Request for Proposal

*Grid-Tied*

*Solar Photovoltaic System*

Issued: February 2016
1.0 SCOPE OF WORK

This Request for Proposal (RFP) outlines the requirements of the Municipality of the County of Antigonish (Municipality) with regard to a Grid-Tied Fixed Orientation Solar Photovoltaic (PV) system. This system will be nominally 20 to 25 kilowatts peak and generally mounted on the south-east roof of the municipal building at 285 Beech Hill Road. Depending on the size and type of panel, it is expected the system will consist of about 100 panels. Ten (10) panels of these panels will be mounted on the west facing roof for better public visibility. This system shall be “turnkey” in that the successful bidder will provide all labour and materials for a fully functional solar PV system.

A site preview will be held on Tuesday, February 16, 2016 at 10:00 am at the building. While the site preview is not mandatory, bidders are strongly encouraged to attend. Send an email by February 12th to confirm your attendance.

There is no plan for any battery components at this time.

2.0 BACKGROUND

2.1 Building and Site

The building is located at 285 Beech Hill Road and was constructed in 2002. It is a single storey wood-framed construction with approximately 10,500 square feet of floor area. Wood trusses support the roof wood sheathing and the top layer is asphalt shingles. The roof orientation is not ideal but there is a large south-east facing roof where the majority of panels can be located.

2.2 Electrical

The building electrical service is 208/120 3 phase, 4 wire, 600 ampere. There is an electrical room almost directly below the proposed location for the solar panels. Electrical energy consumption averages about 5500 kWh per month for a total annual consumption of 65 MWh.
3.0 SYSTEM REQUIREMENTS

The system requirements are generally summarized in the following subsections.

3.1 Solar PV Panels

- Polycrystalline
- Tempered glass
- Aluminum frame

3.2 Rack

- Rails – aluminum
- Fasteners – stainless steel
- Anchors with flashing – aluminum or stainless steel
- Layout – see attached sketch of a possible layout

3.3 Inverters & Electrical

- Inverters – micro type mounted under or near each panel
- Rigid conduit
- Wire & connectors
- Junction boxes
- Switches/disconnects/breakers
- Fast shut down disconnect per CEC requirement
- Electrical permit

3.4 General

- All electrical work shall meet the Canadian Electrical Code requirements.
- The successful bidder is expected to carry all costs and coordinate all inspections associated with electrical permitting.
- All other work shall be carried out to good industry practice.
- Outdoor components (conduit, junction boxes, wire, etc.) shall have ultraviolet protection greater than the expected life of the solar PV panels (30 years +/-).
- All roof and anchor work shall not reduce the expected life of existing components and shall not reduce the carrying capacity of the existing trusses.
- Hot days limitation – work is not permitted on the roof during sunny or partially days with ambient air temperature of 25 deg C or higher. The successful bidder may choose to work part days at no extra cost to the owner.
- All panels to be of the same make and model – no mixing of modules.
- All roof penetrations to be weather and water tight.
4.0 PROPOSAL REQUIREMENTS

In order to evaluate a bidder’s proposal, the following documents are required.

- PV panel data sheets
  - Dimensions
  - Insolation curves
  - I-V and power curves
  - NOCT and STC ratings
  - Degradation data and
  - Temperature coefficients (Pmax, Voc, Isc)
- Rack anchor details – base, standoff, fastening method, clear and complete description of the anchoring method with illustrations
- NSCSA letter of good standing
- Workers compensation letter of good standing
- Proof of business insurance (certificate of liability, property, automobile, etc. As applicable)
- Proposed schedule based on a April 12, 2016 purchase order issue date
- General safety plan – fall protection, staging, scaffolding, fire prevention
- Name and qualifications of on-site supervisor - include CV
- Name and qualifications of the journeyman electrician (red seal is considered an asset) – include CV
- List of recent projects complete with owner contact information (see form in Appendix B)
- List of other memberships – BBB, CANSIA, etc.
- PV panel warranty details
- Micro Inverter warranty details
- Other major electrical component warranty details
- Detailed description of the labour and minor components warranty
- A general description of the system and documentation to demonstrate the monitoring features.
- A description of the system robustness – see Section 7

5.0 Other Items

5.1 Monitoring

The system shall have the capability for monitoring from a local computer in the Municipal building. While monitoring is no part of the scope of this RFP, the bidder shall demonstrate their equipment can be monitored by a second or third party system (e.g. Enphase Micro Inverters with Enphase monitoring software).

