



PAUL A. WORSOWICZ  
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March 12, 2010

Debra A. Howland  
Executive Director and Secretary  
New Hampshire Public Utilities Commission  
21 S. Fruit St, Suite 10  
Concord, N.H. 03301-2429



RE: DE 10-024 Renewable Energy Fund, Notice of Opportunity to Comment on Additional Renewable Energy Incentive Programs

Dear Ms. Howland:

On behalf of my client, The Aggregate Manufacturers of New Hampshire ("AMNH"), I would like to thank the Public Utilities Commission for the opportunity to file comments on future uses and allocations of money in the Renewable Energy Fund ("REF").

By way of background, AMNH is a trade association whose members include Boston Sand and Gravel Company, Manchester Sand, Gravel, & Cement Co., Inc., Ossipee Aggregates Corporation, Pike Industries, Brox Industries, Inc., and Aggregate Industries. These companies own and manage industrial sites that tend to be large parcels of land (e.g., hundreds to thousands of acres) that have been cleared, mined,<sup>1</sup> and reclaimed or are currently being mined and will be reclaimed in the future. As further explained below, reclaimed sites have the potential to be ideal sites for mid- to large-scale renewable energy projects.

AMNH strongly believes that the PUC should use some of the funds in the REF for renewable energy initiatives selected pursuant to a Request for Proposals (RFP) as set forth in PUC 2507.03. An RFP process would ensure that REF funds are allocated in a fair, equitable, and expeditious manner to different sectors of the state's economy and to various types of projects at different stages of development, including preliminary assessments of potential project sites, construction of new facilities, and upgrades/expansions at existing facilities.

It is troubling to AMNH that the Commission has not yet issued an RFP and has stated publicly that it has "no immediate plans" to do so, as it is inclined to fund additional rebate programs before issuing any RFPs.<sup>2</sup> First, the Commission's RPS Rule states that "The

<sup>1</sup> Mined sites are used for the excavation, quarrying and processing of sand, gravel and stone.

<sup>2</sup> Refer to the PUC's Annual Compliance Report to the Legislature dated October 1, 2009 and to Jack Ruderman's memo to the Energy Efficiency and Sustainable Energy Board dated January 5, 2010.

commission shall periodically issue a request for proposals for initiatives to be supported by the renewable energy fund.” (PUC 2507.03) While the word “periodically” is subject to interpretation, the RPS law (RSA 362-F, effective July 10, 2007) and the RPS rules (PUC 2500, effective June 3, 2008) were adopted in the context of public policy considerations and economic factors that favored immediate advancement of renewable initiatives. An RFP issued early-on would have provided an equal opportunity for all types of projects and initiatives located in New Hampshire to compete for grants from the REF.

AMNH is also concerned by the lack of an RFP because Ossipee Aggregates Corporation<sup>3</sup> (“OAC”) filed an application for grant money from the REF back on December 11, 2008 and received written correspondence from the PUC on January 11, 2009 indicating that the application would be looked at closely when the Commission approached issuing an RFP. Nothing was said in the correspondence that the RFP would be delayed indefinitely, and the political and policy climates seemed to support quite the opposite. OAC’s application sought a grant to help fund a preliminary assessment of the potential for a wind farm in Ossipee, New Hampshire. Had OAC been told that an RFP could take several years, the company certainly would have factored that information into its decision on whether and when to proceed.

OAC’s application, which is enclosed for your reference, presented the PUC with an opportunity to help fund a preliminary assessment of the potential for a wind farm on a unique and potentially promising site in Ossipee. As required by PUC 2507.03, the application included key information about the Applicant and the proposed preliminary wind assessment, along with a description of the likely benefits of the potential project and an explanation of why the Applicant believed (and still believes) that the proposed wind assessment qualified to receive a REF grant.

As mentioned earlier, aggregate companies own and manage large parcels of reclaimed land that have the potential to be ideal sites for mid- to large-scale renewable energy projects. OAC’s total site is approximately 1,800 acres, and several hundred acres have been reclaimed. It was on this part of the property that OAC wanted to determine the viability of a wind farm. OAC believed that if a wind farm on the site proved to be feasible, the renewable energy project would provide many benefits to the residents and businesses in Ossipee, neighboring communities, and the state. The benefits from any proposed project are to be considered by the PUC in determining an appropriate grant from the REF, and OAC set forth in its application the likely benefits of the proposed project.<sup>4</sup> These included benefits that OAC felt were unique to the company and the site, including factors such as:

- The neighbors and abutters to the OAC site are accustomed to industrial activity occurring on the site over the past 40+ years.

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<sup>3</sup> OAC is a wholly owned subsidiary of Boston Sand & Gravel Company. Boston Sand & Gravel Company’s other New Hampshire subsidiaries include New Hampshire Northcoast (“NHN”) Corporation (a short line railroad), located in Ossipee, New Hampshire and Manchester Sand, Gravel & Cement Co., Inc. (an aggregate production and real estate development company), located in Hooksett, New Hampshire.

<sup>4</sup> Refer to pages 2-4 of the application for a full discussion of the likely benefits.

- OAC, as well as the other subsidiaries of Boston Sand & Gravel Company, has a long and proven track record of working cooperatively and communicating effectively in the permitting of large development projects with all interested parties and regulators at the local, state and federal levels, and would utilize this same expertise in the permitting of this proposed project.
- The OAC site has been cleared, mined and reclaimed in accordance with the state's excavation and reclamation law, but remains largely deforested, which would likely minimize many of the environmental and wildlife permitting issues that arise on other sites which propose large areas of clear-cutting and/or other site-preparation activities.
- OAC's parent company, Boston Sand & Gravel, is committed to renewable energy projects and views them as an important part of its corporate environmental program. On December 9, 2008, Massachusetts state energy officials joined Boston Sand & Gravel to dedicate the company's new 109-kilowatt solar energy project. (See Attachment 1 to enclosure.) The project was partially financed through a rebate from Governor Patrick's Commonwealth Solar Program, and used locally-manufactured components and local installers. This solar photovoltaic array was the largest installed solar project at that time and is visible to commuters, helping to raise public awareness of solar power.
- The OAC site has viable transmission access. The New Hampshire Northcoast Railroad, another subsidiary of Boston Sand & Gravel, has a contiguous 43 mile rail corridor that runs from the OAC site south to Rollinsford where it intersects with the former Boston & Maine mainline. This railroad corridor also runs to the north in Ossipee, where it abuts the railroad right-of-way owned by the state. The NH rail corridor continues north to Conway. This would allow for connectivity to the grid from either the south or the north exclusively within OAC's own (or State of New Hampshire) rail corridor.

In the absence of regularly-issued RFPs, AMNH strongly believes that the PUC is missing important opportunities to consider proposals for a wide range of promising renewable energy projects located here in New Hampshire that would move the state closer to reaching near-term and long-term goals including, but not limited to, job creation and retention, increased property tax and business tax revenues, greater use of renewable energy, lower emissions, greater energy independence, and meeting the objectives of the Governor's "25-by-25" and carbon challenge initiatives.

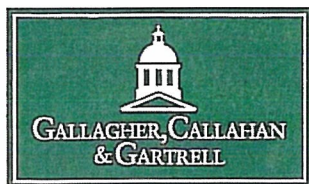
In closing, AMNH appreciates the Commission's consideration of these comments and welcomes the opportunity to continue participating in DE 10-024. Thank you very much.

