

#### VIA E-MAIL

August 13, 2010

Kristi Izzo, Secretary New Jersey Board of Public Utilities Two Gateway Center, 8<sup>th</sup> Fl. Newark, NJ 07102

Re: I/M/O the Offshore Wind Rebate Program for the Installation of **Meteorological Towers** 

BPU Docket Nos. EO08110971 and EO08121064

MET Tower Rebate Program Eligibility Determination – BPU Request for Public Comment on GSOE Request For Rebate Clarification

Dear Secretary Izzo:

Garden State Offshore Energy, LLC ("GSOE") hereby submits the following written comments in response to the New Jersey Board of Public Utilities ("Board") August 6, 2010 request for public comment in connection with the above-referenced GSOE request for clarification. As indicated in GSOE's June 8, 2010 submission to the Board, GSOE is presently seeking a clarification that its proposed SeaZephIR<sup>TM</sup>, a floating wind resource collection system, meets the criteria for the \$4M meteorological station ("MET station") rebate awarded by the Board to GSOE on January 8, 2009.

In support of its request for clarification, GSOE will continue to rely on its June 8, 2010 submission as well as the supportive correspondence submitted to the Board by the New Jersey Department of Environmental Protection ("NJDEP") on July 21, 2010 and by the United States Department of the Interior – Bureau of Ocean Energy Management, Regulation and Enforcement ("BOEM") on August 2, 2010 (attached).

The purpose of these comments is to reaffirm GSOE's commitment to conduct all necessary environmental resource monitoring associated with obtaining further regulatory approvals, engaging in prudent construction and achieving the ultimate objective of operating a 350 MW off-shore wind generating facility off the coast of New Jersey. The SeaZephIR will provide avian and bat acoustic monitoring, salinity, wave, temperature and other valuable environmental resource data. GSOE is fully aware that if the Project continues to move forward, it may be required to collect further environmental data in future phases. Additional monitoring equipment, such as avian radar, and broader flexibility to site other equipment will be utilized in these future project phases.



GSOE fully agrees with the Board's statement in its August 6, 2010 notice that the SeZephIR will "offer better wind resource assessment data with near and long term cost advantages compared to the original anemometer based on a fixed foundation." GSOE has extensively evaluated the SeaZephIR<sup>TM</sup> system and strongly believes it will enable GSOE to install a state-of-the-art LIDAR (Light Detection and Ranging) based system for wind resource assessment purposes in 2010. Moreover, because the SeaZephIR<sup>TM</sup> will collect a broader range of wind resource data to that of mechanical anemometer readings, it will provide GSOE a head start on data collection activities while providing the flexibility of being able to move the SeaZephIR<sup>TM</sup> around the project site to assess multiple areas. Installation of the SeaZephIR<sup>TM</sup> will also have less environmental impact given that its mooring system rests on the ocean floor rather than being driven into the ocean floor like fixed-platform foundations.

Accordingly, GSOE respectfully requests that the Board determine that the SeaZephIR<sup>TM</sup> unit is eligible for inclusion in the MET station rebate program and that costs previously incurred for the MET mast and those necessary to acquire and install a SeaZephIR<sup>TM</sup> unit will be reimbursed in accordance with the MET station rebate program rules.

GSOE appreciates the opportunity to submit these comments and looks forward to continuing to work in partnership with the Board and other local, state and federal government entities in the development of an offshore wind industry in this region.

Respectfully submitted,

Robert L. Gibbs By:

> Robert L. Gibbs Vice President

Garden State Offshore Energy

(973) 430-7985

Email: Robert.Gibbs@pseg.com

Cc: Rhea Brekke, BPU Chief of Staff Ronald Jackson, BPU Executive Director Joe Sullivan, Director, Div of Econ Devel. Mike Winka, Director OCE Scott Hunter, OCE Anne Marie McShea, OCE Alma Rivera, OCE Rachel Boylan, BPU Counsel's Office Jim McGuire, DAG Cynthia Miller, DAG



## State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF SCIENCE
P.O. Box 420
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BOB MARTIN
Commissioner

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CHRIS CHRISTIE

Governor

Mr. Michael Winka, Director Office of Clean Energy N.J. Board of Public Utilities 44 South Clinton Avenue Post Office Box 350 Trenton, NJ 08625-0350

Re: Offshore Wind Rebate Program for the Installation of Meteorological Towers and the request by Garden State Offshore Energy for an Eligibility Determination

Dear Mr. Winka,

The Office of Clean Energy (OCE) has asked that the New Jersey Department of Environmental Protection (DEP) provide a response concerning the equivalency of the proposal submitted by Garden State Offshore Energy (GSOE) for the Meteorological (MET) tower rebate. We understand that GSOE is proposing to site a buoy system rather than a fixed MET tower to collect wind resource and environmental monitoring data.

