



**RFQ 2010-01  
REQUEST FOR QUALIFICATIONS  
FOR  
WIND GENERATED ELECTRIC TURBINE FACILITY**

**DUE**

**FEBRUARY 18, 2010  
NO LATER THAN 2:00 P.M., LOCAL TIME**

**THE GREATER NEW HAVEN  
WATER POLLUTION CONTROL AUTHORITY  
DIRECTOR OF FINANCE AND ADMINISTRATION  
NEW HAVEN, CONNECTICUT**

**260 EAST STREET  
NEW HAVEN, CT 06511  
(203) 466 5280**

# **REQUEST FOR QUALIFICATIONS WIND GENERATED ELECTRIC TURBINE FACILITY**

## **I. INTRODUCTION**

### **A. INTENT**

The Greater New Haven Water Pollution Control Authority (the Authority) is interested in receiving proposals from firms interested in financing, designing; building, owning; operating and maintaining a wind generated electric power systems and selling electric power to the Authority at a discounted rate. The Authority is also interested in examining other options such as design, build and maintain with the Authority owning and financing the project. The Authority wishes to locate this wind turbine generator(s) at the East Shore Water Pollution Abatement Facility (ESWPAF) located at 345 East Shore Parkway in New Haven, CT.

### **B. MINIMUM SYSTEM CAPACITY**

The Authority desires a system in the range of 0.5 to 1.5 MW @ 480v or 13.8 kV/3 ph/60 cycle AC to be installed, depending on the wind resource available at the site. The system shall be designed with controls that prevent any outflow of electricity to the grid, but maximize the generation of clean renewable power within the ESWPAF site.

### **C. QUESTIONS**

Written questions regarding this Request for Statement of Qualifications may be submitted to Azalea A. Mitch, P.E. Project Engineer, Greater New Haven Water Pollution Control Authority, 260 East Street, New Haven, Connecticut 06511, phone (203) 466-5280, Fax (203) 772-1564 or by e-mail at [amitch@gnhwpc.com](mailto:amitch@gnhwpc.com). Questions shall be in writing and received no later than 2:00 P.M. on January 27, 2010. Answers to substantive questions shall be provided in writing to all invited firms no later than February 5, 2010.

### **D. SUBMITTALS**

One (1) original and three (3) copies of the Qualifications Statement shall be submitted to the Director of Finance and Administration of the Greater New Haven Water Pollution Control Authority at the Authority's main office located at 260 East Street, New Haven, Connecticut 06511 no later than 2:00 P.M. on February 18, 2010. Please read Section III below for the submittal requirements.

## **II. SCOPE OF SERVICES**

The scope of services may encompass, but not be limited to: (1) planning, metrological studies, alternative evaluations, and developing recommendations; (2) preparation of plans, specifications, and design reports; and (3) other engineering activities, design and

construction services. The Authority expects that firms qualified will be able to provide the following services at a minimum:

- Survey the candidate facility, examine electrical usage including current on site power generation and determine the most suitable size generator such that the Authority will not export power;
- Conduct required meteorological studies;
- Develop the following proposal options:
  - **Option 1:** a financing / design / build / own / operate and maintain option with the agreement of selling power to the Authority at a discounted rate;
    - **Option 1a:** Renewable Energy Credits (RECs) to be owned by the firm;
    - **Option 1b:** RECs to be owned by the Authority.
  - **Option 2:** a design / build / maintain option with the Authority owning the system, the generated power and the RECs;
- Determine the engineering and economic feasibility of all options;
- Design of the system and all necessary ancillary devices, including structural support to accommodate such systems;
- Obtain all necessary permits from all authorities having jurisdiction including an interconnect permit from the local utility company;
  - The firm shall acquire the services of the Authority's on-call electrical consultant to obtain all the necessary electrical permits and the interconnect permit from The United Illuminating Company;
- Assist the Authority in obtaining financing or providing financing depending on the contractual option selected, including the use of Clean Renewable Energy Bonds (CREBs);
- Assist with obtaining maximum funding from Federal, State, and local government programs supporting wind generation power;
- Assist the Authority with Federal, State and community public relations which pertain to the systems, if necessary;
- Design and construct the system with the Authority's review and comment;
- Provide final design drawings approved by a Connecticut Professional Engineer of the selected option as well as as-builts of the system;
- Build the system and obtain all necessary Federal, State and local building permits required;
- Maintain the system for the contract period;
- Provide metered discounted electrical power to the facility on a real time basis, if that option is desired:
- Provide public access through the internet of system's performance and output, including contribution to green house gas reductions;
- Remove the system at the end of contract period; and
- Repair and restore any disturbed conditions.

### **III. PROPOSAL FORMAT, SELECTION PROCESS AND SCHEDULE**

#### **A. TIMETABLE**

The Authority expects to complete the selection process in accordance with the following schedule:

Issue the RFP: January 11, 2010

Closing Date for Written Questions: January 27, 2010, 2:00 P.M.

Site Visit: January 21, 2010 10:00 A.M. to be held at the East Shore Water Pollution Control Abatement Facility located at 345 East Shore Parkway New Haven, CT 06511.