Sincerely,

  
Paul A. Worsowicz

Enclosures





HEIDI L. KROLL  
Market & Policy Analyst

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December 11, 2008

Debra A. Howland  
Executive Director and Secretary  
New Hampshire Public Utilities Commission  
21 S. Fruit St, Suite 10  
Concord, N.H. 03301-2429

RE: Application for Grant Money from the Renewable Energy Fund (Rules PUC 2507)

Dear Ms. Howland:

On behalf of our client and Applicant, Ossipee Aggregates Corporation ("OAC"), a New Hampshire corporation, located in Ossipee, New Hampshire, we respectfully file this application for grant money from the Renewable Energy Fund governed by RSA 362-F:10 and the Public Utilities Commission's rules, PUC 2507. As described herein, OAC is seeking a grant to help fund the preliminary assessment of the potential for a wind farm in Ossipee, New Hampshire. Key information about the Applicant and the proposed project are provided below, along with a description of the likely benefits of the project and an explanation of why the Applicant believes that the project is qualified to receive a grant from the Fund.

(1) The name, address and telephone number of the applicant:

Ossipee Aggregates Corporation (OAC)  
Route 16  
PO Box 237  
Ossipee, NH 03864  
attn: Ron Corriveau  
(603) 539-6820

(2) The location of the proposed project:

The proposed project location is an approximately 1,800 contiguous acre parcel of land located between NH Route 16 and John Hodgdon Road and Foggs Ridge Road in Ossipee, New Hampshire. The site consists of several hundred acres currently being used for the excavation, quarrying and processing of sand, gravel and stone. There are also several hundred acres that have been cleared, mined and reclaimed, and it is on this part of the property that OAC wants to determine the viability of a wind farm.

GALLAGHER, CALLAHAN & GARTRELL, P.C.

[www.gcglaw.com](http://www.gcglaw.com)



(3) The type of technology for the proposed project:

Wind turbines.

(4) The nameplate capacity of the proposed project:

To be determined based on the results from the preliminary assessment.

(5) The likely benefits of the proposed project and its qualifications to receive grant money:

(a) OAC believes that if a wind farm on the aforementioned site in Ossipee, New Hampshire proves to be feasible, this alternative energy project will provide many benefits to the residents and businesses in Ossipee, neighboring communities, and the state. The benefits from the proposed project are to be considered by the Public Utilities Commission ("PUC") in determining an appropriate grant from the Renewable Energy Fund. The likely benefits of the proposed project include, but are not necessarily limited to, the following:

- The project will be located in New Hampshire, a requirement for any initiative seeking a grant from the Renewable Energy Fund.
- The project will expand the production capacity of renewable energy facilities located in New Hampshire.
- The project will promote energy independence and cost savings to the extent that the wind power from the project displaces the use of fossil fuels that are imported and/or result in more expensive electricity for New Hampshire ratepayers. The project may also lower the cost to New Hampshire ratepayers of Renewable Portfolio Standards ("RPS") compliance by increasing the supply of new renewable energy and associated Renewable Energy Certificates.
- The project could mitigate the need for certain transmission and distribution system upgrades if the wind power from the project helps meet growth in local electricity use.
- The project will result in economic development in the form of jobs and purchases of goods and services during the construction and ongoing operation of the facility. It will also result in new property taxes and business taxes paid by the project at the local and state levels. Generators pay a statewide utility property tax of \$6.60 per thousand in assessed valuation into New Hampshire's education trust fund.
- The project will result in important environmental benefits for New Hampshire by providing a new source of clean, non-polluting, renewable power.

- The project will increase fuel diversity in the production of electricity in New Hampshire and the region.
- (b) OAC believes some of the unique benefits its company and site offer over other companies and sites include:
- OAC is a wholly owned subsidiary of Boston Sand & Gravel Company, whose other New Hampshire subsidiaries includes New Hampshire Northcoast ("NHN") Corporation (a short line railroad), located in Ossipee, New Hampshire and Manchester Sand, Gravel & Cement Co., Inc. (an aggregate production and real estate development company), located in Hooksett, New Hampshire.
  - Boston Sand & Gravel Company is committed to renewable energy projects and views them as an important part of its corporate environmental program, which includes a focus on reducing the company's carbon footprint through fuel conservation and energy reduction. On December 9, 2008, Massachusetts state energy officials joined Boston Sand & Gravel to dedicate the company's new 109-kilowatt solar energy project. (See press release in Attachment 1.) The project was partially financed through a rebate from the Governor Patrick administration's Commonwealth Solar Program, and used locally-manufactured components and local installers. Boston Sand & Gravel's solar photovoltaic array is the largest installed Commonwealth Solar project to date. The project is visible to commuters from the Boston I-93 ramps and the Zakim-Bunker Hill Bridge, helping to raise public awareness of solar power.
  - The Applicant, as well as the other New Hampshire subsidiaries of Boston Sand & Gravel Company, has a long and proven track record of working cooperatively and communicating effectively in the permitting of large development projects with all interested parties and regulators at the local, state and federal levels, and will utilize this same expertise in the permitting of this proposed project.
  - The site of the proposed project has viable access to transmission. The NHN Railroad has a contiguous 43 mile rail corridor (at a minimum of 66 feet wide) that runs from the 1,800 +/- acre site in Ossipee, south through Rochester and Somersworth to Rollinsford where it intersects with the former Boston & Maine mainline. This railroad corridor also runs about one mile to the north in Ossipee, where it abuts the railroad right-of-way owned by the State of New Hampshire. The NH rail corridor continues approximately 30 miles to the north through Tamworth and Madison to Conway. This allows for connectivity to the grid from either the south or the north exclusively within its own (or State of New Hampshire) railroad corridor.

- The OAC site has been cleared, mined and reclaimed in accordance with New Hampshire's excavation and reclamation law (RSA 155-E), but remains largely deforested, which should minimize many of the environmental and wildlife permitting issues that arise on other sites which propose large areas of clear-cutting and/or other site-preparation activities.
- The neighbors and abutters to the OAC site are accustomed to industrial activity occurring on the site over the past 40+ years.

(6) Request for Grant from the Renewable Energy Fund:

The Applicant has held preliminary discussions and site visits with several engineering firms and with representatives from the New Hampshire Electric Cooperative ("NHEC") and Public Service of New Hampshire ("PSNH") regarding the wind potential at the Ossipee, New Hampshire site. The engineering firms have confirmed that there is indeed the potential for adequate wind at the site to support a wind farm. Anecdotal information supports this. A December 7, 2008 Union Leader article features a windmill installation at a residence located on Pork Hill Road in Ossipee. (See article and a map showing the proximity of the residence to OAC in Attachment 2.) The NHEC and PSNH representatives have indicated that a connectivity study would need to be performed to determine where best to connect this proposed project to the power grid.

Both the engineering firms and the electric utilities agreed that the next critical step was to hire an engineering firm to oversee the installation of a meteorological ("MET") tower at an optimal location on the site. Based on a bid process, OAC chose National Wind Assessments, an experienced firm located in North Dakota, to erect the 60 meter (186 foot) MET tower. The MET tower will gather critical wind data that is necessary to assess the viability of a wind farm on the site for a twelve month period. The information is downloaded remotely on a monthly basis. The MET tower was erected during the third week in November 2008. Four pictures of the tower installation and two maps are attached as Attachment 3. The site where the MET tower is located is at "push pin #2" on the maps. Other "push pins" represent locations that were under consideration for the tower.

The total estimated cost of the feasibility phase of the project is approximately \$97,649. This includes \$70,649 for National Wind Assessments, approximately \$7,000 for the NHEC connectivity study and another \$20,000 for the PSNH connectivity study. A complete breakdown of costs is included in the proposal from National Wind Assessments and is attached as Attachment 4. The two estimates from NHEC and PSNH are verbal.

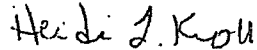
The Applicant respectfully requests a grant from the Renewable Energy Fund in the amount of \$78,100. This reflects 80% of the total estimated cost for this phase of the project, although all grant amounts can also be based on actual billed and paid invoices. The Applicant will pay for the remainder of the costs. This cost sharing ratio is common among many federal grant programs and state grant programs.



