

# **FPS Vernon Solar**

**20 MW<sub>AC</sub> Solar PV in Vernon, VT**

**Proposal Submitted by Freepoint Solar LLC**



**Pursuant to the**

## **Request for Proposals**

**For**

## **Long-Term Contracts for Clean Energy Projects**

### **Distribution Companies:**

Fitchburg Gas & Electric Light Company d/b/a Unitil Massachusetts Electric Company d/b/a  
National Grid Nantucket Electric Company d/b/a National Grid NSTAR Electric Company  
d/b/a Eversource Western Massachusetts Electric Company d/b/a Eversource

### **Prepared by:**

Freepoint Solar LLC  
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[www.freepoint.com](http://www.freepoint.com)

## **Part 1: Certification, Project and Pricing Data**

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Please see **Exhibit 1**: Certification, Project & Pricing Data (“CPPD”) for a summary of the FPS Vernon Solar bid.

**Introduction** | In response to the Request for Long-Term Contracts for Clean Energy Projects Issued March 31, 2017, we are pleased to submit this proposal for the development of FPS Vernon Solar (the “Project”), a 20 MW<sub>AC</sub> [REDACTED]

Freepoint has executed a joint development agreement with SunEast Development LLC (“SunEast”), a solar development company based in Old Saybrook, CT. SunEast specializes in the development of solar PV facilities in the Northeastern United States, with over 500 MWs of solar projects under development. The principals of SunEast have been responsible for the development and construction of over 700 MW of renewable energy projects in New York and New England over the past seven years, including projects with executed, utility-scale power purchase agreements with operating subsidiaries of one or more of the Distribution Companies.

**Facility Description** | [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

**Siting** | [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

\_\_\_\_\_

**Proprietary and Confidential**

**Pricing** | The Project will be generating electricity and Renewable Energy Certificates (“RECs”). Freepoint proposes two pricing schedules for the bundled sale of both attributes via a 20-year Power Purchase Agreement (“PPA”).

**Price Schedule 1:** [REDACTED]

Term (Years)	Peak Energy Price - Year 1 (\$/MWh)	Off-peak Energy Price Year 1 (\$/Mwh)	Annual Energy Price Escalator (beginning Year 2 and each Year thereafter)	REC Price Year 1 (\$/MWh)	Annual REC Price Escalator (beginning Year 2 and each Year thereafter)
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

**Other Issues** | Both Freepoint and SunEast are New England-based companies, located in Stamford and Old Saybrook, CT, respectively, with nearly 300 employees between the two organizations, the majority of which are based within the New England region. As shown on the JEDI economic impact model in Exhibit 6, the development of Vernon Solar will stimulate New England’s local renewable energy market and help create [REDACTED] jobs for New England taxpayers during the development and construction phase, and [REDACTED] over the 30+ year life of the Project.

## Part 3: Operational Parameters and M&V Plan for Annual M&V Reporting

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### 3.1 Maintenance Outage Requirements

Partial outages may be required for up to [REDACTED] per year due to maintenance.

No planned complete outages will be required for the Project.

### 3.2 Operating Constraints

The Project will only operate during daytime hours due to the nature of solar PV technology. The peak generating hours will differ in different months. Generally, the peak generating hours range from 10 a.m. to 4 p.m., based on our production projection from PVSyst, as shown in Exhibit 6.

### 3.3 Reliability

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] In addition, if selected for a PPA through this RFP, the Project intends to offer its capacity into the ISO-NE FCA process, and provide capacity to ISO-NE thereby enhancing system wide electrical consumption and generation support, [REDACTED] through this capacity commitment.

### 3.4 Moderation of System Peak Load

Due to the nature of solar generation, the Project would generate the entirety of its energy during the on-peak hours of each day (on a 7-day per week basis), which would coincide with peak loads in ISO-NE. As is shown in Exhibit 6, the production from this planned Solar PV facility has peak generation during summer on-peak hour periods when ISO NE loads are at their peak, with much of the production coming during the “super-peak” hours of HE1400 – HE 1900.

a) Based on our projection from PVsyst, the estimated average output for each summer period (June-September) from 1:00–6:00 p.m. Monday-Friday is [REDACTED]  
[REDACTED]

b) Based on our projection from PVsyst, the estimated average output for each winter period (October-May) from 5:00–7:00 p.m. would be [REDACTED]  
[REDACTED]

### 3.5 Development Stage of Facility

(a) n/a

(b) n/a

(c) The Project is in mid-stage development. Achieved milestones are as follows:

- Site Control obtained
- Conceptual Site Design completed
- Preliminary Fatal Flaw Analysis completed
- Interconnection Application submitted to ISO-NE
- Preliminary discussions commenced with local government