5.2 RETScreen Analysis

The bidder may submit, as part of their proposal, a RETScreen analysis complete with all inputs and assumptions. This is not a requirement but will help in the evaluation.
5.3 Bi-Directional Metering & Application

The intent of a grid tied system is to have a net metering agreement with NSPI and thereby reduce the electrical energy costs for the building. Approval of the net metering application must be in place prior to proceeding with the project.

The Municipality will prepare the application based on the successful proponent’s equipment specifications. This application will be submitted by the Municipality, and once approved, the Municipality will coordinate the installation of the bi-directional meter with NSPI based on the project schedule.

5.4 Probable Schedule (2016)

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Tuesday Feb 16</td>
<td>Site Preview</td>
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<tr>
<td>Tuesday Feb 23</td>
<td>RFP Close/Submission</td>
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<tr>
<td>Feb 24 to Feb 29</td>
<td>Submission Review</td>
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<tr>
<td>Tuesday March 1</td>
<td>Recommendation</td>
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<td>Tuesday March 15</td>
<td>Council Approval</td>
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<td>Friday March 18</td>
<td>Letter of Intent issue</td>
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<td>(project to proceed subject to NSPI Approval of equipment and application)</td>
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<tr>
<td>March 18 to April 8</td>
<td>NSPI Application for net metering</td>
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<tr>
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<td>NSPI Approval</td>
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<tr>
<td></td>
<td>Shop drawing submittals</td>
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<tr>
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<td><strong>Note: all dates after NSPI approval are subject to change based on the actual date of approval and receipt of confirmation</strong></td>
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<tr>
<td>Tuesday April 12</td>
<td>Formal Award and Purchase Order</td>
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<tr>
<td>April 12-15</td>
<td>Place Material Orders</td>
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<tr>
<td>Friday April 15</td>
<td>Startup Meeting – safety, permit(s), schedule confirmation</td>
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<tr>
<td>Tuesday April 26</td>
<td>Site Preparation/Cordoning/Setup</td>
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<tr>
<td>Apr 26 to May 27</td>
<td>Installation – rack, panels, wiring, conduit,</td>
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<tr>
<td>Monday May 30</td>
<td>Testing, commissioning &amp; startup</td>
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<tr>
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<td>Provide written commissioning report complete with proof that each panel is operating at expected capacity.</td>
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<tr>
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<td>Provide package with maintenance manuals</td>
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<tr>
<td>Tuesday May 31</td>
<td>Submit Operation and Maintenance manuals</td>
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5.5 Project Documentation/Shop Drawings (required after award)

Provide the following shop drawings for review

- Location and layout of the solar panels on the roof
- Layout and location of the anchors and rack
- Location of the roof penetration and detail of the weatherproofing
- Electrical single line drawing of the electrical equipment to show how the new equipment is connected to the existing system.
6.0 SUBMISSION AND EVALUATION

6.1 Submission of Proposal

1. The RFP closing date and time is **Tuesday, February 23, 2016 at 2:00pm local time.**

2. The RFP closing location is the Municipal Administration Building, 285 Beech Hill Road, Antigonish, NS

3. All sealed and time stamped proposals will be secured in the Municipal vault.

   Proposals sent by post and courier should be clearly identified as to contents and directed to the attention of Ms. Tammy Feltmate, Director of Environment Safety and Community Affairs, 285 Beech Hill Road, RR 6, Antigonish, NS B2G 0B4. Mailed and couriered items must be received prior to Tuesday, February 23, 2016 at 2:00pm local time.

4. Proposals may be amended or withdrawn by post, courier or fax, if received prior to the closing. Amendment of individual price items is the only acceptable price amendment. Amendments **shall not** disclose either the original or revised total price. Amendments or withdrawals will be clearly identified as such.

5. Proposals will be publicly opened (only for the purposes of identifying respondents to the RFP) at the time and location as noted above.