Debra A. Howland, Executive Director and Secretary  
New Hampshire Public Utilities Commission  
December 11, 2008  
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On behalf of our client, Ossipee Aggregates Corporation, we wish to thank the Public Utilities Commission for its consideration in this matter. Please feel free to contact me if you need additional information or have any questions.

Sincerely,

A handwritten signature in dark ink, appearing to read "Heidi L. Kroll". The script is cursive and somewhat stylized.

Heidi L. Kroll

Enclosures

cc: Jack Ruderman, Director, PUC's Sustainable Energy Division (effective December 29, 2008)  
Kate Peters, Special Assistant for Policy, Office of Governor John Lynch  
Amy Ignatius, Director, New Hampshire Office of Energy and Planning  
Dean M. Boylan, Jr., President, Boston Sand & Gravel Company  
Ron Corriveau, Project Manager, Ossipee Aggregates Corporation  
David B. Campbell, Esq.

Debra A. Howland, Executive Director and Secretary  
New Hampshire Public Utilities Commission  
December 11, 2008  
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#### **List of Attachments**

Attachment 1 – Press release, “Boston Sand & Gravel Completes Largest Commonwealth Solar Energy Project,” December 9, 2008.

Attachment 2 – Union Leader article, “Windpower helps cut sculptor’s energy bill for Ossipee studio,” December 7, 2008, and a map showing the proximity of the residence to OAC.

Attachment 3 – Pictures of the MET tower installation and maps of the parcel of land.

Attachment 4 – Summary of Wind Assessment Projects Costs and proposal from National Wind Assessments.



100 NORTH WASHINGTON ST – BOSTON, MA 02114

617-227-9000 (tel.) 617-523-7947 (fax)

## NEWS RELEASE

**For Immediate Release  
December 9, 2008**

**Contact:  
Linda Charpentier  
(617) 227- 9000**

### **Boston Sand & Gravel Completes Largest Commonwealth Solar Energy Project**

An established Boston company with nearly a century of service supplying construction materials is going green.

Boston Sand & Gravel Company – a 95-year-old Boston firm best known for its flagship plant seen from Interstate 93 and the Zakim Bunker Hill Bridge - today unveiled a 109 KW photovoltaic (PV) solar system on the roof of its Charlestown maintenance facility. Designed and installed by Nexamp, Inc. of North Andover, a turnkey clean energy solutions company, and financed with help from the state's Commonwealth Solar initiative, the more than 550-panel PV system covers 22,000 square feet and will produce 75% (120,000 KWH) of the power used by the maintenance facility each year.

A cornerstone of the Company's "Green Plan," the project is estimated to eliminate over 94 tons of carbon dioxide annually from the environment. Combined with other energy savings initiatives, the solar installation will move the maintenance facility toward becoming energy neutral, and augments an established corporate environmental program that includes a focus on reducing the company's carbon footprint through fuel conservation and energy reduction.

Completed last week, Boston Sand & Gravel's solar project was the first system over 100 KW installed under the Commonwealth Solar initiative and is the largest Commonwealth Solar-assisted project currently installed.

"The Patrick Administration congratulates Boston Sand & Gravel on completion of its solar energy system, which we were pleased to assist through Commonwealth Solar - a program that has awarded rebates to nearly 400 projects statewide for more than 4 megawatts of clean power capacity since it began last January," Energy and Environmental Affairs Secretary Ian Bowles said. "Visible from the Orange Line and the HOV lane of Route 93 South, Boston Sand & Gravel's solar array is a billboard for renewable energy that will inspire other Massachusetts companies to go solar."



## ATTACHMENT 1.

Established in 1914, Boston Sand & Gravel has literally built a city. The company supplies ready mix concrete, sand, stone and landscape materials throughout eastern Massachusetts and New Hampshire. It has provided the metro Boston region with ready mix concrete for a variety of construction projects including the most demanding public and commercial projects that have changed the city sky line, regional infrastructure, and residential construction. Some of the more notable projects are the Boston Convention and Exhibition Center, the Deer Island Waste Treatment Facility, the TD BankNorth Garden and the landmark Zakim Bunker Hill Bridge.

Boston Sand & Gravel Company, a member of the US Green Building Council, is supplying materials to "green" construction projects, i.e. LEED certified buildings such as Genzyme's World Headquarters, MIT Sloan School, Quincy High School, Harvard Law School and the Cambridge Library. The Company has also embarked on a "Green Plan," to develop a strategy for environmentally sustainable operations. Working with contractors and owners, Boston Sand & Gravel designs and supplies recycled products that will increase the sustainable nature of construction projects. The Green Plan builds on the Company's history of environmental conservation from land reclamation and hydro-seeding in mining facilities to storm water collection and reuse in ready mix concrete production.

"Boston Sand & Gravel is excited and pleased to complete our solar installation," Dean Boylan, President of Boston Sand & Gravel said. "It is a cornerstone of our Green Plan through which we will support our customers with materials for green construction while reducing our energy consumption in the production of those materials. We are proud to be part of the public initiatives for renewable energy – Commonwealth Solar and Solar Boston."

Boston Sand & Gravel is proud of the solar installation, not only for its environmental value, but also because the design, labor and components all have local origin. Nexamp, the system designer and installer, is a veteran-owned North Andover based company that uses local labor for its turnkey installations. The solar panels were manufactured by Evergreen Solar, Inc., a Marlborough company. PanelClaw of North Andover invented and manufactured the solar panel mounting system. The photovoltaic inverter, the critical component which converts solar energy to usable electrical power, was assembled by Solectria in Lawrence, MA.

Boston Sand & Gravel's PV solar system is currently awaiting final inspection and approval by the City of Boston and NSTAR and will be fully commissioned by the end of December.



## Windpower helps cut sculptor's energy bill for Ossipee studio

**BYLINE:** ROGER AMSDEN Sunday News Correspondent

**DATE:** December 7, 2008

**PUBLICATION:** New Hampshire Sunday News (Manchester, NH)

**PAGE:** 10

By ROGER AMSDEN Sunday News Correspondent

**OSSIPEE** — Cecily Clark said one of the most satisfying moments she experienced after installing a wind-powered electrical-generating system at her Pork Hill Road home last December was watching the old-fashioned electrical meter at her hillside studio running backwards.

"It was nice to know that the power I was generating was going out over the grid," said Clark, who said the installation of a new digital meter shortly thereafter, that only shows numerals on its display, isn't quite as satisfying to watch. The 34-foot-high windmill, about 500 feet from her home, last month produced about 64 kilowatt hours, enough so that she could break even on the power for her studio, where she produces sculptures that are known around New England. Most of that electricity is used by a kiln which heats her creations to 500 degrees, far lower than the temperature which would be required if her work was destined to be used as ovenware.

"I don't use that much power, but this certainly helps," said Clark, who said she has always been fascinated by windmills and liked the idea of producing her own power.

"Aesthetically I like windmills. I like the high-pitched whir of the blades, and I can hear it sometimes when I'm standing outside the house," said Clark.

She says she was motivated more by her concern for environmental issues than by any immediate economic benefit when she had the \$20,000 system installed by Simon and Simon Enterprises of Ossipee.

"I feel that if we can all do something to reduce our demand for electrical power, we will be much better off. I drive a hybrid car, which I think makes sense, and also helps reduce the demand for oil. All of these things add up. The more people do in their everyday lives to cut energy use, the better off we all are," she said.

She said she was under the impression she would be paid for the power she produces, but instead earns a credit, which cannot be transferred to her other account with the Wolfeboro Electrical Department for the separate line meter for her home.

"I also have to pay a double customer charge. I'm not sure that's right. I think they would want to encourage people to reduce demand. But this is all kind of new to everyone, and I'm not sure they know how to handle it," said Clark.

She said the windmill has an automatic shutoff so power won't be generated if there is a power interruption.