Several DEP programs met with GSOE on July 20, 2010 to learn more about the proposal. It is our understanding that the following data will be collected in Phase I using this new spar buoy system:

- LIDAR data
- Acoustic monitoring for birds and bats (separate systems)
- Acoustic monitoring for marine mammals (subsurface)
- Current profiler ADCP instrument
- Water measurements (e.g., temperature, salinity, etc.)

At the meeting, GSOE acknowledged the importance of radar data for birds and indicated they are investigating whether it can be incorporated into the Phase I surveys. If not, it will be designed into the Phase II spar buoy, or a MET tower will be constructed. They also indicated the urgency to start collecting wind resource data and are committed to collecting needed additional radar data in Phase II.

There are two primary relevant stipulations in the BPU MET Tower rebate program that involve DEP. These include:

- DEP and/or DEP's contactors will be provided access to the station to collect data and/or deploy instruments for data collection based on a mutual agreement to be executed by the parties based on good faith negotiations;
- The rebate applicant shall coordinate with DEP and MMS concerning wind farm preconstruction ecological/environmental studies conducted from the meteorological tower to insure the studies meet the needs of DEP and MMS for wind farm permitting/leasing, and to expedite and standardize the data collection process.

Based on further internal discussion, the DEP made the following decisions. At this time, DEP does not plan on needing access to the original MET station or planned buoy for data collection and/or the deployment of instruments. Therefore, this proposal meets the requirement of this stipulation. Concerning the second stipulation, DEP agrees that the Phase I data collection effort generally meets this requirement and can move forward, with one caveat. This latter 'equivalency' is acceptable based on GSOE's planned and appropriate Phase II data being collected to fill in data gaps required by Federal and State agencies (e.g., offshore radar) prior to construction of a renewable energy wind farm.

Please feel free to contact me at 609-984-6070 if you have any questions or need additional information.

Sincerely yours,

Gary A. Buchanan, Ph.D. Manager

c: Michele Siekerka, DEP Will Waskes, MMS Robert Gibbs, PSEG/GSOE



## United States Department of the Interior

### BUREAU OF OCEAN ENERGY MANAGEMENT, REGULATION, AND ENFORCEMENT

Washington, DC 20240

Mr. Michael Winka Director, Office of Clean Energy New Jersey Board of Public Utilities 44 South Clinton Avenue Trenton, New Jersey 08625-0350

AUG 0'2 2010

Dear Mr. Winka:

On November 1, 2009, the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEM), formerly known as the Minerals Management Service, issued lease OCS-A-0472 to Deepwater Wind, LLC under the Bureau's Interim Policy. This lease allows Deepwater Wind to conduct data collection activities in Protraction Wilmington NJ-1802 Block 7033. At the time that BOEM issued this lease, it was the Bureau's understanding that Deepwater Wind intended to install a meteorological tower on this site in order to collect wind speed and other data pertinent to the eventual development of commercial operations on this site. However, Deepwater Wind recently requested that BOEM consider an alternative site assessment program for data collection within this lease block, and concur that the proposed program would still fall within the activities authorized by Deepwater Wind, LLC Interim Policy lease. This request can be found in the enclosure to this letter.

Specifically, on July 19, 2010, Deepwater Wind delivered a presentation to BOEM staff that proposed utilizing a buoy system and other land-based equipment rather than installing a fixed meteorological tower on the OCS at this time. Deepwater Wind indicated that a fixed platform would be installed at a later date through a project plan modification. This appears to be an innovative approach to gathering offshore wind data. At this time, it would be premature for BOEM to determine that this proposed program would fall within the activities authorized by the developer's Interim Policy lease. Although Deepwater Wind has submitted some preliminary project information to the BOEM staff, Deepwater Wind will need to submit a Project Plan to BOEM, as required under Section 8 of their lease, which will serve as the official description of their proposed activities. However, should the forthcoming Project Plan mirror the activities described in the enclosed letter, it appears as though those activities would be authorized by their lease.

