



Sustainable Global Energy (SGE) through its Engineering Company, Northeast Engineers & Consultants, Inc. has extensive wind and power experience and is setting the standard for engineering in the renewable energy market. SGE has completed over \$120,000,000.00 of power projects in the last 5 year from generation to transmission and distribution.

Northeast Engineers & Consultants, Inc. has over twenty years of experience in wind studies:

In Progress

Bridge and Turnpike Authority Newport Bridge site, Jamestown, RI
Navy Station Newport, and Tank Farms, Middletown, RI
Arpin Van Lines West Greenwich possible wind farm site, RI
Aquidneck Corporate Park, Middletown, RI
Save the Bay, Fields Point, Providence, RI
Coastal Housing, Portsmouth, RI
Applied Power Conversion, North Kingston, RI
Weyerhaeuser Resort Development, Portsmouth, RI
Carnegie Abbey Sporting Estate, Portsmouth, RI
Weaver Cover Marina and Resort Development, Portsmouth, RI
Hodges Badge Commercial site, Portsmouth, RI
Sid Warner Produce Company, New Bedford, MA

Completed

Aquidneck Corporate Park, Phase I, Middletown, RI
Carnegie Abbey Marina, Portsmouth, RI
Quonset Point Carrier Pier One, North Kingston, RI
Submarine Museum Berth, Hurricane Barrier, Providence, RI
Weaver Cove Floating Breakwater Concept Design, Portsmouth, RI
American Shipyard, Wave Fence and Floating Breakwater, Newport, RI
Save the Bay, Fields Point Coastline Protection, Providence, RI
McAllister Point Landfill, NAVSTA Newport, Newport, RI
Heffenreffer Property, Sakonnet Point Seawall, Little Compton, RI
Gould Island, NAVSTA Newport, RI
Fort Adams, Block Island Ferry Landing, Newport RI
Gabiota Pier, Santa Barbara, CA
Mohegan Bluff, Block Island, New Shoreham, RI
East Point Development & Marina, East Providence, RI
Weekagaug Inn, Westerly, RI



Proposal/Agreement for Professional Services

March 13, 2009

Mr. Walter Burke
Town of Bristol
10 Court Street
Bristol, RI 02809

Re: Multi-town Wind Resource Study

Dear Mr. Burke,

Thank you for considering Northeast Engineers and Consultants, Inc. (NE&C) to provide Professional Engineering Services for the above referenced Project. Outlined herein is a description of the Project, our Scope of Services, the Estimated Charges, and the Terms and Conditions of the Agreement, as presented in the attached Addendum to Proposal. Should the Client agree with the scope of work, fee, terms and conditions of this proposal, this document will act as a Master Agreement between the Client and NE&C. Detailed pricing and Scope of Work will be proposed for each site selected for study.

Project Description

It is NE&C's understanding that the Town of Bristol, along with seven other municipalities, wishes to conduct a Wind Resources Assessment of up to five preselected sites within the East Bay region. The proposed study will consist of three phases. The proposed scope of work follows a funnel approach. The funnel approach begins with a high level, general study of a broad number of sites and ends with a detailed, focused study of one or more targeted sites. This methodology results in a strategic, focused allocation of resources.

The first phase will consist of a Wind Power Site Suitability Assessment of each study area. The goal of this phase will be to evaluate the potential of the sites for an economically feasible wind turbine project and to select sites for additional study. In general, this phase will consist of the gathering and evaluation of readily obtainable information.

The second phase will consist of a Detailed Feasibility Study of one or more locations selected during the first phase. During this phase various aspects of a wind power project will be evaluated including permitting requirements, geotechnical concerns, community support, aesthetic considerations, economics, etc. An option to collect and analyze preliminary meteorological data from each location is also proposed to augment the feasibility study. If requested, data will be obtained using Sound Detection and Ranging (SODAR) technology. Each location will be studied for a period of 3 months to provide a glimpse of the actual site-specific wind potential. The goal of this phase will be to identify the most suitable site(s) for further study.

