

TOWN OF HARTFORD, VERMONT

REQUEST FOR PROPOSALS

PHOTOVOLTAIC ENERGY ARRAY INSTALLATION

SUBMISSION DATE: OCTOBER 9th, 2012

PART I - GENERAL

The Town of Hartford is seeking to have constructed a photovoltaic array for generation of up to 500 KW of electricity, designed, constructed, and to be owned and operated by a third party on Town land formerly operated as a municipal landfill – now closed and capped. It is the Town's desire that this system be installed and fully operational no later than October 1st, 2013.

Respondents to this Request for Proposal (RFP) shall furnish all engineering, supervision, professional services, analysis, engineering design, engineering drawings and specifications, construction management, supervision, labor, materials, equipment, supplies and other items of expense, project sustainment and operations required to perform the work specified in this RFP.

It is the intent of this RFP that as part of the implementation of the proposed system that there will be a sharing of generated revenues of the system with the Town of Hartford in exchange for the use and occupation of the project site for the duration of the operational life of the proposed system, e.g., 20 years.

For the ease of communication regarding this RFP document, the term "Developer" shall be used for all references to responding entities, including all suppliers, installers, and sub-contractors that may be required to fully design, complete construction of, and operate the proposed facility and its proposed financial structure. The phrases "owner", "Town" or "municipality" shall refer to the Town of Hartford.

The site of the proposed work is at the now capped/closed former municipal landfill property located at 2590 North Hartland Road in White River Junction, VT 05055. Refer to attached aerial photo plat map.

PART II - SCOPE OF WORK

Design and build a fully operational system including but not limited to:

PV Array: Design, build, operate and own in accordance with this statement of work, a photovoltaic (PV) array electrical power production plant capable of producing up to 500 KW. Provide all permitting, site work and preparation, foundations, framing, PV solar panels, electric distribution system and or upgrades to the existing site system, inverters and transformers and other required equipment, as necessary and connect into the local Utility system to provide a complete and useable system.

Developer is responsible for determining, designing and constructing the system per the interconnection requirements of Green Mountain Power (GMP), for preparing and obtaining any permits required by State or Federal agencies including the Vermont Public Service Board. Developer shall coordinate with GMP and the municipality to ensure that an interconnection agreement is established prior to completing construction of the proposed PV array. The municipality shall be responsible for reviewing and approving the interconnection agreement and will be the signing organization on the agreement.

Site Grading or Improvements: Design and build site grading if and as required to establish a level field for the array or individual components and associated maintenance operations. Fencing may be installed for additional system protection or security if Developer elects to do so.

Developers should take note that this is a capped landfill and as such will not allow for any penetration of the surface of the site by equipment and/or materials. Likewise, the use of heavy construction equipment on the project work site is prohibited.

Electrical: All work shall be in accordance with the most current edition of the National Electric Code. All installed conduit as required for interconnections, both power and control, shall be installed above ground and shall be in conduit.

Financial: Developer shall include financial revenue sharing proposition(s) as part of the overall project proposal which includes a shared stake in the anticipated revenue stream from the implementation of the proposed project. This proposition may include any number of revenue vehicles by example but not limited to: direct monetary payments, reduced or waived electrical usage fees for the Town's electrical usage from town facilities at this project site or elsewhere in town (e.g. net metering, power purchase agreement, etc.), a land lease, a partial or complete ownership stake in the project equipment either at initial system start-up or at a designated milestone once installed and operational, a combination of any of these stated revenue streams or others not stated but agreed upon with the municipality.

General: Field verify all dimensions, quantities and conditions. The on-site building facilities for recycling center, administration, and compacting units, shall remain accessible and in use during construction.

Clean up and debris removal shall be done on a daily basis or more often as needed to allow operations in the active on-site facilities to continue uninterrupted.

All work shall be warranted for a period of one (1) year or longer. All equipment shall be completely removed from site at the end of the proposed system life, e.g., 20 years, or shall be able to remain only by conditions agreed to at the time of Contract signing, or as modified and agreed upon during the operational life of the proposed system.