## Part 4: Energy Resource Plan

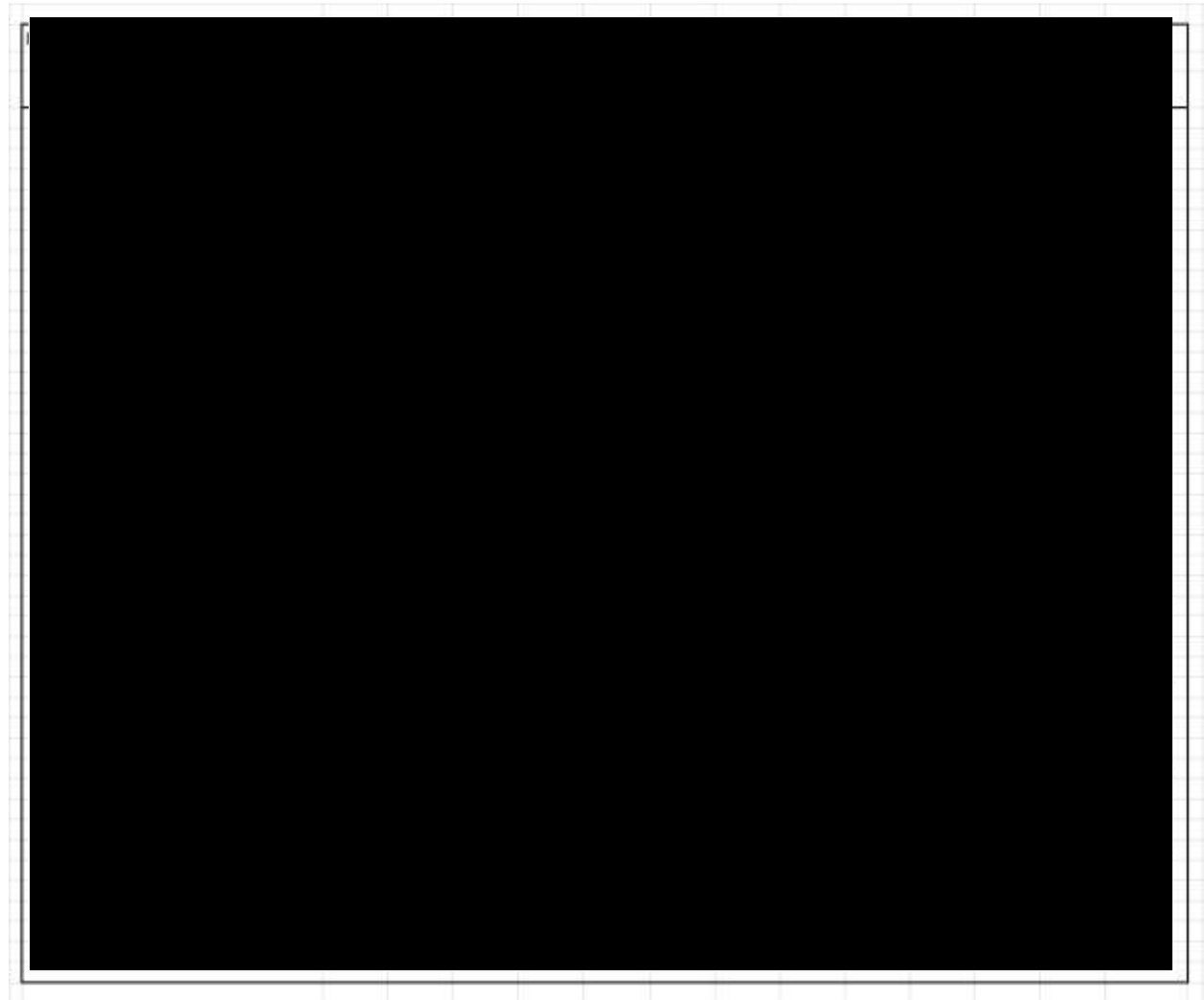
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### 4.1 Solar

The methodology used to determine the Project's expected output utilized industry standard practices. The National Renewable Energy Lab (NREL) publishes a dataset of expected solaririty that is used to calculate the expected production. PVSyst is a simulator program that allows for inputs of common design parameters and runs a Monte Carlo simulation to determine the systems production characteristics. The Project utilized the engineering firm Tighe & Bond to run the PVSyst model to determine the production profile of the Project.

Solar PV systems have an operating life in excess of 25 years, with the primary replacement parts being the inverters, which carry a 20 year warranty. Over time, the efficiency of the panels [REDACTED]

PVSyst summary calculation 12x24 results are as follows, with greater detail provided in Exhibit 6:



#### **4.2 Clean Energy Generation Delivery Plan**

N/A

#### **4.3 REC/Environmental Attribute Delivery Plan**

The Project is located within ISO-NE and will register and submit information pursuant to the NEPOOL-GIS rules for delivery of GIS certificates.

## Part 5: Financial/Legal

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### 5.1 Long-Term Contract Supporting Project Financing

Freepoint plans to finance all development and pre-construction activities on its corporate balance sheet. However, a long-term PPA with a credit-worthy counterparty is essential to facilitate the Project's ability to attract low-cost construction and permanent financing. Freepoint may also seek third-party tax equity financing at COD with a large institutional investor, which would also require a long-term offtake contract with a high quality counterparty. The tax-equity market is very mature as it relates to solar generation projects with long-term creditworthy power purchase arrangements in place.

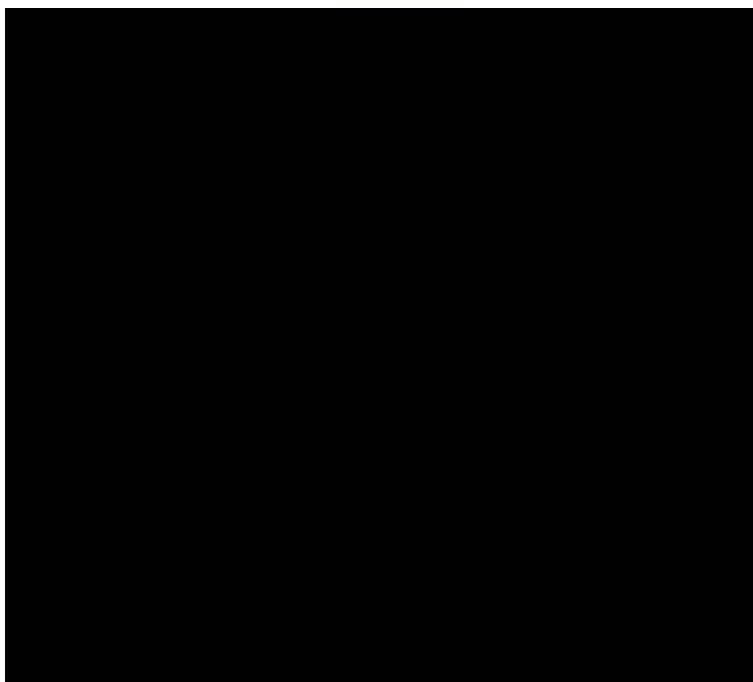
Freepoint will remain flexible in terms of securing the best source of both construction and long-term capital, which may include a combination of internal financing and institutional debt and tax-equity financing, each of which would be available only to projects with viable long-term offtake agreements.