The third phase, a Comprehensive Wind Resource Assessment, will consist of the installation of one or more meteorological (met) tower(s) at the site(s) studied during Phase II. The sites will be selected based on the findings of the Detailed Feasibility Study. The study will be conducted over a 12 month period to obtain more reliable, long term, site-specific wind data. As an added service, NE&C will establish a

secure FTP web site accessible by the client. Meteorological data will be uploaded to the FTP site on a regular basis.

Additional services proposed in the scope of work include consultation and grant writing services.

Scope of Services

Task I - Wind Power Site Suitability Assessment

- NE&C will collect relevant and readily obtainable information such as, but not restricted to,:
 - Online wind resource maps
 - Applicable height and setback restrictions
 - Structures
 - Overhead utilities
 - Easements
 - Soil types
 - Wetlands
 - Topography
 - FAA restrictions
 - Environmental restrictions
 - Rare species habitats
 - Site access
 - Available space
 - Outside funding sources/incentives
- NE&C will compile and evaluate the information obtained in order to determine if there are any project-specific restrictions that may significantly reduce the benefit of additional study. In addition, NE&C will evaluate the applicability of using meteorological data collected from one site to evaluate similar locations.
- NE&C will prepare a Wind Power Site Suitability Analysis Report for each of the pre-selected sites. The report will document the information obtained, the findings of NE&C's evaluation, and NE&C's conclusions and recommendations. NE&C will recommend sites for additional study under Task II.

Task II - Detailed Feasibility Study

- NE&C will prepare a conceptual wind turbine design and evaluate the cost/benefit of various tower designs based on the findings of the Wind Power Site Suitability Assessment and, if opted, the brief SODAR study described below.
- NE&C will complete a financial feasibility analysis of the conceptual wind turbine design. The analysis will include a consideration of available sources of outside funding, revenue, cost savings, and incentives.
- Additional factors that may influence a wind turbine project will be evaluated including permitting, community support, environmental impacts, aesthetic considerations, shadow flicker, ice throw, etc.



- NE&C will conduct a geotechnical investigation of each of the sites to evaluate the load bearing capacity of the underlying soil to support a wind turbine. The scope of work assumes that the geotechnical investigation will consist of one day of drilling at each site.
- Optional SODAR Study. If requested, the meteorological conditions at sites selected for further study will be studied with a SODAR instrument. Pursuing this option will provide a better understanding of the wind potential at the site than wind maps alone and may potentially result in cost savings when used to limit the number of meteorological towers necessary during the Comprehensive Wind Resource Assessment (Task III). The data obtained can be used to further bolster the Feasibility Study. The optional study will rely on the Measure-Correlate-Predict (MCP) method of analysis. Each of the sites will be studied for a three month period. The MCP method includes:

- 1) *Measurement.* Site specific meteorological data including wind speed and direction will be measured using a Sound Detection and Ranging (SODAR) instrument. Data will be collected at 10 minute intervals over a period of six weeks at each site.

Data will be downloaded and validated on a regular basis during the study period. Suspect data will be scrutinized and corrections to the data and/or equipment will be made as necessary. Range tests, relational tests, and trend tests are examples of validation methods that may be applied to the data.

At the end of the measurement period, the validated data will be processed and data reports will be created. The reports will include data such as wind direction, wind speeds, vertical wind shear exponents, and wind power density.

- 2) *Correlation.* Site specific data collected during the monitoring period will be statistically correlated with data obtained from a reference meteorological station collected during the same time period. A good correlation between the two data sets obtained during the study period implies better reliability of the long term reference data.
- 3) *Prediction.* Once the data is correlated, the long term data from the reference station will be used to estimate the probable long term wind resource available at the Site. Wind shear exponents calculated during the measurement stage can be used to estimate the wind speed at varying heights if necessary. Wind resource predictions will be accompanied by an estimate of the uncertainty of the results. The predicted wind resource available will then be used to estimate the potential power generating capacity of each site.

- The findings of the study will be documented in a Detailed Feasibility Study Report. The report will include a recommendation of which site(s) are best suited for further study.