Part III – Selection & Design Build Process

The Town is requesting that all proposals be submitted no later than the close of business (5:00 pm, EST) on October 9th, 2012 and they should include at least the following considerations:

- A. Design and build a complete and operational system to include the following:
 - a. Furnish and install a mono-crystalline silicon photovoltaic energy system (as manufactured by Sunpower or approved equal) meeting goals of:
 - i. Using renewable energy sources to provide electric power for existing municipal facilities and/or tie-in to the utility grid system to reduce the quantity of electricity consumed or obtained from fossil fuel public utility sources and thereby reducing the municipalities cost of electricity
 - ii. Provide a model financial agreement that will provide the Town of Hartford with a share, or other equivalent, of the revenues (as otherwise referred to herein) generated by the installed PV system and its operations at the Hartford owned site.
- B. Provide 3 copies of each submittal to the Town of Hartford for approval as indicated below.
 - a. Design/build schedule with a schedule of values.
 - b. Provide and present a concept design (single lines) for approval to include:
 - i. Structural shop drawings.
 - ii. Manufacturer's material submissions
 - iii. Site Plan with proposed utilities tie-ins
 - iv. Electrical plan
 - v. Design/build schedule
 - vi. Miscellaneous closeout documents, when completed.
- B. Drawings – At the pre-final and final design evaluations the drawings for this project shall include, but not be limited to:
 - a. Layout of work including
 - i. Existing utilities
 - 1. Proposed locations of infrastructure/solar panels and other devices/equipment
 - 2. Proposed grading and storm-water management plan, if required.

- ii. Electrical plan
- iii. Civil or structural plans, if needed
- iv. Provide construction drawings and specifications for record and an updated schedule at least 10 days in advance of construction. As-built drawings upon completion. Operations and maintenance manuals, if and when ownership responsibilities are transferred to Town of Hartford. Start up and balance reports.

The Town will review all proposal received under this RFP within 10 days of the established deadline for submission - 5:00 pm on October 9th, 2012. Within 2 weeks (14 calendar days) the Town will meet with firms submitting proposals to review their submissions.

The Town reserves the right to award a contract to design, build, operate and own the desired facility on Town land as may be deemed in its sole discretion to be in the best interest of the Town but will otherwise be awarded generally based upon criteria including but not necessarily limited to: Developer qualifications, experience with similar projects, revenue sharing proposals, schedule – the ability to complete the proposed project by October 1st, 2013, etc. The Town reserves the right to waive any irregularity relating to RFP's, submissions, timelines, etc.

Following award of the development contract the project will proceed generally along the following steps;

The Town will meet with Developers within 14 calendar days of the deadline for RFP submissions (10/9/12) to review their proposal which will be evaluated by the Town and/or its designees.

Within 10 days thereafter, the Town intends to award a contract and a Notice to Proceed for this project no later – no later than October 19th, 2012.

Thereafter, the selected Developer will be expected to respond as follows:

The selected Developer will provide:

- A. **Concept Submittal (35%)** - Within 30 calendar days of the Notice to Proceed, the Developer will provide a minimum of the following:
 - a. An updated project design and schedule showing dates for interim design review and
 - b. Projected final design submission dates (min. 65% and pre-final 95% plans), and
 - c. Updated financial model(s), etc.
- B. **Design Services (65% Submission)** – Within 60 days of the Notice to Proceed, the Developer shall perform at a minimum the services listed below:
 - a. Provide complete draft specifications in a standard commercial format bound in a separate booklet. This may be a marked up set of guide specifications with identifications to information directly related to proposed installation. Submission of a compiled set of unedited guide specifications is not acceptable.
 - b. Furnish all drawings in 65 percent detail for all disciplines of work. The Developer is required to provide drawings which are created using AutoCAD Version 2010, or later version, or other acceptable format agreeable to Town of Hartford.
 - c. Provide an update to financial model, if and as required, based on adjustments made during this phase of design.
- C. **Prefinal (95% Design) Submittal** - Within 90 days of the Notice to Proceed, the Developer shall perform a minimum of the services listed below:
 - a. Finalize the specific design chosen. Prepare a report describing the details of the final design. This report shall include all calculations and all engineering drawings required to completely describe the final design & its integration.
 - b. Provide bound set of engineering design calculations and analyses identifying the sources for each design approach used.
 - c. Provide final detailed working drawings 100% complete in all disciplines of work for a prefinal review.
 - d. Provide separately bound complete final specifications in a standard commercial format for prefinal review.
 - e. Include a requirement for the construction Developer to maintain an up-to-date set of red-marked, annotated as-built drawings to be furnished to the town upon completion of the construction.
 - f. Complete and submit interconnection permit application with GMP.
 - g. Provide an update to financial model, if and as required, based on adjustments made during this phase of design.

