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## SECTION 83D

# REQUEST FOR PROPOSAL APPLICATION FORM

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### APPLICANT INFORMATION

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Applicant: Torch Clean Energy, LLC

Contact: Jon Kilberg

Address: 1331 Lamar Street, Suite 1075,  
Houston, Texas 77010-3039

Phone: (720)470-0730

Email: [jkilberg@TorchCleanEnergy.com](mailto:jkilberg@TorchCleanEnergy.com)

SECTION 1 OF APPENDIX B TO THE RFP  
CERTIFICATION, PROJECT AND PRICING DATA

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

**SECTION 2 OF APPENDIX B TO THE RFP  
EXECUTIVE SUMMARY OF THE PROPOSAL (INCLUDING THE BASE PROPOSAL  
AND ANY ALTERNATIVE PROPOSALS)**

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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.

Torch Clean Energy, LLC, ("Torch") is pleased to propose the Blue Falcon Solar Energy Facility (the "Project") in response to the Request for Proposals for Long-Term Contracts for Clean Energy Projects ("the RFP"). The Blue Falcon Solar Energy Facility is a new 50 MWac solar energy generation facility located on [REDACTED]

Torch proposes to provide the Distribution Companies with a renewable energy resource that we believe provides a solution to the Distribution Companies' goals pursuant to the Green Communities Act at attractive pricing. We believe there are a number of ways to structure the product we are offering to meet the Distribution Companies' needs and we hope this can serve as the beginning of a dialogue to create an optimal solution. Specifically, Torch is proposing the following Project:

**Blue Falcon Solar Energy Facility: 50 MW AC** of solar energy and all environmental attributes delivered to ISO-NE on [REDACTED]

Project Information	
Technology Type	Solar Photovoltaic
Project Capacity	50.0 MW AC
Annual Generation	[REDACTED] MWh
Capacity Factor	[REDACTED]
Point of Delivery	[REDACTED]

Torch proposes to structure the Project under a long-term Power Purchase Agreement ("PPA") based on the following pricing:

Pricing Summary		
	Term	Energy Price
Pricing Options		
Levelized Energy Price - Peak	20 Years	\$ [REDACTED] per MWh
Levelized Energy Price - Off-Peak	20 Years	\$ [REDACTED] per MWh
REC Price	20 Years	\$ [REDACTED] per MWh

Torch is flexible to how the pricing structured between the energy and REC price.

The Project will be constructed starting at the end of 2019 and has a guaranteed Commercial Operation ("COD") by December 31, 2020.

## Green Communities Act Section 83D Request For Proposal

Since 2006, Torch has specialized in the development and financing of renewable energy facilities in North America. To date, Torch has developed over 500 MW of operating renewable energy projects including the 101 MW Red Horse Facility, which is one of the largest wind-solar hybrid system in the U.S and is located in Cochise County, AZ. In the past three years, Torch has developed, financed and retains minority ownership in over \$375 million of renewable energy projects that represent over 200 MW.

### SECTION 3 OF APPENDIX B TO THE RFP OPERATIONAL PARAMETERS

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- 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 Blue Falcon Solar Energy Facility is a solar PV facility and will not require either partial or complete outages as a part of scheduled maintenance during the operating period of the year. Any routine maintenance will occur during nighttime hours.

- 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.

The Blue Falcon Solar Energy Facility's ability to operate is limited to daylight hours between sunrise and sunset.

The Blue Falcon Solar Energy Facility is capable of generating power an average of twelve hours per day. The full solar resource profile is available in Exhibit 4.1.

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

The Blue Falcon Solar Energy Facility will provide enhanced electricity reliability by adding to the diversity of generation sources serving the grid. In addition, due to its location in Maine, the solar resource will complement the existing solar energy in Massachusetts due to the fact that different cloud events occur at the different locations.

- 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 - 6:00 pm
- ii) Estimated average output for each winter period (October-May) from 5:00 – 7:00 pm

The expected output for the summer period from the Project is [REDACTED] MWh (without degradation). During the winter period (as outlined above from October-May from 5:00-7:00pm), the expected output from the Project is [REDACTED]. However, as outlined in the CPPD form, the Project will contribute a Winter Peak Period generation of [REDACTED] annual (without degradation). As



shown in these two generation profiles, the Project will be able to provide a peaking summer resource to the Distribution Companies to help moderate the summer peak load requirements.

- 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.