Also at this meeting, BOEM staff noted that Exhibit B, (I) (17) "Access, Instrumentation and Data Collection" of Deepwater Wind lease stipulated that BOEM and/or its contractors would be provided access to the meteorological tower to collect data and/or deploy instruments for data collection. The BOEM had planned to use one or more of the four leases issued under its Interim Policy offshore New Jersey and Delaware to install various data collection devices but has to determine which facility(s) would be utilized. It appears that the fixed platform that Deepwater Wind stated would be installed at a later date will provide the opportunity for BOEM instrumentation.

Finally, BOEM staff has conveyed to Deepwater Wind that without the installation of a fixed structure such as a meteorological tower, the developer may be unable to collect data that will be necessary to inform environmental reviews of their future commercial project. For example, Deepwater Wind may not be able to collect certain bird and bat data that may be requested by other resources agencies, such as the U.S. Fish and Wildlife Service (FWS), to conduct future environmental analysis. The BOEM strongly encouraged Deepwater Wind to contact the FWS to discuss the future information needs for that agency.

The BOEM looks forward to working with offshore wind industry representatives as they develop new and innovative ideas while ensuring that we meet our responsibilities as stewards over energy resources and the environment. We look forward to working closely with Deepwater Wind on this endeavor.

Please feel free to contact Will Waskes at (703) 787-1287 or Jennifer Kilanski at (703) 787-1311 if you have any questions or need additional information.

Sincerely.

Timothy Redding

Acting Program Manger, Office of Offshore Alternative Energy Programs

#### Enclosure

cc:

Scott Hunter, NJBPU Gary Buchanan, NJDEP Chris Wissemann, Deepwater Wind, LLC Robert Gibbs, PSEG



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INFO@AXYS.COM

Fishermen's Energy, LLC 985 Ocean Drive Cape May, NJ 08204 August 8, 2010

Attn: Michael Madia, Chief Operating Officer

Subject: AXYS Support of Fishermen's Energy Planned Meteorological Data

Collection Plan for the New Jersey Offshore Wind Projects

#### Dear Mike:

The AXYS team has reviewed the concept of your plans for wind resource data acquisition for your New Jersey State Waters Offshore Wind Project and Federal Waters Project.

AXYS views very favorably the Fishermen's Energy near-tern offshore wind energy demonstration project based on 6 wind turbines approximately 3 miles off the shore of Atlantic City in NJ State waters, as well as the longer-term plan for Fishermen's Energy's 350MW offshore wind project in Federal waters, in and around MMS Lease block 6931. From our analysis, the meso-scale wind assessment looks to be favorable for these NJ projects, and we view these project sites to be excellent based on other considerations such as water depth, climate, proximity to the electrical load, interconnection, and local supporting infrastructure.

AXYS is a leader in buoy and offshore measurement innovation and technology, with a reputation for making things work on the water. For the proposed Federal project in and around MMS lease block 6931, AXYS is offering to apply its WindSentinel offshore measurement platform. This platform combines a proven NAVY Nomad style buoy with a Catch the Wind Vindicator vertical LIDAR unit; the entire configuration designed for offshore application. We view offshore as the next major energy frontier, however this is only possible after a thorough analysis and assessment of the wind resource – this is ideally what AXYS can help Fishermen's achieve.

We understand that Fishermen's Energy is proposing applying multiple technologies, including the AXYS system. This technology promises to reduce, over time, the cost of offshore wind monitoring, subsequent to validation. Combining offshore systems with land-based validation points will yield a meaningful result. The validation program coordination by Rutgers University and Garrad Hassan, removes any favorable vendor influence and ultimately could produce the most useful and bankable met-data outside of building an expensive met-tower. For the proposed project, the LIDAR-based system offer the ability to deploy on a timely basis, rather than on a delayed basis that is expected because of organizational changes at the Bureau of Ocean Energy Management, Regulations and Enforcement (formerly MMS), which is a significant plus for the Federal waters' project.



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Our wind assessment specialists in Canada have looked over the proposed project site from a wind perspective, given its relative proximity to shore (approximately 10 miles), and the ability to correlate to other near shoreline gathered met-data. We believe that the program designed to utilize the WindSentinel on the project site, with validation near-shore (adjacent to a met tower) is ideal. AXYS has been testing its LIDAR system against met-mast data and the results have been quite favorable. The offshore "field" test will provide the validation needed for acceptance by project financial lenders.