- D. **Final (100% Design) Submittal** – Within 120 days of the Notice to Proceed, the Developer, following approved Pre-final Submittal, the Developer shall perform the services listed below.
- Develop the final design in accordance with the engineering drawings. Provide digital engineering drawings of the final design.
 - Provide final working drawings 100% complete and bound specifications
 - Environmental plans and permits for the following:
 - Storm water Runoff Management
 - Permit to Install with GMP
 - All final drawings and specifications shall be certified, signed and sealed by a Registered Professional Engineer licensed to work in the state of Vermont by the Vermont State Board of Registration for Professional Surveyors and Engineers.
- E. **Submittals** – All submittals shall be in the form of data sheets, drawings, and/or samples as appropriate for the item. Two copies of each submittal shall be supplied to the Hartford Town Manager or his representative for approval. One Copy will be returned to the Developer once reviewed by the Town, and approved or disapproved.

All materials, plans, designs, etc., should comply with the latest versions of the following; a) the Vermont Electrical Code, b) the National Electrical Code, c) National Fire Protection Association Standards and d) the Vermont Building Code.

Part IV - Construction

The Developer shall provide all materials, equipment, supplies, permitting, construction management, and labor required to complete the project per the above listed scope of work and in compliance with the approved final submission.

1.01 CONSTRUCTION

Design and build an in dependent photovoltaic solar collection system designed to produce electricity per proposed and accepted design. Perform all work required to start up and make proposed system operational. System shall be made operational not later than the specified date of October 1, 2013.

1.02 TESTING

The Selected Developer will:

- Develop an integration test plan containing simple tests to be conducted immediately after integration to identify simple errors while still at the manufacturing facility (or facilities).
- Develop a standard test plan to be conducted on the completed system to determine quality and performance characteristics. Include traditional Photovoltaic tests.
- Conduct standard testing in accordance with standard test plan. Record all data observed during testing in the standard test plan. Prepare a report describing the details of the standard testing. Provide relevant digital photos for each test.
- Provide schedule of testing and procedures during life time of the system.

1.03 PERFORMANCE

Submission of a bid by a Developer shall be accepted as prima facie evidence that he/she has examined the specifications and drawings and has satisfied him/herself as to the nature and location of the work and all matters which can in any way affect the work or cost thereof under this proposal.

1.04 APPLICABLE PUBLICATIONS

- Various references are listed throughout these specifications. Such publications are incorporated into these specifications by reference. Materials and installations are to conform to the requirements of the specified applicable publications. The edition of each publication to apply is to be the most recent edition published prior to the date of the bid opening, unless stated otherwise where the actual reference is made. In case of conflict between the referenced document and the project specifications, the specifications shall govern.

- b. Developer shall insure that work performed is in full compliance with all federal, state and local laws and ordinances applicable to the construction of or the finished product of this contract.

1.05 MANUFACTURER'S INSTRUCTIONS

Where required in the specifications, the materials, products, processes, equipment or the like to be installed or applied, in accordance with manufacturer's instructions, directions, or specifications, or words to this effect, it shall be construed to mean that said installation or application shall be in strict accordance with printed instructions furnished by the manufacturer for use under conditions similar to those at the project site.

1.06 MATERIALS AND PRODUCTS

Locations where products are listed by brand names or equal (equivalent), are for informational purposes only, establishing a general standard of quality, and the town in no way is making a warranty of availability or fitness of the product for use.

1.07 DIVISION OF WORK

- a. The Developer is responsible for all work. Should the Developer award certain portions of the work to subcontractors, the division of work, the supervision of work, coordination of the work, and resolution of subcontractor disputes is entirely the Developer's responsibility.
- b. The Developer shall locate the principal lines and grades for all construction and establish bench marks based on the elevations shown on the drawings.
- c. The Developer shall be responsible for the proper laying out of all work and for any damage which may accrue as a result of his/her inaccuracies.

1.08 CLEANING REQUIREMENTS

- a. Maintain the project site in an orderly condition that allows maximum access, does not impede traffic, insures safety, and protects materials and equipment.
- b. On a daily basis the Developer shall remove all scrap, debris, and wastes from the project site or place it in the Developer's approved containers daily and removed from the job site at least once each week. Properly dispose of all waste to an off-site location. In no case shall construction waste be placed in town leased waste containers.
- c. Mud, clay, stone, or other materials dropped by vehicles on paved surfaces shall be removed promptly and shall not be allowed to accumulate. Pavement areas that have been dirtied shall be swept broom-clean.

1.09 QUALITY ASSURANCE

- a. Workmanship shall be in accordance with the best practices of the trade. All work shall be installed under direct supervision of a competent foreman.
- b. Material and equipment shall be the standard products of a manufacturer regularly engaged in the manufacture of the products. Items of equipment shall essentially duplicate equipment that has been in satisfactory use at least 2 years prior to bid opening.

