

Excerpts from the Department Record Referred to in the Appeal

- Email from Christopher O'Neil to Patricia Aho dated September 5, 2014 attaching:
 - Friends of Maine's Mountains comments dated September 30, 2013
 - Friends of Maine's Mountains comments dated September 4, 2014

Bertocci, Cynthia S

From: Christopher O'Neil <cponeil22@gmail.com>
Sent: Friday, September 05, 2014 10:18 AM
To: Aho, Patricia
Cc: Courtemanch, Daniel
Subject: FMM Submissions on First Wind Projects
Attachments: Deficiencies - First Wind.doc; FMM Comments Bingham Wind 2013.docx; First Wind Holdings Financial Data History Draft 1.xls; First Wind Operating Projects as of June 2 2014.XLS

Commissioner Aho -

Friends of Maine's Mountains President Rand Stowell has asked me to forward the attached letter (with accompanying materials) outlining his concerns about deficiencies in First Wind's submissions for wind power projects.

Thank you.

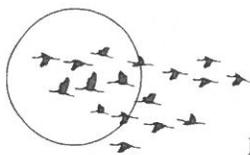
Chris O'Neil

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Consolidated Balance Sheet
(Unaudited)
(in thousands)

Assets	December 31, 2011	June 30, 2012
Current assets:		
Cash and cash equivalents	\$ 16,975	\$ 121,093
Restricted cash	79,887	127,694
Accounts receivable	35,116	10,775
ARRA grant receivable	88,395	-
Prepaid expenses and other current assets	8,654	8,598
Derivative assets	12,332	13,542
Total current assets	219,399	281,702
Long-term portion of restricted cash	30,028	-
Property, plant and equipment, net	1,258,518	1,263,432
Construction in progress	148,614	251,565
Turbine deposits	179,028	291,660
Long-term derivative assets	50,405	61,542
Intangible assets, net	10,792	10,515
Other non-current assets	24,980	18,887
Deferred financing costs, net	39,049	40,409
Total assets	\$ 1,996,688	\$ 2,219,708
Liabilities and Members' Capital		
Current liabilities:		
Accrued capital expenditures and turbine deposits	\$ 49,064	\$ 43,124
Accounts payable and accrued expenses	26,173	24,989
Current portion of derivative liabilities	6,504	9,725
Current portion of long-term debt	125,069	297,237
Current portion of deferred revenue	20,857	21,401
Total current liabilities	227,667	396,476
Long-term derivative liabilities	13,743	29,529
Long-term debt, net of current portion	631,172	597,250
Deferred revenue	358,352	343,885
Other long-term liabilities	2,933	2,647
Asset retirement obligations	14,506	17,466
Total liabilities	1,248,371	1,387,253
Members' capital:		
Members' capital	850,952	807,626
Accumulated deficit	(341,245)	(393,786)
Total members' capital	509,707	413,840
Noncontrolling interest in subsidiaries	238,610	418,615
Total capital	748,317	832,455
Total liabilities and members' capital	\$ 1,996,688	\$ 2,219,708



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Commissioner Patricia Aho
 Department of Environmental Protection
 17 State House Station
 Augusta, ME 04333

September 30, 2013

Re: Bingham Wind Project Comments

Dear Commissioner Aho:

In response to recent revisions to applicant submissions, please accept the following comments and recommendations from Friends of Maine's Mountains (FMM).

To be sure, FMM has never supported a mountain-based grid scale wind project, and we are unlikely to alter that position until we are persuaded that a project's benefits exceed its impacts. Accordingly we oppose Bingham Wind Project (BWP). But this is not mere NIMBYism; it is critical thinking. Our analysis of BWP is fact-based and empirical, using the application materials and available data from objective sources like the US Energy Information Agency (EIA) and the Independent System Operator-New England (ISO-NE).

Following is our impact/benefit comparison, then our decommissioning comments.

IMPACTS

*The application and agency review documents in the case file readily acknowledge that a project built to the scope and scale contemplated by BWP will have massive impacts. Our remarks here are limited to environmental / economic impacts. We tolerate some level of **impacts** with every form of development, but we must ensure that the countervailing **benefits** exceed the impacts. If they do not, we should deny the permit. Accordingly, FMM asks you to assess **net tangible benefits** for BWP. It has been our experience that the public still **perceives** wind development to be higher in benefit and lower in impact than it actually is. The general public and the environmental activism community have been quick to accept presumptions and assumptions, and slow to view grid-scale wind through a critical, empirical lens. So we are pleased to see the Department undertaking an assessment that looks beyond presumptions and assumptions so that you can accurately quantify net tangible benefits.*

BIG ENVIRONMENTAL IMPACTS

Wildlife Canada Lynx, Roaring Brook Mayfly, Brook Trout, Rainbow Trout, Atlantic Salmon, Northern Spring Salamander, multiple Bat species (some gravely threatened), Bald Eagles, Eaglets, and Nests, and possible Golden Eagles (which roam thousands of miles).