### 5.2 Corporate Structure

The Project will be owned by a subsidiary of Freepoint Solar LLC, a Delaware limited liability company with the business address of 58 Commerce Rd, Stamford, CT. Freepoint Solar LLC is a wholly-owned subsidiary of Freepoint Commodities HoldingsLLC, [REDACTED]

[REDACTED]

#### Organization Chart:



[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]



- [REDACTED]

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

[REDACTED]

**Project Level LLC:**

A Special Purpose Entity (“SPE”) would be formed to hold the assets of the Project. Such SPE would be solely owned by Freepoint. During the development period, it is expected that the Project would be funded entirely by equity from Freepoint. During the construction and operation period of the Project, it is expected that the SPE would be capitalized by a combination of sponsor equity, tax equity and project debt.

In order to execute the contract with Distribution Company, the Project SPE would need to obtain the approval from the Freepoint management team.

**5.2 Financing Plan**

During development, the Project would be funded with equity from Freepoint’s balance sheet. The Project does not intend to seek third party financing during the development stage (including: preliminary design, equipment specification, interconnection application and impact studies, level one environmental assessment, legal review, specific permitting, and development period security). However, the Project intends to seek additional financing (including either debt or equity financing) to be included in the SPE’s capital structure beginning at either commencement of construction or commencement of operation of the Project. Should the Project elect to include a Tax Equity investor in the capital structure of the Project, this investor would be expected to be added immediately prior to the Project reaching commercial operation. Freepoint would retain the option to be positioned as the investor in one or more of the debt or equity components of the capital structure.

The Project’s total capital expenditure is expected to be approximately \$12.4 million and as discussed above, is expected to be financed via a combination of debt, tax equity, and sponsor equity capital. The estimated Project cost breakdown is as follows: A long-term PPA is generally considered a prerequisite for financing cost-competitive utility-scale solar projects. An executed PPA between the Project and the Distribution Company would enable the Project to obtain project financing for the Project, and advance the facility from development into construction and operation.

[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

### 5.3 Experiences in Securing Financing

Both Freepoint and SunEast have extensive experience developing, financing, and constructing projects which have utilized tax and cash equity funding structures. Projects developed and financed by members of the development team which utilize the type of financing structure contemplated for this Project include:

Project Name / Type	Project Location	Project Nameplate (MW)	COD Year	Project Financing Amount
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
<b>Total</b>		<b>1,247</b>		<b>\$1.46B</b>

Freepoint has deep business connections with several prominent energy and infrastructure private equity firms in addition to its relationship with its sponsor [REDACTED]. Freepoint recently partnered with [REDACTED] to purchase the Hovensa refining and terminal assets in St. Croix, U.S. Virgin Islands, a transaction that was made possible by Freepoint's arrangement of a long-term lease agreement with Sinopec, the largest refining company in the world.

[REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED]  
[REDACTED]

### 5.4 Financial Resources

Freepoint has sufficient financial resources to fully fund the development of the Project. Freepoint is backed [REDACTED]

[REDACTED]  
[REDACTED]

[REDACTED]  
[REDACTED]

### 5.5 Financial Statement/Credit Rating

The previous year's audited financial statements showing Freepoint's financial capabilities are included as **Exhibit 5**.

Neither Freepoint nor SunEast receives credit ratings from credit rating agencies.

## 5.6 Bidders Board of Directors

[REDACTED]

[REDACTED]

## 5.7 Ability to Provide Security

Freepoint intends to post security on behalf of the Project for the amount of credit support required in the form of cash or letter of credit. Freepoint currently has a committed three (3) year \$1 billion dollar facility and one (1) year \$300 million dollar facility supported by syndicate of 11 qualifying financial institutions with sufficient capacity to support collateral requests upon execution of a PPA.

## 5.8 Credit Issues

None.

## 5.9 Tax Credit

The Project plans to utilize the Investment Tax Credit (“ITC”) available to qualifying solar project as part of the project’s financing plan, as well as the Modified Accelerated Cost Recovery System (MACRS). These tax attributes are modeled in a manner that enables the Project to offer more favorable pricing for its energy and RECs to Connecticut ratepayers. Given that the 30% ITC provisions currently in place are applicable to Solar Projects constructed through 2019 (and continued beyond 2019 at slightly lower levels), the Project and the New England ratepayers are assured of being able to benefit from the price reductions made possible from the Project’s receipt of the ITC.

## 5.10 Litigation (current or past 3 years)

None.

## 5.11 Operating Life

The operating life for the facility will be at least 30 years.

## 5.12 Financing Agreement

Because the Project development costs would be equity funded by the Project investor Freepoint, the Project has not yet obtained a financing commitment for the Project. However, we are actively engaged with our financial partners in exploring general financing opportunities for the Project. Securing a long-term PPA from a credit-worthy counterparty for the Project will enable us to obtain cost-effective long-term financing for the Project. Upon notice of selection for a PPA by one of the Distribution Companies, Freepoint would commence specific financing structures with appropriate financing investors and institutions.

### **5.13 Previous Power Sales Agreements**

The Project has not yet entered into any contracts, hedges, or other agreements for the sale of energy, RECs or capacity from the Project.

### **5.14 Entities**

Freepoint Solar's parent company, Freepoint Commodities Holdings LLC is a merchant of physical commodities, and a financier of upper-and mid-stream commodity-producing assets. Freepoint also provides physical supply services and related structured solutions for counterparties. Freepoint actively trades physical and financial products in oil, refined products, coal, gas, electricity and metals. Freepoint is headquartered in Stamford, CT, but has major trading desks in Houston and London and branch offices in Portland, Calgary, Zug, Singapore and Shanghai.

