, a PPA is the

critical instrument for securing debt and tax equity, and building the Project. Additionally, the tenor of the PPA will influence the debt sizing, because longer tenors will provide more debt capacity.

5.13) State whether the bidder or its affiliates have executed agreements with respect to energy, RECs and/or capacity for the project (including any agreements that have been terminated) and provide information regarding the associated term and quantities, and whether bidder has been alleged to have defaulted under or breached any such agreement.

Longroad has not obtained any long-term energy, capacity or REC sales agreement(s) for the Project.

5.14) List all of the Bidder's affiliated entities and joint ventures transacting business in the energy sector.

Bidder is a Boston based company focused on the development of utility-scale renewable energy projects throughout the United States. Bidder owns several project company subsidiaries through which development and contracting activities are conducted. Bidder also holds a minority interest in Longroad Energy Holdings, LLC, which is focused on the development and operation of utility-scale renewable energy projects throughout the United States and owns several project company subsidiaries.

Longroad's ownership structure is described in Section 5.2.

5.15) Has Bidder, or any affiliate of Bidder, in the last five years, (a) consented to the appointment of, or was taken in possession by, a receiver, trustee, custodian or liquidator of a substantial part of its assets, (b) filed a bankruptcy petition in any bankruptcy court proceeding, (c) answered, consented or sought relief under any bankruptcy or similar law or failed to obtain a dismissal of an involuntary petition, (d) admitted in writing of its inability to pay its debts when due, (e) made a general assignment for the benefit of creditors, (f) was the subject of an involuntary proceeding seeking to adjudicate that Party bankrupt or insolvent, (g) sought reorganization, arrangement, adjustment, or composition of it or its debt under any law relating to bankruptcy, insolvency or reorganization or relief of debtors?

No.

5.16) Briefly describe any known conflicts of interest between Bidder or an affiliate of Bidder and any Distribution Company, or any affiliates of the foregoing.

To our knowledge, there are no conflicts of interest between the Bidder or an affiliate of the Bidder and any Distribution Company, or any affiliates of the foregoing.

5.17) Describe any litigation, disputes, claims or complaints involving the Bidder or an affiliate of Bidder, against any Distribution Company or any affiliate of any Distribution Company.

To our knowledge, there are no litigation, disputes, claims or complaints involving the Bidder or an affiliate of the Bidder, relating to the purchase or sale of energy, capacity or RECs.

5.18) Describe any litigation, disputes, claims or complaints, or events of default or other failure to satisfy contract obligations, or failure to deliver products, involving Bidder or an affiliate of Bidder, and relating to the purchase or sale of energy, capacity or renewable energy certificates or products.

To our knowledge, there are no litigation, disputes, claims or complaints, or events of default or other failure to satisfy contract obligations, or failure to deliver products, involving the Bidder or an affiliate of the Bidder, relating to the purchase or sale of energy, capacity, or RECs.

5.19) Confirm that Bidder, and the directors, employees and agents of Bidder and any affiliate of Bidder are not currently under investigation by any governmental agency and have not in the last four years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction involving conspiracy, collusion or other impropriety with respect to bidding on any contract, or have been the subject of any debarment action (detail any exceptions).

Bidder confirms that the Bidder, directors, employees and agents of the Bidder and any affiliate of the Bidder are currently and have not been under investigation by any governmental agency for any act prohibited by State or Federal law in any jurisdiction involving conspiracy, collusion, or other impropriety with respect to bidding on any contract, or have been the subject of any debarment action.

5.20 Identify all regulatory and other approvals needed by Bidder to execute a binding sale agreement.

Longroad will require an internal approval process, which will be initiated during the negotiation process, if selected.

5.20) Describe how the project will conform to FERC's applicable regulatory requirements, including, but not limited to, FERC requirements relating to allocation of transmission capacity and open access, the justness and reasonableness of rates, the potential for undue preference or discrimination, and affiliate dealings, if any. Describe how your proposed approach is consistent with FERC precedent and ratemaking principles.

Weaver Wind will conform to all applicable FERC regulatory requirements, including the following:

- The Project will include generation interconnection facilities but will not own or operate any transmission facilities subject to capacity allocation or open access concerns;
- The Project will utilize existing transmission owned and operated by [REDACTED]
- The Project will seek market-based rate authority from FERC at the applicable time. This will be obtained prior to commercial operation in advance of energy production; and
- The Project will comply with all applicable affiliate reporting requirements and has no ownership affiliation with its transmission partner or any of the soliciting parties.

5.21) Describe and document any and all direct and indirect affiliations and affiliate relationships, financial or otherwise in the past three years between the bidder and one or more of the Distribution Companies and their affiliates, including all relationships in which one of the Distribution Companies has a financial or voting interest (direct or indirect) in the bidder or the bidder's proposed project. These relationships include:

- Corporate or other joint arrangements, joint ventures, joint operations whether control exists or not;
- Minority ownership (50% or less investee);
- Joint development agreements;
- Operating segments that are consolidated as part of the financial reporting process;
- Related parties with common ownership;
- Credit, debenture, and financing arrangements, whether a convertible equity feature is present or not;
- Wholly owned subsidiaries; and Commercial (including real property) relationships with any Distribution Company.

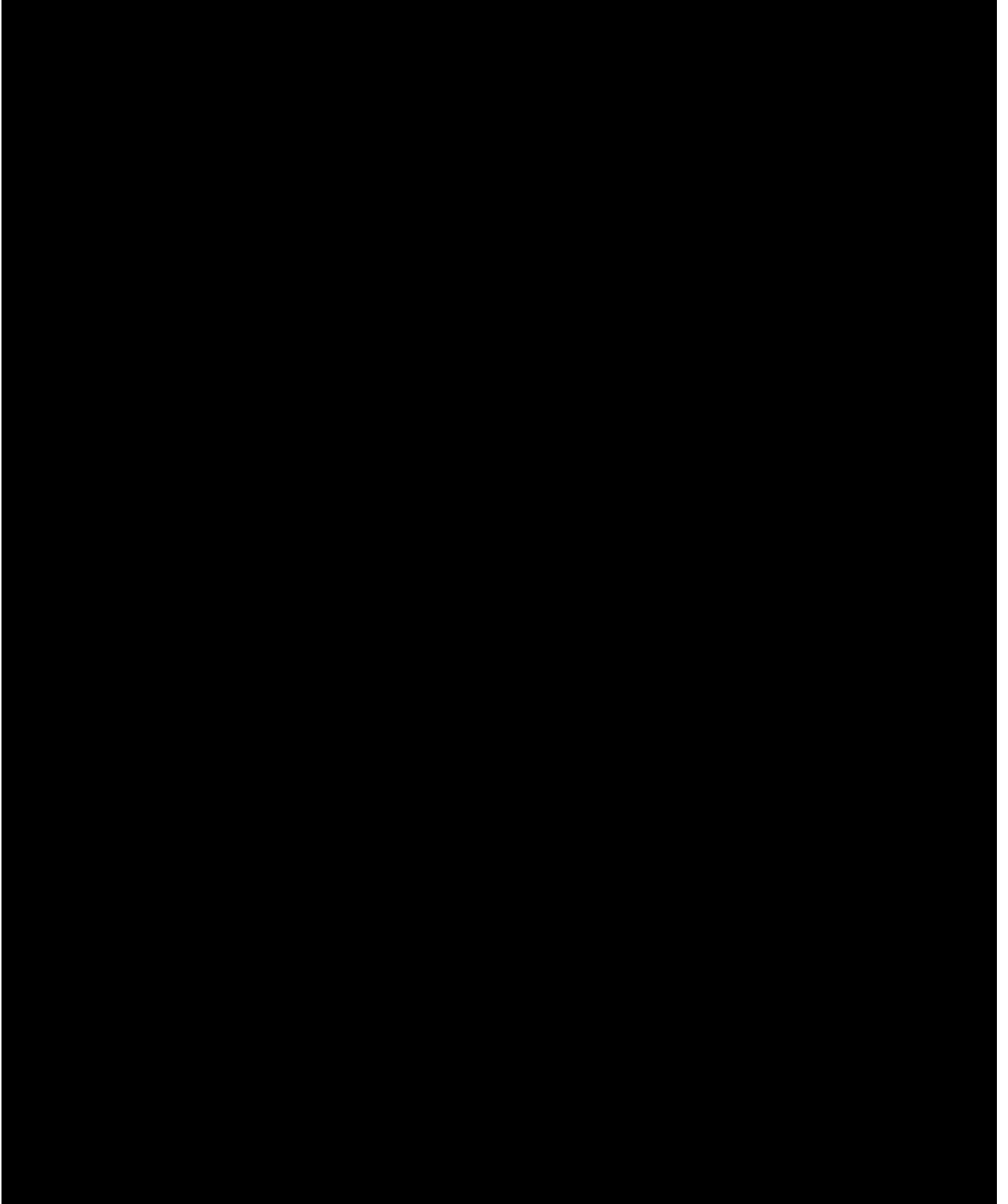
To our knowledge the Bidder does not have any affiliation with any Distribution Company or any affiliate.

**Section 6 of Appendix B to the RFP:
SITING, INTERCONNECTION, AND DELIVERABILITY**

This section of the proposal addresses project location, siting, real property rights and interconnection issues. Bidders should ensure that the threshold criteria outlined in Section 2.2 of the RFP for generation, transmission proposals, and system upgrades are verified in their responses.

6.1) Provide a site plan including a map of the site that clearly identifies the location of the Eligible Facility site and/or Transmission Project route, the assumed right-of-way width, the total acreage for Eligible Facilities, the anticipated interconnection point, and the relationship of the site to other local infrastructure, including transmission facilities, roadways, and water sources. In addition to providing the required map, provide a site layout plan which illustrates the location of all major equipment and facilities on the site.

Exhibit 6.1 – Project Site Plan



6.2) Identify any real property rights (e.g., fee-owned parcels, rights-of-way, development rights or easements or leases) that provide the right to use the Eligible Facility site and/or Transmission Project route, including, for Eligible Facilities, and any rights of way needed for interconnection.

- i. Does the project have a right to use the Eligible Facility site and/or Transmission Project route for the entire proposed term of the PPA or tariff (e.g., by virtue of ownership or land development rights obtained from the owner)?
- ii. If so, please detail the Bidder's rights to control the Eligible Facility site and/or Transmission Project route control.
- iii. Describe the status of acquisition of real property rights, any options in place for the exercise of these rights and describe the plan for securing the necessary real property rights, including the proposed timeline. Include these plans and the timeline in the overall project timeline.
- iv. iv) Identify any joint use of existing or proposed real property rights

Weaver Wind has land control in the form of leases and easements for the full project site, including turbine transport to the site. Weaver Wind has an [REDACTED] in the Town of [REDACTED] and a [REDACTED] in the Towns of [REDACTED]. For the [REDACTED] substation site in [REDACTED] (including access thereto), Weaver Wind has an Easement Agreement from [REDACTED].

The Project currently owns or has contractual control via purchase and sale agreements for all required parcels of the collection system, and substation. These agreements include access rights as necessary. The leases and easements that provide evidence of complete site control will be submitted to MDEP pursuant to permitting requirements. Documentation of all existing lease agreements is provided as Appendix 6.2.

6.3) Provide evidence that the Eligible Facility site and/or Transmission Project route is properly zoned or permitted. If the Eligible Facility site and/or Transmission Project route is not currently zoned or permitted properly, identify present and required zoning and/or land use designations and permits and provide a permitting plan and timeline to secure the necessary approvals.

The Weaver Wind project is a grid-scale wind energy development located in the expedited wind energy area in Maine within the Town of [REDACTED]. The primary permitting authority will be MDEP, but the Project will also receive review from the Land Use Planning Commission ("LUPC"). The Project will require, and has already secured, a local permit from the Town of [REDACTED]. The Town of [REDACTED] has no required permits. Weaver Wind is located in an area of Maine that has been very receptive of wind projects [REDACTED].

As part of the permitting process, Weaver Wind has completed studies of natural resources and wildlife in the project area and on adjacent lands. Studies involved inventorying natural resources and wildlife species that occur in the area. As designed, the project will not result

in any temporary or permanent fill in wetlands. Additionally, there will not be any new stream crossings as a result of the project. Certain project activities, such as filling, grading, and installing stormwater controls are proposed within the regulated natural resource buffers and will require permits from the MDEP pursuant to the Natural Resources Protection Act (“NRPA”).

The details and timeline for securing all permits required to construct the Project are detailed in Section 7.