The Blue Falcon Solar Energy Facility is in the development phase. A document has been executed that provides for total site control on a [REDACTED] acre parcel of land sufficient for a 50 MWac solar facility. Torch has contracted with [REDACTED] to provide a feasibility analysis and is in the process of submitting for interconnection to ISO-NE.

Furthermore, the Project does not require a lengthy permitting process as no conditional or special use permit is required from the Town of Greenbush. As such, Torch only needs to submit its Site Location permit with the State of Maine as well as finalize the Project's building permit once design is complete. This process is expected to take less than a year to complete.

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.

**SECTION 4 OF APPENDIX B TO THE RFP  
ENERGY RESOURCE AND DELIVERY PLAN**

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- 4.1 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.

Not Applicable

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.

Not Applicable

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.

Not Applicable

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

Not Applicable

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

Not Applicable

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

**Landfill Gas**

Provide a gas production forecast for each landfill. Provide a table that shows the annual, monthly and hourly projection of gas flow and energy export from each landfill.

Not Applicable

Provide supporting data that illustrates the expected generation from each landfill based on the projected gas production.

Not Applicable

Describe any contingencies or constraints that could affect the availability of fuel or the energy resource for the project and any contingency plans for meeting projected generation levels.

Not Applicable

If the landfill gas is provided by pipeline, provide information related to gas pipeline delivery, including gas pipeline interconnection points of the landfills delivering the gas into the pipeline system.

Not Applicable

**Biomass**

Describe specifically how the project will conform to the Massachusetts biomass laws and regulations M.G.L. c. 25A, § 11F, and 225 CMR 14.00.

Not Applicable

Provide a resource assessment of available biomass fuel for the proposed project and its proximity to the project site.

Not Applicable

Provide a plan for obtaining the biomass fuel, including a transportation plan.

Not Applicable

Provide any contracts or letters of intent to acquire and transport the biomass fuel.

Not Applicable

Demonstrate that projected energy output for the project over the term of the contract is consistent with the energy supply available.

Not Applicable

Describe any contingencies or constraints that could affect the availability of fuel or the energy resource for the project and any contingency plans for meeting projected generation levels.

Not Applicable



### **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).

The Project is designed to be a 50 MWac solar photovoltaic single axis tracking facility that once operational is anticipated to generate [REDACTED] MWh or a [REDACTED] capacity factor. The annual generation of the Project is calculated to have an availability of [REDACTED] and an annual degradation of [REDACTED] % a year. A full PVSyst profile can be found in Exhibit 4.1.

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

Torch utilized PVSyst (V6.46) to calculate the generation profile for the Project and the generation model was created by Torch's consultant [REDACTED]. A full PVSyst profile can be found in Exhibit 4.1. Based on insolation data provided by the Solar Anywhere dataset, PVSyst was used to create the generation profile that resulted in an effective annual irradiance on the modules of [REDACTED] kWh/m<sup>2</sup>, derived from a horizontal global irradiance of [REDACTED] kWh/m<sup>2</sup>, and adjusted for global incidental irradiance on the collector plane, incidence angle modifier, and soiling loss. Based on this analysis, the Project is expected to generate [REDACTED] MWh or a [REDACTED] capacity factor. The annual generation of the Project is calculated to have an availability of [REDACTED] and an annual degradation of [REDACTED] a year.

[REDACTED] is a consulting and product development firm that is dedicated to creating change through innovation. The team at [REDACTED] has extensive technical experience in all aspects of solar projects from design and development to operation and maintenance. [REDACTED] is led by [REDACTED] who has 20 years of experience as an engineer in the PV industry. [REDACTED] specializes in providing owners/independent engineering services for developers, builders, operators, and long term project owners. The team at [REDACTED] has provided engineering services that have supported the development and construction of more than 1,000 MW of operating utility solar photovoltaic projects.

### **Hydropower**

Describe the project characteristics in terms of water flow (on a monthly basis) and head, and state the assumptions regarding seasonal variations, and a conversion of such flow into megawatts and megawatt-hours.

Not Applicable

Provide monthly flow duration curves based upon daily stream flow records.

Not Applicable

Identify if the project is run-of-river or has storage capability.

Not Applicable

Specify if the project is new, or if the project is an expansion of an existing facility.