"That keeps current from going onto the grid so that anyone working on a line won't get hurt," said Clark.

Her location is ideal for a wind tower as she is nearly at the peak of a hill with the nearest stand of trees, that could reduce the wind's velocity, more than 500 feet away.

She said prevailing winds coming off the Ossipee Mountains produce gusts as high as 70 miles per hour, and her system is capable of producing 400 kilowatt hours per month with a steady wind of 12 miles per hour.

She hosted a tour of area residents at an energy fair recently, and nearly 40 people toured her property to see how the system works.

"Unfortunately, there was no wind that day. But when there is a wind, the generator can pivot all 360 degrees to spin the blades no matter which direction the winds come from," she said.

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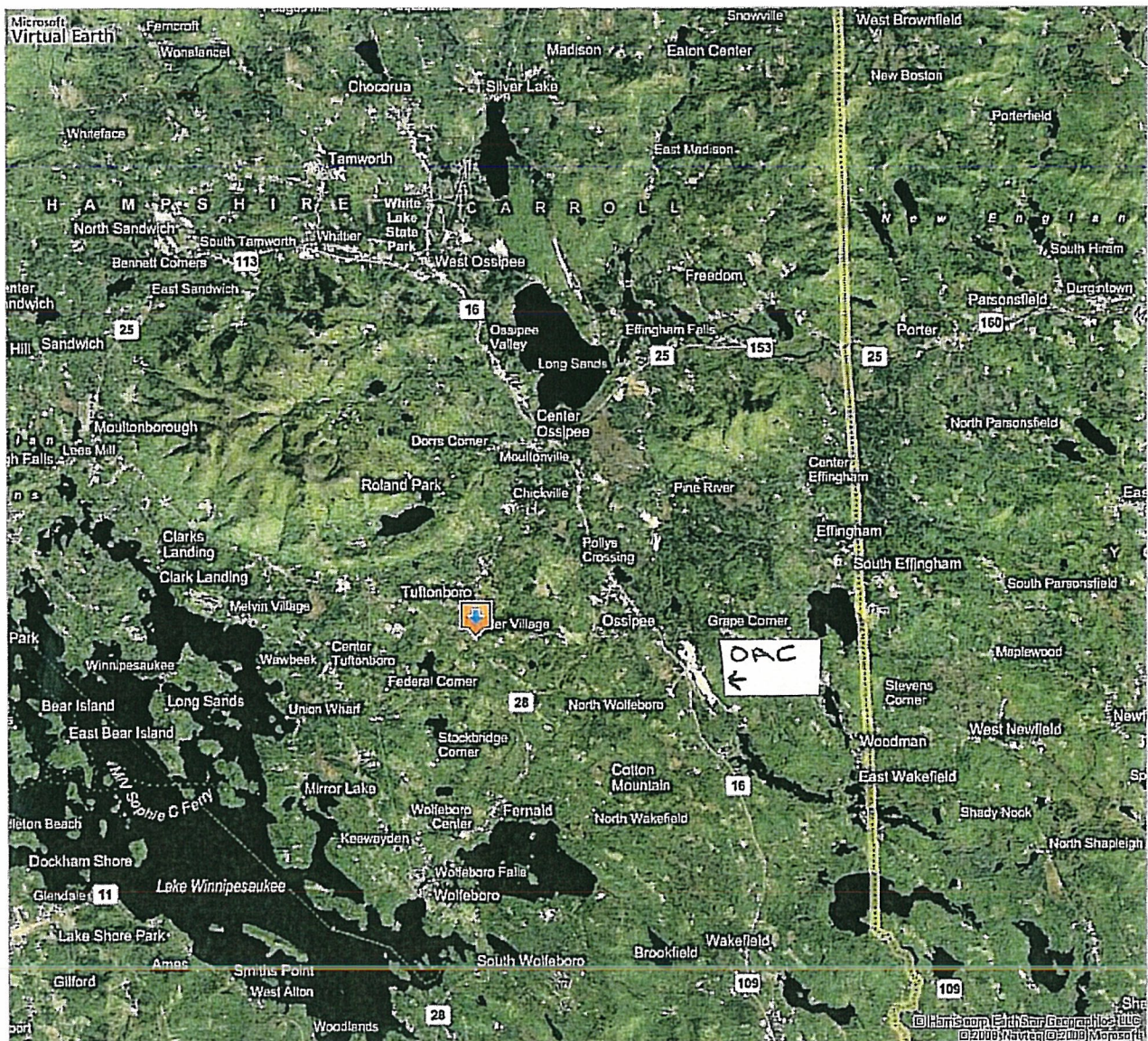
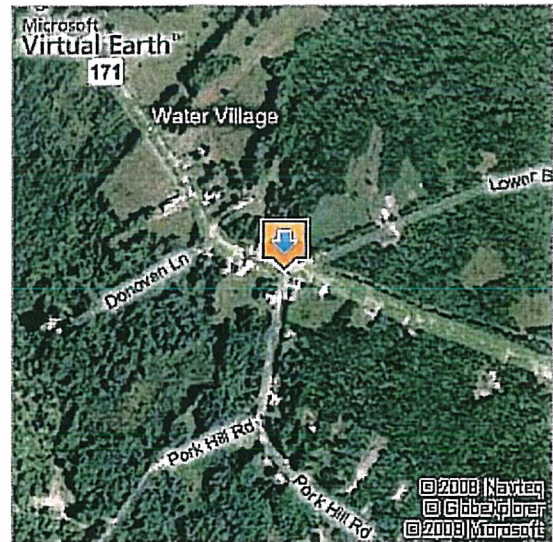


Live Search Maps

**10 Pork Hill Rd, Ossipee, NH 03864-7252**

My Notes

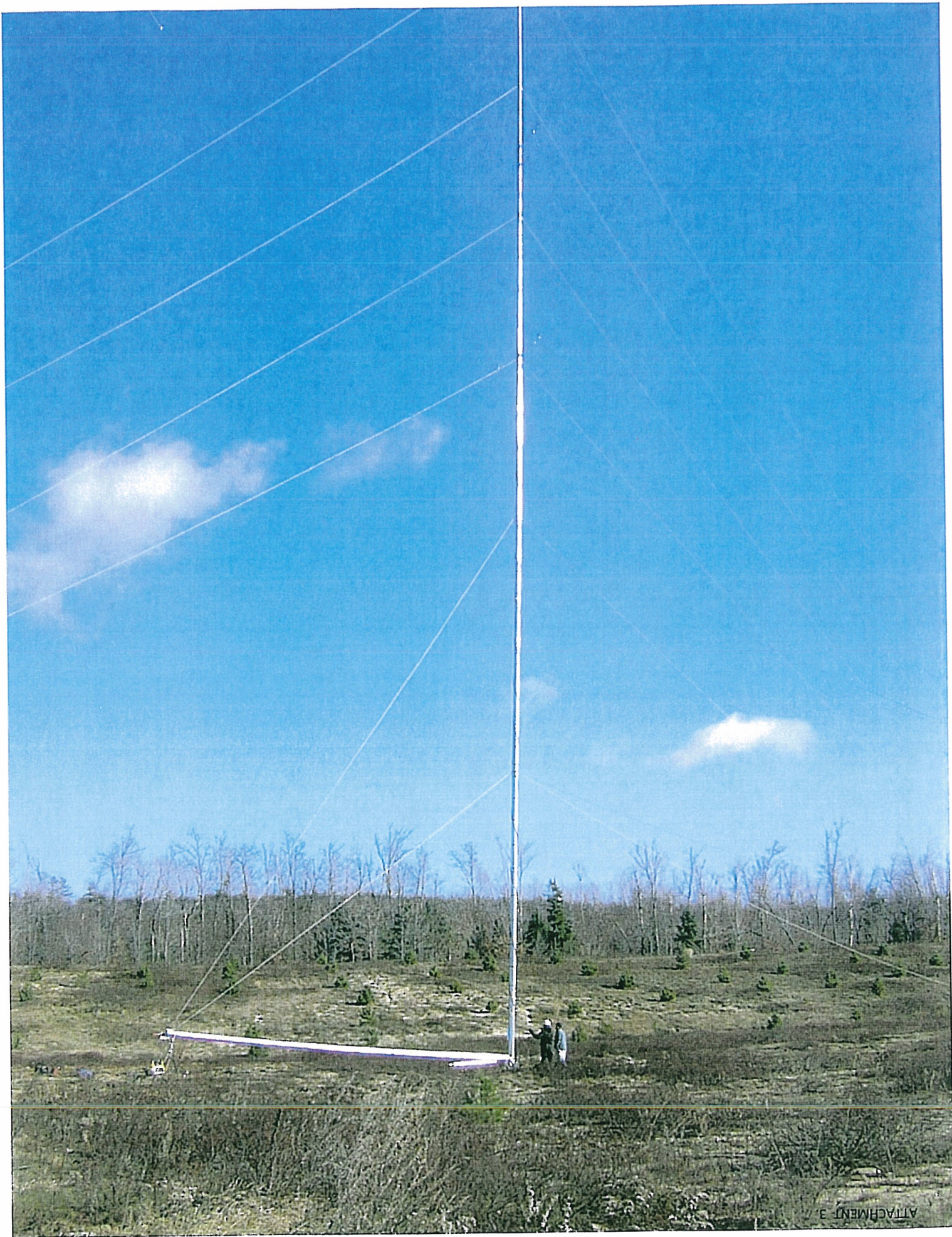
FREE! Use Live Search 411 to find movies, businesses & more! 800-CALL-411.