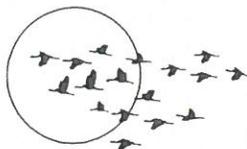
Habitat High Quality Cold Water Resources, Mountain Watershed, 34 streams crossed by a 100-foot clearing that removes shade, "Critical" Salamander and Salmon habitat, 40 acres of wetland, permanent removal of 250 forested acres. 206 acres cleared for a generator lead line.

Landscape 17 miles of 38-foot crane paths, 5.3 miles of expanded roads, 62 x 375-foot diameter turbine pads, Two million cubic yards of cut, almost one million cubic yards of fill.

Scenic Four resources listed on National Register of Historic Places, three great ponds rated "outstanding" for scenic quality, two rivers, one scenic turnout, and the Appalachian Trail. Night sky will be significantly altered, even if radar-activated lighting is deployed. An intercept survey (about 60 people) was completed, but the results of these are predictable and largely immaterial.

The Department should count these individual *and* cumulative environmental impacts on an undeveloped area when considering net tangible benefits.

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BIG ECONOMIC IMPACTS

Maine's and the Region's electric grid is constrained, even as billions are being spent to fortify our T&D system. The Public Utilities Commission recently approved Central Maine Power Company's 19% T&D increase, and all experts anticipate additional increases system-wide. Wind power is an expensive proposition for T&D. It is even more expensive when located in remote areas with harsh conditions. The ISO-NE forecasts T&D upgrades capable of handling our wind power goals to cost as much as \$25 billion, even as load growth projections are essentially flat. The issues of curtailment and negative pricing will further exacerbate ratepayer impact. The energy cost (excluding T&D) of wind power has recently fallen, but even its best prices are double the market rate. The 2012 ISO-NE year-end average price was 3.8 cents per kWh. Wind power contracts are generally from 8 cents to 15 cents. In no other market do we see such a low quality product commanding such a high price. At hours of low-load, wind generators often bid into the stack at still lower, even negative prices. But this does not save us money because necessary generators must remain operational and are still being compensated via capacity payments and higher O/M costs that are recovered from ratepayers.

A. The Department should weigh these economic impacts when assessing net tangible benefits.

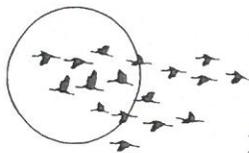
IMPACTS NOT ASSESSED

- Our environmental impact assessment does not count the carbon and other environmental impacts from concrete, fiberglass/composite turbine manufacture, construction activity, lost forest sequestration, and rare earth. Nor do we count the regional environmental impacts resulting from concomitant transmission infrastructure upgrades, or operational inefficiencies rendered onto the grid's conventional generators when wind generation proliferates.

B. The Department should assess these environmental impacts in determining net tangible benefits.

- Our economic impact assessment does not count taxpayer costs, which are separate from - and additional to - ratepayer costs. Most of the additional \$400 million cost of BWP generation assets will be recovered from ratepayers, to the extent that about one third of the costs will be recovered from taxpayers. Nor do we count the statewide opportunity cost from high electric prices. One note on "jobs." While approximately 300 Maine businesses have worked on wind power construction, that cadre represents less than one percent of the 35,000 Maine businesses that are required to pay the cost. If the former cohort adds 100 employees while causing the elimination of 10,000 employees from the latter, we cannot count a NET tangible benefit. Maine could spend billions paying people to dig holes and fill them in again, but we would be wise to also get something of value in exchange for creating all those jobs. We would rather be commenting on the environmental and economic benefits of spending this \$400+ million dollars on efficiency upgrades, rooftop solar panels, fuel conversions, transport investments, etc. To use the "socialized" cost model applicable to T&D, we can assume that *at least* 8% of BWP's costs, or \$32 million) will be unnecessarily extracted from the Maine economy. With a median income of \$27,000, Maine would *lose* the equivalent of 1185 jobs because of BWP.

C. The Department should consider these economic impacts in determining net tangible benefits.



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BENEFITS

Please read carefully the tangible benefits section of the application submissions. We assess those, as well as real and perceived benefits. Broadly assessed, the benefits of BWP are environmental and economic. As above in **IMPACTS**, here we more critically assess those benefits.

D. Additionally, we strongly urge the Department to read with a critical eye the applicant's tangible benefit presumptions, omissions, and dubious claims, and to make adjustments as appropriate to your calculation of net tangible benefits.