Freepoint's development partner, SunEast Development LLC is a solar development company based in Old Saybrook, CT. There are no affiliates of SunEast Development LLC that are currently transacting business in the energy sector.

### **5.15 Previous Bankruptcies**

None

### **5.16 Conflicts of Interest**

None known

### **5.17 Litigation and Disputes Against Any Distribution Company**

None

### **5.18 Litigation and Disputes – Previous Contracts**

None

### **5.19 Governmental Investigation**

None

### **5.20 Approvals for execution of agreement**

The Project will need to get approval from Freepoint Solar's management team for execution of the PPA. The executed PPA will be subject to regulatory approval following negotiations with the Distribution Company.

### **5.20 Conformation to FERC Regulatory Requirements**

The Project would be required to obtain FERC approval for the sale of energy from the facility at market-based rates under the PPA.

**5.21 Affiliate Relationships with any Distribution Company**

None

## Part 6: Siting, Interconnection, and Deliverability

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### 6.1 Site Plan

Please see the Project Site Plan attached as Exhibit 2

### 6.2 Site Control

[REDACTED]

### 6.3 Zoning

[REDACTED]

Pursuant to Vermont General Statutes S248, the Project will fall under the Vermont PSB Certificate of Public Good (CPG) process for approval of the site for solar generation. There is sufficient case history that properties similar to our Project site are deemed as suitable for, and have been approved under the CPG process.

### 6.4 Surrounding Area

The topography of the site and setback from existing development indicate there would be little or no visibility from any residential neighborhood, and no visibility from public roads. There are significant trees and wooded areas surrounding much of the Project site that provide a visual buffer between the Project site and any adjacent properties structures. There are no residences that would have a view of the panels or associated equipment.

Please refer to Exhibit 3: Environmental Fatal Flaw Analysis for flood plain information and land use/setting.

### 6.5 Proposed Interconnection

[REDACTED]

[REDACTED]

## 6.6 Interconnection Plan

## 6.7 System Performance and Reliability Impact

Due to the nature of solar generation, the Project would generate the entirety of its energy during the on-peak hours of each day (on a 7-day per week basis), which would coincide with peak loads in ISO-NE. As is shown in **Exhibit 6**, the production from this planned Solar PV facility has peak generation during summer on-peak hour periods when ISO-NE loads are at their peak, with much of the production coming during the “super-peak” hours of HE1400 – HE 1900.

a) Based on our projection from PVsyst, the estimated average output for each summer period (June-September) from 1:00–6:00 p.m. Monday-Friday is [REDACTED]

b) Based on our projection from PVsyst, the estimated average output for each winter period (October-May) from 5:00–7:00 p.m. would be [REDACTED]

The status of the project interconnection application, and a discussion of the Interconnection Feasibility Study performed by Quanta Technologies is discussed in Section 6.6. The Project expects to follow the ISO-NE standard protocol for interconnection, resulting in a completed Facilities Study and executed Interconnection Agreement no later than [REDACTED].

## 6.8 Technical Reports and System Impact Studies

A technical report performed by Quanta Technology evaluated the feasibility of interconnecting the project as shown in **Exhibit 7C** attached hereto. The study was based on the system representation in the 2017 FERC 715, 2016 Series, 2017 Summer Peak Load Case and 2017 Light Load Case power flow base cases from the ISO-NE secured web site. The Quanta Technology technical report concluded that the Project does not cause any significant adverse impact on the New England Transmission System and should be able to generate at full capacity without any curtailments for all system conditions. No system impact costs were assumed.

## 6.9 Alternative Interconnection Scenarios

N/A

## 6.10 Electrical Models of Energy Resources Supporting the Project

The project has completed PSSE (Steady State and Dynamic) and PSCAD modeling as part of its interconnection request process with ISO-NE and they are shown in **Exhibit 7D** attached hereto.

### 6.11 One Line Diagram

Electrical one-line diagrams showing the interconnection facilities and the relevant facilities of the transmission and/or distribution are shown in **Exhibit 7**.

## 6.12 Current or New Interconnection

The Interconnecting Transmission Owner's Interconnection Facilities will include revenue-grade metering transformers and a bi-directional revenue meter.

### 6.13 Incremental Date for Projects with Transmission Facilities

N/A

### 6.14 Support for no Material Constraint or Curtailment

The Quanta Technology technical report concluded that the Project does not cause any significant adverse impact on the New England Transmission System and should be able to generate at full capacity without any curtailments for all system conditions. No system impact costs were assumed.

For further information, see attached **Exhibit 7C**.

### 6.15 Support for Full Dispatch of Generation Profile

See attached **Exhibit 7C**.



## **Part 7: Environmental Assessment, Permit Acquisition Plan and Class I and III Certification**

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### **7.1 Permits, Licenses and Assessments**

Please see **Exhibit 3** for complete details on required permits and licenses, and the Project's environmental consultant's initial assessment of environmental and permitting critical issues.

### **7.2 Timeline for Permits**

The timeline for the preparation of environmental studies to support the Project's petition to the Vermont PSB is approximately [REDACTED], and the expected timing for the review and approval of such petition is expected to take an additional [REDACTED] on Vermont's PSB's recent review of solar projects.

### **7.3 Preliminary Environmental Assessment**

The Project's environmental consultant Tighe & Bond has performed an environmental critical issues analysis of the site. This review scans for impacts likely to be caused by wetlands, flood plains, threatened or endangered species, archaeological and historical resources, environmental easements or protected space, and visual impact considerations. Based on this assessment, it has been determined that the Project site is advantageous versus many other potential solar sites in the region. The results of this critical issues analysis are included in **Exhibit 3**.

As we continue to develop the site, we plan to do a considerable amount of additional environmental work, the majority of which we expect to complete prior to [REDACTED] to ensure the site is suitable for solar development. The requirements for studies to be included in the application to the Vermont PSB (see details in Section 7.1 above), require that a significant environmental study and review be completed for any solar site prior to issuance of a CPG.