Task III - Comprehensive Wind Resource Assessment

- NE&C will conduct a meteorological study at one or more sites selected under Task II. The study will be conducted over a 12 month period. This task will provide more detailed, and more reliable, long term site-specific wind data then the wind maps and SODAR study.
- The Comprehensive Wind Resource Assessment will be similar in scope to that described in the optional SODAR study portion described in Task II. However, a meteorological (met) tower will be used to collect data in place of the SODAR. The scope of work does not include any site preparation or road cutting associated with the met tower installation.
- The data obtained from the study will be used to supplement the Detailed Feasibility Study completed under Task II and documented in a Comprehensive Wind Resource Assessment Report. The report will document the findings of the study, a summary of previous studies, and NE&C’s conclusions and recommendations relating to the feasibility of wind turbines at the site(s)

Task IV - Consultation

- NE&C will provided consultation services as requested by the client. This task includes work not specifically described in Tasks I through III, including meetings, public workshops, written correspondence, phone calls, etc.

Task V - Grant Writing (optional)

- Outside sources of funding may be available to the project. If requested, NE&C will provided grant writing services to assist the Client in applying for such funds.

Basis of Compensation

Based on the nature of the proposed scope of work, the fee schedule includes both fixed fee tasks and time and materials tasks. *The fees listed are for a single site. The actual per-site fee will be reduced for multiple sites.*

The Client will pay NE&C for the services set forth above in **Tasks I through III** under “Scope of Services” a **fixed fee** among based on the following distribution of compensation, for a single site:

| <u>Single Site</u> | |
|---|-------------|
| Task I - Wind Power Site Suitability Assessment..... | \$3,500.00 |
| Task II - Detailed Feasibility Study..... | \$35,000.00 |
| Optional SODAR study..... | \$25,000.00 |
| Task III - Comprehensive Wind Resource Assessment | \$40,000.00 |

The Client will pay NE&C for services as set forth under **Task IV (Consultation) and V (Grant Writing)** in “Scope of Service” an amount equal to the cumulative hours charged to the Project by category of NE&C employees times the hourly rate for that category, plus Reimbursable Expenses and NE&C’s Consultant charges, if any.



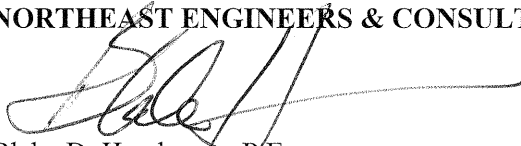
Professional Engineering Terms and Conditions

Pricing Terms: Pricing is valid without change provided that authorization to proceed is submitted by **The Client** and received by NE&C within 90 days. Pricing is otherwise subject to change should these conditions not be met.

Acceptance: If you wish to proceed with the work, please sign in the space provided below and return one copy of this agreement to our office. This proposal will serve as a Master Agreement for services. Detailed pricing and Scope of Work will be proposed for each site selected for study. This letter, along with the attached "Addendum to Northeast Engineers & Consultants, Inc. Proposal 2008", is attached to and made a part of this agreement and represents the entire extent of our agreement and may be changed only if agreed to in writing by both parties. Please initial/date the attached Addendum and return along with the other required contract documents. Billings are processed on a monthly basis.

If there are any questions in regard to the described services, please feel free to contact the undersigned at your convenience. We welcome the opportunity to earn your business and thank you for your continued interest in Northeast Engineers & Consultants.

Sincerely,
NORTHEAST ENGINEERS & CONSULTANTS, INC.



Blake D. Henderson, P.E.
President



Contract Authorization

This proposal, when authorized, becomes a contract between you and NE&C. Both parties agree to enter into this Agreement and to be bound by the terms and conditions set forth herein.

Print Name: _____ Title: _____

Company: _____

Authorized Signature: _____ Date: _____

Contact Information

Print Name: _____ Title: _____

Company: _____

Phone: () _____ Fax () _____

Email: _____

Payment Information

NE&C accepts payments by check, purchase order, Visa, or MasterCard.