Not Applicable

Describe why the generation proposal qualifies as Incremental Hydropower Generation. If the entire project is not new, specify the amount of power provided to or sold into the ISO-NE market during 2014, 2015, and 2016. Provide information which demonstrates that the resources and transmission capacity described in your proposal are capable of providing an increase in the amount of such power compared to the average power deliveries in ISO-NE over those three years.

Not Applicable

The bidder must disclose in its bid how it proposes to certify that the environmental attributes are included with the energy delivered.

Not Applicable

**Other information as required to describe the energy resource plan**

Identification of fuel supply (if applicable)      Not Applicable

What is the availability of the fuel supply?      Not Applicable

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.

Yes: ☐      No: ☐

Not Applicable

**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.

Not Applicable

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.

As outlined above, the Project is designed to be a 50 MWac solar energy generation facility that is anticipated to generate [REDACTED] MWh annually. In the Torch's CPPD form, we have included a full energy delivery profile that provides the anticipated monthly generation profile. This profile

includes all losses associated with the Project's generation including the step-up to 115kV to the Point of Delivery on the ISO-NE system.

In addition to the above information, please see Exhibit 4.2.a which profiles a maximum hourly and monthly capacity generation summary that provides a summary of the Minimum Contract Size of 50 MWac.

Lastly, in Exhibit 4.2.b, we have included an 8760 generation profile for the Project which provides additional information for the delivery profile of the Project into the ISO-NE system.

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.

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.

Please see Torch's CPPD form that provides a delivery profile for the 70% Winter Peak Period generation guarantee.

#### 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.

Torch will register with NEPOOL-GIS and go through the appropriate certification to ensure RECs and Environmental Attributes are delivered to the appropriate utilities in the correct percentages.

**SECTION 5 OF APPENDIX B OF THE RFP  
FINANCIAL/LEGAL**

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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.

Due to the uncertainty associated with selling electricity directly into the ISO-NE, the Project cannot be financed as a merchant energy facility. As a result, a long term contract is required to provide a forecasted revenue stream to obtain financing.

- 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.

The Project is being developed by Torch Clean Energy, LLC, a privately-held Delaware LLC. [REDACTED]

[REDACTED] At the start of construction, we will obtain construction financing for the project as is typical for utility scale solar projects and as demonstrated on our past projects.

As with Torch's recent Gray Hawk and Red Horse projects described elsewhere in this proposal, we anticipate that Torch will bring in additional equity partners at the start of construction including a tax equity investor. On its prior three utility scale projects, Torch has [REDACTED]

[REDACTED]

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

The project finance and construction loan market for high-quality utility scale solar projects is highly-liquid and competitive. Based on its track record and the experience of its management team, Torch has an array of financing options available for construction and term financing. Between 2014 and 2017, Torch will finance over \$375 million of renewable energy projects that represent 200 MW. On its past three projects, Torch has utilized [REDACTED]

[REDACTED] As is typical for project financed utility-scale solar projects, we do not anticipate selecting construction or term debt parties or a tax equity investor until after PPA award and the completion of substantially all development items as this competitive tension amongst potential financing parties will allow us to obtain the best possible terms and rates.

- ii. The project's existing initial financial structure and projected financial structure

The Project will initially be owned and financed through development by Torch. Upon start of construction we anticipate utilizing traditional project financing as demonstrated by our track record. Between 2014 and 2017, Torch will finance over \$375 million of renewable energy projects that represent 200 MW.

- iii. Expected sources of debt and equity financing

See 5.2 and 5.2 (i) above.

- iv. Estimated construction costs

The estimated construction cost for the Project is approximately [REDACTED] including development, interconnection, financing and transaction costs.

- v. The projected capital structure

Torch has a number of potential financing structures available to it. However, we believe it is likely that we will utilize a traditional project finance structure similar to that which we have successfully utilized on the Red Horse II and III and Gray Hawk transactions and as described above.

- 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.

[REDACTED]





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.

All development and permitting costs for the Project will be funded by Torch.

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

Torch's three most recent utility-scale projects described below demonstrate its track record to secure financing for projects of similar size and scale.

Red Horse II



Red Horse III



[REDACTED]

Gray Hawk

[REDACTED]

Project Experience 4

In addition to the projects described above, Torch has developed over 500 MW of operating renewable energy projects across the U.S.

- 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.

Torch has proven experience and expertise in developing and financing projects as demonstrated in our previous projects that have been developed and financed. For example, between 2014 and 2017, Torch has financed over \$375 million dollars in renewable energy projects that represent over 200 MW.