6.4) Provide a description of the area surrounding the Eligible Facility site and/or Transmission Project route, including a description of the local zoning, flood plain information, existing land use and setting (woodlands, grasslands, agriculture, other).

The turbine area consists primarily of a series of low, undeveloped, and wooded hills on mixed forest land predominantly managed for commercial timber production. Local zoning allows for a wind project and any impacts to floodplains will be permitted by MDEP. The Project will be constructed on hills [REDACTED]

[REDACTED] Ridge elevations within the project area range between 500 and 700 feet above sea level and consist of gently sloping sides with large glacial erratics and a boulder, rubbly surface.

There is access to each of the proposed turbine strings along existing gravel logging roads and most of the turbine areas have been utilized for timber harvest over the last 10 to 20 years. The power from each turbine will be collected in approximately [REDACTED] miles of 34.5-kV electrical collector lines. The majority of collector lines will be underground, though above-ground lines will also be installed. The underground electrical collector lines will be buried in trenches generally located adjacent to roadways. Overhead collector lines will avoid impacts to wetlands and will be installed on wood utility poles in areas where roadways do not exist.

6.5) For Eligible Facilities, describe and provide a map of the proposed interconnection that includes the path from the generation site to the ISO New England Inc. (“ISO-NE”) Pool Transmission Facilities (“PTF”). Describe how the bidder plans to gain interconnection path site control.

The Project has full land control in the form of leases or easements for project turbine locations. Power from the collector lines will be transmitted to the expansion of the [REDACTED] Switching Station in [REDACTED], where it will tie into the existing electrical grid. Electrical infrastructure will be located within a fence at the substation expansion to “step up” the power to 115 kV and transmit it directly to [REDACTED] and [REDACTED]. [REDACTED] are existing PTF 115-kV transmission lines that can accept power from the project.

Please refer to Section 6.1 to view the path from the generation site to the POI, which is designated as an ISO-NE PTF.

6.6) Please describe the status of any planned interconnection to the grid. Has the bidder made a valid interconnection request to ISO-NE, the applicable New England Transmission Owner, or any neighboring control areas, to interconnect at the Capacity Capability Interconnection Standard?

Have any studies been completed by ISO-NE or the applicable Transmission or Distribution Owner? If multiple interconnection requests have been made, please specify all such active requests which have not been superseded by subsequent requests and information regarding the status of each. Provide copies of any requests made and studies completed. Describe how such studies and information support the costs assumed in preparing your bid and the associated timeline proposed.

An interconnection request was initially filed with ISO-NE in 2013 for a [REDACTED] wind project, and the Project currently holds a valid queue position in the ISO-NE interconnection queue: QP420. The Project was downsized to [REDACTED] in January 2015, and a request for Capacity Network Resource interconnection service (QP656) was filed with ISO-NE in June 2017. The Feasibility Study was completed by ISO-NE in [REDACTED], and the project's System Impact Study ("SIS") commenced in [REDACTED] with final SIS results expected in [REDACTED]. An interconnection agreement will then be negotiated and signed in [REDACTED], and the project will apply for I.3.9 approval at that time.

Project costs, the estimated timeline to construct interconnection facilities, and the Project's estimated energization date are based on the results and scope of work presented in the Feasibility Study.

6.7) Describe the Project's electrical system performance and its impact to the reliability of the New England Transmission system. For Transmission Projects provide a description of how the project would satisfy ISO NE's I.3.9 requirements. Provide the status of any interconnection studies already underway with ISO-NE and/or the transmission owner. Provide a copy of any studies completed to date. Provide a copy of an interconnection agreement, if any, executed by the bidder with respect to the proposed project. If an interconnection agreement has not been executed, please provide the steps that need to be completed before an interconnection agreement can be executed and the associated timeline.

Please refer to the response to Section 6.6 for a discussion of studies completed to date. The Project does not have a completed SIS or interconnection agreement at this time, however the Project's SIS is currently underway and execution of an interconnection agreement and I.3.9 approval are anticipated to occur during [REDACTED].

The Project design features [REDACTED] wind turbines paired with STATCOMs and as a result, the Project will add inherent reliability to the [REDACTED] and the adjacent transmission system. These technologies provide rapid response to voltage events, and can continue to provide real and reactive power to the grid during extreme voltage sags. In contrast to [REDACTED] wind turbines, which require rapid curtailment during under-voltage

events, the [REDACTED] design continues to supply the grid with real and reactive power compensation during voltage excursions, resulting in less wear to the turbine gearbox and drivetrain components and thus less frequent maintenance events over the project lifetime relative to the [REDACTED] design.

6.8) Projects that do not have I.3.9 approval from ISO-NE must include technical reports or system impact studies that approximate the ISO-NE interconnection process, including but not limited to clear documentation of study technical and cost assumptions, reasoning, and justification of such assumptions. All studies must assume the project will interconnect using the Capacity Capability Interconnection Standard, must use the current ISO-NE interconnection process (including network impact scenarios from multiple projects interconnecting), and must also detail any assumptions with respect to projects ahead of the proposed project in the ISO-NE interconnection queue and any assumptions as to changes to the transmission system that differ from the current ISO-NE Regional System Plan. Please include a scenario analysis that shows how changes in the project interconnection queue could impact interconnection costs.

There are no prior-queued projects that impact the current assumptions related to Weaver Wind's interconnection costs or schedule. Prior-queued projects in the area include [REDACTED]

[REDACTED] The Project's Feasibility Study considered dispatches against both of these projects, however the most limiting case was found to be a partial dispatch of the [REDACTED]. Therefore, whether or not [REDACTED] are ultimately built, there is no effect on the facilities required to reliably interconnect the Project.

The Project filed the QP656 interconnection request in June 2017 to convert the Project's existing queue position (QP420) to a Capacity Network Resource (CNR) interconnection request. Therefore, the Project will be eligible for inclusion in ISO-NE's Preliminary Non-binding Overlapping Impact (PNOI) analysis which will be conducted in September 2017 and will identify upgrades necessary to interconnect projects under the CCIS.

The Project team has determined that local transmission constraints on the [REDACTED] are the most critical determinants of project deliverability. [REDACTED] is the current bottleneck preventing the evacuation of additional generation from the Downeast Loop. In June 2017, Longroad Energy filed an Elective Transmission Upgrade (ETU) request with the ISO (QP 657: Downeast Loop Transfer Increase) in order to determine what upgrades are needed to increase the transfer limits on the Downeast Loop. The Scoping Meeting was held on July 27, 2017 and attended by members of ISO-NE, [REDACTED]. The scope of the ETU Feasibility Study is expected to be finalized in August 2017. The preliminary study scope for the QP 657 ETU is given below:

The intent of the ETU is maximize dispatch of wind generators on the Downeast loop considering an upgrade to [REDACTED] such that it is no longer the most limiting element. The study should consider various dispatches up to the new thermal limits to determine the additional reactive compensation or other system reinforcements that would be needed. The study should consider thermal, voltage and stability needs in

order to increase the operating limits on the loop and identify the upgrades required to address those needs under the objective conditions.

Project deliverability under various scenarios is covered in Section 6.14 and 6.15, including the addition of prior-queued wind projects [REDACTED], as well as upgrades contemplated by the QP 657 ETU request.

6.9) To the extent that you provide an alternative interconnection scenario based on ISO-proposed interconnection process changes, you must also include studies using the proposed ISO-NE-proposed process. Any such studies must be accompanied with clear documentation of study technical and cost assumptions, reasoning, and justification of such assumptions.

Please refer to Section 6.8 for a discussion of alternative scenarios.

6.10) Provide the electrical models of all energy resources supporting the proposed project in accordance with the filing requirements of the ISO-NE Tariff Schedule 22 and 23.

The available electrical models in accordance with the filing requirements of the ISO-NE Tariff Schedule 22 are included as Appendix 6.10.

6.11) Provide a copy of an electrical one-line diagram showing the interconnection facilities and the relevant facilities of the transmission and/or distribution provider.

The electrical one-line diagram is included as Appendix 6.11.

6.12) Specify and describe the current or new interconnection facilities (lines, transformers, switching equipment, system control protection, etc.) that bidder owns or is intending to construct or have constructed in order to deliver the proposed energy.

The Project includes [REDACTED] Wind Turbines software limited to [REDACTED] generator step-up transformers feeding a 34.5 kV collector system with a main step up transformer 34.5 kV/115 kV. The Project will interconnect at [REDACTED] switching station.

Two 115kV breakers will be installed at the [REDACTED] switching station in order to interconnect the Project. Additionally, the Project is expected to install nine (9) 4 MVAR D-VAR STATCOMs adjacent to the [REDACTED] switching station to satisfy grid stability requirements. Each STATCOM will have 3x over load capability and together will be capable of providing 108 MVAR of reactive compensation, equivalent to the needs identified in the Project's Feasibility Study.

6.13) Incremental data requirements for Projects that include Transmission facilities;
IDV file(s) in PSSE v32 format modeling only the new/modified Transmission components of the project.

If the Bidder does not use PSSE, provide in text format necessary modeling data as follows:

- Line Data: Voltage/Thermal Ratings/Impedances (r, X and B)/Line Length/to and from bus numbers and names
- Transformer data: (including Phase shifting transformers if applicable): Terminal Voltages/Thermal Ratings/Impedance/To and from bus numbers and names
- Reactive compensation models as necessary
- Other changes to the model that would occur due to a Project such as terminal changes for lines/transformer/generator leads/loads etc.

N/A – “Transmission facilities” are not proposed.

6.14) Please detail with supporting information and studies (as available) that the energy contemplated in your proposal is able to be delivered to the Distribution Companies without material constraint or curtailment.

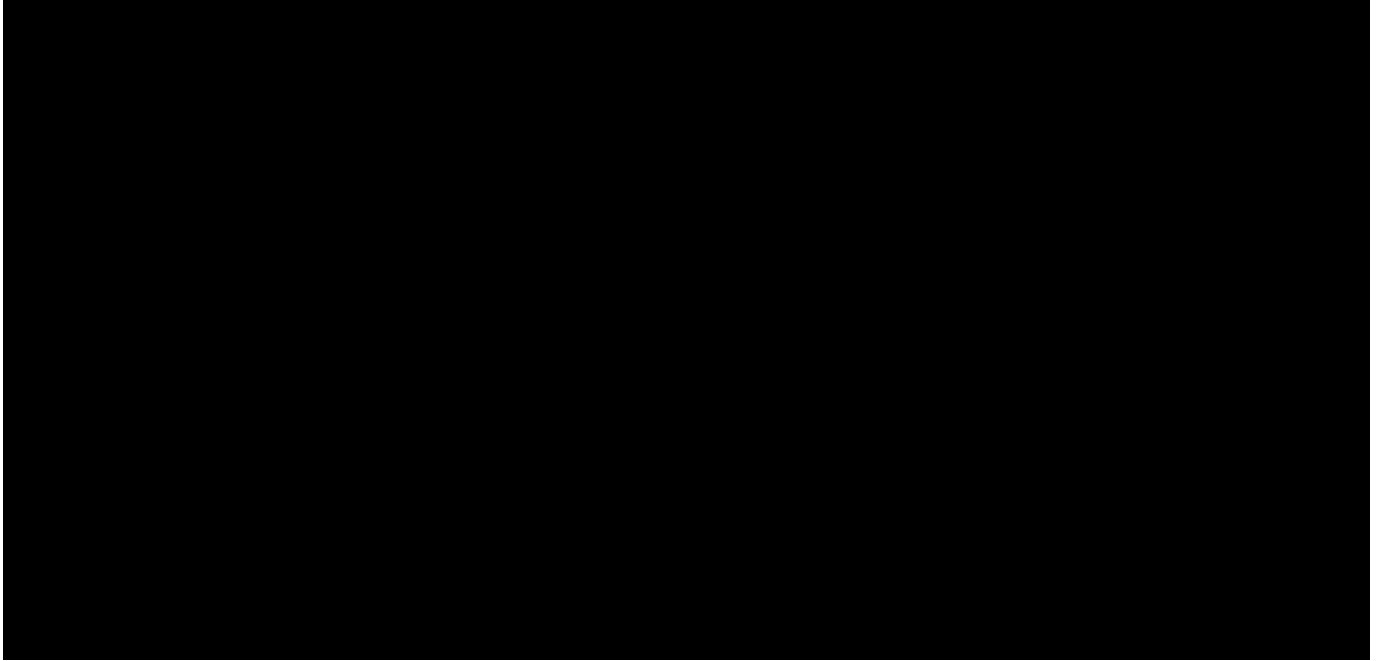
As required by this RFP, Weaver Wind will be interconnected to ISO-NE PTF and therefore energy will be delivered to the Distribution Companies at the Project’s busbar. Section 6.15 below demonstrates that the Project’s energy can be delivered to the Distribution Companies without material constraint or curtailment.