AXYS supports the use of the proposed program using its system configuration of LIDAR and buoy technologies. This will advance the U.S. (and New Jersey) as a leader in the offshore wind industry. Finally, AXYS supports Fishermen's Energy sharing this letter with the NJ Board of Public Utilities and the NJ Department of Environmental Protection.

Sincerely,

Dennis Stacey

Renewable Energy Specialist

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# Offshore MW

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11 August 2010

Office of Clean Energy (Sent via email) NJ Board of Public Utilities 2 Gateway Center Newark, NJ

RE: Response of Request for Public Comment – In the Matter of the Offshore Wind Rebate Program for the Installation of Meteorological Towers:

Docket Nos.	Company
EO08121062	Fishermen's Energy of New Jersey, LLC – Request of Project Modification
EO08121064	Garden State Offshore Energy, LLC – Request for Project Modification

Dear Commissioners, via the Office of Clean Energy:

OffshoreMW appreciates the opportunity to comment on the above captioned Notice issued by Secretary Izzo on August 6, 2010.

OffshoreMW is seeking to develop a 350MW offshore wind facility approximately 14 miles east of Brigantine, New Jersey. We submitted an unsolicited lease application to the Minerals Management Service (now called the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEM)) in January 2010, and have been actively involved in the stakeholder process to develop an "OREC" program for New Jersey that will facilitate a competitive and robust offshore wind industry for the state, with multiple developers. Meanwhile, our sister company in Germany, WindMW, will begin manufacturing and construction by the end of this year on a 288MW project in the North Sea. Our positions and decisions regarding developing an offshore wind industry in New Jersey are based in large part on our extensive experience in Germany.

The delay in the installation of the three meteorological towers, that were originally to be installed in 2009, provides an opportunity for the Board of Public Utilities (Board) to re-evaluate how the \$12 million allocated to support offshore wind data collection can best be utilized to support offshore wind development off the New Jersey coast. The on-going delay in installing the met towers, and substantial modifications to the original meteorological proposals, suggest that such a reevaluation would be well advised. For reasons described below, it is OffshoreMW's

recommendation that the Board allow the extensions provided in its September 16, 2009 Order to lapse, and then to re-evaluate how to best use the \$12 million to expedite the permitting for offshore wind facilities in New Jersey, and further support the development of a new, job-creating offshore wind industry in New Jersey.

As we understand it, the purpose of the met tower rebate program was to help "jump start" the industry by allowing developers to begin collecting data earlier than they otherwise would in the development process, and to provide DEP with additional data on ecological resources (e.g. birds). Furthermore, we understand that some developers argued that the wind resource data should be kept proprietary as being commercially sensitive.

Fortunately, a lot has changed regarding each of these points since the original rebate program was designed, and it is only reasonable and prudent for the Board to consider re-allocating these funds, given these changes.

Far more important to jump-starting the offshore wind industry than early data collection is a reasonable expectation on the part of developers that they will be able to have a market for their offshore wind energy. Passage of the Offshore Wind Economic Development Act ("Act") achieves this end far more forcefully than any met tower rebate program ever could. A serious developer who has received their OREC Order from the Board pursuant to the act should be willing and able to commit the funding necessary to install a met tower, if and when the developer believes it is necessary. Assuming the Governor signs the Act, the risk of paying for a met tower which might not lead to a project no longer needs to be with the ratepayer. Rather, this risk can now be left to the developers, where in our opinion it better belongs.

This is not to say that developers would not benefit from having wind resource data from offshore New Jersey. However, given the uniform nature of wind offshore, and given the successful experience in Germany where many projects utilize the data from just one met tower, we do not see the need for multiple met towers at each project site at this early stage, especially when the projects which have earned rebates are relatively close to each other. Again, some developers may determine they need to have on-site wind measurement data earlier than others, but with an OREC program about to be established those developers should be willing to spend their own funds to that end if truly necessary.