- 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.
- [REDACTED]

- 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.
- [REDACTED]

[REDACTED]

[REDACTED]

- 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.

Torch has a variety of options to provide credit support for the Project during the pre-operation and post-operation periods. These options include posting credit support as a letter of credit directly by Torch or working with our financing partners, [REDACTED]

[REDACTED]

- 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.

Torch has no credit issues or credit rating downgrade events.

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

Torch plans to monetize the ITC benefits through tax equity financing as it's done previously with [REDACTED]

- 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.

There is no pending litigation against Torch. Torch is involved in no disputes related to projects its developed, owned or managed.

- 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 of the Blue Falcon Solar Energy Facility is 35 years.

- 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.

Due to the nature of long-term, non-recourse project debt financing, it is extremely difficult to secure financing without having a long-term power purchase agreement. As outlined above, non-recourse project debt financing is one financing method Torch has used in the past to finance its projects. As a result, for this opportunity, the long term contract would allow the Project to secure long term project financing.

- 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.

Torch has not entered into any agreements with respect to energy, RECS, and or capacity for the project and has never been alleged to have defaulted or breached on any such agreements.

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

Not applicable.

- 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?

Torch has never consented to the appointment of and has never been taken in possession by, a receiver, trustee, custodian or liquidator of a substantial part of its its assets.

Torch has never filed a bankruptcy petition in any bankruptcy court proceeding.

Torch has never answered, consented or sought relief under any bankruptcy or similar or law or failed to obtain a dismissal of an involuntary petition.

Torch has never admitted in writing an inability to pay its debts when due.

Torch has never made a general assignment for the benefit of any creditors.

Torch has never been the subject of an involuntary proceeding that sought to adjudicate it as bankrupt or insolvent.

Torch has never sought reorganization, arrangement, adjustment, or composition of it or its debt under any law relating to bankruptcy, insolvency, or reorganization or relief of debtors.

- 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.

There are no known conflicts between Torch and any Distribution Company or its affiliates.

- 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.

There is no litigation or disputes, claims or complaints, or events of default or other failure to satisfy contract obligations, or failure to deliver products, involving Torch, and relating to the purchase or sale of energy, capacity, or renewable energy certificates or products.

- 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.

Torch and its directors, employees and agents are not currently under investigation by any governmental agency and have not 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.

- 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).

Torch and its directors, employees and agents are not currently under investigation by any governmental agency and have not 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.

Torch and its directors, employees and agents have not been the subject of any debarment action.



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

There is no regulatory or other approval needed by Torch to execute a binding sale agreement.

- 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.

It is not expected that the Blue Falcon Solar Energy Facility will require FERC regulatory approval. The Blue Falcon Solar Energy Facility will comply with any applicable FERC regulations.

- 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.

Torch has no relationships with any of the Distribution Companies or their affiliates.

## SECTION 6 OF APPENDIX B TO THE RFP SITING, INTERCONNECTION, AND DELIVERABILITY

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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 (or, if applicable, multiple points for a Transmission Project), 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.

Site plan included? Yes ☒ No ☐ If not, please explain:

The Blue Falcon Solar Energy Facility is designed as a 50 MWac solar power generating facility and will be located on approximately [REDACTED] acres of land. Please see Exhibit 6.1 for a site layout 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)?

Yes ☒ No ☐ If not, please explain:

The Project site will be purchased and owned by the Project.

- ii. If so, please detail the Bidder's rights to control the Eligible Facility site and/or Transmission Project route control.

Torch has entered into an agreement to purchase [REDACTED] acres of land in [REDACTED]

[REDACTED]. Please see Exhibit 6.2 for a map of the Project site.

- 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.

- [REDACTED]
- iv. Identify any joint use of existing or proposed real property rights
- [REDACTED]

- 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.

Detail the zoning and permitting issues:

As outlined in Section 7, the Project does not require any additional rezoning or a conditional use permit as part of its development. As a result, the Project has already achieved the milestone of being appropriately zoned for the construction and operation of a solar energy generation facility. However, the Project will secure a [REDACTED].

Permitting plan and timeline:

Please see Section 7 for additional information.

Start Date: January 2018

End Date: February 2019

- 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 project site is comprised of a single [REDACTED] acre parcel located in [REDACTED]. The current land use is for forestry and logging.

The National Flood Hazard Layer indicates that there are no mapped flood hazards within the project area. The western portion of the parcel is bisected by [REDACTED].