### **7.4 Public Support**

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED].

We believe that there will be support for the project on this parcel in lieu of the development of residential or commercial lots due to the lower level of traffic associated with an operating solar facility versus other development (which, if developed similar to other neighborhoods within several miles of the site, could result in fairly dense housing construction). Given the location of this parcel, large total acreage of the parcel ([REDACTED]) and existing visual barriers between the Project and the few adjacent landowners, we believe this Project would be viewed very favorably by local officials and residents.

### **7.5 Qualification for Class I Renewable Portfolio Standard Eligible Resources**

The Project technology, Solar PV, qualifies as Class I RPS per Massachusetts statute.

## 7.6 Tracking Systems

The Project will ensure that a unit-specific accounting of the delivery of Clean Energy Generation will be available to enable the Department of Environmental Protection, in consultation with DOER, to accurately track production of clean energy from the Project, which will allow the DOER to 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 generated by the Project will be delivered into the Distribution Companies' NEPOOL GIS accounts as directed under the PPA.

## 7.7 Claims and Litigations

None

## **Part 8: Engineering and Technology; Commercial Access to Equipment**

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### **8.1 Preliminary Engineering Plan**

The Project will utilize Tier 1 solar PV panels for installation at the site. The liquidity of the solar PV market is such that thousands of similar panels and inverter systems have been installed and are operating reliably across the U.S. and the world. Our current plan is to use the equipment listed below. However, our specific choice of equipment may change prior to construction based on availability, technology advancements, etc.

- [REDACTED]
- [REDACTED]
- [REDACTED]

### **8.2 Equipment Suppliers under Consideration**

See Response to Section 8.1.

### **8.3 Proposed Equipment Operational History**

- [REDACTED]
- [REDACTED]

### **8.4 Ability to Transfer Technology**

Not applicable

### **8.5 Completed List of Equipment**

Bidder's list is complete.

### **8.6 Securing Equipment**

The Applicant has not yet secured its primary equipment (Solar PV panels) for the Project. Given the availability and liquidity of the PV panel market, we are confident that Tier 1 panels, either from Canadian Solar or other manufacturers, will be available as required for inclusion in the Project and construction on our proposed timetable.

## Part 9: Operation and Maintenance

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### 9.1 O&M Plan

The Project will be operated using an experienced, financially stable third-party O&M company. Operations will include facility performance monitoring to help proactively plan for scheduled and unscheduled maintenance and when unexpected events arise, to work towards a quick resolution. The daily, weekly and monthly reporting protocols will allow for consistent insight into site operations. In operations, we will focus on improving key metrics such as time and energy availability with a goal of increasing on-site production.

Given the limited level of day-to-day operation and maintenance support required at the Project, it is expected that there would be no regular, full-time, operational staff located at the facility. However, staff would be available to be on the Project site upon short notice in the event of any operational concern at the facility.

The Project will contract with an experienced third-party solar facility O&M services company to provide the services required during the life of the Project. This contracting will be on a medium- to long-term basis with the Project having shorter-term contract off-ramps in the event specific performance metrics are not met. We would expect to enter into such an agreement three to six months prior to commencement of operation of the facility. The scope of the O&M contract will cover a comprehensive range of services and will include the following responsibilities:

- Inspect the System's general site conditions, PV arrays, electrical equipment, mounting structure, data acquisition system, and balance of the System.
- Test the System and the data acquisition system ("DAS"), including string level open circuit voltage and DC operating amperage tests, at least once each calendar year.
- Recalibrate or replace the DAS sensors and meters in compliance with all manufacturers' instructions, at least once every calendar year, and conduct calibration testing of each Meter at least once every calendar year to ensure the accuracy of such Meters.
- Conduct inverter preventive maintenance in compliance with all manufacturers' operation guidelines, at least once each calendar year.
- Clean the inverter cabinet air vents, at least twice each calendar year.
- Clean and change the inverter air filters in compliance with all manufacturer's warranty requirements, at least once each calendar year.
- Check the torque marks and re-tighten the appropriate wiring connections to design specification torque force in compliance with all manufacturers' guidelines, at least once each calendar year.
- Remove any materials (e.g., trash, bird nests, etc.) that may be found under the PV array modules obstructing airflow, at least once each calendar year.
- Wash panels annually to remove visible dirt, etc. particularly upon evidence of reduced production/output from the System.
- Inspect the array mounting structure, conduit runs and other physical components for wear or damage, at least once each calendar year.
- Provide a written System Maintenance report no later than 10 business days following the performance of any maintenance services.

- Supply, or cause to be supplied, all goods and materials, including spare parts, required to operate and maintain the System in accordance with the provisions of this Agreement.
- Perform quarterly inspections, including meter inspection, and prepare a report thereof.
- Perform or cause to be performed necessary major repairs of the System.
- Make and coordinate claims for reimbursement and/or replacement under any available warranty from manufacturers, installers or other similar entities relating to any or all of the System.
- Using the Data Acquisition System, monitor, meter and record the Output. All such records from the meters shall be made available to System Owner.
- Prepare System event deviation reports, which shall include to the extent possible a description of the cause of such system events and steps taken to repair the System.
- Upon notice from System Owner or the DAS that the System is not performing in accordance with the specifications and performance obligations, perform an in-person inspection of the System within twenty-four (24) hours, or as soon as practicable, to identify and troubleshoot the performance nonconformity and remedy same.
- In the event of system production deficit (i.e., the weather corrected data indicates that production is not consistent with expected production) an email will be sent to our local representative to respond in a timely manner to resolve the problem.

## **9.2 O&M Funding Mechanism**

Sufficient cash generated by the operation of the facility would be held within the Project entity to assure that funds were available for any planned or unplanned maintenance at the facility.

For a fixed-tilt system in Vermont, it is recommended the Project carry an annual budget of approximately \$10,000 to \$15,000 per MW for O&M.