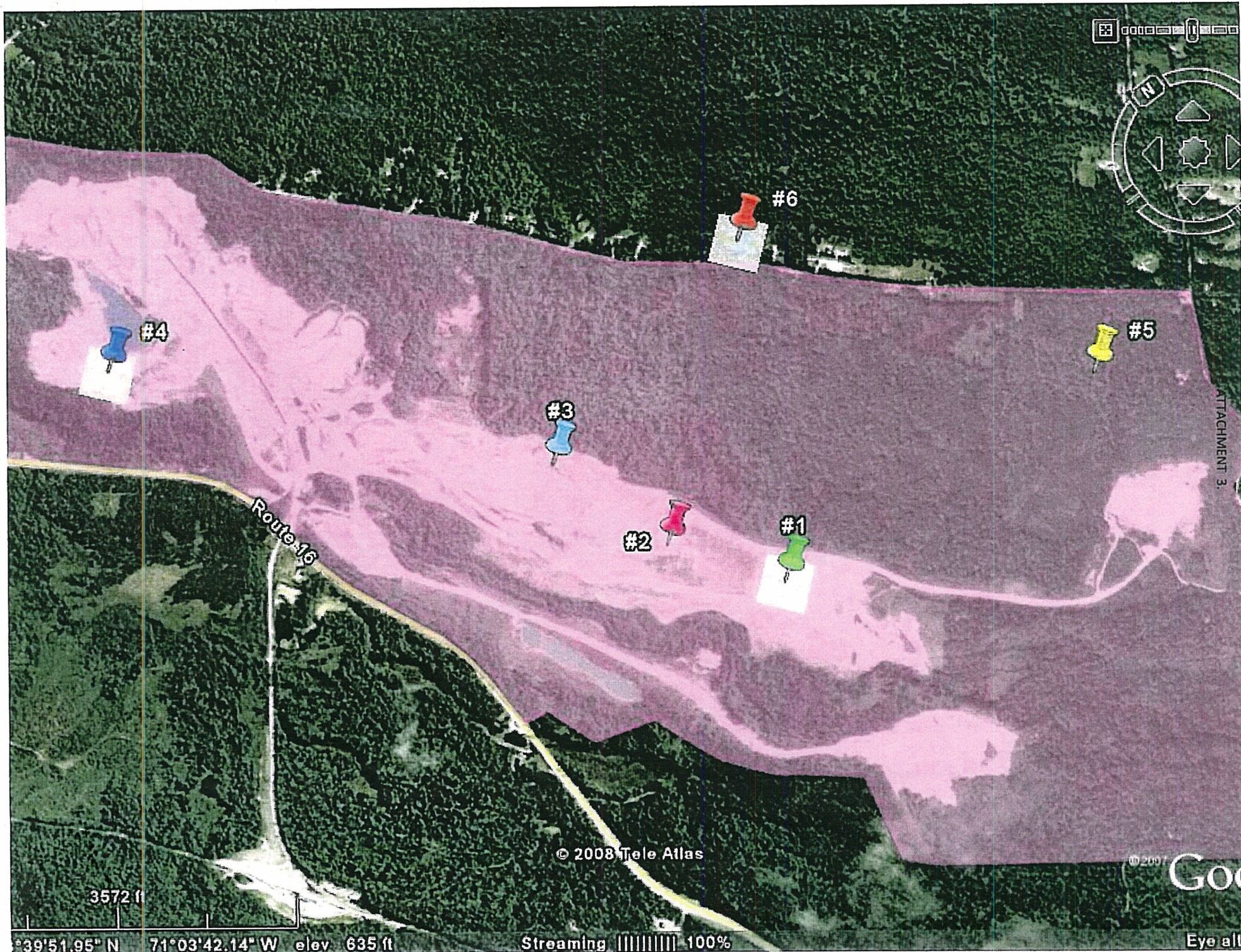
ATTACHMENT 3.