6.15) Please provide sufficient information and documentation to demonstrate that the proposed point of delivery into ISO-NE, along with their proposed interconnection and transmission upgrades including any transmission upgrades beyond the point of interconnection, is sufficient to ensure full dispatch of the proposal’s Clean Energy Generation profile.

The current dispatch limits on the [REDACTED] would result in minimal curtailment to the Project, most notably during summer months. This limitation on dispatch will be relieved by reconductoring approximately two miles of 115kV line between [REDACTED] Switching Stations. As introduced previously, Bidder has submitted an ETU request (QP 657) with the ISO to relieve this thermal limit. Longroad anticipates that the ETU studies will start in [REDACTED], with implementation anticipated during [REDACTED], in time to support full deliverability of the Project by the proposed COD in [REDACTED].

Longroad’s technical team prepared the estimated curtailment figures shown below for the base case scenario considering the addition of Weaver Wind to the Downeast Loop, as well as a Wind Overbuild case that considers the addition of the prior-queued projects [REDACTED]

[REDACTED] For the Wind Overbuild case, it was also assumed that the [REDACTED] constraint is relieved via Longroad's ETU by upgrading the line section to the same thermal capacity as the adjacent [REDACTED]
[REDACTED]



Section 7 of Appendix B to the RFP: Environmental Assessment, Permit Acquisition Plan and New Class I RPS Certification

This section addresses environmental and other regulatory issues associated with project siting, development and operations for both generation and transmission projects, as applicable.

7.1) Provide a list of all the permits, licenses, and environmental assessments and/or environmental impact statements required. If a bidder has secured any permit or has applied for a permit, please identify in the response.

- i. Provide a list of all Federal, state and local permits, licenses, and environmental assessments and/or environmental impact statements required to construct and operate the project.**
- ii. Identify the governmental agencies that will issue or approve the required permits, licenses, and environmental assessments and/or environmental impact statements.**

The Longroad team has a successful track record of permitting utility-scale wind and solar projects in the Northeast, and throughout the U.S.. Since 2006 and during their tenure at First Wind, the Longroad team permitted seven renewable energy projects in Maine, four projects in New York, 2 projects in Massachusetts and one project in Vermont, all currently operating. The Mars Hill project in Maine and the Sheffield project in Vermont were the first utility-scale wind projects approved and built in their respective states.

Natural Resources Regulatory Review

A list of the local, state, and federal natural resources regulatory permits or licenses that could be required for the proposed Project are listed in Exhibit 7.1. Not all of the reviews listed will be required for the Project, because the Project will not exceed thresholds for some of the criteria that triggers the need for some approvals.

Federal

The Clean Water Act (CWA) includes wetlands and waterways within the scope of natural resource areas that are protected from development without a permit, if a threshold for impacts is exceeded. A field wetland delineation was completed for the proposed project, and all wetlands and waterways will be avoided. No Corps permitting will be required.

There are three federal acts or laws that the US Fish and Wildlife Service (Service) administers which could be triggered by the proposed project: The Endangered Species Act (ESA), the Bald and Golden Eagle Protection Act (BGEPA), and the Migratory Bird Treaty Act (MBTA). A review of the ESA species in the project vicinity yielded no occurrences of endangered or threatened species which could be at risk of take, and thus the requirement for an incidental take permit (ITP). One threatened species, northern long-eared bat

(NLEB), could occur in the project vicinity but with appropriate seasonal clearing restrictions would not be affected by the project. While bald eagles may fly through the Project area, no nesting habitat is present in the project area so there is no potential for any negative impacts, and therefore no need for an eagle take permit. Nearly all birds are protected under the MBTA, which also requires the avoidance of taking of individuals. In order to manage the risk of take at the proposed project area, a bird conservation strategy (BCS) specific to the project will be developed that includes best management practices to minimize the potential for construction and operational taking. However, no further permitting will be required.

In accordance with the National Historic Preservation Act (NHPA), a review of known cultural and archaeological resources will be reviewed to determine whether any additional cultural investigatory work will need to be completed. The process will be coordinated with Maine Historic Preservation Commission during the MDEP review period, and resulting commitments will be incorporated into the conditions in the DEP site permit.

The FAA has issued Determinations of No Hazard (DNH) for each of the turbines and met towers.

State

The MDEP permit, which covers Site Location, the Natural Resources Protection Act, Water Quality Certification, and the Construction General Permit, is the most comprehensive permit for the Project. Resource evaluation across many disciplines will be completed and included in the application to MDEP. Once the application is submitted, Longroad will work closely with MDEP to support expedient processing of application materials through providing additional information as requested. Longroad has worked through the MDEP process successfully on seven prior wind projects in Maine and is very experienced working through this permit process.

In making its determination under the statutory provisions above, MDEP will evaluate the Project based on the following key criteria:

Wetlands

Wetland and waterbody resource delineations were completed in the summer and fall of 2014, and vernal pool survey data from 2009 (for the [REDACTED]) was also incorporated into this Project for additional reference. The delineation limits included the following areas associated with the Project:

Summit corridors, generally between 1,000 and 2,000 feet wide, sited for turbines, roads, and electrical collector lines including the hills of [REDACTED]
[REDACTED]

Potential access road corridors, which were approximately 150 feet wide;

Electrical collector line corridors between project components and connecting to the existing [REDACTED] substation in [REDACTED]; and

Approximately 8.4 acres in the Town of [REDACTED] for the laydown area adjacent to the O&M building permitted for the [REDACTED].

There is not expected to be permanent or temporary fill impacts to wetlands or streams associated with the construction or operation of the project. Construction of the overhead electrical collector lines requires clearing within wetland areas under and directly adjacent to the lines. Following construction, vegetation within the line corridor will be allowed to grow back; however, such vegetation is typically managed/maintained every three to five years to prevent interference with the lines. The total wetland clearing for access roads and collector lines will be less than one acre.

Vernal pool surveys were completed in 2014, though a subset of vernal pool surveys conducted in 2009 for the [REDACTED] Project were incorporated into the Weaver Wind Project. Within the project area, 18 vernal pools were identified in 2009 and 2014. Of these identified vernal pools, three were characterized as naturally-occurring, though none met the definition of a Significant Vernal Pool (SVP) under the Natural Resources Protection Act. Although several of the vernal pools were identified outside of the peak amphibian breeding period, the small size of the pools, the small number of remnant egg masses and the absence of amphibian larvae suggest that their characterization as vernal pools rather than Potentially Significant Vernal Pools (PSVPs) is reasonable. Many of the human-created vernal pools occurred in roadside ditches or roadside borrow pits and others occurred in equipment ruts. There are 61 Potential Vernal Pools (PVPs) in the project area, 20 of which were characterized as naturally-occurring and are considered to be PSVPs. The other identified PVPs are man-made and located in equipment ruts or roadside ditches/excavations.

The Project will be designed to avoid resources to the maximum extent possible and will utilize a network of pre-existing roads to reduce impacts.

Wildlife

All field surveys for wildlife were completed per a work plan created in collaboration with U.S. Fish and Wildlife Service and Maine Department of Inland Fisheries and Wildlife. Longroad has extensive experience with wildlife surveys in Maine and tailored these studies based on highest risk species within the Project area.

Surveys were performed in 2013 and 2014, and a subset of surveys continued into 2015. Wildlife surveys were conducted to assess the wildlife resources potentially present in the project area. In addition to the surveys administered specifically for the Weaver Wind Project, [REDACTED]

[REDACTED] The proximity of these survey efforts to the Weaver Wind Project provides further insight into wildlife activity within the project area.

The following wildlife surveys have been conducted in the project area.

- Acoustic Bat Surveys
- Nocturnal Radar Migration Surveys
- Breeding Bird Surveys
- Raptor Migration Surveys
- Aerial Eagle Nest Surveys
- Eagle Point Count Surveys
- Raptor Nest Surveys
- Great Blue Heron Surveys

Additionally, the construction of Weaver Wind will not impact Deer Wintering Areas, or Wading and Water bird habitat.

Stormwater

The civil design and the design of stormwater infrastructure and protected buffers is complete and the Project meets the standards required for the issuance of a construction stormwater permit by MDEP.

Soils

All investigative soil work required to finalize the Project design and satisfy the MDEP standard is complete. As currently designed, the construction of the project will not result in any soil disturbance.

Economic Benefits

Maine law requires that wind energy projects offer a minimum of \$4,000 per turbine per year in community benefits to Maine communities hosting wind projects. Longroad projects in Maine have typically included community benefits package that exceed the statutory requirement. Weaver Wind has Community Benefit Agreements in place with both the Town of [REDACTED] and the Town of [REDACTED]. See Section 7.3 for a detailed community benefit plan.

Local Permitting

A Utility Line Permit and a Road Opening Permit issued by the Maine Department of Transportation has been acquired as part of the [REDACTED] project and will be utilized by Weaver Wind, with the consent of the current [REDACTED] project owners. Weaver Wind has also secured the necessary local permit from the Town of [REDACTED]. The Town of [REDACTED] has no required permits. A Site Law Certification to ensure that setbacks to property lines and other resources are met will be required by the LUPC. Since the Project is proposed within the unorganized territories, the LUPC certificate serves as the zoning entity. This certification will be incorporated into the Site Law permitting decision as part of the MDEP permitting process and is typically provided to MDEP in 90 days. All affected towns will be involved throughout development of the Project.

Exhibit 7.1 – Permit Requirements and Planning

Permit	Agency	Trigger	Timeline	Application Review
<u>Federal</u>				
Clean Water Act (CWA) Section 404	US Army Corps of Engineers	Impacts to wetlands or waterways	N/A: no permit required	N/A
Bald and Golden Eagle Protection Act (BGEPA)	US Fish and Wildlife Service	Impacts to eagles or eagle nests	N/A: no permit required	N/A
Migratory Bird Treaty Act (MBTA)	US Fish and Wildlife Service	Impacts to migratory birds	N/A: bird conservation strategy (BCS) will be implemented; no permit required	N/A
Incidental Take Permit (ITP) under (Endangered Species Act (ESA))	US Fish and Wildlife Service	Impacts to endangered or threatened wildlife	N/A: no permit required	N/A
National Historic Preservation Act (NHPA)	Maine Historic Preservation Commission	Impacts to sites eligible for national registry	N/A: no permit required	N/A
Determinations of Hazard (automatic for structures over 500 feet)	Federal Aviation Administration ("FAA")	Structures over 200 feet	Extended 12/20/2016	N/A
<u>State</u>				
Site Law/Natural Resources Protection Act ("NRPA")/401 Water Quality Cert./Construction General Permit	Maine DEP	Primary permit required for the Project.	Field studies complete, and application was filed but withdrawn in 2015. New application can be filed and decision by DEP made in 9 months.	6-9 months following application submittal
LUPC Certification	Maine LUPC	LUPC will certify through the MDEP process that the Project meets their land use standards	Review by LUPC occurs concurrently with DEP review; LUPC certification required prior to DEP permit issuance.	Project is in Expedited Wind Permitting Area; allowed use for LUPC certification; 6-9 months (see DEP)

LUPC Met Tower Permit	Maine LUPC	Permit required under LUPC regulations and statute for construction of two Met towers and two SoDAR units	Met campaign complete; permanent met towers included in DEP application	N/A
Crossing or Encroachment Permit	Maine Department of Transportation	Permit to access state road	N/A: no permit required	N/A
<u>Local</u>				

7.2) Provide the anticipated timeline for seeking and receiving the required permits, licenses, and environmental assessments and/or environmental impact statements. Include a project approval assessment which describes, in narrative form, each segment of the process, the required permit or approval, the status of the request or application and the basis for projection of success by the milestone date. All requirements should be included on the project schedule in Section 10.

See Section 7.1 for the permitting plan, and Exhibit 7.1 for the times required for each permit, as well as Appendix 10 for a permitting timeline in context of the Project schedule.

