Adams Solar Project – Electrical Construction RFP

Introduction

Energix EPC US, LLC ('Energix') is seeking proposals for the electrical construction work for the Adams Solar Project located near Gettysburg, PA. Please review the project information and scope herein, and direct any questions to Darren Green, prior to submitting your proposal. This request for proposals and all attachments hereto, and any other information provided by Energix or submitted by you in response to this request for proposals are and will be deemed for all purposes to be "Confidential Information" under that certain Confidentiality and Non-Disclosure Agreement. Access to the project information will be readily available contingent upon receipt of an executed NDA between you and Energix.

Please complete the information below and attach it to your proposal. Proposals must be submitted in electronic format to Darren Green no later than 5:00pm Eastern time on April 5, 2023. Energix reserves the right to accept or reject any proposals in its sole and absolute discretion and may negotiate with one or more bidders with respect to the terms and conditions of the proposal without notifying or engaging in similar negotiations with other bidders.

Project Overview

The Adams Solar Project is located just north of Gettysburg, PA. The unique layout of the site consists of 21 array fields and a substation, covering a total area of 675 acres. The site is designed to generate 80 MWac (105 MWdc) upon completion.

Expected Construction Schedule

MV Cable Install (separate electrical contract): Start Late April/Early May; Finish Late August

Mechanical Install - East: February to Late July
Mechanical Install - West: February to Late July

Electrical Install: April to Late September
Electrical Install - West: February to Late July

COD: 12/2023

The FTC Solar Voyager Tracking System will be employed with a 2P configuration. The modules will be FS6 Plus modules.

Scope of the electrical work includes installing complete DC, low voltage, and grounding systems among the 21 array fields. Scope also includes splicing fiber in the fiber patch panels at each PCS. Contractor (EC) will supply all equipment to build a complete solar system electrical construction IFC drawings except for owner provided equipment. EC will supply an enclosure for the splices at each PCS and in Substation Control Enclosure. Substation will be built by a separate contractor and is not part of this scope of work. All MV installation work will be installed by other and is not part of this scope. Contractor will install pre-wired SCADA equipment and terminate low voltage cables within the equipment. Mechanical installation will also be completed by others.

Civil work is currently being completed and initial electrical installation is expected to start in late April of 2023. The commercial operation date is December 8, 2023.

A post-civil construction survey and foundation pinning will be completed prior trenching for electrical installation.

Project Coordination and Meetings

During the construction phase the Contractor will be required to attend weekly meetings to discuss project coordination and schedule and meet daily with the Energix Construction Manager. Contractor is expected to attend a site walk with owner prior to NTP. Contractor will attend installation training with the substructure vendor if contractors has not previously worked with the vender.

Contractor will provide a work plan that illustrates areas of work and work to be completed on a daily basis to assist with the coordination and forecasting of work on site. Plan will be updated on a monthly basis or as needed.

The contractor shall keep a shared drive for the project containing all project submissions, QC documentation, and submission comments. The owner will have full access to the documents within this drive. This will be used to share large documents that cannot be transmitted over email.

Proposal Requirements

All proposals should include the following information

1. Company information
    a. Contact information and address
    b. Capabilities Statement
2. Outline of Costs
    a. Provide pricing breakdown for each of the 21 array parcels
3. Project Qualifications
4. Project Exclusions
5. Work Plan
6. Safety Plan
7. Project Schedule
8. Quality Plan*
    - Quality plan should specify measures to ensure the work adheres to permitting requirements, matches the specifications in the design drawings, adherence to Geotech and Structural engineers' testing requirements, limits disturbance of site civil stabilization, and provides for necessary maintenance during construction

Project Information

The following project information will be provided upon receipt of the NDA.

