

THE STATE OF NEW HAMPSHIRE

SITE EVALUATION COMMITTEE

DOCKET NO. 2012-01

APPLICATION OF ANTRIM WIND ENERGY, LLC

SUPPLEMENTAL TESTIMONY OF LISA LINOWES

INDUSTRIAL WIND ACTION GROUP

OCTOBER 11, 2012

1) Please state your name and address and qualifications.

My name is Lisa Linowes. My address is 286 Parker Hill Road, Lyman, NH 03585. My qualifications remain the same as those presented in my pre-filed direct testimony submitted July 31, 2012.

2) Please summarize your current position as it relates to this matter.

I serve as Executive Director of the Industrial Wind Action Group (Windaction.org) a New Hampshire corporation form in 2006.

3) What is the purpose of this testimony?

The purpose of this testimony is to supplement my prefled direct testimony as it relates to the Antrim Wind Energy LLC's ("Applicant") claimed benefits and costs.

4) Are you familiar with the project application?

Yes. I've review the project application as well as the testimony of Applicant and his expert witnesses. In addition I've read the reports supplied in the appendices.

5) In your prefiled direct testimony, you were critical of the JEDI (*Jobs and Economic Development Impacts*) model. Please provide your basis for stating "JEDI only looks at the positive impacts of a project and assumes that money spent is always beneficial."

There are quite a few sources which substantiate my statement cited in the question. The first is NREL's website which includes a page¹ titled *Limitations of JEDI Models* where NREL cautions those producing and/or reading the outputs of the model as follows:

JEDI results are an estimate of economic impacts in terms of possible jobs, earnings, and output that might occur as a result of the proposed project. However, all results should be interpreted in light of the limitations described above. JEDI results presuppose that projects are financially viable and can be justified independent of their economic development value. The JEDI model ***does not provide any type of cost/benefit analysis, return on investment, or other measure of project profitability or viability.*** [emphasis added]

The second source is testimony by economist Robert J. Michaels PhD before the U.S. House of Representatives Committee on Natural Resources² where he states:

"[t]here is nothing in the [JEDI] model that could conceivably decrease employment or output in other sectors of the economy. Any project considered by JEDI, no matter how efficient or inefficient as a source of electricity, will show a positive effect on employment. That increase may be large or small, but we can be certain that it will not be negative."

He further states that:

JEDI does not net out jobs lost due to taxes paid by consumers and businesses elsewhere that they cannot spend as they wished to. Even if the project is funded by private or public bond issue, alternative projects with their own employment consequences could have been undertaken. It is not even enough to have workers in the project area with the right skills, because net increases in employment usually happen only if those persons have also been suffering long-term unemployment.

A third source is a report³ prepared by the U.S. House of Representative Subcommittee on Oversight and Investigations in reference to JEDI models to estimate job creation due to the federal Section 1603 grant program created under the 2009 Stimulus. Two conclusions of the Subcommittee are::

¹ <http://www.nrel.gov/analysis/jedi/limitations.html>

² <http://naturalresources.house.gov/UploadedFiles/MichaelsTestimony09.22.11.pdf>

³ <http://energycommerce.house.gov/sites/repUBLICANS.energycommerce.house.gov/files/analysis/20120618greenjobs.pdf>

- Besides overstating the number of jobs created by Section 1603 grants, NREL's models do not account for displaced jobs, economic activity related to changes in utilization of existing power plants, electric utility revenues, and household and business energy expenditures. The NREL study does not estimate job creation and economic impacts associated with possible alternative spending of Federal funds.
- The job creation numbers that exist for Section 1603 are based on models, not actual data from completed projects. Neither Treasury nor DOE have turned over actual jobs data on the Section 1603 grants program to the Committee.

Gittell and Magnusson rely on the simplistic JEDI model while ignoring the cautions of NREL. This would be acceptable if they were clear on the limitations of NREL's JEDI model in their report (*Appendix 14b*).

6) In your prefiled direct testimony you state that this project, if constructed, will not reduce New England's need to build other power facilities to meet energy demand. Can you elaborate on this point?

Yes. In 2008, the US Department of Energy (DOE) published *20% Wind Energy by 2030*⁴, a report that examined the technical feasibility of using wind energy to generate 20% of the nation's electricity demand by 2030. The report, which called for the deployment of 305,000 MW of wind by the year 2030, including 54,000 MW offshore, has served as the foundation for ongoing advocacy of wind development in the US.

This below excerpt from the report has gone largely unnoticed by most people but is essential in understanding the premise behind DOE's 20% wind scenario:

Wind power cannot replace the need for many 'capacity resources,' which are generators and dispatchable load that are available to be used when needed to meet peak load. If wind has some capacity value for reliability planning purposes, that should be viewed as a bonus, but not a necessity.

DOE is well aware of the fact that wind energy is an unpredictable, variable resource that cannot be relied on to deliver electricity when needed. Claims by industry proponents that installed wind today powers, on average, over 12 million American homes misrepresents wind energy's purpose and limited contribution to our energy portfolio. For the authors of the report, satisfying the 20% wind energy goal is entirely independent of our need for reliable power plants meant to meet demand. In fact, no amount of wind installed in the US will result in an existing power plant being decommissioned nor will it negate the need to build new reliable generation.