7.3) Provide a preliminary environmental assessment of the site and project, including both construction and operation, as applicable. In addition, the bidder should identify environmental impacts associated with the proposed project, any potential impediments to development, and its plan to mitigate such impacts or impediments. The analysis should address each of the major environmental areas presented below, as applicable to the proposed project:

- i. Impacts during site development
- ii. Transportation infrastructure
- iii. Air quality impacts
- iv. Access to water resources/water quality impacts
- v. Ecological and natural resources impacts
- vi. Land use impacts
- vii. Cultural resources
- viii. Previous site use (e.g., greenfield, brownfield, industrial, etc.)
- ix. Noise level impacts

- x. Aesthetic/visual impacts
- xi. Transmission infrastructure impacts
- xii. Fuel supply access, where applicable

Site Development

Weaver Wind will utilize a series of existing and newly constructed roads to access the turbine locations. The electrical collection lines will likely be buried adjacent to access roads, except for locations where wetlands or other resources make it less impactful to have an overhead line. The approach is to have no permanent or temporary fill impacts to wetlands or streams associated with construction and operation of the Project.

Transportation Infrastructure

The Project will primarily use existing and newly constructed roads to transport turbine components. [REDACTED]. Any required improvements will be approved as part of the MDEP permitting.

Air Quality Impacts

Air quality will not be degraded as a result of the Project, as wind turbines do not emit any air emissions. Air emissions resulting from construction vehicles will be minimal due to the short duration of construction. Dust emissions will be controlled during construction activities and should be minimal during operations, because disturbed areas will either be re-vegetated or graveled.

Access to Water Resources/Water Quality Impacts

Water resources are not used as part of the generation or transmission of the Project and access to water resources will not be impacted by the Project. Water quality will be protected by avoidance and minimization to wetland and stream resources, the use of vegetative buffers, an intensive evaluation of stormwater quality and quantity, and an erosion control plan. The civil plans and associated infrastructure and buffers that protect water resources will be designed to meet the State standards.

Ecological and Natural Resources Impacts

The Project is located in the [REDACTED] region. The Project area is primarily dominated by a regenerating Beech-Birch-Maple forest. The turbine area consists primarily of a series of low hills. The ridgelines range in elevation from 500 to 700 feet above sea level and consist of gently sloping sides with large glacial erratics and a bouldery and rubbly surface. There is access to each of the proposed turbine strings along existing

gravel logging roads. Most of the turbine areas have been harvested for timber over the last 10 to 20 years.

Land Use Impacts and Previous Site Use

██████████ the Project area is part of a large contiguous area used for commercial forestry, with a network of developed forest management roads. The site has been and will continue to be used for commercial forestry.

Cultural Resources

Longroad has conducted historic archaeological, Euro-American archaeological, and historic architecture investigations of the project area to determine potential impacts to historic resources. These investigations concluded that the proposed project has low sensitivity for Pre-contact period archaeological resources, and no additional Pre-contact period archaeological review of this project is recommended. No evidence was found of undisturbed Post-Contact cultural resources within the project area, and no further cultural investigation for this project was recommended.

Noise Level Impacts

MDEP evaluates compliance with noise requirements at protected locations (within 500 feet of a dwelling) and at the land use zone boundary. The sound level assessment for Weaver Wind conservatively demonstrates that with all wind turbines operating simultaneously at full rated capacity, the Project will meet the MDEP daytime sound level limit of 55 dBA at all protected locations, as well as the night-time limit of 42 dBA within 500 feet of dwellings on nearby protected locations, and the applicable limits of the Town of ██████████ Wind Energy Facility Ordinance. While the sound level predictions indicate that the project will comply with applicable MDEP limits, post-construction compliance monitoring will be conducted in accordance with MDEP protocols for wind energy developments. Prior to commercial operation, a formal protocol for response and resolution of sound complaints will be established to reduce the potential for noise problems associated with long-term operation of the project.

Aesthetic/Visual Impacts

The Visual Impact Assessment conducted for Weaver Wind indicated that the Project should not have an unreasonably adverse impact on scenic values near the project area. While there are three scenic resources of state or national significance ("SRSNS") within the viewshed of the Project, it will not impact the existing uses of these SRSNSs. Similarly, the Project will not be visible within eight miles from any of the following: national natural landmarks, federally-designated wilderness areas, properties on the National Register of Historic Places, National or State Parks, scenic river segments, Maine Department of Transportation scenic turnouts, scenic viewpoints located in the coastal area, state public reserve land, or trails used exclusively for pedestrian use designated by Maine Department of Conservation.

The associated facilities for the project include access roads, crane paths, meteorological towers, and electrical collector lines. None of these associated facilities will be visible from any SRSNS. The associated facilities will not be of a location, character, or size to cause an unreasonable adverse visual effect on the scenic character of the study area.

Transmission Infrastructure Impacts

The Project will interconnect at the [REDACTED] substation adjacent to the Project area.

Fuel Supply Access

Compared to other sources of energy generation, wind projects utilize minimal amounts of fuel. Fuel is required for vehicles during construction and operations and will be stored in the required containers away from natural resources.

7.4) Provide documentation identifying the level of public support for the project including letters from public officials, newspaper articles, etc. Include information on specific localized support and/or opposition to the project of which the bidder is aware. Provide copies of any agreements with communities and other constituencies impacted by the project, and a plan for community outreach activities, and discuss the status of that plan.

Community outreach and support is an integral element of Longroad's development strategy and operational plans. Longroad understands the value of positive community relations and support. We are proud that our projects often become symbols of local renewable energy leadership, and strive to help communities promote the projects for educational purposes and as examples of environmental stewardship.

Host Community Endorsement

Weaver Wind has successfully built upon the widespread local support from surrounding communities [REDACTED]

On January 9, 2011, the Town of [REDACTED] voted in favor of the Weaver Wind project with a 113-14 vote. Similarly, on October 5, 2015, Weaver Wind received unanimous municipal approval for the Town of [REDACTED] Weaver Wind Power Municipal Development and Tax Increment Financing ("TIF") District. The establishment of the TIF district, together with the execution of a credit enhancement agreement between the Town and the Company, will guarantee that the benefit of this economic development will accrue specifically to the area in which the Project will be located and will ensure that the Project will provide hundreds of construction-related jobs. The Development Program will result in average annual TIF revenues to the Town of [REDACTED].

Community Benefit Agreements

Maine law requires that wind energy projects offer a minimum of \$4,000 per turbine per year in community benefits to Maine communities hosting wind projects. Longroad projects in Maine have typically included community benefits packages that exceed the statutory requirement. Weaver Wind has [REDACTED]-year Community Benefit Agreements in place with both the Town of [REDACTED] and the Town of [REDACTED] to provide annual community benefits equivalent to an annual average of [REDACTED] per turbine per year, dramatically exceeding the statutory minimum. New revenue to the county is [REDACTED] annually, including annual payments of [REDACTED] the Town of [REDACTED] and [REDACTED] to the Town of [REDACTED].

As part of a Tangible Benefits Agreement, Weaver Wind has agreed to provide a one-time payment of [REDACTED]. In addition, the Project will contribute [REDACTED] to support its efforts in trail maintenance, trail bridges repair, and stormwater management activities within the State of Maine. The agreement has a [REDACTED] term resulting in a cumulative [REDACTED] in community benefits.

Other Community Benefits

The Project provides a new source of long-term income and direct economic benefit to the local landowners participating in the Project through land leases, fee acquisitions, and easements. Additional income from the Project to the landowners will also be a stable source of “multiplier” spending in the region. The Project allows landowners to capture economic benefits without disruption to existing land uses and income from the project will supplement, not displace, what landowners typically earn from logging and other traditional uses of their property. Amid uncertain economic and market conditions, Weaver Wind will provide a stable, diversified income stream for landowners.

Longroad Corporate Citizenship

In addition to Community Benefits Agreements, Longroad’s traditional approach to community support for our projects includes:

- **Direct support:** Longroad expects its operating projects will have a budget to make charitable contributions within our host communities.
- **Sponsorship of community events:** Longroad provides sponsorship for local civic organizations, environmental groups, and events in our projects’ host communities.
- **Outreach to local schools:** The Longroad team has a strong track record of supporting and participating in local science and technology curriculum such as the Maine Wind Blade Challenge and Casco Bay High Schools Energy Policy Symposium. We also make our wind facilities available for tours (subject to operating schedules and constraints), which encourage Maine residents and

students to learn about renewable energy, technology, and environmental stewardship.

7.4) Provide documentation identifying the level of public support for the project including letters from public officials, newspaper articles, etc. Include information on specific localized support and/or opposition to the project of which the bidder is aware. Provide copies of any agreements with communities and other constituencies impacted by the project, and a plan for community outreach activities, and discuss the status of that plan.

Please see “Host Community Endorsement” in Section 7.3, as well as Appendix 7.4 for letters of support.

7.5) For bids that include New Class I Renewable Portfolio Standard Eligible Resources, provide documentation demonstrating that the project was or will be qualified as such. If the facility is already in operation, please indicate when the facility received such qualification.

Weaver Wind will be eligible for Tier 1 Class I renewable energy source qualification under current Massachusetts law as a new-build wind power facility. The Longroad team has routinely qualified for Tier 1 Class I renewable energy source status on all of its New England wind projects in Massachusetts and other New England states.

7.6) All bidders must include sufficient information and documentation that demonstrates that the bidder will utilize an appropriate tracking system to ensure a unit-specific accounting of the delivery of Clean Energy Generation, to enable the Department of Environmental Protection, in consultation with DOER, to accurately measure progress in achieving the commonwealth's goals under chapter 298 of the acts of 2008 or Chapter 21N of the General Laws. The RECs and environmental attributes associated with Clean Energy Generation must be delivered into the Distribution Companies' NEPOOL GIS accounts.

NEPOOL-GIS will be the system of record for REC transfers and such transfers will occur quarterly, unless otherwise specified in the PPA. The production of the RECs will be auditable against information provided by ISO-NE generation information for the Weaver facility and annual audited financials with a reputable third party that will include production numbers. The facility will also be qualified to produce RECs in the state or states specified by the REC buyer and such qualifications will be maintained throughout the life of the project (for example, pursuant to Massachusetts Class I standards).

7.7) Identify any existing, preliminary or pending claims or litigation, or matters before any federal agency or any state legislature or regulatory agency that might affect the feasibility of the project or the ability to obtain or retain the required permits for the project.

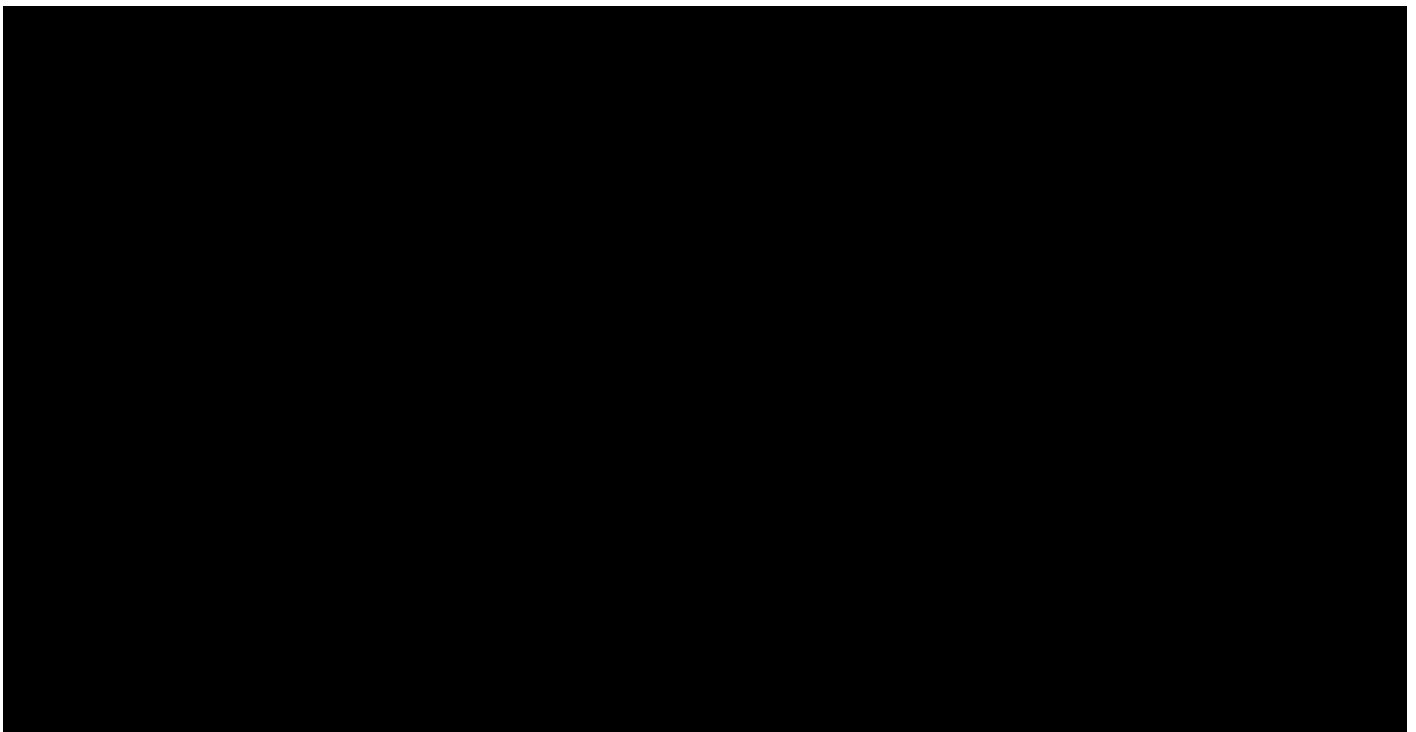
To our knowledge, there are no existing, preliminary, or pending claims or litigation, or matters before any federal agency, state legislature or regulatory agency that might affect the feasibility of the Project or the ability to obtain or retain the required permits for the Project.