Check No.: _____ Amount: \$ _____

Please provide the following information if you wish to make a credit card payment.

Type of Card (circle one): Visa MasterCard (circle one) Exp. Date: _____

Card Number: _____ Amount to be Charged: \$ _____

Name as it appears on Card: _____

Signature: _____ Date: _____



**ADDENDUM TO NORTHEAST ENGINEERS & CONSULTANTS, INC.
CONTRACT/PROPOSAL
2008**

Northeast Engineers & Consultants, Inc. (NE&C) and the client agree to the terms detailed in the Contract/Proposal (Agreement) and as follows:

OTHER CHARGES

Reimbursement:

These charges are in addition to the fees for services and shall include actual expenditures made in the interest of or in connection with the project including filing fees to government agencies, review fees to government agencies, reproduction of drawings, specifications and reports, (except for copies for NE&C's internal use), photography, models and renderings, equipment rental, postage and delivery charges on any of the proceeding. An administrative charge of fifteen (15%) percent shall be applied to all reimbursable except for automobile mileage which will be reimbursed at the current rate established by the IRS which for 2008 is \$0.58.5 per mile.

Consultants:

Consultants or other outside services such as, but not limited to Drilling Services, Landscape Architecture, Architectural and Mechanical Equipment Testing engaged by NE&C for project services shall be billed at a multiple of one and fifteen hundredths (1.15) times the amount billed to NE&C.

Project Link:

NE&C offers Online / FTP access for document storage and team member coordination. Fees for this service start at \$25/month and are determined based on the usage, amount of expected file storage, and size and scope of project. The initial set up fee is \$100.00.

PAYMENT

Initial Payment

Initial payment or contract retainer in such an amount as is agreed to (vary in accordance with nature and extent of services) is required to be made upon execution of the Agreement. The payment will be credited against the final payment(s).

Monthly Payments:

Monthly payments are due and payable upon receipt of invoices unless otherwise provided for in the Agreement. Balances outstanding more than thirty (30) days from the date of invoicing shall bear interest at a rate of one and one-half (1 1/2 %) per month. The amount of interest charges shall not exceed the maximum legal rate in accordance with the applicable state and federal laws

If the client fails to make any payment due NE&C within sixty (60) days of invoicing, NE&C may suspend services under the Agreement until NE&C has been paid in full amounts due it on the account of services and expenses. All collection costs, including reasonable attorney's fees incurred by, or on behalf of NE&C, shall be the legal responsibility of, and shall be paid by the client.

Other Payment Conditions:

No deduction shall be made from NE&C compensation on account of penalty, liquidation damages or other amounts withheld from payments to the Construction Contractor(s) and any other parties the client may have entered into contracts with in connection with the project.

Failure to pay invoices within sixty (60) days from date of invoicing shall grant NE&C the right to refuse to render further services and such actions shall not be a breach of any contractual agreement with the client.

GENERAL CONDITIONS

Proposals:

Fee Proposals are subject to renegotiations if not accepted in writing within ninety (90) days of submission date unless NE&C agrees in writing to an extension when requested. In the event a Fee Proposal is timely accepted and an Agreement executed by the parties, the compensation provisions of said Agreement shall remain in full force and effect for one year from the date of the Agreement or as otherwise noted in said executed Agreement, but are subject to revision at that time or anytime thereafter. In the event that the parties fail to agree on the new rates either party may terminate the Agreement by giving the other parties seven (7) days written notice. Any refund of a fee due to cancellation before any engineering work is completed will be subject to a \$50 administration fee.

Construction Estimates:

NE&C in the preparation of construction cost estimates use its best judgment as an organization of professionals familiar with the construction industry. It is recognized that neither NE&C nor the client has control over the cost of the labor, material, or equipment, over the Contractor's methods of determining bid prices, over competitive bidding or negotiating market conditions. Accordingly, Bristol Wind Assessment Proposal



NE&C cannot and does not warrant or represent that bids received or negotiated price will not vary from the original estimate that may have been provided to the client and shall not be responsible for any variance that occurs.