At the same time, as part of the OREC process, the Board will need to be able to evaluate if the price proposed by developers is a reasonable one. A critically important factor, if not most important factor, for evaluating the cost of offshore wind is the quality of the wind resource. New Jersey ratepayers would be well served by having access to quality wind resource data. Therefore, we believe that any new wind resource evaluation program should require that all the data, including wind data, be made public. Furthermore, we note that the Act calls for a rigorous and transparent evaluation of the costs and benefits of the projects, and so the notion that wind data is commercially proprietary is essentially moot for any developer interested in taking part in the OREC program. In addition, publicly available wind data could be of value for other public benefit purposes such as facilitating research and development (for example, a start-up company seeking to test a novel floating LIDAR system), weather forecasting, and marine safety. Indeed, a public offshore platform constructed, installed and operated by Rutgers University's Institute of

Marine and Coastal Sciences could become a valuable resource for the state generally, and further Rutgers's research and education capabilities. The platform could remain in place and provide a location for long term monitoring of the coastal environment, before, during and after the construction of one or more wind facilities, and be utilized for various studies, similar to the FINO platform installed in the German North Sea.

The met tower rebate program was also originally designed to facilitate data collection of ecological resources (e.g. birds and mammals), and here again much has changed since the rebate program was first offered. In particular, the completion of the Ocean Wind Power Ecological Baseline Study ("Baseline Study") both provides a comprehensive data set in hand which developers can utilize, and also demonstrates the effectiveness and value of boat-based surveys when carried out over a long period. The Baseline Study provides a tremendous amount of information that should be used to assist the permitting efforts of individual projects, and New Jersey is to be commended for investing significant funds to conduct the two-year study. The relative benefit of radar data at a particular site, versus boat survey data over a broader area, should be evaluated. Such a re-evaluation could be particularly useful in light of some of the findings of the study, for example the extremely low number of observations of federally listed marine mammals. Finally, it is our understanding that continuing the same type of surveys as used in the Baseline Study over a longer period, ideally without significant interruption, would make the Baseline Study even more valuable yet, perhaps more valuable than radar data at a small number of very limited sites (radar's utility for bird studies is limited to about 5 miles).

Given the above, we suggest that the Board convene a stakeholder process, including Federal and State agencies that will be involved in permitting the offshore wind facilities, along with developers and other interested parties, to consider the following questions:

- 1) How many publicly funded met platforms are really needed in order to facilitate an offshore wind industry in New Jersey, and what is the best entity to own and operate such a facility or facilities?
- 2) Are there ecological resource study regimes or methods that might better facilitate permitting for a larger number of projects, given limited funding sources?
- 3) Who should have access to any data generated, given the substantial public funding, important interest of ratepayers in also having access to the data, fully transparent process required under the Act, and the desire for a large and competitive offshore wind industry?
- 4) Are there opportunities for further cost-sharing with developers who receive an OREC Order per the Act, and therefore arguably should be willing to take on more risk in early development expenses?

We believe that given its responsibilities under the Act, the Board is the ideal agency to facilitate this discussion, in order to ensure the best use of ratepayer funds to achieve the Act's purposes of establishing a true offshore wind industry for New Jersey.

The Board has an opportunity to determine, based on the current state of offshore wind development, how best to use the \$12 million it has allocated to support this development. OffshoreMW suggests that the Board take this opportunity and allow the extension granted in the September 16, 2009 Order to lapse while continuing to allocate these funds to support offshore wind development. We believe that can best be achieved by proceeding along the lines described above. It may be appropriate to have a discussion amongst interested parities concerning this proposal so that Board staff can have the opportunity to fully analyze the suggested approach so the Board can have the best possible information upon which to make its decision. OffshoreMW would be pleased to participate in such a discussion.

If there are any questions concerning these comments please contact me at 401-487-3320.

Respectfully submitted,

Erich Stephens Vice President It seems these discussions should have taken place at the latest in mid-2009, not in late 2010.

I am surprise to see this request for public comments on a possible modification so late in the execution schedule of these wind measuring towers, given that an extension has already been given previously in September of 2009. The entities awarded the grants have also expressed that the time window for 2010 has been exceeded, unless an alternative method to rigid towers is employed. What have those entities done this year and in 2009 to justify an extension of time because of events that were not reasonably within the control of the applicant?

Commenting only on the information provided with this request for public comment (since we are privy to any other information); in the surface, it appears as though the issue is just the use of new technology, but it's probably deeper than that, it seems to be a combination of extension of time and a radical modification from the original requirements.

Excerpting from the NJBPU 2008 Rebate application and technical worksheet: "Construction of a meteorological tower that will be operational in 2009, provided, however, that in the event the construction of the meteorological tower is delayed by an event which is not within the reasonable control of the applicant, then the applicant shall promptly notify the Board of such event and shall consult with Board Staff to determine whether a revised schedule is appropriate. In the event that the applicant does not proceed to complete construction of such meteorological tower no rebate will be issued; Construction of a meteorological tower that is designed to provide data for a proposed. OSW wind farm that will be at least 200 MW..."