**Section 8 of Appendix B to the RFP:
ENGINEERING & TECHNOLOGY**

This section includes questions pertinent to the engineering design and project technology. This section must be completed for a project that includes new facilities or capital investments for both generation and transmission components if applicable. Bidders should provide information about the specific technology or equipment including the track record of the technology and equipment and other information as necessary to demonstrate that the technology is viable.

8.1) Provide a reasonable but preliminary engineering plan which includes the following information:

- i. Type of generation and transmission technology, if applicable
- ii. Major equipment to be used
- iii. Manufacturer of the equipment
- iv. Status of acquisition of the equipment
- v. Whether the bidder has a contract for the equipment. If not, describe the bidder's plan for securing equipment and the status of any pertinent commercial arrangements
- vi. Equipment vendors selected/considered
- vii. History of equipment operations
- viii. If the equipment manufacturer has not yet been selected, identify in the equipment procurement strategy the factors under consideration for selecting the preferred equipment

Exhibit 8.1 - Preliminary Engineering Plan Summary



8.2) If the bidder has not yet selected the major equipment for a project, please provide a list of the key equipment suppliers under consideration.

Please see “Manufacturer of the Equipment” in Exhibit 8.1.

8.3) Please identify the same or similar equipment by the same manufacturer that are presently in commercial operation including the number installed, installed capacity and estimated generation for the past three years.

[REDACTED]

[REDACTED]

[REDACTED]

8.4) For less mature technologies, provide evidence (including identifying specific applications) that the technology to be employed for energy production is ready for transfer to the design and construction phases. Also, address how the status of the technology is being considered in the financial plan for the project.

The technology, make, and model are commercially mature (see Section 8.3).

8.5) Please indicate if the bidder has a full and complete list of equipment needed for all physical aspects of the bid, including generation facilities, transmission lead lines, transmission proposals, and mandatory and voluntary transmission system upgrades.

If not, identify the areas of uncertainty and when the full and complete list of equipment will be identified.

Please see “Contract for the equipment” in Exhibit 8.1.

A letter of intent from [REDACTED] is provided as Appendix 8.1.

8.6) Please indicate if the bidder has secured its equipment for all physical aspects of the bid, including generation facilities, transmission lead lines, transmission proposals, and mandatory and voluntary transmission system upgrades. If not, identify the long-lead equipment and describe the timing for securing this equipment.

Please see “Contract for the equipment” in Exhibit 8.1.

Section 9 of Appendix B to the RFP: OPERATIONS AND MAINTENANCE

Projects that can demonstrate that the operation and maintenance (“O&M”) plan, level of funding, and mechanism for funding will ensure reliable operations during the term of the contract or the tariff are preferred.

9.1) Provide an O&M plan for the project that demonstrates the long term operational viability of the proposed project. The plan should include a discussion of the staffing levels proposed for the project, the expected role of the project sponsor or outside contractor, scheduling of major maintenance activity, and the plan for testing equipment.

Longroad’s O&M plan is designed to manage all operational and commercial matters related to the facility. Longroad will provide the following resources at or for the Weaver Wind facility to ensure safety and complete readiness by COD:

- Permanent staff recruiting;
- Staff training and safety;
- Policy and procedure guidance and manuals;
- Operations and engineering readiness;
- Maintenance services readiness; and
- Install Supervisory Control and Data Acquisition (“SCADA”) and asset management systems.

Staffing

Typically, Longroad contracts with the turbine manufacturer to take primary responsibility for the maintenance of the wind turbines for up to ten years. We currently plan that the turbine manufacturer will also provide maintenance services for Weaver Wind. The turbine manufacturer will operate and maintain the wind turbine generators in accordance with an operating agreement that runs concurrently with the turbine warranty. The agreement will include a guarantee of a turbine’s availability to generate electricity a specified percentage of the time. With this type of relationship, Longroad and the turbine manufacturer work together to attain common objectives, sharing risks and rewards, and working in partnership in order to benefit from the same common objectives of obtaining the highest level of equipment availability.

While the turbine manufacturer is on-site operating and maintaining the turbines, Longroad O&M resources will oversee the Project and has the responsibility for maintaining the BOP, which includes all elements of the facility from the low side of the turbine transformer to interconnection with the grid. This also includes maintenance of roads, vegetation management, and safety coordination. In addition, the Weaver Wind site manager will be responsible for overall management and operation of the wind farm, including the following:

- Management of turbine manufacturer staff, site contractors, and third party vendors;

- Preventive and corrective maintenance on all equipment to maximize turbine availability;
- Compliance with applicable requirements of FERC, NERC/NPCC, ISO-NE, and state regulators;
- Relationships with the land owners and current land users;
- Environmental compliance and permit obligations;
- Insurance and warranty policies; and
- Business intelligence software/analysis to maximize turbine performance.

Longroad's maintenance plans incorporate manufacturer's recommendations and include both scheduled and unscheduled maintenance options. Major maintenance activities are generally scheduled per the turbine manufacturer equipment manuals. To minimize downtime, maintenance activities are coordinated with both the turbine manufacturer and local utility. Longroad has extensive experience with a diverse range of wind turbine vendors and stipulates the highest quality maintenance services and safety standards performed by their trained technicians.

Staffing levels vary depending on project size. Longroad has historically staffed between two to three on-site technicians per 50 megawatts of capacity; Weaver Wind is expected to require between ■■■ full-time operations staff depending on our ability to share workforce with other nearby projects. The turbine manufacturer will generally provide employee-to-turbine staffing for turbine maintenance in a ratio between 1:10 and 1:15. Therefore a ■■■-turbine wind farm would have ■■■ technicians from the turbine manufacturer on site. Cumulatively, these staffing levels would result in ■■■ full-time direct staff at Weaver Wind. Additional Longroad, turbine manufacturer technicians, and/or subject matter experts can be brought in for major maintenance activities if needed.

Inspections and Reporting

Longroad prepares an annual operating plan that in turn uses various equipment manuals as guidelines for minor and major maintenance activities. These plans are closely coordinated with the turbine manufacturers or other outside contractors as necessary. The annual operating plan also addresses compliance with environmental and other specialized maintenance requirements, such as transmission line right-of-way vegetation maintenance.

As part of the maintenance plan, Longroad monitors operational equipment through visual inspections, equipment specification performance testing, and equipment performance data mining. Longroad utilizes several subject matter experts for monitoring and testing specific equipment such as wind resource specialists, electrical engineers, and safety compliance specialists; however, a large portion of the monitoring is done by on-site staff and Longroad's ROCs. Equipment testing and performance analysis includes, but is not limited to the following tasks:

- Power Curve testing of turbine generators;
- Visual inspections of the turbine blades;
- Visual inspections of the site substation(s) and transformer(s);

- Visual inspections of relays, control wire, breakers, communication equipment, batteries, HMI devices, computer and communication security, and SCADA systems;
- Visual inspections of turbine foundations;
- Visual inspections of critical equipment sensors, such as vibration, heat, voltage, and fault indicators;
- Performing oil sampling of critical transformers to test equipment status; and
- Establishing baseline thresholds to monitor test results.

Careful documentation of testing results allows Longroad to adjust scheduled maintenance protocol and optimize performance of the site.

9.2) Describe in detail the proposed O&M funding mechanism and funding levels to support planned and unplanned O&M requirements.

O&M activities will be funded from an operating expense budget, consistent with Longroad's approach and experience from other operational projects. Longroad may choose to fund a reserve against large scale equipment failures once the warranty period has expired. Such a reserve may be funded over time out of operating revenues and may be set up to match the deductible levels on our insurance coverage.

9.3) Describe the terms (or expected terms) of the warranties and/or guarantees on major equipment that the bidder is utilizing or proposing to utilize.

Based on previously executed turbine supply agreements, Longroad expects that warranty and maintenance contracts up to ten years in duration are feasible. However, Longroad will not have fully executed warranty provisions for the Project until the major equipment negotiations and purchases are complete. The following are indicative turbine manufacturer warranty terms:

- Up to [REDACTED] defects warranty
- Up to [REDACTED] Availability warranty (based on lost production, not lost time)
- Power curve warranty
- Sound power level warranty

It is expected that the major equipment (substation, transformer) would be supported by at least [REDACTED] defects warranties.

9.4) Describe the status of the project sponsor in securing any O&M agreements or contracts.

Include a discussion of the sponsor's plan for securing a medium-term or long-term O&M contract, including the expected provider of O&M services.

The O&M services agreement with the turbine manufacturer will be negotiated as part of turbine procurement. In general, Longroad will align the O&M services agreement with the turbine manufacturer for a term that, at a minimum, matches the turbine manufacturer's warranty. These services will be for turbine maintenance only.

9.5) Provide examples of the bidder's experience with O&M services for other similar projects.

The Longroad team is an experienced O&M manager of both large-scale solar and wind projects with over 3 GW of operating assets under management during their tenure at First Wind and SunEdison. The Longroad team has developed and operates wind projects ranging in size from 15 to 200+ MW located in diverse environments. This range of experience provides a deep institutional knowledge base for project design, construction and commissioning, ongoing troubleshooting, and optimized project performance. Wind projects the Longroad team developed and subsequently operated from their COD to 2016 include the following:

- Kaheawa I and II, HI - in operation since 2006 and 2012 respectively
- Mars Hill, ME - in operation since 2007
- Steel Winds I and II, NY - in operation since 2007 and 2012 respectively
- Cohocton, NY - in operation since 2009
- Stetson, ME - in operation since 2009
- Milford I and II, UT - in operation since 2009 and 2011 respectively
- Stetson II, ME - in operation since 2010
- Kahuku, HI - in operation since 2011
- Sheffield, VT - in operation since 2011
- Rollins, ME - in operation since 2011
- Bull Hill, ME - in operation since 2012
- Kawailoa, HI - in operation since 2012
- Palouse, WA - in operation since 2012
- Route 66 I, TX – in operation since 2015
- South Plains I, TX – in operation since 2015
- Oakfield, ME – in operation since 2015

**Section 10 of Appendix B to the RFP:
PROJECT SCHEDULE**

A bidder must demonstrate that its proposal can be developed, financed, and constructed and be technically viable within a commercially reasonable timeframe. The bidder is required to provide sufficient information and documentation that shows that the bidder's resources, process and schedule are adequate for the acquisition of all rights, permits and approvals for the project and for the financing of the project consistent with the proposed project milestone dates.

For Eligible Generation Facilities or Transmission Projects that are not yet in-service, bidders are required to provide a complete critical path schedule for the project from the notice of selection of the project for contract consideration to the start of commercial operations. For each project element, list the start and end date.

10.1 Identify the elements on the critical path. The schedule should include, at a minimum, preliminary engineering, financing, acquisition of real property rights, Federal, state and/or local permits, licenses, environmental assessments and/or environmental impact statements (including anticipated permit submittal and approval dates), completion of interconnection studies and approvals, procurement, facility contracts, start of construction, construction schedule, fuel supply, and any other requirements that could influence the project schedule and the commercial operation date..

A project schedule including critical path elements is provided as Appendix 10.

10.2 Detail the status of all critical path items, such as receipt of all necessary siting, environmental, and ISO-NE approvals.

Schedule status of key development scope is profiled in Responses 6.2 (siting), Responses 6.6-6.8 (ISO-NE approvals), Exhibit 7.1 (environmental), and Appendix 10 (dependencies).