## **9.3 Warranties/Guarantees**

The following warranties would be expected to be obtained for the Project's equipment:

- Panels- 25 years with output warranties expected to be at the following levels: 95% for first 5 years; 90% for first 10 years; 85% for first 20 years and 80% for first 25 years.
- Inverters- 20 year warranty.
- Racking- 20 year warranty.

## **9.4 Sponsor's Status in Securing O&M**

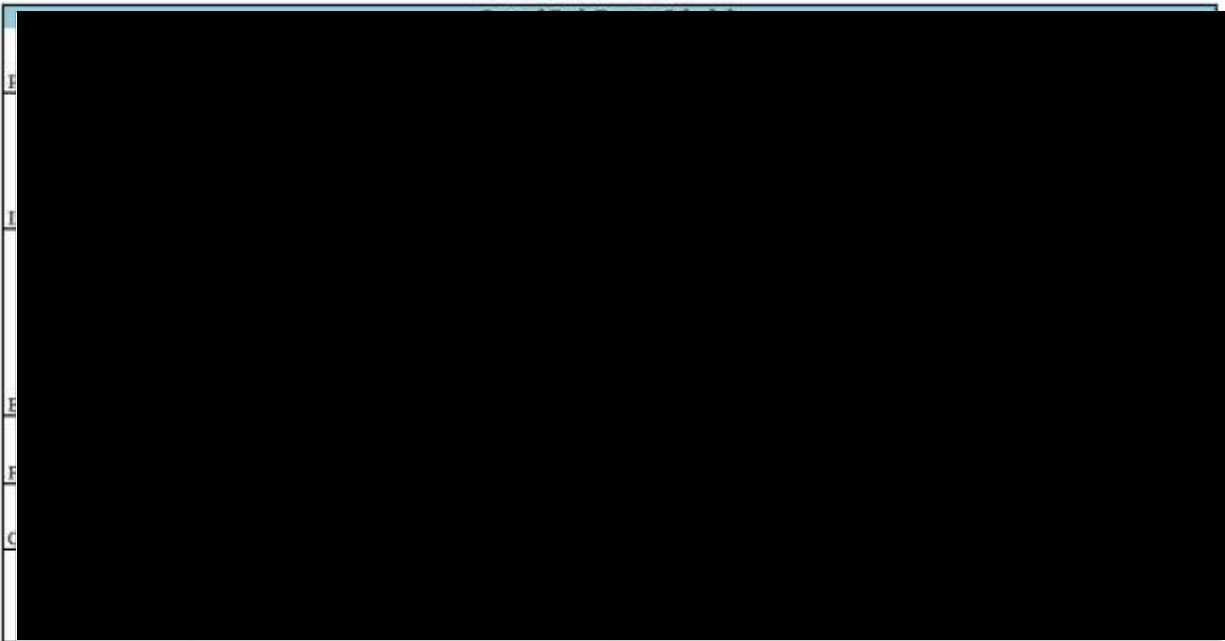
See response in Section 9.1.

## **9.5 O&M Experience**

The Project intends to utilize a third-party service provider for O&M services at the Project. Criteria for selection of the provider will include operating experience (both number of locations, length of history), average availability, and financial strength. The O&M Scope will be generally as provided in Section 9.1 above, and will include availability incentives.

Part 10: Project Schedule

10.1 Elements on Critical Path



10.2 Detail of Project Development Milestone Status

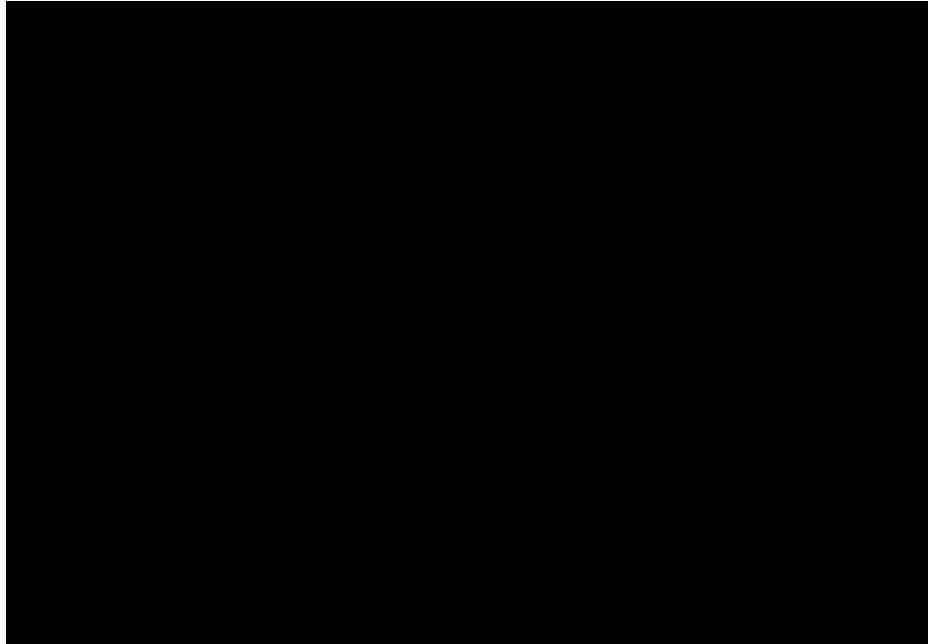
Critical Path Item	Status	Expected Completion Date
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

## Part 11: Project Management/Experience

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### 11.1 Organizational Chart

The following chart shows the relationships between the Project stakeholders:



### 11.2 Experience of Project Participants – New Facilities

#### Project Owner | Freepoint Solar LLC

Freepoint Solar LLC is a solar development company with over 300 MWs of projects in development across six states. Its parent company, Freepoint Commodities Holdings LLC, is both a merchant of physical commodities and a financier of upper-and mid-stream commodity-producing assets. Freepoint also provides physical supply services and related structured solutions for counterparties. Private equity funds managed by Stone Point, together with Freepoint management and senior employees, have provided Freepoint with approximately \$400 million dollars of equity capital

#### Project Development Partner | SunEast Development LLC

SunEast is a solar development company which specializes in the development of solar PV facilities in the Northeast United States. The principals of SunEast have been responsible for the development of over 700 MW of renewable energy projects in New York and New England over the past seven years, including multiple projects with executed, utility-scale power purchase agreements with operating subsidiaries of Northeast Utilities.