6. A minimum of two (2) paper copies and one (1) digital copy of the proposal shall be submitted.

7. Late proposals shall be returned unopened.

8. All proposals shall be and remain irrevocable unless withdrawn prior to the designated closing time.

9. All communications and questions for clarification regarding the contents of this RFP shall be forwarded by letter, e-mail, or fax to the individual noted below:

   Tammy Feltmate  
   Director of Environment Safety and Community Affairs  
   Municipality of the County of Antigonish  
   285 Beech Hill Road  
   Antigonish, NS B2G 0B4  
   e-mail: tammy.feltmate@antigonishcounty.ns.ca  
   Telephone: 902 863-1117  
   Fax: 902 863-5751

10. All requests for clarification must be received in writing at least four (4) working days prior to the closing date to allow written clarification to be issued to all respondents. Verbal responses are only binding when confirmed by written addenda.
11. If the Municipality considers that correction, explanation or interpretation is necessary; a written addendum will be issued. **All addenda shall form part of the submission and the Contract Documents.**

6.2 Proposal Content

Proposals should be detailed enough to demonstrate how the Proponent’s expertise, staff, and resources best meets the needs of the Municipality as described in this RFP.

When detailing expertise, the Proponents shall reference their expertise as it pertains to the Scope of Work provided, tailoring it specifically to the needs of the Municipality.

The proposal shall include the following information:

- Corporate background
- Current total staffing and clients
- Summary of related experience (maximum 2 pages)
- Completed “Recent Experience Summary Form” (see Appendix B)

All CV’s shall, at a minimum, contain the following information:

- Name and credentials
- Training and Experience

6.3 Evaluation Process and Criteria

All submissions received prior to closing will be evaluated according to the procedure outlined in this section. A review panel consisting of Municipal Staff and an external engineering advisor will evaluate all proposals using the criteria below. The Review Panel shall score all firms as per the criteria, with highest scoring firm being recommended to Council for approval.

Proposals will be evaluated and ranked according to the following criteria:

- **Company – 25%**
  - References
  - Stability/years in business
  - Personnel qualifications
  - Accreditation
  - Recent experience

- **Quality of Proposal – 25%**
  - level of effort, presentation, thoroughness, etc.

- **Price – 20%**
  - Lump Sum

- **Safety & Safety Qualifications* – 10%**
  - Safety plan
  - NSCSA standing
o Fall protection training

- Warranty – 20%
  o Proximity to the Municipal Office

**NOTE:**
Omission of regulatory information (e.g. proof of insurance, NS safety certification, workers compensation letter of good standing) will disqualify the proposal.

### 7.0 Limitations

**7.1 NSPI Approval**

This project is subject to approval of the net metering application by Nova Scotia Power Inc.

**7.1 Robustness**

The system shall be capable of operation, except for intentional shutdown, when one or more panels are removed from the system for maintenance, replacement, warranty repair, etc. The remaining panels in the system shall remain fully functional in the event that one or more panels fail to operate.

### 8.0 TERMS AND CONDITIONS

**8.1 Agreement**

By submitting a proposal in response to this RFP, the Proponent agrees to abide by the terms and conditions outlined in this RFP. All proposals shall remain irrevocable unless withdrawn in writing prior to the designated closing time.

Notice in writing to a proponent of the acceptance of its proposal by the Municipality will constitute a contract for the goods and services.

**8.2 Costs**

The lump sum price submitted in accordance with this RFP will be used to assist in value judgments for a comparative analysis.

**8.3 Procurement of Services**

 deleted (not applicable)
8.4 Privilege

The Municipality reserves the right to:

1. Suspend or cancel the RFP at any time for any reason without penalty.
2. Reject any or all proposals, not necessarily accept the lowest proposal, or to accept any which it may consider being in the best interest of the Municipality. The Municipality also reserves the right to waive formality, informality or technicality in any proposal.
3. In the event that a number of submissions are substantially the same amount or score, the Municipality may, at its discretion, call upon those Bidders to submit further bids.

8.5 Confidentiality

This document may not be used for any purpose other than the submission of a proposal.

By submitting a Proposal, the Proponent agrees to public disclosure of its contents subject to the provisions of the Municipal Government Act relating to Freedom of Information and Protection of Privacy. Anything submitted in the Form of Proposal that the proponent considers being “personal information” or “confidential information” of a proprietary nature should be marked confidential and will be subject to appropriate consideration of the Municipal Government Act as noted above.

The work described in this RFP is being conducted with public funds, and the fees and expenses proposed in the Proponent’s submission will be made public.

8.6 Law

The law applicable to this RFP and any subsequent agreements shall be the law in force in the Province of Nova Scotia.

In responding to this RFP, Proponents warrant their compliance with all appropriate Municipal, Provincial and Federal regulations, laws and orders. Respondents must agree to indemnify the Municipality and its employees if they fail to comply, and the Municipality reserves the right to cancel any agreement arising from this RFP if the proponent fails to comply with the above.