**Section 11 of Appendix B to the RFP:
PROJECT MANAGEMENT/EXPERIENCE**

Bidders are required to demonstrate project experience and management capability to successfully develop (for a project that includes new facilities or capital investment) and operate the project proposed. The Distribution Companies are particularly interested in project teams that have demonstrated success in projects of similar type, size and technology and, for projects that include new facilities or capital investment, can demonstrate an ability to work together effectively to bring the project to commercial operation in a timely fashion.

11.1) Provide an organizational chart for the project that lists the project participants and identifies the corporate structure, including general and limited partners.

Please see Section 5.2.

11.2) For a project that includes new facilities or capital investment, provide statements that list the specific experience of the bidder and each of the project participants (including, when applicable, the bidder, partners, EPC contractor and proposed contractors), in developing, financing, owning, and operating generating or transmission facilities (as applicable), other projects of similar type, size and technology, and any evidence that the project participants have worked jointly on other projects.

Through the successful development of First Wind projects, the Longroad team has an established service and supply chain utilized to construct 664 MW of renewable energy projects in New England to the highest industry standards. This 300+ company supply chain utilized by the Longroad team in Maine and New England is anchored by

[REDACTED]

[REDACTED]

The Project is designed with [REDACTED] turbine technology. [REDACTED]

[REDACTED]

A complete list of projects developed by the Longroad team is provided in Exhibit 11.5.

11.3) For a bid that includes existing facilities, provide statements that list the specific experience of the bidder and each of the project participants (including, when applicable, the bidder, partners, EPC contractor and proposed contractors), in owning and operating generating or transmission facilities (as applicable), other projects of similar type, size and technology, and any evidence that the project participants have worked jointly on other projects.

N/A - The Project is a new facility.

11.4) Provide a management chart that lists the key personnel dedicated to this project and provide resumes of the key personnel. For Eligible Facilities or Transmission Projects that are not yet in-service, key personnel of the bidder's development team having substantial project management responsibilities must have:

- i. Successfully developed and/or operated one or more projects of similar size or complexity or requiring similar skill sets; and
- ii. For a project that includes new facilities or capital investment, experience in financing power generation projects (or have the financial means to finance the project on the bidder's balance sheet).

Over the last decade, the team assembled by Longroad to develop this Project has a track record of large-scale renewable energy development in New England that is without equal. Particularly relevant to this solicitation is the fact that this team is responsible for a significant majority of the capacity that has been successfully developed and put into operation under the previous Section 83 and 83A procurements. The core of the former First Wind executive and development team has been largely reconstituted within Longroad, with individuals that have years of experience in developing, financing, owning, and operating New England wind and solar projects similar to that being offered in this bid. Additionally, Longroad has retained outside consultants and renewed affiliations with key contributors (legal, environmental permitting, interconnection, EPC, finance, community relations, etc.) to these previous successes.

Exhibit 11.4-1 – Longroad Executive Team

Team Member	Qualifications	Job Scope
Paul Gaynor <i>Chief Executive Officer</i>	SunEdison: EVP, Global Utility Development First Wind: Chief Executive Officer Noble Power Assets: CFO Singapore Power: CFO PSG International: CFO GE Capital: VP, Underwriting	SunEdison: Delivered 2.1 GW in 2015 development deals across the globe First Wind: Co-founder, focused on strategy, capital raising, capital allocation, development, counterparty management, board member
Michael Alvarez <i>Chief Operating Officer</i>	SunEdison: SVP, Global EPC First Wind: President, Chief Financial Officer Edison International: VP, Strategic Planning Nexant, Inc.: COO and CFO PSG International: Project Director, TransCaspian Gas Pipeline	SunEdison: Responsible for Global EPC, Global Asset Management, plus IT and Facilities First Wind: Managed all Construction, Operations, HR, IT, Development, and Financing for the company
Pete Keel <i>Chief Financial Officer</i>	SunEdison: CFO, Global Utility Development First Wind: SVP, Treasury and Finance GE Capital: AVP, Underwriting	SunEdison: Led global structured finance org, raised \$2.5 B in financings to support 3 GW plan First Wind: Led financing, accounting, planning, treasury, tax and risk functions
Charles Spiliotis <i>Chief Investment Officer</i>	SunEdison: VP, Strategy and M&A First Wind: VP, Corporate Development and Project Finance State Street Corp: Associate, Institutional Asset Management and Services	SunEdison: Led M&A effort for high-growth global development platform, including acquisition of more than 2 GW of operating and development assets First Wind: Led corporate development and strategic planning, executed more than \$7 B in structured financing transactions across the capital structure

Exhibit 11.4-2 – Project Team

Role	Prior Employment	Job Scope
Matt Kearns <i>Chief Development Officer and Weaver Wind Developer</i>	SunEdison: VP, Global Utility Development, North America First Wind: VP, Development East Tetra Tech: Director of Renewable Energy Services NextEra: Permitting and Development	SunEdison: Led development teams to finish development and support financing and construction of ~1 GW of solar projects and 500 MW of wind projects First Wind: Led development teams in the eastern US to complete over 700 MW of wind and solar projects

Section 83D RFP Application – Weaver Wind Project

Jed Dailey <i>VP, Construction at Longroad Energy</i>	SunEdison: VP, Construction West First Wind: VP, Construction West M.A. Mortenson Company: Project Manager, Wind Energy	SunEdison and First Wind: Successfully led the construction management of over 1 GW of utility-scale wind and solar projects
Jeff Armbruster <i>Senior Wind Resource Manager at Longroad Energy</i>	SunEdison/First Wind: Senior Manager, Wind Resource	SunEdison/First Wind: For the last decade responsible for managing all meteorological aspects of the company's wind development pipeline in eastern U.S. and eastern Canada, from project conception through permitting, financing, and into construction. Managed, including leading the design of the met campaigns and turbine layouts for 11 greenfield wind projects (totaling 765 MW) now operational (nine) or through to the project permitting stage (two). Projects include Stetson I & II, Rollins, Bull Hill, Oakfield, Bingham, and Hancock.
Deron Lawrence <i>Director, Natural Resources Permitting and Policy at Longroad Energy</i>	SunEdison: Environmental Permitting Manager, Western US and International CH2M: Project Manager, Technical Lead for Eagle Permitting Group	SunEdison: Managed development and operational permitting and compliance CH2M: Managed wind energy permitting, specializing in USFWS negotiations for eagle permits
Charlie McClelland <i>Director, Transmission at Longroad Energy</i>	SunEdison/First Wind: Transmission Associate, North American Utility Development Cadmus: Associate, Renewable Energy Group, Energy Services Division Wind Energy Center (WEC), University of Massachusetts Amherst: Research Fellow	SunEdison/First Wind: Led transmission and interconnection related activities for over 1GW of wind and solar development projects located throughout the U.S. Cadmus: Performed technical due diligence including power performance, acoustic and visual impact assessment for wind and solar projects located throughout the U.S.

EJ Martin <i>VP, Operations and Maintenance at Longroad Energy</i>	SunEdison: Director of Services, North America First Wind: VP, Operations and Maintenance Lindblad Expeditions: Chief Engineer Hornbeck Offshore: Relief Chief Engineer	SunEdison: Directly oversaw ~200 employees involved in the day-to-day O&M of ~4 GW of wind and solar projects across the U.S. and Canada First Wind: Led O&M team overseeing 1.7 GW of wind assets across US. Managed company's 24/7 monitoring center
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11.5) Provide a listing of all projects the project sponsor has successfully developed or that are currently under construction. Provide the following information as part of the response:

- Name of the project
- Location of the project
- Project type, size and technology
- Commercial operation date
- Estimated and actual capacity factor of the project for the past three years
- Availability factor of the project for the past three years
- References, including the names and current addresses and telephone numbers of individuals to contact for each reference.

Exhibit 11.5 – Select Bidder Team Development Experience

Project(s)	State	Size (MWac)	Technology	COD Year	Offtaker
Kaheawa I	HI	30	Wind	2006	MECO
Mars Hill	ME	42	Wind	2007	New Brunswick Power
Steel Winds I	NY	20	Wind	2008	Morgan Stanley, Just Energy
Stetson I	ME	57	Wind	2009	Constellation Energy
Cohocton	NY	125	Wind	2009	Citibank, NYSERDA
Milford I	UT	203.5	Wind	2009	SCPPA
Rollins	ME	60	Wind	2010	CMP, Bangor Hydro
Stetson II	ME	25.5	Wind	2010	Harvard University
Kahuku	HI	30	Wind	2010	HECO
Sheffield	VT	40	Wind	2011	BEC, VECO, WECO
Milford II	UT	102	Wind	2011	SCPPA
Bull Hill	ME	34.5	Wind	2012	NSTAR (Eversource)
Steel Winds II	NY	15	Wind	2012	NYSERDA
Palouse	WA	105	Wind	2012	AVISTA
Kaheawa II	HI	21	Wind	2012	MECO
Kawailoa	HI	69	Wind	2012	HECO
Millbury	MA	4	Solar	2013	SREC/Muni. net metering

Warren	MA	17	Solar	2013	SREC/Muni. net metering
Oakfield	ME	148	Wind	2015	Eversource, National Grid
Route 66 I	TX	150	Wind	2015	Morgan Stanley
South Plains I	TX	200	Wind	2015	Morgan Stanley
Seven Sisters	UT	20	Solar	2015	PacifiCorp
Bingham	ME	185	Wind	2016	Eversource, National Grid
Hancock	ME	51	Wind	2016	MMWEC, Burlington Electric
South Plains II	TX	300	Wind	2016	HP, Citibank
Four Brothers	UT	320	Solar	2016	PacifiCorp

The Longroad team was responsible for development, financing, construction, commissioning, and in some cases, and operation and management of the above listed projects. Many of these projects were sold and/or assigned to long-term asset owners after the acquisition of First Wind by SunEdison. Therefore, Longroad does not control nor have operational data for these facilities.

11.6) With regard to the bidder’s project team, identify and describe the entity responsible for the following, as applicable:

- i. Construction Period Lender, if any
- ii. Operating Period Lender and/or Tax Equity Provider, as applicable
- iii. Financial Advisor
- iv. Environmental Consultant
- v. Facility Operator and Manager
- vi. Owner’s Engineer
- vii. EPC Contractor (if selected)
- viii. Transmission Consultant
- ix. Legal Counsel

Construction Period and Operating Period Lenders, if any:

While specific lenders have not yet been selected for the Project, prior lenders for the Longroad team’s projects include, but are not limited to RBS, Key Bank, Union Bank, Nord LB, Rabobank, HSH Nordbank, Banco Santander, Bayern LB, Deutsche Bank, CIT, Siemens Financial, CoBank and Commerzbank.

Tax Equity Providers, as applicable:

While a tax equity partner has not yet been selected for the Project, prior tax equity providers for the Longroad team’s projects include JPMorgan, Credit Suisse, US Bank, Citi, MUFG, Goldman Sachs, Morgan Stanley, MidAmerican, and Wells Fargo.

Financial Advisor:

Longroad’s in-house finance group manages financial planning, analysis, and risk assessment activities.



Section 83D RFP Application – Weaver Wind Project

Environmental Consultants:

██████████ has served as the lead consultant on permitting and resource surveys for the Project.

Owner's Engineer:

Longroad has utilized a number of engineering firms, including SGC Engineering and GL Garrad Hassan. James W. Sewall Company, TRC, Deluca-Hoffman Associates, Inc. and SGC Engineering have also provided civil and electrical services to Longroad projects.

EPC Contractor (if selected):

██████████ has constructed all of Longroad's Maine projects to date; Longroad has also contracted with ██████████ to build wind energy facility construction projects in other locations in the U.S.

Transmission Consultant:

The electrical engineering firms Longroad has utilized in the past and under consideration for the Project include TRC, SGC Engineering, RLC Engineering and CHA.

Legal Counsel:

Longroad's in-house legal organization provides legal support. Outside legal counsel for certain development matters and project financing has not yet been selected.

11.7) Provide details of the bidder's experience in ISO-NE other Markets affected by the bid. With regard to bidder's experience with ISO-NE markets, please indicate the entity that will assume the duties of Lead Market Participant for your Project. Please provide a summary of the proposed Lead Market Participant's experience with each of the ISO-NE markets.