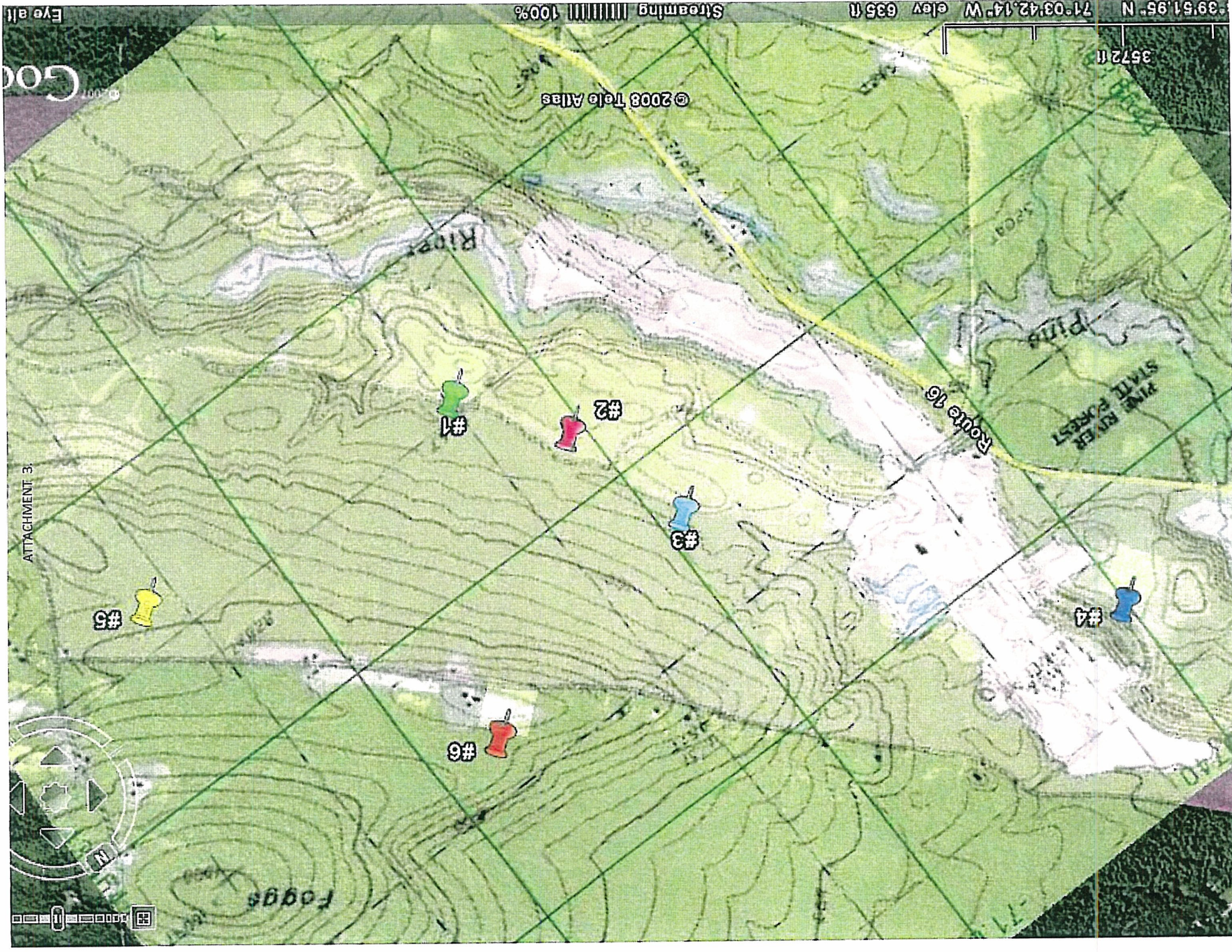












39°51.95' N 71°03.42.14' W elev 635 ft 3572 ft  
Streaming 100% Eye all

ATTACHMENT 3



National Wind Assessments  
 10/27/2008  
 Ossipee Aggregates, Corps.  
 Wind Assessment Project Costs

## Summary

Qty.	Item Number	Description	Price	Total Price
1	4066-4067-4068	NRG-NOW System 60 Meter XHD Calibrated Symphonie	\$15,750.00	\$15,750.00
		Symphonie iPack for Iridium Satellite Phone, W/400		
1	4033	Minutes, w/PV	\$3,450.00	\$3,450.00
1	2046	NRG #BP20 Barometric Pressure Sensor	\$325.00	\$325.00
1	3155	Symphonie SCM Card for BP20	\$39.00	\$39.00
1	SOLLT01	Solar Obstruction Light	\$495.00	\$495.00
1	3930	Ginpole for 60mHD, 60m/50m XHD TallTowers	\$1,600.00	\$1,600.00
20	MR-4-20221	MANTA RAY - MR4 anchor system	\$85.00	\$1,700.00
1	9997	Bright yellow guy shields M&L per tower	\$200.00	\$200.00
1	9999	NWA - Installation, Commissioning & Documentation	\$16,370.43	\$16,370.43
12	DATA COL	Mothly data collection service and reports	\$250.00	\$3,000.00
6	SATELPHONE	Satellite phone service fee (first 6 months free)	\$120.00	\$720.00
		Wind modeling and assessment using WASP/windPRO		
1	WINDMOD	programming	\$20,000.00	\$20,000.00
1	DECOMM	Decommissioning and Removal of Tower	\$7,000.00	\$7,000.00
<b>TOTAL</b>				<b>\$70,649.43</b>



10/1/2008

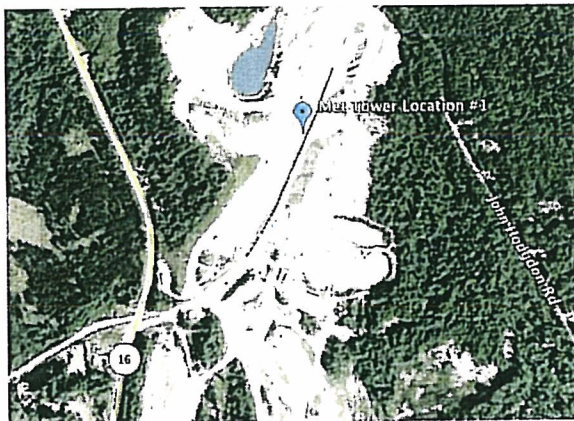
Gary Hogg  
Boston Sand & Gravel  
100 North Washington Street  
Boston, MA 02114  
Tel.# (617) 227-9000  
gwhogg@bostonsand.com

**Overview of National Wind Assessments:**

National Wind Assessments is a comprehensive group of wind energy professionals that offer complete wind assessment services. With over 100 wind assessment projects completed, NWA offers unique wind expertise to maximize project profitability. NWA specializes in WindPRO wind assessment software and NRG system met tower installations. Here at NWA, we can successfully guide landowners and development firms through the essential steps of a fully operational wind farm.

**Met Towers:**

National Wind Assessments proposes installation of Qty. (1) 60m meteorological tower within the property owned by Boston Sand & Gravel near Ossipee, NH.



Google Earth view of Boston Sand & Gravel Property



Image of installed met tower by NWA

An initial micrositing study will be performed with mapping programs such as Google Earth to determine premium locations for the met tower. A site visit with an NWA engineer and Gary Hogg will be required to determine which of the proposed locations will meet our guidelines.

Micrositing factors (but not limited to):

- Soil Condition
- Accessibility
- Obstructions such as trees, buildings, radio towers
- Predominant wind direction

Sensing equipment and heights:

Qty. 2 Anemometers and Direction Vane at 60m

Qty. 2 Anemometers and Direction Vane at 50m





Qty. 2 Anemometers at 40m  
Qty. 1 Temperature Sensor at 3m  
Qty. 1 Barometric Pressure Sensor at 3m

**Documentation:**

Complete documentation of the tower installation will be supplied after installation. This includes:

- Sensor Orientation
- Anemometer calibration reports
- Ground resistance verification
- Anchor load verification to 6,000 lbs.
- Photography of instruments at each height
- Orientation photography
- Final coordinates of tower location
- Satellite Ipack antenna signal strength verification
- Test Ipack call-in verification
- Datalogger configuration

Extensive documentation is essential for met tower installations to ensure wind speeds collected from each sensor are credible.

Purchase of Qty. (1) NRG 60m XHD Met Tower with installation and documentation:

**\$39,929.43 – See Attached Quote #200874**

**\*Note: Equipment supplied by Boston Sand and Gravel such as Bobcat rental will be deducted from the invoice based on market value.**

**Data Collection:**

The loss of wind data can negatively impact a wind energy project in many ways. A data acquisition program should involve data collected and examined on a weekly basis to identify and correct failures with the communications, instrumentation, sensors or power systems. When problems are identified they should be corrected quickly to minimize data loss.

Wind data should be analyzed and reports generated monthly in regards to data recovery, mean monthly wind speeds and direction, and frequency distribution. National Wind Assessments will provide these services to insure the integrity of a wind data acquisition program and preserve the valuable assets of on-site wind data.

**Scope of Services:**

- Collect raw data files and examine data on a weekly basis.
- Notification of faulty sensors or communication problems as required.
- Provide monthly reports for all of the sensors installed.
- Provide a quarterly and yearly summary report of the data collected, recovery rate and monthly mean measurements.

Monthly Data Collection and Reports for Qty. (1) Met Towers is: **\$250/month**



**Wind Assessment:**

National Wind Assessments will create a complete wind resource assessment based on the data collected from the installed met tower. At least one year of wind data is required for a complete feasibility report, but NWA can begin to generate a meteo report and initial turbine layout after three months of data collection.

The complete wind assessment services include:

- Data analysis
- Topography maps
- Contour lines, roughness for wind modeling
- Wind Resource map at hub height
- Preliminary turbine layout
- Suggested turbine manufacturer

The wind assessment services fee will be based on wind data collected from the met tower and billed at an hourly rate.