The use of LIDAR technology to capture wind data has been used successfully, we actually proposed the use of a radar or LIDAR type technology in our proposal to compete for these funds back in late 2008, but we were advised by the equipment supplier that the readings and data capturing would be more accurate on a stable (i.e. non-floating platform), one of the reasons why we proposed a rigid platform; we also understood this was an important part of the requirements of the contract, since other agencies were going to use it to obtain ancillary information required.

Seems this approach would be unfair to the other agencies; excerpting from the letters addressed to the applicants by US Department of Interior, Bureau of Ocean Energy Management, Regulation and Enforcement it says, dated August 02, 2010: "BOEM staff conveyed.....that without the installation of a fixed bed structure such as a meteorological tower, the developer may be unable to collect data that will be necessary to inform environmental reviews of their future commercial project...". I don't understand the concept as to why this small simple project has to be executed in two distinct phases, when the rigid platform serves all the intended purposes.

It also seems unfair to those of us that participated in trying to obtain some of these funds back in 2008 to build a wind measuring tower, to radically change the requirements of the initial contract after the fact [by radical change we mean the rigid tower not be installed, or not be installed now, but the later date is left completely open].

We in particular, were rejected and were given some strict criteria for that rejection (the criteria setting was done in a very peculiar manner, in which we were provided just one day turnaround to comment on the criteria that would eventually knock us out of the competition, without being given enough time to digest that information and the consequences it would have for our proposal).

By adopting the above mentioned criteria of awarding only to those in the NJ interim lease areas, seems, that New Jersey Board has locked itself with these entities that are have fell behind on the agreed schedules two years in a row on this simple pilot project. What will happen later when the actual wind farm has to be built? Has a date for substantial or final completion been set, or is this open-ended indefinitely?

For those of us experienced in the construction management field, contracts cannot be open ended, and extensions of time are not just handed out when convenient.

The documents presented so far do not seem to justify the extensions of time or modifications that are being sought out. For example, to justify extensions of time, there need to be circumstances beyond the control of those executing the work.

Liquidated damages and extensions of time are complex subjects, frequently

forming the basis of contract claims made under the standard building and civil engineering contracts.

The law on time and damages continues to develop with an increasing flow of judgments from the courts. Alongside this, the standard forms of contract have also developed over time to reflect prevailing approaches to contractual relationships.

#### Terms such as:

- -Extensions when in culpable delay
- -Methods of delay analysis
- -Judicial comments on delay analysis
- -Notification of delay
- -Extension of time
- -Payment of liquidated damages
- -Proportioning down liquidated damages
- -Delay damages

Have to be at least discussed at this time to be fair to the people of New Jersey as well as to the commitments to deliver a certain amount of Renewable Energy by the deadlines already publicly set.

What most construction contracts have in common is that there is a time for performance and liquidated damages payable by the contractor in the event of its failure to complete by the time for completion. An extension of time (EOT) mechanism is required to preserve the owner's right to liquidated damages in the event that delay is caused by matters for which contractor is responsible. If an owner in the execution of contract language does not preserve that right, owner will have forfeited an important recourse tool to control the course of events.

The EOT mechanism may also provide a means of allocating other risks for which the owner/employer is not responsible – such as inclement weather.

What standard forms of construction contract generally have in common is a requirement for the contractor to notify the architect, contract administrator,

engineer or project manager (PM) of an event as soon as it becomes apparent that it has or may cause delay to the completion date and to provide an estimate of the expected effect on the completion date.

The contractor then has to provide particulars necessary for the PM to make an award of an extension of time if appropriate.

The easy answer to the question at the outset is therefore, to establish that the contractor has entitlement to claim under the contract for an extension of time for the type of event that has caused delay. It is then necessary to set out the particulars of the event causing delay – tell the story. The final hurdle is to find a way of establishing what has been or what will be the likely effect on the completion date.

This final hurdle is often the most difficult, for in order to establish that an event has or will cause delay to the completion date it is necessary to establish that the event was on or will be on the critical path of the work. The requirement to decide whether an event falls on the critical path has been considered in a number of cases in the US as well as internationally, an important international case (England) was Motherwell Bridge Construction Ltd v Micafil Vakuumtechnik (2002), in which Judge Toulmin, at paragraph 562 of the judgment said:

"Crucial questions are (a) is the delay in the critical path and, if so, (b) is it caused by MBST? If the answer to the first question if 'Yes' and the second question is 'No' then I must assess how many additional working days should be included."