- 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.

Interconnection map included?

Yes: ☒ No: ☐ if not, please explain:

As demonstrated in its previous projects, Torch will develop and design the Project to adhere to all interconnection standards to ensure stability and reliability in delivering electricity



into the ISO NE system. As a result, during the interconnection study process, Torch will employ similar technology as other solar energy projects on the ISO NE system to satisfy ISO NE' I.3.9 r

Attachments:

Copy of completed studies attached: ☒ If none, please explain:

Torch is in the process of submitting for interconnection for the Project and will promptly supplement this proposal upon receipt of its studies.

Copy of Interconnection Agreement attached: ☒ If none, please explain:

The Project has not executed an Interconnection Agreement at this time and plans to do so upon conclusion of the interconnection studies.

- 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.

At this time, Torch is in the process of analyzing a number of different scenarios that could impact the interconnection of the Project. However, to date, Torch has not found an interconnection scenario that makes the Project not feasible. For additional information, please see Exhibit 6.6 for a feasibility analysis performed by [REDACTED] [REDACTED].

- 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.

Torch does not have an alternative Point of Interconnection for the Project apart from the [REDACTED]

- 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.

Electrical models attached: ☒ If none, please explain:



Torch is advancing through the ISO NE interconnection study process and will supplement this proposal upon finalizing the electrical models.

- 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.

Electrical one-line diagram attached: ☒ If none, please explain:

Please see Exhibit 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 will construct a new, project-owned substation that transforms its generated power from [REDACTED].

- 6.13 Incremental data requirements for Projects that include Transmission facilities;

1. IDV file(s) in PSSE v32 format modeling only the new/modified Transmission components of the project: ☐ If none, please explain:

Not Applicable

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: from to  
(bus numbers and names)

Not Applicable

- Transformer data (including Phase shifting transformers if applicable):

Terminal Voltages Thermal Ratings

Impedance

From To  
(bus numbers and names)

Not Applicable

- Reactive compensation models as necessary

Not Applicable

- Other changes to the model that would occur due to a Project such as terminal changes for lines/transformer/generator leads/loads etc.

Not Applicable

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.

Please see question 6.6.

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.

Please see question 6.6.

**SECTION 7 OF APPENDIX B TO THE RFP  
ENVIRONMENTAL ASSESSMENT, PERMIT ACQUISITION PLAN AND NEW CLASS I  
RPS CERTIFICATION**

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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.

All Federal, state and local permits, licenses, and environmental assessments are listed in Table 7.1.ii.



- ii. Identify the governmental agencies that will issue or approve the required permits, licenses, and environmental assessments and/or environmental impact statements.

Permitting Summary			
Permit/Compliance	Authorizing Authority	Summary of Compliance	Duration
[Redacted]			
[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]

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[illegible]





constraint analysis had to be completed to determine the feasibility of using a site. The selected site has minimal natural resource obstacles and is within 1 mile of an existing substation.

[REDACTED]

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

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- 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

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- 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.

Stakeholder engagement is critical to the development of all of Torch Clean Energy's projects.

[REDACTED]

- 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.

The proposed Blue Falcon Solar Energy Facility is a new Class I RPS eligible resource due to the fact that is a solar photovoltaic generation facility as clearly stated in Section 11F. (b)(1).

- 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.

Torch will register with NEPOOL-GIS and go through the appropriate certification to ensure RECS and Environmental Attributes are delivered to the appropriate utilities in the correct percentages.

- 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.

No Existing, preliminary or pending claims or litigations, or matters before any federal agency or any state legislature or regulatory agency that might affect the Project or ability to retain permits for the Project are known at this time.



## SECTION 8 OF APPENDIX B TO THE RFP ENGINEERING AND TECHNOLOGY; COMMERCIAL ACCESS TO EQUIPMENT

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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

The Project will be designed to convert solar energy into electricity using photovoltaic modules, single-axis tracker and central inverters.

Specifically, the Project design includes the following elements:

**Photovoltaic Module:** Crystalline silicon photovoltaic modules will be utilized to convert solar energy into electricity. The modules are guaranteed to produce power for 25-years and expect to operate for approximately 35-40 years.

**Single-Axis Tracking Mounting Structure:** The mounting structure will be made of metal, aluminum, or hot-dip galvanized steel sufficient to prevent corrosion for the design life. The posts will be driven into the soil during construction to avoid the requirement of concrete. The tracking design will allow for the solar modules to slowly rotate through the course of the day from east (in the morning) to west (in the evening).

