



For a thriving New England

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ELECTRONICALLY FILED ON SEPTEMBER 7, 2012

Karen Geraghty
Administrative Director
Maine Public Utilities Commission
18 State House Station
Augusta, ME 04333-0018

Re: CLF Comments on Long Term Contracting for Offshore Wind Energy and Tidal Energy Projects
Docket No. 2010-235

Dear Ms. Geraghty:

Attached please find the comments of CLF in the above-captioned docket.

Thank you.

Sincerely,

Ivy L. Frignoca
Staff Attorney

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Mitchell.tannenbaum@maine.gov

ELECTRONICALLY FILED ON September 7, 2012

**STATE OF MAINE
PUBLIC UTILITIES COMMISSION**

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MAINE PUBLIC UTILITIES COMMISSION)	COMMENTS OF
Long-Term Contracting for Offshore Wind)	CONSERVATION LAW FOUNDATION
Energy and Tidal Energy Projects)	
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)	September 7, 2012
<u>Docket No. 2010-235</u>)	

On August 29, 2012, the Public Utilities Commission (PUC or Commission) issued a Request for Comments (on Non-Confidential Term Sheet) in the above-referenced docket requesting remarks on: (1) the standards and criteria the Commission should use in evaluating the term sheet; (2) whether the proposed term sheet is consistent with the language of the Act to Implement the Recommendations of the Governor's Energy Task Force (P.L. 2009, ch. 615)(the Act) and its purpose and intent; and (3) whether the term sheet should be approved. The below comments by the Conservation Law Foundation (CLF) address those topics and support the Hywind Maine Project proposed by Statoil.

General Comments

Founded in 1966, the Conservation Law Foundation (CLF) is a nonprofit, member-supported organization that uses legal advocacy to solve environmental problems which threaten the people, natural resources and communities of New England. With respect to energy, CLF leads numerous efforts to de-carbonize New England's energy supply and reduce greenhouse gas emissions in accord with scientific evidence. CLF believes offshore wind is a critical non-carbon energy source, and supports efforts to commercialize and deploy offshore wind parks that produce renewable energy while conserving the region's rich marine resources and habitat. With respect to the North Atlantic's marine environment, CLF has amassed an unparalleled advocacy record and wealth of expertise over four decades of work to restore and protect New England's ocean resources and habitats.

In support of both its clean energy and marine conservation advocacy, CLF has participated in numerous environmental and permitting proceedings regarding Cape Wind in Massachusetts and Deep Water Wind's Block Island Wind Farm in Rhode Island. CLF also played a key role in the development of the Rhode Island Ocean Special Area Management Plan (RI SAMP) and the Massachusetts Ocean Plan. Moreover, Sean Mahoney, Vice President and Director of CLF's Maine Office, served on the Maine Governor's Ocean Energy Task Force which studied and recommended strategies Maine should pursue to develop its vast ocean energy resources. These marine spatial plans enhance the economics of offshore wind development and existing marine industries while protecting important ocean wildlife, habitat and cultural resources.¹ Our experience informs our comments.

As a general matter, CLF supports offshore wind farms in Maine, but recognizes there are several challenges to overcome. First, the most consistent and strongest winds off New England's coast are situated in deep waters. The potential of this untapped renewable energy resource has been recognized as critical to the state's future energy production. *See e.g. Final Report of the Ocean Energy Task Force to Governor John E. Baldacci*, December 2009, at p. 5; 35-A M.R.S.A. § 3402(1). However, the technology to capture this energy is under development and does not exist on a commercial scale. There are only a few international pilot projects to develop deep water wind energy technology as noted in Statoil's redacted comments. Among them is a one turbine test site developed by Statoil off the Norwegian coast. To surmount this first barrier, we must support efforts like Statoil's Hywind Maine Project to develop technology that can harness the Gulf of Maine's deepwater wind energy.

The second challenge is creating a local supply chain of qualified contractors who can help build and maintain deepwater offshore wind farms. In its rate sheet, Statoil notes its intent to address this challenge by using commercially reasonable efforts to expend 40% of capital with Maine suppliers.

¹ White, Crow, B.S. Halpern, and C.V. Kappel. 2012. "Ecosystem service tradeoff analysis reveals the value of marine spatial planning for multiple ocean uses." *Proceedings of the National Academy of Sciences* 2012. Published online before print on March 5, 2012: www.pnas.org/cgi/doi/10.1073/pnas.1114215109.

Moreover the company will use commercially reasonable efforts to expend 40% of its operating and maintenance expenditures in Maine. It will also locate its Operations Center in Maine. Finally Statoil seeks to collaborate with the University of Maine to develop technology for aspects of the project.