Respectfully,
Miguel Payano
Occidental Development

#### **References:**

- 1- 2008 NJBPU Rebate and Technical Worksheet Forms
- 2- Letter(s) dated August 02, 1020 from US Dept. of Interior, Bureau of Ocean Energy Management, Regulation and Enforcement.
- 3- Retrieved from: <a href="http://lexisweb.co.uk/cases/2002/January/Motherwell-Bridge-Construction-Ltd-t-a-Motherwell-Bridge-Storage-Tanks-v-Micafil-Vakuumtechnik-and-another">http://lexisweb.co.uk/cases/2002/January/Motherwell-Bridge-Construction-Ltd-t-a-Motherwell-Bridge-Storage-Tanks-v-Micafil-Vakuumtechnik-and-another</a>

Lockheed Martin Coherent Technologies
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Louisville, CO 80027-3025
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August 9, 2010

To: State of New Jersey, Board of Public Utilities Two Gateway Center Newark, NJ 07102

Cc: Fishermen's Energy, LLC 985 Ocean Drive Cape May, NJ 08204

Attn: Michael Madia, Chief Operating Officer

Subject: LMCT Support of Fishermen's Energy Planned Meteorological Data Collection Plan for the New Jersey Offshore Wind Projects

**Dear Board Members:** 

The Lockheed Martin Coherent Technologies ("LMCT") team has reviewed the Fishermen's Energy concept for wind resource data acquisition for the New Jersey State Waters Offshore Wind Project and Federal Waters Project.

LMCT views very favorably the Fishermen's Energy near-term offshore wind energy demonstration project based on 6 wind turbines approximately 3 miles off the shore of Atlantic City in NJ State waters, and the longer-term Fishermen's Energy 350 MW offshore wind project in Federal waters, in and around MMS Lease block 6931. The meso-scale wind assessment is favorable for these NJ projects, and these project sites are serviceable by LMCT long-range horizontal LIDAR wind mapping capabilities.

LMCT is a leader in wind measurement technology. We are part of Lockheed Martin, a company known for scientific and technology innovation, with a long history of proven, innovative solutions not attainable by other enterprises. For the proposed Federal project in and around MMS lease block 6931, LMCT is offering to apply its horizontal scanning LIDAR. This technology has been deployed at over 20 airports worldwide and in military applications. It is proven to provide critical wind hazard information for approaching and departing aircraft. The technology is capable of obtaining real time wind resource assessment data for offshore wind farms, but has not yet been used with the validation, creativity and thought process seen in the Fishermen's Energy program. An added benefit is that our scanning LIDAR has the ability to provide detailed wind resource data in real-time over multiple locations. We can scan land based met tower locations for validation, the ACUA wind farm for validation and scheduling (a new frontier in wind energy), and the Fishermen's Atlantic City wind farm site where

Fishermen's has already deployed a NOAA-style meteorological buoy. This comprehensive capability, once proven, will facilitate financing of offshore wind projects.

We view offshore wind as a valuable source of renewable energy when sited and operated based on a thorough analysis and assessment of the wind resource – this is ideally what LMCT can help Fishermen's achieve.

We understand Fishermen's Energy is proposing to apply multiple technologies including the LMCT system. The LMCT long-range, horizontal LIDAR promises to reduce, over time, the cost of offshore wind monitoring, subsequent to validation. Combining offshore systems with land-based validation points will yield a meaningful result. The validation program coordination by Rutgers University and Garrad Hassan removes any favorable vendor influence and ultimately could produce the most useful and bankable met-data outside of building an expensive met-tower. For the proposed project, the LIDAR-based system offers the ability to deploy on a timely basis, rather than on a delayed basis that is expected because of organizational changes at the Bureau of Ocean Energy Management, Regulations and Enforcement (formerly MMS), which is a significant plus for the Federal waters' project.

