

Request for Proposals
Small Wind Turbines Project
Charter Township of Union, Isabella County, MI

- I. Scope of Work: Depending on budget considerations, the township anticipates the purchase and installation of 3 to 5 wind turbines from several manufacturers to determine differences in several types of engineering and perhaps several locations.
- II. Bids Due:
- III. Commencement:
- IV. Grant Requirements for Contractors and Conditions Affecting Contractors
 - a. II.2.9 Bids required unless waived by State
 - b. II.3.2 Safety. All laws and codes relating to safety shall be observed by contractors
 - c. II.3.5 No firm maybe owned in part by any legislator or employee of the State of Michigan.
 - d. II.3.6 Discrimination – Award of Bids shall not be discriminatory, nor shall contractors act in any discriminatory fashion per MCL 37.1101 et seq. and MCL 37.2101 et seq.
 - e. II.3.7 Unfair Labor Practices. No award shall be granted to a contractor with an unsettled Unfair Labor Practice
 - f. Davis-Bacon Act. Prevailing Wages must be paid and documented. See www.wdol.gov, and www.dol.gov/whd/recovery/dbsurvey/conformance.htm
 - g. Buy American Provision: Bids must disclose the Country of Origin for all construction materials, See http://www1.eere.energy.gov/recovery/buy_american_provision.html
 - h. Waste Management Plan: Outline plans for proper waste disposal generated during the installation. Contractor will include a written statement with all invoices which verifies that all waste has been properly disposed of.
 - i. All conditions as set forth in GRANT NO. BES-10-066 See Appendix
 - j. Proper licensing of tradesman and contractors per State of Michigan DELEG
 - k. Proof of liability insurance for not less than One Million Dollars, naming Union Township as additional insured. Include a copy of policy with bid.
 - l. Provide a brief description of qualifications. For Division A bids, a list of at least 3 other jobs installing WECS by your firm.
- V. WECS (Wind Energy Conversion Systems) Products:
 - a. SkyStream
 - i. Model Name: 3.7
 - ii. Tower Model 55-23
 - iii. Computer hardware and Software to collect real-time data
 - b. Wind Spire
 - i. Model Name: Standard (2.7Kw)
 - ii. Tower Model: 20 Foot Monopole
 - iii. Computer hardware and Software to collect real-time data
 - c. Installation per Manufactures Requirements and Specifications
 - d. Warrantee: Standard Manufactures' warrantee, to be completed by contractor.

- e. Provided by Contractor: All material and labor shall be included to provide a finished product.
- f. The Charter Township of Union is a Tax Exempt entity.

VI. Installation:

- a. Location: 2010 S Lincoln Rd, South of Township hall and setback a minimum of 65' from buildings, ball diamonds, installed playground equipment, parking lots, property lines and Road Rights of Way. WECS Contractor shall advise owner on best location. See site map in appendix.
- b. Coordination: Contractors for both WECS devices and the Electrical contractor shall coordinate to ensure proper installation of all wind generators to the utility grid and agree as to who and how the transmission wire is to be connected to the WECS devices. It shall be the electrician's responsibility to provide any and all equipment not provided by the wind generator contractors to tie systems to the grid. The site contractor shall coordinate with the electrician and wind generator contractors for installation of footings and timing of trenching. Utility Company shall be notified of installation by electrician who will ensure conformance to utility requirements for net metering and/or Islanding. Contractors for WECS products need to coordinate location to prevent turbulence. No trenching or foundations shall be covered until all contractors inform site contractor their work is complete, inspected, and ready for burry.
- c. Inspections shall be called for by contractor as required by state codes and as dictated by the local jurisdiction providing inspections.