National Wind Assessments estimates our wind assessment fee to be: **\$20,000.00**

**See the attached spreadsheet for a complete list of costs.**

Thank You:

Ben Ransom

National Wind Assessments  
3033 Excelsior Blvd. #525  
Minneapolis, MN 55416  
Phone: 651-270-3897  
Fax: 888-867-0688  
Email: [bransom@nationalwind.com](mailto:bransom@nationalwind.com)

# NATIONALWIND ASSESSMENTS

3033 Excelsior Blvd, Suite 525  
Minneapolis, MN 55416  
Phone: (612) 746-6600  
Fax: (888) 867-0688

Quote for: 1-new NRG 60m XHD calibrated tower with installation near Ossipee, NH

Quote Number: 200874  
Date: 10/1/08  
Expiration Date: 10/31/08

Payment Terms: **Prepayment**  
Shipping Method: **Truck-Freight Paid**

Bill To: Gary Hogg  
Boston Sand & Gravel  
100 North Washington Street  
Boston, MA 02114  
Tel.# (617) 227-9000  
gwhogg@bostonsand.com

Ship To: TBD

Qty	Item No.	Description	Unit Price	Total
<b>1 New - 60m XHD Tower and Equipment</b>				
1	4066-4067-4068	NRG-NOW System 60 Meter XHD Calibrated Symphonie	\$15,750.00	\$15,750.00
1	4033	Symphonie iPack for Iridium Satellite Phone, W/400 Minutes, w/PV	\$3,450.00	\$3,450.00
1	2046	NRG HBP20 Barometric Pressure Sensor	\$325.00	\$325.00
1	3155	Symphonie SCM Card for BP20	\$39.00	\$39.00
1	SOLLT01	Solar Obstruction Light	\$495.00	\$495.00
1	3930	Ginpole for 60mHD, 60m/50m XHD TallTowers	\$1,600.00	\$1,600.00
20	MR-4-20221	MANTA RAY - MR4 anchor system	\$85.00	\$1,700.00
<b>Labor Expenses</b>				
1	9997	Bright yellow guy shields M&L per tower	\$200.00	\$200.00
1	9999	NWA - Installation, Commissioning & Documentation (Includes - labor, materials, equipment, travel, lodging & meals)	\$16,370.43	\$16,370.43
Total - Tower and Equipment Costs (must be prepaid before ordering)				\$23,359.00
NWA - Installation, Commissioning & Documentation w/ guy shields				\$16,570.43
Sales/Use Tax NH (0%)				\$0.00
<b>Complete Tower Install Price</b>				<b>\$39,929.43</b>

\* Any Permits or FAA Registration is required by owner

\* Cost of guy markers included - recommended for forming, etc.

\* Need contact person and shipping address for tower

\* Should have forklift & personnel available at delivery site for unloading/loading  
(Pallet dimensions are 8' L X 4' W X 4' H and weight is about 3200 lbs)

\* Any special type anchoring required other than standard NRG screw-in type incurs extra costs  
(arrowhead or rock type anchors may be necessary due to rocky soil conditions)  
(extra costs may incur if additional anchors need to be installed at winch or outer anchor locations)

\* This quote was figured with a standard 60m XHD Calibrated Kit which includes:

- 2 calibrated anemometers and 1 wind direction sensor at the 60 meter level
- 2 calibrated anemometers and 1 wind direction sensor at the 50 meter level
- 2 calibrated anemometers at the 40 meter level
- 1 calibrated anemometers at the 20 meter level
- 1 temperature sensor with radiation shield
- 1 Barometric Pressure Sensor

\* Owner is responsible for setting up & paying for Satellite iPack Account

\* Any crop removal to access sites and perform work done by owner

- \* Underground utility locates by owner
- \* Tree clearing to access sites by owner
- \* Any fencing required by owner

\* Delays due to events out of our control may incur additional charges  
(Such as permitting, weather, adverse site/soil conditions, etc.)

\* Schedule still negotiable due to short notice

\* Installation takes about 4 days/mast and shipping approximately 1 week

\* This quote does not include any type of maintenance agreement

\* Tower removal at end of monitoring period not included

Authorized Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**\*\* To confirm order please sign and date above and fax back \*\***

2% Finance Charge monthly for overdue balances, charges begin 30 days after date of completion.





## Meteorological Tower Agreement

### NATIONAL WIND ASSESSMENTS

#### 1. Overview.

The meteorological (met) tower agreement contained herein, together with any additional or different terms contained in NATIONAL WIND ASSESSMENTS' Proposal, if any, submitted to Purchaser (which Proposal shall control over any conflicting terms), constitute the entire agreement (the "Agreement") between the parties with respect to the order and supersede all prior communications and agreements regarding the order. Acceptance by NATIONAL WIND ASSESSMENTS of the order, or Purchaser's acceptance of NATIONAL WIND ASSESSMENTS' Proposal, is expressly limited to and conditioned upon Purchaser's acceptance of these met tower agreements, payment for or acceptance of any performance by NATIONAL WIND ASSESSMENTS being acceptance. These terms and conditions may not be changed or superseded by any different or additional terms and conditions proposed by Purchaser to which terms NATIONAL WIND ASSESSMENTS hereby objects. Unless the context otherwise requires, the term "Equipment" as used herein means all of the equipment, parts, accessories sold, and all software and software documentation, if any, licensed to Purchaser by NATIONAL WIND ASSESSMENTS ("Software") under the order. Unless the context otherwise requires, the term "Services" as used herein means all labor, supervisory, technical and engineering, installation, repair, consulting or other services provided by NATIONAL WIND ASSESSMENTS under the order. As used herein, the term "Purchaser" shall include the initial end use of the Equipment and/or services.

#### 2. Pricing.

- (a) Unless otherwise specified in writing, NATIONAL WIND ASSESSMENTS guarantees pricing for thirty, (30) days from the date thereof.
- (b) The price does not include any federal, state or local property, license, privilege, sales, use, excise, gross receipts, or other like taxes, which may now or hereafter be applicable. Purchaser agrees to pay or reimburse any such taxes which NATIONAL WIND ASSESSMENTS or its suppliers are required to pay or collect. If Purchaser is exempt from the payment of any tax or holds a direct payment permit, Purchaser shall, upon order placement, provide NATIONAL WIND ASSESSMENTS a copy, acceptable to the relevant governmental authorities of any such certificate or permit.
- (c) The price includes customs duties and other importation or exportation fees, if any, at the rates in effect on the date of NATIONAL WIND ASSESSMENTS Proposal. Any change after that date in such duties, fees, or rates, shall increase the price by NATIONAL WIND ASSESSMENTS additional cost.

#### 3. Payment.

- (a) Unless specified to the contrary in writing by NATIONAL WIND ASSESSMENTS, payment terms are net cash, payable without offset, in United States Dollars, upon receipt of invoice by check, credit card, or wire transfer to the account designated by NATIONAL WIND ASSESSMENTS in the Proposal.
- (b) If in the judgment of NATIONAL WIND ASSESSMENTS the financial condition of Purchaser at any time prior to delivery does not justify the terms of payment specified, NATIONAL WIND ASSESSMENTS may require payment in advance, payment security satisfactory to NATIONAL WIND ASSESSMENTS, or may terminate the order, whereupon NATIONAL WIND ASSESSMENTS shall be entitled to receive reasonable cancellation charges. If delivery is delayed by Purchaser, payment shall be due on the date NATIONAL WIND ASSESSMENTS is prepared to make delivery. Delays in delivery or nonconformities in any installments delivered shall not relieve Purchaser of its obligation to accept and pay for remaining installments.
- (c) Purchaser shall pay, in addition to the overdue payment, a late charge equal to the lesser of 2% per month or any part thereof or the highest applicable rate allowed by law on all such overdue amounts plus NATIONAL WIND ASSESSMENTS' attorneys' fees and court costs incurred in connection with collection.