Our specialists in Colorado have looked over the proposed project site from a wind perspective, given its relative proximity to shore (approximately 10 miles), and the ability to correlate to other near shoreline gathered met-data. The program designed to use the LMCT LIDAR on a building south of Atlantic City with multiple validation points is ideal. LMCT has tested its LIDAR system against met-mast and other data available at airports and elsewhere. The results have been quite favorable. For example, in June and July 2007 at a prospective wind farm site in the United States, LMCT and Renewable Energy Systems-Americas performed a month-long validation campaign comparing 50-meter high cup anemometer wind measurements to LMCT LIDAR measurements. At a LIDAR line-of-sight range of 3.4 km, the month-averaged wind speeds measured by the LIDAR and the anemometer agreed to within 0.02 m/s, which is an excellent correlation. The shore side test scanning offshore will provide the validation needed for acceptance by project financial lenders.

LMCT supports the use of the proposed program as Fishermen's and its consultants have designed it. This will advance the U.S. (and New Jersey) as a leader in the offshore wind industry. Finally, LMCT supports Fishermen's Energy sharing this letter with the NJ Board of Public Utilities and the NJ Department of Environmental Protection.

Sincerely,

Dr. Michael Margulis WindTracer Director

Mahal Majohi

**Lockheed Martin Coherent Technologies** 

#### BY THE BOARD

This Order memorializes action taken by the Board of Public Utilities ("Board") at its August 4, 2010 agenda meeting. The Board, at its November 21, 2008 agenda meeting, authorized the initiation of an application process for the proposed Offshore Wind ("OSW") Rebate Program in anticipation of and subject to the Board's subsequent approval of the proposed OSW Rebate Program. That action was memorialized in an Order dated November 26, 2008, In the Matter of the Offshore Wind Rebate Program for the Installation of Meteorological Towers Dkt. No.EO08110971 ("November 26th Order").

Following an opportunity for the public to be heard on the proposed rebate program and having considered the comments of stakeholders and members of the general public, the Board, at its December 16, 2008 agenda meeting, approved the 2009 programs and budgets for the New Jersey Clean Energy Program ("NJCEP"), Dkt. No. EO07030203. The Order memorializing that action included approval of a \$12 million budget line item for the OSW Meteorological Tower Rebate Program to offer rebates up to \$4 million to eligible developers in order to encourage the installation of meteorological towers and related equipment. I/M/O Comprehensive Energy Efficiency and Renewable Energy Resource Analysis for 2009-2012: 2009 Programs and Budgets: Compliance Filings, Dkt. No. EO07030203 January 8, 2009.

The OSW Rebate Program application criteria and the rebate commitment conditions are set forth in the Board's November 26th Order. The Staff of the Board's Office of Clean Energy ("OCE") reviewed the OSW Meteorological Tower applications described therein as well as the amount of rebates requested. The OCE found that each application was complete and fully conformed to all Board requirements for a rebate commitment under this program. That action was memorialized in an Order dated January 8, 2009, In the Matter of the Offshore Wind Rebate Program for the Installation of Meteorological Towers, Dkt. No. EOO8121062 (Fishermen's Energy of New Jersey, LLC.)

Fishermen's Energy has requested approval of a <u>"Project Modification / Equivalency Determination"</u> of the met tower rebate award (in Appendix A), such that funds in the amount of \$3.85 million, can be applied to procure, deploy and evaluate innovative technologies to accomplish the same objectives as that which would have been accomplished had a met tower been constructed. In support of that request, Fishermen's has submitted a Wind Resource Assessment Program and supporting documentation.

The Staff of the Board's Office of Clean Energy ("OCE") reviewed the Wind Resource Assessment Program and supporting documentation. The OCE found that the application was complete and fully conformed to all Board requirements for a rebate commitment under this program.

Based on the foregoing, the OCE recommends that the Board approve the above request for "Project Modification / Equivalency Determination" of the Met Tower Award to Fishermen's Energy. Upon review, the Board FINDS that the application fully conforms to all relevant requirements for the Offshore Wind Rebate Program for the Installation of Meteorological Towers. The Board HEREBY APPROVES the aforementioned request for "Project Modification / Equivalency Determination" of the rebate application for \$3.85 million based on the reasonable and prudent actual costs incurred and AUTHORIZES the Staff of the OCE to issue a new commitment letter to Fishermen's Energy, setting forth the terms and conditions of this rebate commitment, which terms and conditions shall not be inconsistent with the Wind Resource Assessment Program and supporting documentation submitted in support of this request.

Fishermen may assign the proceeds of this rebate or the right to receive proceeds under this rebate program for financing purposes to a project funder upon written notice to the Board, but Fishermen's may not delegate its performance under the rebate program without the express written consent of the Board.