The third challenge is creating capacity for offshore wind energy to be absorbed into power transmission and distribution systems, so that the energy can be connected into New England's grid to meet future energy needs. Statoil's proposal, which is within the Act's guidelines for the size of pilot projects, will produce 12 MW of power which will connect to the grid via an approximately 20 mile cable from the floating park to a point in the greater Boothbay area.

Another challenge is financial support for developing this technology. As a general matter, new energy technologies need monetary support during initial research and development. Those sources come from federal grants and incentives like the Investment Tax Credit (ITC) and Renewable Energy Production Tax Credits (PTC) and from grants. That support also comes from the ability to enter long term contracts like the proposed 20 year term reflected in the term sheet.

These challenges present opportunities – New England needs renewable energy sources to help supply future power demands, reduce harm from global warming, and decrease our dependence on increasingly expensive fossil fuels which harm the quality of our air, water and health. For these reasons, CLF is a strong proponent of appropriately sited and sized renewable energy projects. support the Statoil Hywind Maine proposal. More specifically, CLF supports the proposed long term contract that is a critical component of Statoil's Hywind Maine proposal.

Specific Comments

1. The Standards and Criteria the Commission should use in Evaluating the Term Sheet

Commensurate with the statutory language contained in the Act to Implement the Recommendations of the Governor's Ocean Energy Task Force (Act), P.L. 2009, ch. 615, 35-A M.R.S. § 3210-C, and the Final Report of the Ocean Energy Task Force, the PUC should consider: the

environmental benefits of offshore wind; the potential for future cost-effective commercial offshore wind parks as a result of this pilot; the development of a supply chain in Maine for future development of offshore wind power throughout New England; the potential for UMaine to further its reputation as a leading engineering and wind energy technology educational institute; the long-term price stability of offshore wind energy; and job creation.

First and foremost among environmental benefits, the Commission should consider that wind-generated electricity emits no greenhouse gasses. When avoided carbon dioxide emissions are valued at \$80 per ton, the value widely regarded by climate scientists as necessary for achieving the reduction in carbon emissions necessary to halt catastrophic climate change,² this value accounts for about 3.8¢ per KWh.³ Therefore when contemplating the cost per kilowatt hour for this energy, a credit of 3.8¢ should be applied against the cost per KWh. In addition a credit should be contemplated for the reduction in emissions like nitrogen oxides (NO_x) or sulfur oxides (SO_x). Wind energy, unlike fossil-fuel generation, does not emit NO_x or SO_x. Most atmospheric ozone forms when NO_x, carbon monoxide (CO) and volatile organic compounds (VOCs) react in the sunlight. Ozone exposure is linked to acute respiratory problems, aggravated asthma, reduced lung capacity, inflamed lung tissue, and impairment of the body's immune system. Mainers increasingly face threats from ozone exposure. *E.g.*

www.maine.gov/tools/whatsnew/index.php?topic=DEP...id....

2. The term sheet is consistent with the Act

The Act recognizes that: “Renewable energy resources within the State and in the Gulf of Maine have the potential, over time, to provide enough energy for the State's homeowners and businesses to reduce their use of oil and liquid petroleum-fueled heating systems by transition to alternative, renewable

² See, e.g., Stern Review Report on the Economics of Climate Change, available at:

http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/sternreview_index.htm

³ Based on our experience in reviewing other offshore wind proposals and the data gathered during those matters, we estimate that at \$80 per ton, the value of avoided carbon dioxide emissions is \$38.56 per MWh, or 3.856¢ per KWh (because \$80/ ton 2000 lbs./ton x 964 lbs/MWh = \$38.56/MWh) where 964 lbs./MWh is the 2008 New England marginal CO₂ emission rate.

energy-based heating systems Electrification of heating... has the potential to increase the State's energy independence, to help stabilize total residential and commercial energy bills and to reduce greenhouse gas emissions." P.L. 2009, ch. 615, Sec. A-2; 35-A M.R.S.A. § 3402 (1)(C) (2009). The Act also encourages wind energy development (35-A M.R.S.A. §3404(1)) and sets wind energy goals including at least 300 megawatts or more from offshore wind energy facilities by 2020. 35-A M.R.S.A. §3404(2). (P.L. 2009, ch. 615, Sec. A-3 and A-4). This goal cannot be realized unless we support development of technology that can produce energy from offshore wind. Statoil is an international energy company with operations in 37 countries. <http://www.statoil.com/en/About/InBrief/Pages/default.aspx>. They have the financial and technical resources, in partnership with grant monies and incentives, to develop new technology, and presumably as a for profit company, are developing floating wind turbines with the belief that floating turbine wind parks will be viable and cost-effective in the foreseeable future.