**Inverters:** Central inverters will be used to convert the electricity from direct current to alternating current.

**Transformers:** Each central inverter will have a transformer that will step-up the electricity to an internal distribution voltage of between 34.5kV.

**Cabling:** Cabling will be used through the Project to connect the system to the central substation.

**Civil Works:** Civil works will possibly include drainage control; trenches for buried electrical cable and cable ducts; perimeter road; and fencing.

Torch may select from a variety of suppliers for the major equipment for the Project, including Trina; Jinko; JA Solar; Hanwha; First Solar for solar modules and SMA; TMEIC; ABB for inverters.

- 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.

Torch may select from a variety of suppliers for the major equipment for the Project, including Trina; Jinko; JA Solar; Hanwha; First Solar for solar modules and SMA; TMEIC; ABB for inverters.

- 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.

Torch has used similar equipment at three completed facilities. At Red Horse II a 55 MWac Solar facility completed in September of 2015, at Red Horse III a 30MWac solar expansion of the Red Horse facility completed in June 2016 and at Gray Hawk a 46MWac solar facility.

- 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 equipment designed for the Project is all established technology with over a decade of operation at a significant scale and many decades of operating at a smaller scale.

- 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.

The Project will use the same equipment Torch has used in previous projects, a complete list for those projects has been compiled and can be provided upon request.

- 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.

The only long lead-equipment required for the Project will be the 34.5/115kV step-up transformer and there is ample time to secure this piece of equipment in the Project's schedule.

## SECTION 9 OF APPENDIX B TO THE RFP OPERATION AND MAINTENANCE

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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.

Torch will contract for O&M services for the Project through a long-term agreement as it has done in over 200MW of solar projects in the past couple of years.

Once operational, the Project will be operated remotely but monitored 24-hours. It is anticipated that 3 full-time equivalent people will be needed to operate the Project. Regular O&M maintenance shall occur on the Project that may include:

- Quarterly, semiannually and annual physical, detailed inspections of the Project,
- Remote and real-time monitoring of the Project on a 24-hour, 7-day schedule to view operational characteristics, and
- On-site responses to any system failure.

[REDACTED]

[REDACTED]

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

O&M funding will be based on a fixed annual price for routine O&M services plus a ‘cost plus’ structure for any unplanned O&M requirements. These costs have been incorporated into the financial forecast for the Project during the entire term of the PPA. Specifically, Torch has included the fixed cost portion of the O&M cost as well as a schedule for major maintenance replacement, which includes the replacement of all the inverters. During the first period of operations, the majority of the equipment will be under equipment and



workmanship warranties which shall cover all major unplanned O&M costs. After that period of time, an O&M reserve account will be created to fund O&M services.

- 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.

Torch anticipates receiving the following warranties for major equipment for the Project. Note that Torch has received similar warranties on all its previous projects.

- Modules:

[REDACTED]

[REDACTED]

- Inverters:

[REDACTED]

- Racking:

[REDACTED]

[REDACTED]

- 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.

Torch typically secures a long-term O&M agreement for its projects through a third-party provider. On our last three transactions, the EPC firm building the project has proven to be the most cost-effective provider of O&M services. [REDACTED]

[REDACTED] While no firm has been selected to provide O&M services for the project, we anticipate utilizing the same overall contracting strategy.

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

Torch [REDACTED] have used [REDACTED] [REDACTED] for 200 MW of solar projects, including Red Horse II, Red Horse III and Gray Hawk solar projects.

## SECTION 10 OF APPENDIX B TO THE RFP PROJECT SCHEDULE

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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.

Please see the attached schedule in Exhibit 10.1

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

There are several critical path items for the Project as follows:

1. Power Purchase Agreement: The central critical path item for the Project is the negotiation and execution of the Power Purchase Agreement. As such, this proposal establishes the first step in advancing the Project into a PPA negotiation and into an executed contract. Upon execution of the PPA, the Project will advance quickly through other aspects of its development, such as the limited permitting needed.
2. Interconnection Studies, Agreement and Construction: The Project is in the process of filing for interconnection with ISO NE and anticipates the full study process to take a year to complete. After that point, the Project will quickly advance to executing an interconnection agreement and funding the necessary design, engineering and construction needed to interconnect the Project.