Successors and Assigns:

The covenants, terms and conditions of this Agreement shall be binding on the parties to this Agreement and their successors, assigns, and legal representatives. Neither the client nor NE&C shall assign, sublet or transfer an interest in the Agreement without written consent to the other and such consent shall not be unreasonably withheld.

Limitation of Liabilities:

The client agrees that NE&C's total aggregate liability to the client and to construction contractors, subcontractors and third party claims on the project of, and land and nature whatsoever, including but not limited to claims for personal and bodily injury, and property damage, due to NE&C negligent acts, errors and omissions, shall not exceed \$500,000 or the approved and authorized fee paid to NE&C as per Agreement, whichever is less. The client agrees to hold harmless, indemnify and defend NE&C from and against any and all claims, losses, damages, liability and costs, including but not limited to costs of defense arising out of or in any way connected with the presence, discharge, release or escape of contaminants of any kind, excepting only such liability as they arise out of the sole negligence of NE&C in the performance of services under the Agreement.

Limits of Scope of Services:

NE&C's scope of Services is limited to work that is specifically defined within the contract. Engineering Consulting Services that the responsibility for which are categorically disclaimed unless otherwise specified are:

1. Hazardous waste identification or certification as to its existence or presence on the job site.
2. Conformation to federal, state, local ordinances in regards to addressing requirements of hazardous waste delineation or treatment.
3. All work not expressly set forth in the scope of services.

Documents:

All reports, field notes, calculations, plan estimates and other documents, data or information prepared by NE&C are instruments of service, and shall remain the sole property of NE&C. Documents will not, in whole or part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent to NE&C, except as required by law. All plans and other work prepared by NE&C for the client shall be utilized solely for the intended purposes and site described in the Proposal. NE&C will retain all pertinent records for a period of three (3) years following the submission of NE&C plans to the client. Such records will be available to the client upon request at NE&C's office during office hours on reasonable notice, and copies will be furnished by NE&C to the client for the total cost of reproduction of the same. All documents are subject to NE&C's copyrights therein, and shall be treated by client and all others as copyrighted work of NE&C. The Plans, Specifications and Compilations shall not be used by the client on other projects or additions to this project, or for compilation of this project by others, except by prior written agreement and with appropriate compensation to NE&C.

Standard of Care

NE&C shall, in the performance of its services under the Agreement, exercise the same degree of skill and care ordinarily exercised under similar circumstances by qualified professionals undertaking similar work in the same locality at the same time. To no extent are the professional services provided by NE&C under the Agreement either expressly or implicitly warranted

Construction Inspection:

The client recognizes that unanticipated or changed conditions are likely to be encountered during construction. The client agrees to retain NE&C to monitor construction, and NE&C agrees to assign to the monitoring function persons qualified to observe and report on the quality of work performed by contractors, etc. The client recognizes that construction monitoring is a technique employed to minimize the risk of problems arising during construction. Provisions of construction monitoring by NE&C is not insurance, nor does it constitute a warranty or guarantee of any type. In all cases, contractors, etc. shall retain responsibility for the quality of their work and for adhering to plans and specifications, including responsibility for maintaining legal methods of transport and appropriate locations for disposal of materials. Should the client for any reason not retain NE&C to monitor construction, or should the client unduly restrict NE&C assignment of personnel to monitor construction, or should NE&C for any reason not perform construction monitoring during the full period of construction, NE&C shall not have the ability to provide a complete service, and thus not have the capability for adequate control or implementation of the complete engineering function. The client waives any claim against NE&C and agrees to indemnify, defend and save NE&C harmless for any claim or liability for injury or loss arising from problems during construction that allegedly results from findings, conclusion, recommendations, plans or specifications developed by NE&C. The client also agrees to compensate NE&C for any time spent and expenditures incurred by NE&C in defense of any such claim, with such compensation to be based upon NE&C prevailing fee schedule and expenses reimbursement policy relative to recovery of direct project costs.

Client _____ Date: _____
Initial _____