⁴ 20% Wind Power by 2030 - <http://www1.eere.energy.gov/windandhydro/pdfs/41869.pdf>

Closer to New England, we looked at the ISO-NE's *New England Wind Integration Study (NEWIS)*⁵. In the study, the ISO states New England could potentially integrate wind resources to meet up to 24% of the region's total annual electric energy needs in 2020, but the study assumes "the continued availability of existing supply-side and demand-side resources as cleared through the second FCA"⁶ (in other words, no significant retirements relative to the capacity cleared through the second FCA). The Study also assumed "retention of the additional resources cleared in the second Forward Capacity Auction. Wind energy can displace fossil fuel but it will not, and cannot replace fossil fuel."

Wind is being installed to generate low-emissions energy. Any opportunity beyond that is, as DOE correctly states, "a bonus, but not a necessity."

7) You state in your prefiled testimony that the State of New Hampshire has already achieved its greenhouse gas reduction goals under RGGI. Can you explain this further?

Yes. The RGGI emissions cap for 2012-2014⁷ is 165 million short tons. Beginning in 2015, the cap decreases by 2.5 percent per year, for a total reduction of 10 percent by 2018. The latest auction of RGGI CO2 allowances held in early September 2012 resulted in only 65% of the allowances being sold at the floor price of \$1.93. According to the Reuters⁸, "Power plants covered by RGGI emitted an average of just 126 million short tons of carbon dioxide during RGGI's first three-year compliance period, well below the cap set at 188 million tons."

8) In your prefiled direct testimony you reference the contracted wholesale pricing for onshore wind in New England of between 9 and 11 cents per KWh. Why is this information relevant?

Adding large amounts of wind to a region can periodically reduce marginal electricity prices but the costs passed on to ratepayers are derived from power purchase agreements negotiated between utilities and wind plant owners. Regardless of when and at what price wind energy sells into the wholesale market, projects with power purchase agreements are assured a fixed price for their energy.

⁵ http://www.iso-ne.com/committees/comm_wkgrps/prtcpnts_comm/pac/reports/2010/index.html

⁶ Forward Capacity Auction

⁷ http://www.rggi.org/docs/Documents/RGGI_Fact_Sheet_2012_09_28.pdf

⁸ http://articles.chicagotribune.com/2012-09-07/business/sns-rt-us-usa-emissions-marketbre88612k-20120907_1_rggi-states-emissions-cap-auction-system

The wind industry insists long-term PPAs protect ratepayers from fuel price volatility. But the industry is ignoring our historical experience. The Public Utility Regulatory Policies Act (PURPA)⁹ proved decades ago that long-term fixed price contracts at above market prices do not lead to lower costs for ratepayers. In fact, with PPAs in place, wind developers that are shielded entirely from market price fluctuations related to RECs and energy.

Although IWA has been refused access to the financial data on this project, we can make certain assumptions in determining the possible cost of this project on ratepayers. The below figure examines the above-market cost of a 15-year power purchase agreement at \$50 per MWh above wholesale prices.

ANTRIM WIND				
	Contract	Wholesale	Annual	
	Price	Price	Electric	
Year	(\$)	(\$)	Production	Revenue
			(MWh)	(\$)
2013	90.00	40.00	102,492	5,124,600
2014	90.00	40.00	102,492	5,124,600
2015	90.00	40.00	102,492	5,124,600
2016	90.00	40.00	102,492	5,124,600
2017	90.00	40.00	102,492	5,124,600
2018	90.00	40.00	102,492	5,124,600
2019	90.00	40.00	102,492	5,124,600
2020	90.00	40.00	102,492	5,124,600
2021	90.00	40.00	102,492	5,124,600
2022	90.00	40.00	102,492	5,124,600
2023	90.00	40.00	102,492	5,124,600
2024	90.00	40.00	102,492	5,124,600
2025	90.00	40.00	102,492	5,124,600
2026	90.00	40.00	102,492	5,124,600
2027	90.00	40.00	102,492	5,124,600
Total			1,537,380	76,869,000
Net Present Value (7%)				46,674,416
Prepared by windaction.org 2012				
Assumes 39% capacity factor				

⁹ <http://energy.gov/oe/services/electricity-policy-coordination-and-implementation/other-regulatory-efforts/public>

9) The Presiding Officer of the SEC appears to assert in the August 22 and October 2 orders that this price of the energy is not relevant to these proceedings. Do you agree?

I do not. RSA 162-H recognizes, *inter alia* that siting of energy facilities in the State will have a "significant impact "upon the welfare of the population, the location and growth of industry, the overall economic growth of the state." The applicant argues that the project will bring economic benefit to the region but omits any discussion of the cost of the project relative to energy prices. The Committee avers that approving of energy rates falls under the purview of the Public Utilities Commission, but this discussion is not a question of energy prices. It is a question of balancing the benefits of the project against impacts which belongs in this docket.

10) Does this complete your pre-filed testimony?

Yes.