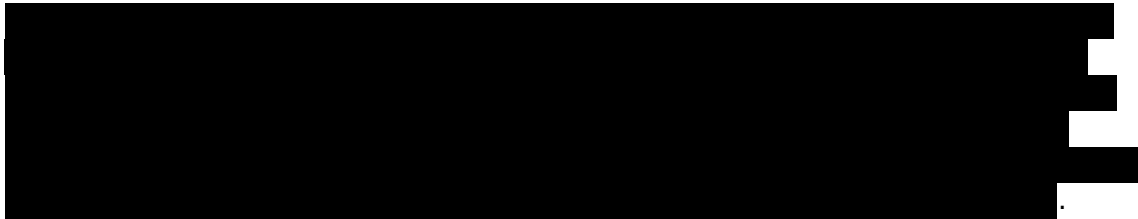
## SECTION 11 OF APPENDIX B TO RFP PROJECT MANAGEMENT/EXPERIENCE

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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.

The Project is being developed by Torch Clean Energy, LLC, a privately-held Delaware LLC.



- 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.

Since 2006, Torch has developed over 500 MW of operating renewable energy projects across the U.S., including the 102 MW Red Horse Facility, which is one of the largest wind-solar hybrid system in the U.S and located in Cochise County, AZ. Between 2014 and 2017, Torch will develop, finance and maintain minority ownership in over \$375 million of renewable energy projects that represent 200 MW of gross capacity including the three significant utility scale projects listed in Section 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.

Not applicable.

- 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)

Please see Exhibit 11.4 for bios of the leadership of our development team. [REDACTED]

[REDACTED]

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:

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

Since inception, Torch has developed over 500MW of operating renewable energy projects across the U.S. and maintains a significant development pipeline. In the past three years, Torch has developed, financed and maintains equity ownership in three significant utility scale solar projects which demonstrate it and its development team's ability to successfully develop a project similar in size and scope to that being proposed in the response to this RFP.

Red Horse II

[REDACTED]



- 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)

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viii. Transmission Consultant

ix. Legal Counsel

i. [REDACTED]

ii. [REDACTED]

iii. We do not anticipate utilizing a financial advisor.

iv. [REDACTED]

v. [REDACTED]

vi. [REDACTED]

vii. [REDACTED]

viii. [REDACTED]

ix. [REDACTED]

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.

Torch will bring a wealth of development experience to the Project as the Lead Market Participant. Torch has been developing, financing, constructing and operating renewable energy projects through the U.S. since 2006. During that time, we have developed over 500 MW of operating renewable energy projects through the country. While Torch is deeply experienced in a number of markets throughout the U.S. including ISO NE, Torch does not currently have an operating project in ISO NE. However, members of the Torch team have developed solar energy facilities in Vermont as well as the PJM market. In the areas that Torch does not have deep experience, we will employ experienced consultants to provide support our team. Torch is confident it will successfully deliver a fully operational project based on the details included in this proposal.

## 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 <sub>2</sub> e)	Nitrogen Oxides (NO <sub>x</sub> )	Sulfur Oxides (SO <sub>x</sub> )	Carbon Monoxide (CO)	Particulate Matter (PM 2.5)	Methane (CH <sub>4</sub> )
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

- 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<sub>x</sub> – Selective/Non-Selective Catalytic Reduction
- SO<sub>x</sub> – 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.

Not Applicable

- 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.

Once operational, the Project will produce [REDACTED] MWh of clean energy free of any greenhouse gas. The energy (and associated Environmental Attributes) will be delivered to the Distribution Companies over a period of 20 years from 2021 to 2041 to ensure the Distribution Companies and the State of Massachusetts will receive clean energy. Furthermore, this power will be delivered during peak periods in the summertime, helping the Distribution Companies and the State of Massachusetts manage its peak energy period. Lastly, after the Project's contract term expires, it will continue to produce clean energy for ISO NE for an additional 15 years.



**SECTION 13 OF APPENDIX B TO THE RFP  
CONTRIBUTION TO EMPLOYMENT AND ECONOMIC DEVELOPMENT AND OTHER  
DIRECT AND INDIRECT BENEFITS**

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- 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.

During the construction of Torch's Red Horse facility and its subsequent expansion, a total of [REDACTED] people were employed and a total of [REDACTED] was paid in wages. For the Blue Falcon Solar Facility, Torch anticipates the Project will employ approximately [REDACTED] people during the course of construction with a direct local economic impact of greater than [REDACTED] million. In addition, during the operations phase, the project is expected to employ three full time technicians to service the operations and maintenance functions on site.