The selected firm shall indemnify the Municipality, its officers and employees against any damage caused to the Municipality as a result of any negligence or unlawful acts of the successful proponent or its employees. Similarly, the successful proponents shall agree to indemnify the Municipality, its officers and employees against any claims or costs initiated by third parties as a result of any negligence or wrongful acts of the successful proponent or its employees.
8.7 Proposal Submission and Evaluation

8.7.1 Proposal Preparation

All expenses incurred in the preparation and presentations of the response to this RFP are entirely the responsibility of the Proponent. This includes but is not limited to labour, materials and the cost of site visits if applicable.

8.7.2 Method of Submission

Facsimile, e-mail, or telephone responses will not be considered.

8.7.3 Completeness

It is the Proponent’s responsibility to ensure that their proposal is complete and is delivered to the Municipality by the date and time indicated (Tuesday, February 23rd, 2:00pm local time). Proposals submitted after the above noted time will be returned unopened.

8.7.4 Conflict of Interest

The Municipality reserves the right to disqualify bidders if there is an existing or recent business or personal relationship which can be perceived as causing a conflict of interest.

Proposals shall contain a declaration of conflict of interest, and describe how the Proponent is to deal with that conflict of interest. An example of a potential conflict of interest is the review of Subdivision Developments that have been designed by the Proponent.

8.8 Data

All data materials, and information collected and work products created (i.e. drawings, calculations, reports) either directly for, or in support of the work outlined in the RFP is the property of the Municipality.

The successful Proponent is expected to submit both paper and digital copies (.pdf) of all work completed to the Municipal Engineer or their designate.

The consultant shall not be permitted to publish or in any way use said information without the expression or final approval of the Municipality of the County of Antigonish.
8.9 On-going Projects

deleted (not applicable)

8.10 Payment

The successful proponent is to propose a payment schedule.

8.11 Contract

The successful Proponent shall enter into a contract within 30 days of award.

8.12 Exclusion Clause

Except as expressly and specifically permitted in these instructions to proponents, no proponent shall have any claim for any compensation of any kind whatsoever, as a result of participating in this RFP and by submitting a proposal, each proponent shall be deemed to have agreed that it has no claim.
Appendix A – Reference Documents

A.1 Drawings – for reference only

A1 Site Plan
A4 Elevations
E4 Panel Schedule and Details
PV1 Rooftop Solar PV Layout

A.2 NSPI Interconnection Guideline – Class 1

All data materials, and information collected and work products created (i.e. drawings, calculations, reports) either directly for, or in support of the work outlined in the RFP is the property of the Municipality.

https://www.nspower.ca/site/media/Parent/COMFIT-InterconnectionGuideline-Class1-NetMeteringandCOMFIT.pdf
### Appendix B - Recent Experience Summary Form

<table>
<thead>
<tr>
<th>Project Name &amp; Location</th>
<th>Year Completed</th>
<th>Nominal Size (#panels/kW)</th>
<th>Construction Value</th>
<th>System Type (grid tie, off grid)</th>
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1. References may be requested for any of these projects listed.
2. Copy Additional sheets as required.
APPENDIX C – Departmental Contact Information

Director of Environment Safety and Community Affairs – Tammy Feltmate
tammy.feltmate@antigonishcounty.ns.ca
902-863-1117

Director of Public Works – Daryl Myers
dmyers@antigonishcounty.ns.ca
902-863-5004
APPENDIX D – Building Photo (looking East)
### Table 1/2-E-4 Panel A

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#### Details 1/E-4 Security System Riser Diagram (N.T.S.)

- EXTERIOR
- LORRY 02
- CONVEYOR 02
- LORRY 02
- CONVEYOR 02
- EXTERIOR
- LORRY 02
- CONVEYOR 02
- LORRY 02
- CONVEYOR 02

**Total Load:** 12.3 kW 36.00 A

**Feeder:** 4 AWG 1/0 Type

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### Table 3/2-E-4 Panel C

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#### Details 1/E-4 Service Entrance & Distribution Riser Diagram (N.T.S.)

- PROVIDE 2 RINGS OF HIGH RATING CABLE IN 3PC.
- PROVIDE 2 RINGS OF LOW RATING CABLE FOR UTILITIES.
- PROVIDE 2 RINGS OF HIGH RATING CABLE IN 3PC.
- PROVIDE 2 RINGS OF LOW RATING CABLE FOR UTILITIES.