1. 90% Electrical Drawing Set
2. Geotech Reports
3. Site Plan (Civil drawings include layout, roads, laydown areas, table quantities and table details)
4. FTC Stamped Structural Drawings and Layouts

The following information will be provided up contract award

1. IFC Electrical Design
2. Full Mechanical and Structural Design
    a. Foundations (Locations and sizes)
    b. Material Information
3. Substation IFC drawings
4. Electrical Drawings
5. Coordination with other contractors on site

Owner Provided Equipment

1. TMEIC PCS Skids
    a. Including feeder fuses
2. DC feeders
3. DC string harnesses
    a. Including inline fuses
4. DC Homeruns
5. SCADA System
    a. MET station
6. First Solar Modules
7. Combiner boxes
    a. Fuses
    b. Combiner box mounting kit
8. Substructure
    a. Foundations
    b. Racking
    c. Module clips
    d. Tracker controllers (if required)
    e. Tracker supporting MET equipment (if required)
9. Fiber

Clarifications from 90% design to IFC:

1. EC is responsible for furnishing all labor and materials necessary for the complete installation of the DC power system, low voltage (<600V) power system, grounding system, and communications system shown in the drawings. Any equipment not stated in Energix provided equipment is the responsibility of the EC.
2. DC power system:
    a. EC is responsible for providing chute or conduit to enter bottom of TMEIC inverters. This will be detailed in next drawing set and recommendations are provided by manufacturer.
    b. EC is responsible for providing conduit for cable transitions from underground to equipment enclosures.
    c. All cable entries must be sealed for fire and insect intrusion.
    d. Cable transitions will be added for cable routed along substructure to combiner boxes and TMEIC PCS Skids.
    e. EC is responsible for setting TMEIC PCS Skids on H profile piles.
    f. EC must provide any DC jumper cables required.
    g. EC is responsible for providing all raceways and cable management required.
3. MV power system – to be installed and terminated by others:
4. Low voltage power system:

   a. EC shall provide 120V power to all SCADA, MET equipment, tracker controllers & pony panel, tracker snow & rain sensor, and other low voltage powered equipment. This equipment will be clarified in the next drawing package set.
      i. Tracker controllers and SCADA equipment at inverter skids will be installed on the auxiliary section of the TMEIC PCS Skid.
   b. EC is responsible for providing conduit for cable transitions from underground to equipment enclosures.
   c. All cable entries must be sealed for fire and insect intrusion.
5. Grounding system:
   a. EC shall provide counterpoise ground system around TMEIC PCS Skids with ground rods and test hole.
   b. EC shall provide common ground cable in DC trenches.
   c. EC shall provide ground cable from combiner boxes to common ground cable.
   d. EC shall provide ground cable connecting the end structure of each substructure table to DC ground system.
   e. EC shall provide any grounding and bonding needed for gates and fencing.
   f. EC shall bond and ground all metallic parts per drawing package.
6. Communications system:
   a. EC shall provide ethernet cable by pulling and terminate all fiber and ethernet cable.
      i. SCADA integrator will make fiber jumper terminations within SCADA equipment. EC is responsible for splicing fiber and pulling fiber jumpers to SCADA equipment.
   b. EC shall mount SCADA, tracker, MET stations and other communications equipment per manufacture requirements.
   c. EC shall provide all fiber jumpers.
7. Control Enclosure Power & Telecom:
   a. EC shall furnish and install raceways and cable within existing substation control enclosure for power and telecom for SCADA and Camera system.
8. Quality control:
   a. EC should submit quality control plan with proposal.
   b. EC will be responsible for meeting Energix's rigorous quality control plan.
   c. EC shall perform all required testing per drawings and quality control plan.
9. General:
   a. EC shall obtain and submit electrical contractor license to county.
   b. EC is responsible for meeting all AHJ and county inspection requirements.
   c. EC shall receive, unload, and inspect all electrical equipment that owner provided.
   d. EC shall provide its own job trailer. EC is responsible for providing temporary power to EC Energix job trailers.
   e. EC shall abide by Energix safety plan.

Economic Opportunity Plan

Energix is working with the city of Philadelphia to provide opportunities for minority owned enterprises (MBEs) and woman owned enterprises (WBEs) on the Adams Solar project. It is not a requirement to be an MBE and WBE to be awarded this work but it will be considered when awarding the contract. Overall, the project's goal is to employ MBEs for 20% of the proposed work and WBEs for 15% of the proposed work. These percentages do not specifically pertain to the mechanical installation work. In order to document and measure this effort, a certified payroll is required for all contractors.

Minimum Wage Requirement

Energix has a minimum wage requirement for all labor on the project. The minimum wage requirements will be shared with the rest of the project materials.

Please contact Darren Green at Darren.Green@EnergixRenewables.com with any questions or requests for additional information.