- 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.

Torch has found that there is an economic multiplier of roughly two times for the indirect economic stimulation into the local economy. While it is difficult to estimate until after construction on the Project is finished, this would amount to a local economic multiplier of \$[REDACTED] million.

- 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.

[REDACTED]

In addition to the economic benefits that shall occur during the construction period of the Project, the Blue Falcon Solar Energy Facility shall contribute to the local tax base and provide consistent tax revenue for the area for the next 35 years.

- 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.

In addition to the economic benefits outlined above, the proposed energy pricing from the Project will allow the Distribution Companies to have a fixed energy price for the next 20 years that is free from any fuel volatility.

- 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.

a) contribute to reducing winter electricity price spikes in Massachusetts

As outlined in the CPPD form, the Project will contribute a Winter Peak Period generation of [REDACTED] MWh annual (without degradation). Due to the consistency of solar generation, this generation profile is anticipated to have limited variability over the course of the 20-year PPA term.

b) guarantee energy delivery in the winter months

Torch, and its consultant [REDACTED] have analyzed the solar resource closely for the Project. As a result, Torch is confident that it can guarantee the 70% of the Winter Peak Period generation or [REDACTED] MWh annually (without degradation).

- 13.6 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.

Not applicable.

SECTION 14 OF APPENDIX B OF THE RFP  
ADDITIONAL INFORMATION REQUIRED FOR TRANSMISSION PROJECTS (AND  
ALL SYSTEM UPGRADES ASSOCIATED WITH PROPOSED TRANSMISSION  
PROJECTS)

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

14.1 Transmission Project Information:

- i. Overall project description

Not applicable.

- ii. The operating voltage of the proposed project:            kV:
- iii. The type of structures (such as steel towers or poles) that would be used for the proposed project

Not applicable.

- iv. The length of the proposed transmission line and the type(s) of terrain and land ownership of the proposed ROW

Overhead miles:            Underwater/underground miles:

Terrain:

Not applicable.

- 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.

Not applicable.

- 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:

- 1. 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.

Not applicable.

2. 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.

Not applicable.

3. Describe the proposed financing sources and instruments.

Not applicable.

4. 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.

Not applicable.

5. 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).

Not applicable.

- 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.

Not applicable.

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

Not applicable.

b. Completion of studies and receipt of approvals needed for the interconnection

Not applicable.

c. Permitting; R/W and land acquisition

Not applicable.

d. Engineering and design

Not applicable.

e. Material and equipment procurement, including identification of long lead time equipment

Not applicable.

f. Facility construction

Not applicable.

g. Agreements (interconnection, operating, scheduling, etc.) with other entities

Not applicable.

h. Pre-operations testing

Not applicable.

i. Project in-service date

j. Other items identified by the bidder

Not applicable.

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.

Not applicable.

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.

Not applicable.

ii. List all situations which may change the proposed payments by consumers during the contract term.

Not applicable.

iii. Identify any limits placed upon the bidder's post-contract term rates according to current FERC rules.

Not applicable.

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.

Not applicable.

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.

Not applicable.

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.

Not applicable.

- 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.

Not applicable.

- 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.

Not applicable.

- 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.

Not applicable.

- 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.

Not applicable.

- xi. Please describe your approach to avoid line losses.

Not applicable.

- 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.

Not applicable.

- 14.4 The design life of the project

Not applicable.

- 14.5 A description of the reliability benefits of the proposed Transmission Project and its impact on existing transmission constraints

Not applicable.

SECTION 15 OF APPENDIX B TO THE RFP  
EXCEPTIONS TO FORM PPA AND OR VARIATIONS FROM THE PROPOSED TARIFF  
REQUIREMENTS

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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.

Transmission bids must contain a proposed tariff, rate schedule or transmission service agreement (“Transmission Agreement”) that the Bidder proposes as the vehicle for recovery of its transmission costs from the Distribution Companies. In addition, all transmission bids must separately contain a detailed summary of the material provisions of the proposed Transmission Agreement. Such a summary should include, but not be limited to, a discussion of the key provisions set forth in Appendix C-3, as well as a cross-reference to the corresponding sections of the proposed Transmission Agreement where such provisions may be found.

**Bidders are discouraged from proposing changes to the Form PPA and or variations from the Proposed Tariff requirements.**