1.10 ITEMS AND UTILITIES FURNISHED BY THE TOWN

Reasonable amounts of electrical power, water and sanitary sewer service shall be provided by the Town at no charge to the Developer. The Developer shall be responsible for the installation and removal of any connections required to accomplish this work. These services shall be for the sole purpose of accommodating the installation of proposed system and shall be made available from the existing town facilities in operation at the project site.

1.11 WARRANTY

Materials, which do not have a guarantee stated elsewhere in these specifications, shall be guaranteed for a period of one year or as manufacturer's warranty states, whichever is longer.

1.12 MATERIALS DELIVERY, STORAGE, AND HANDLING

- a. Materials shall be received, checked, and handled by the Developer. The Town of Hartford will not receive shipments of materials for the Developer.
- b. The Town of Hartford is not responsible for security or loss of tools, equipment, or materials stored at the project site. The Developer shall be responsible for the security and protection from damage of tools, equipment, and materials, which are used in the project.
- c. Storage of materials will be in an approved area adjacent to the job site.

1.13 ACCESS & UTILITIES

- a. Work at the site shall be accomplished during normal day working hours of 7:00 AM to 5:00 PM, Monday through Friday. Hours other than normal shall be requested in writing and approved by the Town Manager or his representative.
- b. When it is required to interrupt any service in order to make connections thereto, or for any other reasons, a written request to interrupt service shall be submitted to the Town Manager's Office at least 2 working days prior to the anticipated interruption. The request shall state the date, time of day, and duration of the time of interruption.

1.14 PROTECTION OF PROPERTY

- a. The Developer shall not damage any area other than those so designated for this project. The Developer shall protect the buildings and adjacent equipment from any physical damage, which may be caused by the performance of work under this contract and shall repair all damages so caused at no cost to the Town of Hartford.

1.15 FIRE PROTECTION

- a. Any use of open flames shall be requested through the Town Manager for approval and to get an open flame permit issued.
- b. Developer personnel will adhere to posted "No Smoking or Open Flame" areas.
- c. The Developer shall provide appropriate type and size fire extinguisher at the job site during all working times.

1.16 SAFETY AND ENVIRONMENTAL PROTECTION

- a. The Developer will perform in a safe and health conscious environment which, within the limits of controllable hazards will: Protect the life, health, and physical well being of Town and Developer personnel during their work on this project. Prevent contamination of property, supplies, and equipment.
- b. The Developer shall immediately notify and promptly report to the Town Manager or his representative any accident, incident or exposure resulting in fatality, disabling occupational injury or disease, contamination of property, or property loss arising out of work performed under this contract.
- c. The Developer shall take all necessary precautions for the prevention of environmental pollution as a result of construction operations under this contract. For the purpose of these specifications, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health and welfare.
- d. The Developer is subject to all applicable Federal, State and Local Laws, regulations, ordinances, codes, and orders relating to safety and health, and the environment. All references shall be the latest edition, amendment, and/or revision of such reference standards in effect as of the date of these specifications.

Part V – Post Construction

Following completion of construction, the Developer will;

- a. **Demonstration:** Construct, install and make operational the complete and useable system. Provide a systems presentation and demonstration that includes operations and maintenance information. The demonstration shall be made for the town's benefit and knowledge and may include media invitees, if and as requested by the Town of Hartford, and at a time set by Town of Hartford as coordinated with Developer.
- b. **Distribution of Technical Manuals and Publications:** After successfully completing testing in accordance with paragraph a., provide to the Town and maintain two sets of commercial manuals consisting of operation, maintenance, and parts manuals along with manuals covering any modifications.

- c. **Provide Sustainment Support:** of the system for its agreed life (e.g. 20 years) or as outlined and agreed upon to include at a minimum in the financial model addressing;
 - i. Continued ownership by the Developer,
 - ii. Ongoing operations by the Developer or their agents,
 - iii. Possible transfer of ownership to the municipality and
 - iv. Provide engineering and parts support. Field service shall be considered applied engineering and shall be accomplished by an engineering technician or better.
 - v. Include all suppliers, phone numbers, ordering data, and any other special information. Include vegetation control below the PV array.
 - vi. Provide for removal of the system from and restoration of the Town's property.

For additional information or to make comments, please feel free to contact Michael Kirick at Kirick Engineering at 5399 Williston Road, Williston, VT 05495, (802) 655-5731 and/or the Town of Hartford by contacting Eliza LeBrun at 171 Bridge Street, White River Junction, VT 05001 (802) 295.9353, Ext. 224.

We thank you for your interest in this project and look forward to hearing from you.