The project entity, Weaver Wind, LLC, will be the Lead Market Participant for the Project. Longroad will provide the staffing and expertise to support the Project's participation in ISO-NE. Longroad employs market experts that have participated in ISO-NE markets on behalf of wind, solar and natural gas facilities. Longroad staff is familiar with ISO-NE's day-ahead, real time, ancillary services and capacity markets.

Section 12 of Appendix B to the RFP: EMISSIONS

12.1) For existing generation facilities, provide emissions estimates based on available continuous emissions monitoring data. Where continuous emissions monitoring data is not available, provide emissions estimates based on the most recent stack emissions test conducted using an EPA reference method approved by the applicable permitting and enforcement authority. Where continuous emissions data or actual stack emissions test data are not available, provide emissions estimates based on emissions factors from the latest edition of EPA's AP-42, Compilation of Air Pollutant Emissions Factors.

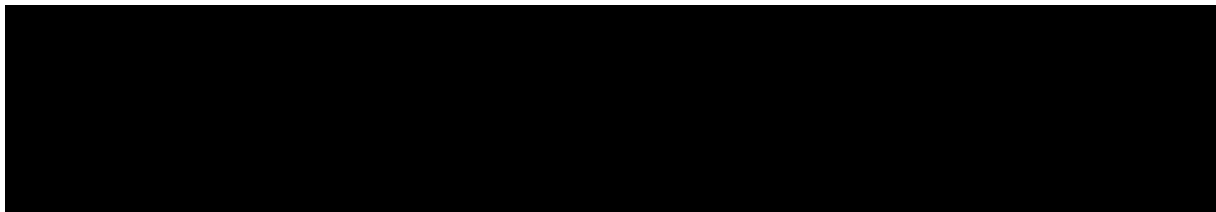
For new generation facilities, provide emissions estimates based on available data from the unit manufacturer. Alternatively, provide actual emissions data determined in accordance with the paragraph above for a similar facility built within the past 3 years. Include copies of supporting documentation for all emissions estimates.

Project Anticipated Emissions, expressed in pounds/megawatt-hour (lbs/MWh)


Source of Information	Date of Test (if applicable)	Greenhouse Gases (all except methane) Expressed as Carbon Dioxide equivalent (CO ₂ e)	Nitrogen Oxides (NO _x)	Sulfur Oxides (SO _x)	Carbon Monoxide (CO)	Particulate Matter (PM 2.5)	Methane (CH ₄)
N/A	N/A	0	0	0	0	0	0
N/A	N/A	0	0	0	0	0	0

The proposed Project utilizes wind turbines, a renewable resource and generator technology which does not emit any air pollutants. Rather, as an “as-available” resource within ISO-NE’s pooled generation and transmission control area, the Project will offset generation and associated pollution from regional resources at a rate equivalent to [*Project Annual Estimated Generation X NPCC New England Emissions Rates*²]:

Exhibit 12.1 – Project’s Estimated Annual Pollution Avoidance



² Environmental Protection Agency’s eGRID 2014 results, Version eGRID2014v2.

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12.2) Describe any past investments that will, or have been made to your facility to improve its emissions profile or any planned future investments made to your facility in order to improve its emissions profile. Pollutant specific emissions improving technologies include, but are not limited to:

- NO_x – Selective/Non-Selective Catalytic Reduction
- SO_x – wet/dry scrubbers
- PM – fabric filter/bag house, electrostatic precipitator, cyclone separator
- CO – oxidation catalyst
- Investments that improve overall emissions include, but are not limited to:
 - equipment tune-ups (improves combustion efficiency and emissions)
 - boiler tube replacements (improves heat transfer efficiency and reduces fuel use)
 - other efficiency improvements (e.g., installing a heat exchanger to use waste heat to pre-heat feed water to the boiler)

Include control equipment specifications, date(s) of installation, expected life of equipment, benefits gained from the addition of such equipment, etc.

The Project does not have associated sources of emissions, and therefore has not made such investments.

12.3) Describe how your project will contribute to the Massachusetts 2008 Global Warming Solutions Act (GWSA) and the 2010 Clean Energy and Climate Plan for 2020. Describe how your project will contribute both to the short term 2020 goal, and longer term 2050 goal found in these laws.

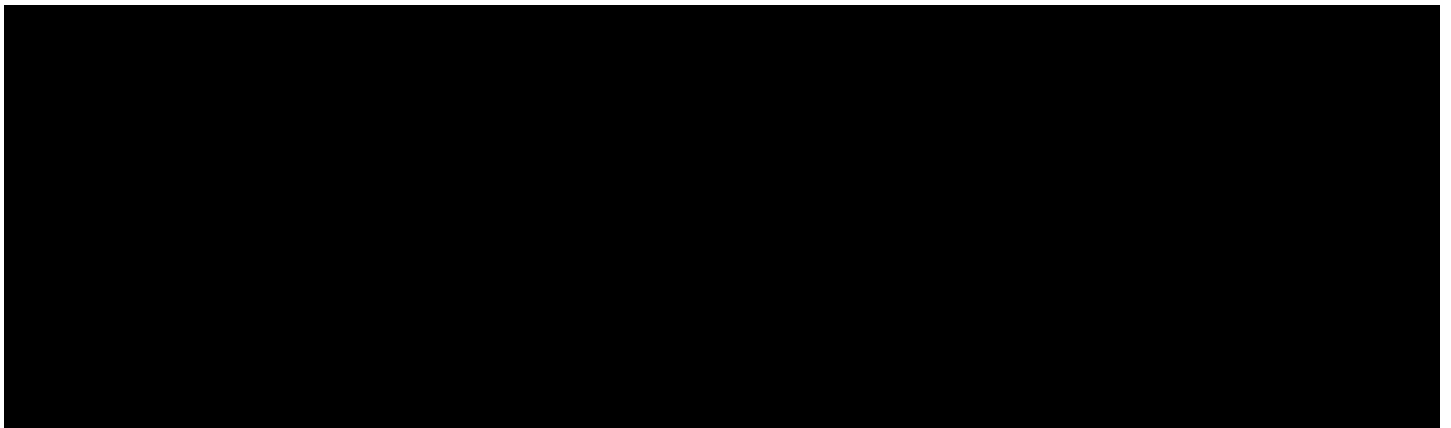
The intent of the Baker Administration in proposing, and the Legislature in passing, the law providing the authority for this solicitation (*An Act to Promote Energy Diversity*) was, in part, to help the Commonwealth meet its targets under the Global Warming Solutions Act (GWSA). These targets became even more important after the Kain decision was handed down by the Supreme Judicial Court last summer, which held that the 2020 greenhouse gas limits under the GWSA are binding.

This Project would help the Commonwealth achieve the 2020 emission target by providing [REDACTED] MWh of emissions-free electricity annually starting in [REDACTED], and the Project will displace [REDACTED] tons of carbon dioxide equivalent emissions annually, and thus help the Commonwealth meet both short- and long-term GWSA goals over its useful [REDACTED]-year operating life. In so doing, this Project will help fulfill the objective of the RFP in terms of assisting the Commonwealth in meeting its climate targets.

Section 13 of Appendix B to the RFP:**CONTRIBUTION TO EMPLOYMENT AND ECONOMIC DEVELOPMENT AND OTHER DIRECT AND INDIRECT BENEFITS**

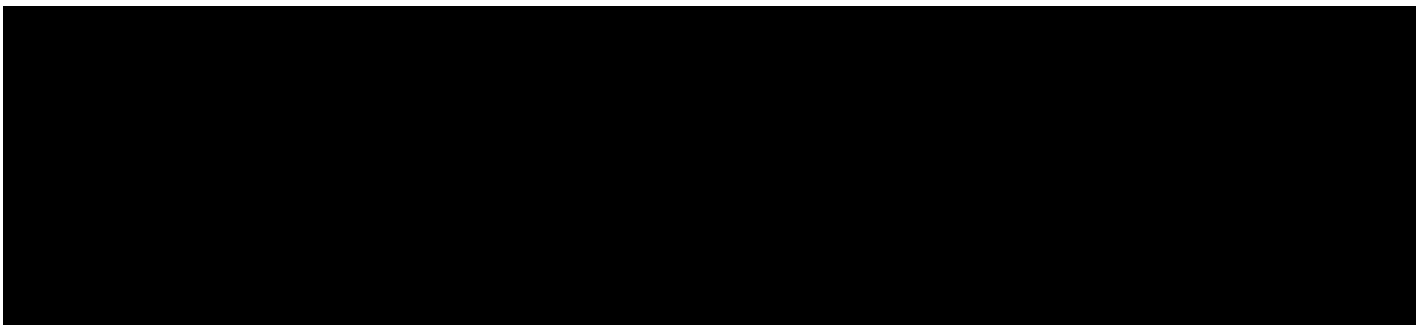
13.1) Please provide an estimate of the number of jobs to be created directly during project development and construction (for a project that includes new facilities or capital investment), and during operations, and a general description of the types of jobs created, estimated annual compensation, the employer(s) for such jobs, and the location. Please treat the development, construction, and operation periods separately in your response.

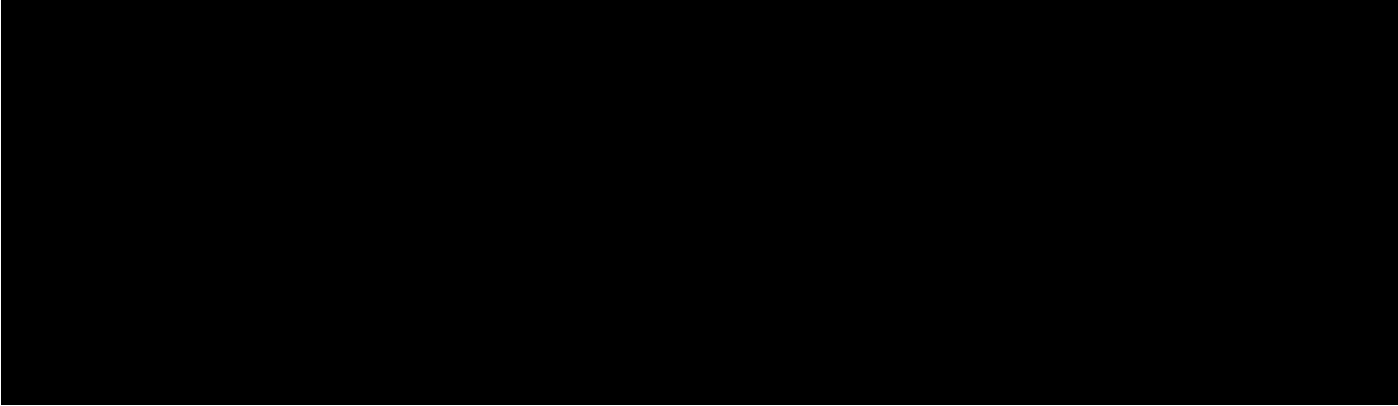
Values presented below are based on a combination of 1) Longroad's experience with developing, constructing and operating projects of a similar scope and scale in this region, 2) input/indicative bids from local construction partners in the Northeast about this Project, and 3) results from NREL JEDI Model simulations.



13.2) Please provide the same information as provided in response to question 13.1 above but with respect to jobs that would be indirectly created as a result of the proposed project.

Values presented below are based on a combination of 1) Longroad's experience with developing, constructing and operating projects of a similar scope and scale in this region, 2) input/indicative bids from local construction partners in the Northeast about this Project, and 3) results from NREL JEDI Model simulations.



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13.3) Please describe any other economic development impacts (either positive or negative) that could result from the proposed project, such as creating property tax revenues or purchasing capital equipment, materials or services for New England businesses. Please provide the location(s) where these economic development benefits are expected to occur.

Ratepayer benefits

The purpose of the Project, and its primary economic benefit, is the delivery of reliable, cost-effective renewable energy and capacity which lowers the cost of wholesale power in ISO-NE and RPS compliance for the Distribution Companies, the Commonwealth and its ratepayers. Particularly relevant to this Project is the fact that the Bidder is responsible for a significant majority of the capacity that has been successfully developed and put into operation under the previous Section 83 and 83A procurements. The Massachusetts Department of Public Utilities Order approving the PPAs for the Oakfield Wind and Bingham Wind projects developed by the Longroad team and selected and now operational under Section 83A estimated nearly \$700 million in “net below market costs” for the contracted products.³

Ratepayers will also benefit from additional wind energy in the form of protection against fuel price increases. Predictable, long-term wholesale contracts for wind are delinked from volatile fuel markets and provide a known cost to ratepayers, compared to gas or coal, which fluctuate with fuel prices. Eliminating the worst-case scenarios for energy costs to the region is a significant economic benefit.