Statoil's Hywind Maine proposal was submitted in response to the Act's mandate that the PUC solicit long term contracts for installed capacity and associated renewable energy and renewable energy credits from one or more deep-water wind energy pilot projects. P.L. 2009, ch. 615, Sec. A-6. Pursuant to Sec. A-6, the Commission may negotiate with one or more potential suppliers to supply an aggregate total of no more than 30 megawatts of installed capacity and associated renewable energy and renewable energy credits from deep-water offshore wind energy pilot projects or tidal energy demonstration projects as long as no more than 5 megawatts of the total is supplied by tidal energy demonstration projects. Consistent with such negotiations, the commission may direct one or more transmission and distribution utilities, as appropriate, to enter into a long-term contract under this section only if the commission determines that the potential supplier:

- A. Proposes sale of renewable energy produced by a deep-water offshore wind energy pilot project or a tidal energy demonstration project, referred to in this section as "the project;"
- B. Has the technical and financial capacity to develop, construct, operate and, to the extent consistent with applicable federal law, decommission and remove the

project in the manner provided by Title 38, section 480HH, subsection 3, paragraph G;

C. Has quantified the tangible economic benefits of the project to the State, including those regarding goods and services to be purchased and use of local suppliers, contractors and other professionals, during the proposed term of the contract;

D. Has experience relevant to tidal power or the offshore wind energy industry, as applicable, including, in the case of a deep-water offshore wind energy pilot project proposal, experience relevant to the construction and operation of floating wind turbines, and has the potential to construct a deep-water offshore wind energy project 100 megawatts or greater in capacity in the future to provide electric consumers in the State with project-generated power at reduced rates;

E. Has demonstrated a commitment to invest in manufacturing facilities in the State that are related to deep-water offshore wind energy or tidal energy, as applicable, including, but not limited to, component, turbine, blade, foundation or maintenance facilities; and

F. Has taken advantage of all federal support for the project, including subsidies, tax incentives and grants, and incorporated those resources into its bid price.

Moreover, to mitigate any impacts of a long-term contract entered into under this section on electric rates, the commission shall:

A. Require the supplier, as part of the long-term contract, to take advantage of future federal support that may become available to the project over the contract term to mitigate impacts of the contract on electric rates;

B. Use the following funds to the full extent that such funds are available to mitigate impacts of the long-term contract on electric rates over the contract term:

(1) A portion of federal revenues from leasing areas of the Outer Continental Shelf for the project that is received by the State;

(2) A portion of the rent received by the State for leasing state submerged lands;

(3) A portion of the funds collected in the energy independence fund under Title 5, section 282, subsection 9; and

(4) Any other sources of revenue or funds accessible to the commission to mitigate impacts on ratepayers;

C. Develop and market an ocean wind green power offer, in accordance with provisions governing green power offers under Title 35-A, section 3212A, that is composed of electricity or renewable energy credits for electricity generated from deep-water offshore wind energy pilot projects to coincide with the start-up date of any deep-water offshore wind energy pilot project that secures a long-term contract under this section. In its annual report under Title 35-A, section 120, subsection 7, the commission shall report on the development, marketing and purchase of the ocean wind green power offer.

The commission may not approve any long-term contract under this section that would result in an increase in electric rates in any customer class that is greater than the amount of the assessment charged under Title 35-A, section 10110, subsection 4 at the time that the contract is entered.

Any contract entered into pursuant to this section must require that the deep-water offshore wind energy pilot project or tidal energy demonstration project, as appropriate, be constructed and operating within 5 years of the date the contract is finalized, unless the commission and project developer mutually agree to a longer time period.

P.L. 2009, ch. 615, Sec. A-6.

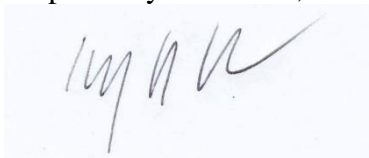
The redacted term sheet published for comment appears to meet the criteria set forth in the Act. We strongly support the proposed 20 year term and the terms that help develop infrastructure in Maine for future offshore wind energy development. We believe that the term sheet and through its deliberations, the Commission, could provide greater clarity so rate payers and stakeholders can better understand the benefits and costs of the project. For example the term sheet should reflect that the contract price for energy bundles energy and capacity in its price structure. The term sheet should also clarify why Statoil keeps the benefit of significant grant money and RECs rather than passing those on to consumers. Finally, although not clear from the term sheet, it is our understanding that as proposed, the pricing of the long term contract will not cause rates within the service area to rise above the threshold established by the statute. *Id.*

3. The Term Sheet Should Be Approved

Because the term sheet fulfills the purposes of the Act and promotes the development of a technology that holds promise for Maine's future, it should be approved.

Thank you for considering these comments.

Respectfully submitted,



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