VII. Divisions:

- a. DIVISION A - Wind Generation Equipment and installation
 - i. A total of 3 WECS devises will be installed from two designated products, Windspire and SkyStream.
 - ii. Bidders must supply a quote for installing one of their products and a second quote if a discount is offered for installing 2 units.
 - iii. Contractors may bid one or both products. If bidding both products, bids should price each unit separately and, if offered, indicate price reduction for installation of both products in a matrix describing all possible combinations of three units of two products.
 - iv. Owner reserves right to select best pricing combinations. Lump sum bids may not be separated after submission deadline.
 - v. Installation of equipment shall include:
 - 1. Placing and leveling of tower on Footing provided by the Site Division Contractor per manufactures specifications.
 - 2. Installation of Wind Generation units on tower per manufactures specifications.
 - 3. Connection of transmission wires to units
 - 4. Install wired or wireless computer interface from WECS to termination point near electrical equipment. Owner shall be responsible to provide a computer terminal or network connection from the termination point. Division A contractor shall install any

provided software on owners computer, setup programs and insure the interface is functioning properly

5. Order of installation shall be at the discretion of the contractor
- vi. Contractor is responsible to protect and maintain equipment until accepted by owner.
- vii. Provide all owner's manuals
- viii. Provide written manufacturer's warrantee

VIII. DIVISION B - Site Work:

- a. Excavation for tower footings (3)
- b. Compaction of footing base to 95%. Not more than 6" lifts for any required fill.
- c. Install concrete Footings and anchor bolts per Manufactures requirements and applicable codes.
- d. Assume soil bearing of 1,500 psi for design.
- e. As locations of devices are subject to contractor recommendations, provide a price per foot for trenching.
- f. Excavate area at building and install PVC sleeve in building foundation, sized to accommodate wiring for three WECS
- g. Trenching for transmission wire from WECS to Township Hall building, minimum cover per NEC for buried electrical service.
- h. Level and Restore all disturbed areas to turf grass condition over minimum 4" top soil.
- i. See appendix for footing and anchor bolt specifications.
- j. Note: Owner will select a combination of 3 wind generators from 2 products, contractor may bid a lump sum for 3 units or break down costs in a matrix of combinations

IX. DIVISION C – Electrical

- a. Hook up WECS transmission feeds per manufactures specifications to provide a parallel connection to the Utility Grid.
- b. Provide and install all required conduit, junction boxes, breakers, Islanding Equipment and other equipment and accessories as necessary to comply with all manufactures recommendations, applicable codes and utility requirements.
- c. Install 220 volt transmission wires, properly gauged for not more than 5% loss, using un-spliced wire designed for underground bury from the WECS to an electrical disconnect box supplied by the Electrical Division Contractor. Install in approved conduit designed to protect to the transmission wire.

- X. Changes: All change orders shall be in writing and signed by owner and contractor. Change orders shall include a complete description of the change, the reason for the change, impact on the functionality of the project and the change in cost, if any, for the change. Changes deemed to be a significant departure from the scope of work by the owner must also be approved by the State of Michigan's Grant Administrator.

Contractors are responsible to communicate to owner changes to any specification, standard, code or agreement made, as observed or otherwise known to the contractor.

- XI. Contacts: Main Number Union Township (989) 772-4600, Mailing Address 2010 S Lincoln Road, Mt Pleasant, MI 48858;
- a. Township's Grant Manager; Brian Smith, Union Township Manager, ext 231 bsmith@uniontownshipmi.com
 - b. Construction Coordination; Woody Woodruff, Union Township Zoning Administrator, ext 241, wwoodruff@uniontownshipmi.com
 - c. Billing and Contracts; Mike Kantner, Union Township Accountant, ext 230, mkantner@uniontownshipmi.com
 - d. Inspections;
 - i. Building- Randy Robinson, Union Township Building Official, ext 227, rrobinson@uniontownshipmi.com
 - ii. Electrical- Tim Wardwell, Isabella County Electrical Inspector, (989) 772-0911, ext 230, lhoisington@isabellacounty.org 200 N Main Street, Mt Pleasant, MI 48858