Deadline for submission of proposals: February 18, 2010, 2:00 P.M.

#### **B. PROPOSAL FORMAT AND QUALIFICATION EVALUATION CRITERIA**

Qualification Statements must be submitted in a sealed envelope marked "STATEMENT OF QUALIFICATIONS Number 2010-01 FOR WIND GENERATED ELECTRIC TURBINE FACILITY" on the exterior.

One (1) original and three (3) copies of the Qualifications Statement shall be submitted. All qualification statements, upon receipt by the Authority, shall become property of the Authority. All qualification statements shall be signed by the firm's duly authorized principal to be considered. Qualification Statements submitted to the Authority after the stated deadline will be deemed non-responsive and ineligible. Qualification Statements will not be accepted after the due date. The Authority assumes no liability for qualification statements not received at the Authority's office or by the time set forth above or for qualification statements, which are incorrectly labeled on the envelopes.

The qualifications statement transmittal letter shall be on company letterhead signed by a person authorized to submit and sign a proposal, the firm name, address, telephone number, the name and title of the person authorized to submit/sign the proposal, telephone number and e-mail address.

The Authority reserves the right to accept or reject any or all qualification statements and to waive informalities or irregularities in the selection process.

The Authority will not be liable for any costs incurred by the Respondents in replying to this request for statement of qualifications. To the extent permitted under Connecticut law, all qualification statements will be kept confidential. In the event any Respondent believes that any information submitted with its proposal is confidential, classified, or

proprietary business information, such information should be explicitly identified and marked. The reason for such designation should also be stated.

Qualification Statements will only be accepted from firms authorized to do business in the State of Connecticut.

The Authority may choose to interview a number of Respondents. The Respondents to be interviewed will be contacted to schedule an interview. The contract will be awarded to the Respondent whose qualification statements best complies with the requirements of this RFQ. A letter will be issued to all Respondents informing them of the Authority's decision.

### **C. QUALIFICATIONS AND SUBMISSION REQUIREMENTS**

As stated earlier, one (1) original and three (3) copies of the Qualifications Statement shall be submitted. The submittal shall include the following information:

#### **FIRM DATA**

- Name of the firm;
- Address, telephone number, fax number, e-mail address, contact person;
- History of the firm;
- Financial capabilities of the firm or parent firm;
- Past projects of a similar nature completed in the last five (5) years, location size including any distinct features;
- References, names and telephone number for past projects completed in the last five (5) years;

#### **TECHNICAL DATA REQUIRED WITH PROPOSAL**

- Technical approach;
- Contemplated project team and resumes;
- Conceptual technical details and description of proposed system;
- Conceptual layout;
- Conceptual structural supports;
- Computer generated 3 D pictorial of proposed structure;
- Proposed maintenance approach;
- Proposed electrical output from system;
- Proposed measurement and verification method;
- Any information concerning supporting financing available from Federal, State or local government bodies and past experience with same;
- A summary of the contractual options evaluated;
- Proposed system cost for each option based on the conceptual design and a cost benefit analysis of each option that includes all defined assumptions;

- Conceptual schedule for entire project from contract execution to start-up;
- Warranties, guarantees and long term maintenance options;
- Terms and conditions of expected contract associated with each of the options considered. The contractual agreement will be reviewed and negotiated between the Authority's Counsel and the selected firm;
- Any other information that would be useful in helping the Authority in understanding the firm and its qualifications.

### **III. ABOUT THE AUTHORITY AND THE ESWPAF**

#### **A. ORGANIZATION**

The Greater New Haven Water Pollution Control Authority was created as an independent regional authority in August, 2005 in accordance with Connecticut General Statute's 22a-500-519. The Authority serves the City of New Haven and the Towns of Hamden, East Haven and Woodbridge and also provides services to North Haven and North Branford through inter local agreements. These Statutes provide the Authority with extensive powers, including the power to purchase, own and operate a public sewer system, to levy assessments and sewer use fees, to place liens on real estate, and to issue revenue bonds. The Authority is also eligible for grants and loans under the State's Clean Water Fund (CWF) program. The Authority provides several key benefits including establishing for each of the municipalities a real stake in the regional wastewater system's finances, furthering the environmental protection laws of the State of Connecticut, enhancing service delivery and gaining efficiencies and economies of scale with respect to planning, design, construction, management, operation and maintenance.

The Authority is governed by a nine member Board of Directors appointed by the chief elected official and approved by the legislative body of each municipality. The Board consists of four representatives from New Haven, two each from East Haven and Hamden, and one from Woodbridge. The current membership of the Board of Directors is as follows:

Mr. Stephen Mongillo, Hamden, Chairman  
 Alderman Alphonse E. Paolillo, Jr., New Haven, Vice Chairman  
 Mr. Jeffery Ginsberg, Woodbridge, Director  
 Mr. Arthur L. DeSorbo, East Haven, Director  
 Mr. Gennaro Ruocco, East Haven, Director  
 Mr. Russell Cyr, Hamden, Director  
 Ms. Vikki Copper, New Haven, Director  
 Mr. Stephen Perrone, New Haven, Director  
 Ms. Joyce Harned, New Haven, Director

The Authority serves approximately 200,000, including residential, commercial, government and non-profit customers, and oversees the operation and maintenance of an extensive 4-town regional wastewater system that includes 560 miles of pipeline, 30 pumping stations and a 40-million-gallon-per-day (MGD), advanced secondary water pollution abatement facility. Wastewater treated by the Authority at its ESWPAF is discharged into Long Island Sound and is designed to meet both federal and state effluent quality standards.