The company is based in Old Saybrook, Connecticut.

#### Project Engineer / Environmental Engineer | Tighe & Bond

Tighe & Bond began as a broad-based civil engineering firm specializing in water resources, bridges and roadways has continued to evolve in response to the changing needs of clients in a changing environment.

Tighe & Bond now also specializes in various aspects of environmental engineering — such as water, wastewater, solid waste and storm water management. The experience ranges from consulting on limited projects for small businesses to designing two of the largest wastewater residuals drying facilities in the world.

The portfolio of expertise also includes environmental consulting for brownfields, hazardous materials, wetland and ecological services, permitting, planning and more. In addition, Tighe & Bond provides an array of building, geographic information systems, and sustainability services for a wide range of clients.

Tighe & Bond has offices in Westfield, MA, and Middletown and Shelton, Connecticut.

### **Interconnection Engineer | Timmons Engineer**

Timmons Group of Richmond, Virginia has proudly built a reputation of excellence since 1953. Their deep experience as an industry leader is well known, and is evident from their placement in the *Engineering News Record* Top 500 Design Firms for nearly twenty years. Timmons Group provides a wide variety of engineering and design/build services, and has recently expanded their electrical engineering team with specific power engineering expertise. Charley Askey is the Group Leader for Energy and Renewables, providing a variety of services to the electric power industry with a focus on grid interconnection based on his thirty years of industry experience.

## **11.3 Experience of Project Participants – Existing Facilities**

N/A

## **11.4 Key Personnel**

### ***Peter Ford – Managing Director, Freepoint Solar***

Mr. Ford has over 20 years of experience in the development and origination of competitive energy projects and deal structures. Accomplishments include the development and financing of over 1,000 MWs of competitive energy projects in the PJM and NYISO markets. Other expertise includes leading large M&A transactions, securing long-term off-take arrangements and solving novel regulatory challenges related to selling Capacity and Firm Energy across RTO service territory. Prior to joining Freepoint, Mr. Ford has led development and origination organizations at firms including Nextera Energy, Sempra Energy Trading, and Morgan Stanley Capital Group.

### ***Tom Swank – President, SunEast Development***

Mr. Swank is President of SunEast Development LLC. He has more than 25 years' experience in the merchant power and renewable energy markets, and has held management positions in marketing and trading, project development, and asset management. Prior to founding SunEast in 2012, he was Senior Vice President of Quantum Utility Generation, LLC, a \$700MM private equity fund focused on investing capital in power generation facilities in North America. Previous industry experience includes his role as Chief Commercial Officer of Noble Environmental Power, and senior positions with Quantum Utility Generation, Sempra Energy Trading, El Paso Merchant Energy, and Dynegy Corp. Career highlights include the commercial management of a 2,500 MW generation portfolio, and the negotiation and execution of over 1,000 MWs, of hedges and PPAs for renewable energy projects. Mr. Swank holds a Bachelor of Science in Commerce from the University of Virginia.

### ***Reed Wills – Chief Operating Officer, SunEast Development***

Mr. Wills is Chief Operating Officer of SunEast Development LLC. He has been involved in the United States independent power market since 1988. Initially a project finance analyst, Reed quickly advanced to



lead development projects and team management, with over 2,000 MW of projects developed or acquired in his first ten years in the industry. Reed has worked primarily with two utility subsidiaries, NRG Energy and Duke Energy, where Reed recently retired after nine years of service. Since early 2011, Reed has worked exclusively in the U.S. solar market, evaluating acquisitions and managing development commercial rooftop, small ground mount and utility-scale solar facilities. Mr. Wills holds a B.A. in Geography and Urban Planning from Temple University, and an M.S. in Energy Management and Policy from the University of Pennsylvania.

**David Ross – Senior Project Manager, SunEast Development**

Mr. Ross leads project development and management for SunEast projects in the Eastern and Mid-Western United States. David has 25 years of economic, development and engineering consulting experience in the electric utility industry. He possesses an expert understanding of the deregulated markets, coupled with strong technical background in generation.

David's career includes experience inside large energy development companies and utilities, including senior positions with Exelon, Duke Energy and NRG Energy. David has extensive energy market expertise that has supported the acquisition of over 3,000MW's of energy generating assets and \$6 billion of energy project financings. David holds a Masters of Business Administration from Villanova University, a Bachelor of Science in Mechanical Engineering from Pennsylvania State University and is a registered Professional Engineer.

**Joe Kelly – Senior Project Manager, SunEast Development**

Mr. Kelly is responsible for the development of projects in the Northeast markets. Prior to joining SunEast, he held consultant positions with Ensyn Corporation, Sunoco Logistics and Transtech Industries focusing on solar, renewable fuel oil and steam to electricity.

Joe served as Business Development Manager for ADAGE LLC and Duke Energy Generation Services and held Business Manager and Engineering positions in his 35 year tenure with Sunoco/Chevron/Gulf Oil. He has over 40 years experience in project development, process engineering and business planning. Joe was the lead developer for a 9MW brownfield solar project named New Jersey Renewable Energy Project of the Year 2014. Mr. Kelly holds Masters Degrees in Environmental Engineering and Chemical/Systems Engineering, as well as a B.S. in Chemical Engineering.

## 11.5 Developer Project Experience

The following shows the renewable and clean energy projects developed or constructed by Freepoint, SunEast, and their team members:

Project Name / Type	Project Location	Project Nameplate (MW)	COD Year

Due to confidentiality restrictions with various project partners and stakeholders, we are unable to provide specific project information, including operational net capacity factor and availability information at this time.