#### 4. Agreement and Service Changes.

- (a) Any changes requested by Purchaser affecting the ordered scope of work must be accepted by NATIONAL WIND ASSESSMENTS and resulting adjustments to affected provisions, including price, schedule, and guarantees mutually agreed in writing prior to implementation of the change.
- (b) NATIONAL WIND ASSESSMENTS may, at its expense, make such changes in the Equipment or Services as it deems necessary, in its sole discretion, to conform the Equipment or Services to the applicable specifications. If Purchaser objects to any such changes, NATIONAL WIND ASSESSMENTS shall be relieved of its obligation to conform to the applicable specifications to the extent that conformance may be affected by such objection.

#### 5. Warranties and Remedies.

- (a) **Services Warranty.** NATIONAL WIND ASSESSMENTS warrants that Services shall be free of defects in workmanship. The Warranty Remedy Period for Services shall end one hundred and twenty (120) days after the date of completion of Services.
- (b) **Services Remedy.** If a nonconformity to the foregoing warranty is discovered in the Services during the applicable Warranty Remedy Period, as specified above, under normal and proper use and written notice of such nonconformity is provided to NATIONAL WIND ASSESSMENTS promptly after such discovery and within the applicable Warranty Remedy Period, NATIONAL WIND ASSESSMENTS shall, at its option, (i) re-perform the nonconforming Services or (ii) refund the portion of the price applicable to the nonconforming portion of Equipment or Services. If any portion of the Services so repaired, replaced or re-performed fails to conform to the foregoing warranty, and written notice of such nonconformity is provided to NATIONAL WIND ASSESSMENTS promptly after discovery and within the original Warranty Remedy Period applicable to such Services or 30 days from completion of such repair, replacement or re-performance, whichever is later, NATIONAL WIND ASSESSMENTS will repair or replace such nonconforming Equipment or re-perform the nonconforming Services. The original Warranty Remedy Period shall not otherwise be extended.
- (c) THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF QUALITY AND PERFORMANCE, WHETHER WRITTEN, ORAL OR IMPLIED, AND ALL OTHER WARRANTIES INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USAGE OF TRADE ARE HEREBY DISCLAIMED. THE REMEDIES STATED HEREIN CONSTITUTE PURCHASER'S EXCLUSIVE REMEDIES AND NATIONAL WIND ASSESSMENTS'S ENTIRE LIABILITY FOR ANY BREACH OF WARRANTY.
- (d) The products used by National Wind Assessments (NWA) come with original manufacturer warranties. All work performed by NWA is compliant with the manufacturers rules and regulations to ensure approved third party manufacturer warranty. NWA warrants that the logger communicates with a confirmed download before the NWA crew departs from the site. After NWA leaves the site, any problems encountered with the communication of the logger shall require a revisit to the site at an additional fee. NWA will not guarantee communications after its departure.

#### 6. Limitation of Liability.

- (a) NATIONAL WIND ASSESSMENTS, its suppliers or subcontractors will not be liable for special, indirect, incidental or consequential damages, whether in contract, warranty, tort, negligence, strict liability or otherwise, including, but not limited to, loss of profits or revenue, loss of use of the Equipment or any associated equipment, cost of capital, cost of substitute equipment, facilities or services, downtime costs, delays, and claims of customers of the Purchaser or other third parties for any damages. NATIONAL WIND ASSESSMENTS' liability for any claim whether in contract, warranty, tort, negligence, strict liability, or otherwise for any loss or damage arising out of, connected with, or resulting from this Agreement or the



performance or breach thereof, or from the design, manufacture, sale, delivery, resale, repair, replacement, installation, technical direction of installation, inspection, operation or use of any equipment covered by or furnished under this Agreement, or from any services rendered in connection therewith, shall in no case exceed one-half (1/2) of the purchase price allocable to the Services which gives rise to the claim.

(b) All causes of action against NATIONAL WIND ASSESSMENTS arising out of or relating to this Agreement or the performance or breach hereof shall expire unless brought within one year of the time of accrual thereof.

(c) In no event, regardless of cause, shall NATIONAL WIND ASSESSMENTS be liable for penalties or penalty clauses of any description or for indemnification of Purchaser or others for costs, damages, or expenses arising out of or related to the Equipment and Services.

#### 7. Laws and Regulations.

NATIONAL WIND ASSESSMENTS does not assume any responsibility for compliance with federal, state or local laws and regulations, except as expressly set forth herein, and compliance with any laws and regulations relating to the operation or use of the Equipment or Software is the sole responsibility of the Purchaser. All laws and regulations referenced herein shall be those in effect as of the Proposal date. In the event of any subsequent revisions or changes thereto, NATIONAL WIND ASSESSMENTS assumes no responsibility for compliance therewith. If Purchaser desires a modification as a result of any such change or revision, it shall be treated as a change per Article 4. Nothing contained herein shall be construed as imposing responsibility or liability upon NATIONAL WIND ASSESSMENTS for obtaining any permits, licenses or approvals from any agency required in connection with the supply, erection or operation of the Equipment. This Agreement shall be governed by the laws of the State of Minnesota, but excluding the provisions of the United Nations Convention on Contracts for the International Sale of Goods and excluding Minnesota law with respect to conflicts of law. Purchaser agrees that all causes of action against NATIONAL WIND ASSESSMENTS under this Agreement shall be brought in the State Courts of the State of Minnesota, or the U.S. District Court for Minnesota. If any provision hereof, partly or completely, shall be held invalid or unenforceable, such invalidity or unenforceability shall not affect any other provision or portion hereof and these terms shall be construed as if such invalid or unenforceable provision or portion thereof had never existed.

#### 8. Force Majeure.

NATIONAL WIND ASSESSMENTS shall neither be liable for loss, damage, detention or delay nor be deemed to be in default for failure to perform when prevented from doing so by causes beyond its reasonable control including but not limited to acts of war (declared or undeclared), Acts of God, fire, strike, labor difficulties, acts or omissions of any governmental authority or of Purchaser, compliance with government regulations, insurrection or riot, embargo, delays or shortages in transportation or inability to obtain necessary labor, materials, or manufacturing facilities from usual sources or from defects or delays in the performance of its suppliers or subcontractors due to any of the foregoing enumerated causes. In the event of delay due to any such cause, the date of delivery will be extended by period equal to the delay plus a reasonable time to resume production, and the price will be adjusted to compensate NATIONAL WIND ASSESSMENTS for such delay.

#### 9. Cancellation.

Any order may be cancelled by Purchaser only upon prior written notice and payment of termination charges, including but not limited to, all costs identified to the order incurred prior to the effective date of notice of termination and all expenses incurred by NATIONAL WIND ASSESSMENTS attributable to the termination, plus a fixed sum of ten (10) percent of the final total price to compensate for disruption in scheduling, planned production and other indirect costs.

#### 10. Termination.

No termination by Purchaser for default shall be effective unless, within fifteen (15) days after receipt by NATIONAL WIND ASSESSMENTS of Purchaser's written notice specifying such default, NATIONAL WIND ASSESSMENTS shall have failed to initiate and pursue with due diligence correction of such specified default.

#### 11. Assignment.

Any assignment of this Agreement or of any rights or obligations under the Agreement without prior written consent of NATIONAL WIND ASSESSMENTS shall be void.

#### 12. Entire Agreement.

This Agreement constitutes the entire agreement between NATIONAL WIND ASSESSMENTS and Purchaser. There are no agreements, understandings, restrictions, warranties, or representations between NATIONAL WIND ASSESSMENTS and Purchaser other than those set forth herein or herein provided.

Agreement is for quote number: **200874**

Amount: **\$39,929.43**

**Please sign top copy and fax back to National Wind Assessments**

**Fax: 888-867-0688**

**Any questions please contact sales representative:**

**Ben Ransom**

**651-270-3897**

**bransom@nationalwind.com**