## **B. ELECTRICAL SYSTEM AT THE EAST SHORE WATER POLLUTION ABATEMENT FACILITY**

United Illuminating delivers power to the ESWPAF at manhole MH-E4. The electrical service contains two high-voltage 13.8-kilovolts (kV) feeders with two incoming main draw-out breakers and a draw-out tie breaker. The tie breaker is normally opened to separate power from each 13.8-kV feeder. Three feeders per side on the double-ended switchgear supply power to the following load centers:

- Substation No. 1
- 3,750-kVA Transformers to Power Aeration Blowers
- Substation No. 2
- Substation No. 3

The electric power distributed to the three substations is used at multiple voltages for process motor power, control, lighting, and other miscellaneous loads. In 1996, Substation No. 2 was upgraded to provide both 4,160 volt (V) medium-voltage and 480 V utilization-voltage power to feed the aeration blowers and other equipment in the nitrogen removal upgrade.

A 200 kW fuel cell and a 750 kW generator connect into Substation No. 1. The generator was installed in September 2009 as part of the Biosolids Renewable Energy Project which consists of recovering waste heat from the existing multiple hearth incinerator exhaust gas system. The heat is used to produce steam and power a turbine that drives the electrical generator. Controls on the generator are set to maintain a 20% difference between the electric inflow into the plant and the output from the generator. The settings prevent any electric outflow from the ESWPAF to the grid.

Electrical consumption at the ESWPAF has typically averaged 21 million kWh per year. However, the 750 kW generator is expected to produce between 3.4 and 4.4 million kWh / year, reducing the plant's electrical consumption to 17-18 million kWh / year. The daily peak demand at the ESWPAF is 2.0 MW of which 200 kW and 750 kW are offset by the fuel cell and the generator, respectively, when operating.

## **IV. CONTRACTUAL REQUIREMENTS**

### **A. CONTRACT**

Upon approval of the Board of Directors, a contract will be executed between the Authority and the selected firm subject to review by the Authority's Counsel.

**B. JOINT VENTURES AND SUB-CONSULTANTS**

The employment of sub consultants and sub contractors shall not in any way relieve the Respondent of full responsibility for the performance of all the work or the obligations or liabilities related thereto. The Respondent agrees that it will pay its sub-consultants within 30 days of the receipt of payment by the Authority.

**V. INSURANCE**

Prior to commencing any work the consultant shall secure and maintain, at its own cost and expense, (i) Workers' Compensation and employer's liability insurance; (ii) comprehensive general liability insurance covering bodily injury, property damage, contractual liability, products liability and completed operations; (iii) auto insurance; (iv) umbrella excess liability insurance; (v) valuable papers insurance; and (vi) errors and omissions insurance, all in such amounts as are necessary to insure against the risks to the Authority, but in no event less than the following minimum amounts:

<b><u>Insurance</u></b>	<b><u>Minimum Limits of Liability</u></b>
Workers' Compensation and Employer's Liability:	
Employer's Liability - Accident	\$250,000 per occurrence
Employer's Liability – Disease	\$250,000 per employee
Employer's Liability – Disease	\$1,000,000 limit
Comprehensive General Liability (Including Products Liability)	\$2,000,000 general aggregate \$1,000,000 per occurrence
Automobile Liability	\$1,000,000 per occurrence
Protective Public Liability and Property Damage Liability Insurance:	
	\$1,500,000 each occurrence \$2,000,000 general aggregate
Excess Liability	\$5,000,000 in umbrella form
Valuable Papers	\$1,000,000 per occurrence
Errors and Omissions	\$1,000,000 per occurrence

All policies must be primary and non-contributing and the consultant must waive all rights of subrogation. The firm will agree that it will require and verify that each of its subcontractors carries at least the same insurance coverage and minimum limits of insurance. Insurance coverage shall be maintained continuously until the completion of

the consultant's services, except in the case of Errors and Omissions coverage, which shall be maintained for at least one (1) year after the Termination Date.

The consultant shall file certificates of insurance with the Authority prior to the commencement of the work. These certificates and the insurance policies shall contain provisions naming the Authority and the Authority's officials, officers, directors, employees, agents, representatives, consultants, contractors and subcontractors as additional insured's and loss payees and (ii) that coverage's afforded under the policies will not be canceled, reduced or allowed to expire until at least 30 days' prior written notice has been given to the Authority. The amount of coverage and period of coverage of the insurance policies required shall not be changed without the prior written approval of the Authority.

The consultant shall be solely responsible for the full amount of any deductible with respect to any and all insurance policies required. The insurance specified shall be the minimum requirements. The liability of the consultant is not limited by the consultant's insurance coverage.