Community benefit agreements

Maine law requires that wind energy projects offer a minimum of \$4,000 per turbine per year in community benefits to Maine communities hosting wind projects. Longroad has agreed to community benefits packages with the surrounding communities that well exceed this statutory requirement for Weaver Wind.

³ MA DPU Order: <http://170.63.40.34/DPU/FileRoomAPI/api/Attachments/Get/?path=13-146%2f13-146-Order-9561.pdf>

Property Taxes

Eight wind projects developed by the Longroad team currently pay more than [REDACTED] in annual property taxes in Maine. The on-site capital investments required for the Weaver Wind Project will provide significant taxable property value without creating incremental demand for local services, resulting in a meaningful net tax benefit for the Unorganized Territory. Longroad estimates that the Project will result in average annual Unorganized Territory property tax payments in excess of [REDACTED]. In the first year after the project is built, the [REDACTED] rate is expected to decrease due to the influx of new assessed property value. Thereafter, the mil rate is expected to see very small increases as the project depreciates in value.

Supply chain

[REDACTED]

13.4) To the extent not already specified elsewhere in your response, please address the factors listed in Section 2.2.2.9 and describe any benefits or impacts associated with the proposed project.

Such factors have been addressed in Section 7 and Section 13.

13.5) Describe how your project will (a) contribute to reducing winter electricity price spikes in Massachusetts, and (b) guarantee energy delivery in winter months. Class I RPS eligible projects must guarantee that 70% of energy in their delivery profile of the Winter Peak Period will be delivered over the course of every Winter Peak Period (see Section 2.2.2.7). Clean Energy Generation for projects containing firm service hydroelectric generation, and Clean Energy from new Class I RPS eligible resources paired with firm service hydroelectric generation, will be required to submit a delivery profile with no Winter Peak Period hour less than 60 percent (60%) of their highest annual single hourly delivery claimed in their annual delivery profile.

The Project is a winter-peaking asset and produces close to one third of its annual electricity during the winter months of December to February. When the Project is generating, it will displace expensive natural gas fired units, which operate on the margin and often set the market clearing price in ISO-NE. The displacement of relatively inefficient natural gas generation from the supply stack reduces the impact high natural gas prices have on electricity prices in ISO-NE, thus saving money for ratepayers. The Project has provided a winter guarantee production profile consistent with the requirements of this RFP and CPPD

forms. Additionally, the Project's O&M plan and related budget were developed to maximize turbine availability.

13.5) If applicable, please demonstrate any benefits to low-income ratepayers in the Commonwealth, and the impact, if any, those benefits will have on the cost to the project.

The economic benefits the Project provides to low-income ratepayers includes (i) the cumulative impact of wholesale market price suppression, (ii) cost effective RPS compliance and (iii) a hedge to volatile natural gas prices, which drive electricity prices in New England.

Section 14 of Appendix B to the RFP:**ADDITIONAL INFORMATION REQUIRED FOR TRANSMISSION PROJECTS (AND ALL SYSTEM UPGRADES ASSOCIATED WITH PROPOSED TRANSMISSION PROJECTS)**

Note: Weaver Wind will utilize the existing transmission grid and is not bidding as or with an associated new transmission project for the purposes of this RFP; Section 14 in its entirety is not applicable to the Weaver Wind bid.

Bids that include Transmission Projects (and all System Upgrades) must also provide the following information:

14.1 Transmission Project Information:

- i. Overall project description
- ii. The operating voltage of the proposed project
- iii. The type of structures (such as steel towers or poles) that would be used for the proposed project
- iv. The length of the proposed transmission line and the type(s) of terrain and land ownership of the proposed ROW
- v. The substation facilities (number of breakers, transformers, etc.) required at each terminal of the proposed project and information as to how the new facilities would interconnect to any existing facilities.
- vi. The estimated costs of the proposed project broken out into separate categories as described below for transmission facilities and substation facilities in nominal year dollars.
 - a. For cost of service or modified cost of service proposals:
 - i. Provide the capital cost estimate presented as a buildup of costs by category, such as environmental, engineering, civil works, materials, equipment, construction, construction management, physical and price contingencies, allowance for funds used during construction (AFUDC), and all other categories for which recovery under FERC would be sought. These categories are illustrative; aggregate costs into the categories most relevant to the development of the proposed project. All costs should be provided in nominal dollars.
 - ii. For projects with transmission and substation components, separate the costs into two rows (e.g. use one row for substation construction and a second for transmission construction). Describe the detailed financial plan on a monthly basis during the construction period, e.g., for 3 years or as long as necessary. The plan should present the costs and financial outlays in each month of the construction period, and the corresponding sources of financing

(equity contribution and debt drawdown), as in the following illustrative table. Data should include an estimate of the cost of both physical and price contingencies during the construction period. The financing plan should indicate the ability to finance the construction of the proposed project under base case and contingency scenarios.

- iii. Describe the proposed financing sources and instruments.
- iv. Sources of funds for construction and working capital - include name of entity providing debt financing, loan amounts, interest rates, repayment period, grace period during construction; and equity provided by project sponsor.
- v. Sources of funds for unexpected repairs or replacement construction during the operating period, e.g., replacement of tower. Note: the operating period is the applicant's estimate of the useful life or accounting life of the transmission project element(s).
- b. If the bidder is proposing fixed-rate pricing rather than cost-of-service or modified cost-of-service pricing, provide sufficient information and assessment to show that the proposed project, including any necessary transmission network upgrades, is financially viable. In this regard, provide capital cost estimates and operation and maintenance cost estimates and the basis for your estimates, including the extent to which estimates are based on vendor contracts or vendor quotes, your experience in the development, construction and/or operation of similar projects, your approach regarding contingency and risk management, and your proposed financing plan. All costs should be provided in nominal dollars, although inflation and cost escalation estimates should be provided. Please describe in detail the due diligence you have conducted in developing your pricing and tariff proposal.
- vii. Provide a proposed schedule for project development through release for operation that includes key critical path items, such as:
 - a. Develop contracts for project work;
 - b. Completion of studies and receipt of approvals needed for the interconnection;
 - c. Permitting; R/W and land acquisition;
 - d. Engineering and design;
 - e. Material and equipment procurement, including identification of long lead time equipment;
 - f. Facility construction;
 - g. Agreements (interconnection, operating, scheduling, etc.) with other entities;
 - h. Pre-operations testing;
 - i. Project in-service date; and
 - j. Other items identified by the bidder.

- viii. Bidder must indicate whether it proposes to recover abandonment costs for its transmission project from the Distribution Companies, as described in Section 2.2.2.6.2 of this RFP. If so, Bidder must acknowledge that recovery of any such abandonment costs shall be in accordance with FERC rules and policies, and also acknowledge that in no event will a Bidder seek to recover abandonment costs if the abandonment was caused directly or indirectly by some act or failure to act of the Bidder. Bidder must further affirmatively commit not to seek from FERC or any other agency or authority any treatment of abandonment costs inconsistent with the provisions of Section 2.2.2.6.2 of the RFP. To the extent the Bidder proposes to recover abandonment costs, such proposal should be further described as set forth in Appendix C-2 of this RFP.

N/A

14.2 The proposed payment required for the transmission project and all system upgrades.

- i. All proposals must include significant cost containment as stated in the RFP.
- ii. List all situations which may change the proposed payments by consumers during the contract term.
- iii. Identify any limits placed upon the bidder's post-contract term rates according to current FERC rules.
- iv. iv. Identify all other project revenues which may be received by the bidder during the contract term which would not reduce rates paid by consumers.
- v. v. If the proposed payments may change during the contract term or the proposal is based on cost of service, the bidder must provide the method that transmission owner shall use to determine the payment for the Transmission Project under the transmission Rate Schedule or Tariff and Service Agreement to be filed with FERC. If the proposed payment is a formula rate, the Eligible Bidder must also provide the formula and its proposed inputs that the transmission owner will file with FERC.
- vi. vi. If the proposed payment is based on the Transmission Project's cost of service and may change during the contract term based on changes in the cost of service, a full revenue requirements model must be included and submitted as a working Excel spreadsheet with the formulas intact.
 - a. Provide the annual revenue requirement forecasts for the project – including assumptions. Provide a draft version of the revenue requirement calculation in a format that is similar to what would be included in the Rate Schedule or Tariff and Service Agreement application to FERC, indicating the forecast revenue requirement amounts and all assumptions used in the calculations. This should include but not be limited to the assumptions regarding rate of return, depreciation life, split between debt and capital, AFUDC and weighted cost of capital, and a detailed estimate of the anticipated average annual operating and maintenance cost. Provide the information requested in Section 14.1.a of the Bidder Response Package.

- vii. If the pricing proposed is based on cost of service, detail all cost containment commitments. Examples of such commitments include fixed price components, cost overrun restrictions, or other cost bandwidth provisions that are proposed to limit ratepayer risk must be clearly defined.
- viii. Please include full and complete descriptions of all cost containment measures that you propose to be included in your pricing. Additionally provide any supporting documentation for any savings or methods of savings including cost caps on any portion of your project. Please include working excel spreadsheets to more fully explain how your cost containment measures should work. Please provide details and notes that describe the nexus between the cost containment provisions in your proposal and those supporting documents and spreadsheets. Please provide examples about how any cost containment measures you are proposing would work.
- ix. To the extent that you are proposing different interconnection scenarios that affect cost please include full and complete cost information on each scenario. Please describe all interconnection and transmission upgrade costs required to interconnect at the Capacity Capability Interconnection Standard and to ensure full dispatch, including transmission upgrades that may need to occur beyond the point of interconnection.
- x. Please describe the coordination of the availability of the Clean Energy Generation and any associated transmission or distribution facilities. All proposals must include a project schedule, and proposals including a combination of transmission and Clean Energy Generation should propose complete critical path schedules, for both elements of the project, from the notice of selection for contract consideration to the start of commercial operations (the “Baseline Schedule”). Please describe all aspects of your proposal that protect ratepayers from risks associated with payments for transmission costs when any associated expected Clean Energy Generation, as proposed by the bidder, is absent, reduced, or curtailed as compared to the Baseline Schedule.
- xi. Please describe your approach to avoid line losses.

N/A

14.3) The schedule of the payments defined in 14.2 above including when the payments will commence, how often payments will be required and the length of time over which payments will be required. In no event may payments commence before the Transmission Project is placed in service.

N/A

14.4) The design life of the project.

N/A



Section 83D RFP Application – Weaver Wind Project

14.7) A description of the reliability benefits of the proposed Transmission Project and its impact on existing transmission constraints.

N/A



**Section 15 of Appendix B to the RFP:
EXCEPTIONS TO FORM PPA AND OR VARIATIONS FROM THE PROPOSED TARIFF
REQUIREMENTS**

Please attach an explanation of any exceptions to the Form PPAs set forth in Appendix C-1 or Appendix C-2 to this Notice, including any specific alternative provisions in a redline format to the Form PPA.

A redline of the Form PPA (Appendix C-1 of the Notice) is provided by appendix.

Index to Appendix

Number	Item	Note
CPPD Form	Project and Pricing Information	Confidential
Appendix D	Bid Certification Form	
Appendix 4.1.i	Weaver Wind [REDACTED] Wind Report	Confidential Version Only
Appendix 4.1.ii	Weaver Wind Met Data	Confidential Version Only
Appendix 4.1.iii	Weaver Wind P50 Net Energy Output	Confidential Version Only
Appendix 4.1.iv	Weaver Wind 1-Year P90 Net Energy Output	Confidential Version Only
Appendix 5.2.i	[REDACTED] Letter of Interest	Confidential Version Only
Appendix 5.2.ii	[REDACTED] Letter of Interest	Confidential Version Only
Appendix 5.5	Longroad Energy Partners Financial Statements	Confidential Version Only
Appendix 6.2	Lease Agreements	Confidential Version Only
Appendix 6.10	Weaver Wind Electrical Models	Confidential Version Only
Appendix 6.11	Weaver Wind One Line Diagram	Confidential Version Only
Appendix 7.4.i	[REDACTED]	
Appendix 7.4.ii	MREA Letter of Support	
Appendix 7.4.iii	Community Benefit Agreements	
Appendix 8.1	[REDACTED] Letter of Support	Confidential Version Only
Appendix 10	Weaver Wind Gantt Project Schedule	Confidential Version Only
Appendix C-1 (15)	Redline to Form PPA	Confidential Version Only



Section 83D RFP Application – Weaver Wind Project