### **11.6 Project Responsibilities**

- Construction Period Lender, if any: N/A
- Operating Period Lender and/or Tax Equity Provider, as applicable: N/A
- Financial Advisor: N/A
- Environmental Consultant: Tighe & Bond
- Facility Operator and Manager: TBD
- Owner's Engineer: Tighe & Bond
- EPC Contractor (if selected): N/A
- Transmission Consultant: Timmons Group
- Legal Counsel (Internal): Richard Squadron/Brandon Diket
- Legal Counsel (External): Foley & Lardner LLP

### **11.6 Experiences in ISO-NE**

The Freepoint Team has extensive experience in the management of generation assets in power markets, and has acted as Lead Market Participant for over 400 MW of generation in ISO-NE.

## **Part 12: Emissions**

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### **12.1 Emission Estimates**

Not applicable.

### **12.2 Past Investments to Improve Emission**

Not applicable.

### **12.3 Project Contribution to Offset Global Warming**

The Project will contribute to Massachusetts 2008 Global Warming Solutions Act and the 2010 Clean Energy and Climate Plan for 2020 by generating approximately 1,000,000 MWhs of clean, renewable, cost competitive energy into the ISO-NE grid over the life of the Project, thereby reducing the amount of energy required to be generated within ISO-NE from fossil-fired generating facilities.

## **Part 13: Contribution to Employment and Economic Development and other Direct and Indirect Benefits**

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### **13.1 Job Creation (Direct)**

The output of the JEDI model can be found in Exhibit 8.

### **13.2 Job Creation (Indirect)**

The output of the JEDI model can be found in Exhibit 8.

### **13.3 Other Economic Development Impacts in New England**

We estimate that in addition to the direct and indirect job creation detailed in Section 13.1 and 13.2 above, an additional economic impact of at least [REDACTED] be created for New England towns and business, as described further below:

The Project Developers have been working with New England-based engineers and environmental consultants to provide the environmental assessment and professional engineering work for the Project. We estimate that the potential dollar value of such contracts could be as much as [REDACTED]. In addition, we estimate that approximately [REDACTED] of services and equipment associated with the construction of the Project would be expended with New England-based business.

Both Freepoint and SunEast are Connecticut-based companies, with their respective headquarters in Stamford and Old Saybrook, CT. Development and construction of this project would result in the addition staffing resources, to be located in SunEast's Old Saybrook, CT office, added by SunEast. Total economic benefits received by SunEast and Freepoint as a result of the development and construction of the Project is expected to be over [REDACTED] over the development, construction, and operation period.

Further, there will be property taxes paid to that are estimated to total approximately [REDACTED] over the life of the Project. And finally, in addition to job creation and local payments and purchases.

### **13.4 Factors in Section 2.2.2.9**

In addition to the benefits described in Section 13.1, 13.2, and 13.3 above, the installation and sale of energy the Project will result in lower energy prices, and greater rate certainty, for New England utilities and ratepayers, all while replacing over [REDACTED] of energy which would have otherwise been generated by non-renewable, emissions-emitting generation. The Project can guarantee that at least 70% of the energy in our delivery profile will be delivered over the course of every Winter Peak period.

### **13.5 Reducing Winter Price Spikes and Guarantee of Delivery in Winter Months**

The Project production profile is such that its energy production during the on-peak hours will contribute to reducing winter electricity price spikes during the daylight hours (which represent the majority of the on-peak hours), without creating upward price pressure on generation fuel supplies such as natural gas, oil, or propane. The average generation from the Project during the Onpeak hours of the Winter Period is expected to be only [REDACTED] than the average energy production during the Onpeak hours over the entire year. This relatively consistent generation profile during the daylight hours will benefit price stability in the ISO-NE market.

### **13.5 Benefits to Low-Income Rate-Payers in Massachusetts**

This Project will provide long-term electricity at a stable competitive price. Long-term price certainty provides benefits to all Massachusetts ratepayers including low-income customers. Long-term purchases of renewable energy helps to mitigate price volatility for all Massachusetts ratepayers, however electricity price volatility driven by extreme weather and changes in global commodities markets has a disproportionate negative impact on low-income customers.

## **Part 14: Additional Information for Transmission Projects**

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N/A

## **Part 15: Exception to Form Agreements**

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Please see **Exhibit 9** for our comments to the form of PPA.

## **Exhibits**

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## Exhibit 1: Certification, Project & Pricing Data (“CPPD”)

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[REDACTED]

[REDACTED]

## **Exhibit 2: Site Plan**

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**See Site Plan on following pages**

### **Exhibit 3: Environmental Fatal Flaw Analysis**

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Attached on following pages

## **Exhibit 4: Proof of Site Control**

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The following pages include the executed Memorandum of Option Agreement for the Project parcel.

## **Exhibit 5: Freepoint Audited Financial Statements**

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The following pages include the previous year's audited financial statements for the Project's parent company Freepoint Commodities Holdings LLC.

## **Exhibit 6: Energy Production Model – PVSyst**

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The following pages include the assessment of available solar resource from our consultants run of PVSyst.

## **Exhibit 7: One-Line Diagram**

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The following pages include a One-line Diagram for the Project.

## **Exhibit 7A: Map of Route from Project Site to POI**

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Attached on following pages



## **Exhibit 7B: Interconnection Technical Reports and Impact Studies**

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Attached on following pages

## **Exhibit 7C: Curtailment Study**

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Attached on following pages

## **Exhibit 7D: Electrical Resource Energy Models**

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Included in bid package as separate model file

## **Exhibit 8: Jobs & Economic Development Indicator (JEDI)**

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The following pages provide the output of the JEDI economic benefit model for the Project.

## **Exhibit 9: Proposed Changes to Form PPA**

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The following pages provide the Project's proposed comments to the PPA Form.