ENVIRONMENTAL BENEFITS

The applicant projects electrical output of 551,000 mWh. As no fuel would be burned, this might be counted as a benefit, even if the grid does not need – and often cannot use – the power. We note that the 551,000 mWh projection is predicated upon a 33% capacity factor. Last year all Maine wind projects achieved under 25% capacity. We have no reason to believe that the relatively low-elevation of BWP will perform better. This is important because tangible benefits such as emissions-reductions will be directly influenced by generation capability. However, for purposes of this assessment, we will allow the generous 33% presumption. Wind's environmental benefit is quantified by the dirtier generation that it can theoretically replace or displace. We note that wind generation does not necessarily replace or even displace conventional generators. Because of the fatal combination of *intermittence and unpredictability*, wind generators cannot do the sort of work that base load and peak load generators do. Because it is non-dispatchable, it is incapable in most instances to do the work of load-following generation. Working in tandem with more nimble hydro, gas, and biomass generators, wind *can* displace *some* conventional generation. But considering the foregoing limiting characteristics, as well as real factors like congestion and curtailment, it is safe to say that *BWP will not replace or displace anywhere near 551,000 mWh of dirty generation*. Again, for purposes of this assessment, we will go with the generous projection.

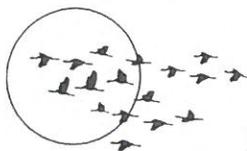
E. The Department should use a more realistic performance projection (based on experience) to get an accurate accounting of net tangible benefits.

EMISSIONS:

At 551,000 mWh, the applicant extrapolates theoretical avoided annual CO2 emissions of 228,000 tons. Using the most recent EIA data, anthropogenic CO2 emissions from all Maine sectors were 18.52 million tons in 2010. The electricity generation sector was responsible for about 18% of that total, or 2.73 million tons. The remaining 82% came from the transportation, residential, industrial, and commercial sectors (with transportation responsible for almost half). The (optimistic) projection of 228,000 tons from BWP would mean a CO2 reduction of .8% from the Maine electricity sector, and .012% from all Maine sectors. As a percentage of the New England electricity sector CO2 emissions, BWP would avoid .0014%. And as a percentage of the US electricity sector CO2 emissions, BWP would avoid .00004%. These generous numbers are about as "tangible" as a grain of sand.

F. The Department should use empirical emissions data per above in determining net tangible benefits.

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MONEY & JOBS:

The application clearly lists the local tax revenues and other funds that will accrue to various recipients. We cannot count any net gain in employment. See explanation above, in **IMPACTS**.

G. The Department should do its best to use realistic numbers for the above in its calculation of net tangible benefits.

BENEFITS NOT ASSESSED

- Our emission reduction environmental assessment does not *deduct* the carbon impacts from concrete, fiberglass/composite turbine manufacture, construction activity, and lost forest sequestration. Nor do we deduct the regional environmental impacts resulting from concomitant transmission infrastructure upgrades, or operational inefficiencies rendered onto the grid's conventional generators when wind generation proliferates.

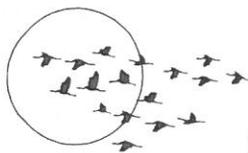
H. The Department should calculate and deduct these impacts for determining net tangible benefits.

CONCLUSION ON NET TANGIBLE BENEFITS

The massive environmental and economic impacts of the BWP, compared to the negligible benefits, lead us to oppose the project. If the benefits could clearly be demonstrated to exceed the impacts, we, as a protector of mountains, would be inclined to support it. Even using the optimistic projections and dubious assertions of the applicant, the disparity between impacts and benefits is too great.

[Maine has the third lowest state CO2 emissions](#) from electricity generation in the nation. Depending upon what Vermont does next year, we could be #2. Our Renewable Portfolio Standard is by far the highest in the nation, and 99% of [Maine generation comes from clean sources other than coal and oil](#). Maine generation capacity exceeds our load by 3:1 or 4:1 on almost any given day, and we have much untapped capacity in our biomass and other generators. To the extent ISO-NE anticipates needing new generation, it will be base load, peak load, or load balancing. Where is there such urgent need for wind power at all, let alone on the scope and scale of BWP? Government mandates notwithstanding, there would be no demand for the product in question.

FMM is vigilant about Maine's signature Quality of Place, the 2006 Brookings Institute report [Charting Maine's Future](#) identified as our most invaluable and irreplaceable asset, even for economic development. That report, adopted by the Legislature, talked about balancing impacts and benefits. As our Department of **Environmental Protection**, you need to be measuring those well so that you can determine *net* tangible benefits. The low energy density of grid scale wind development relative to its sprawling scope and scale has the potential to destroy Maine's Quality of Place for precious little net benefit – economic or environmental. It is the general "high impact-low benefit" nature of this form of development that leads us to oppose it generally, and specifically at BWP.



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DECOMMISSIONING PLAN – BINGHAM WIND PROJECT

If wind turbines can have an adverse impact on Maine's scenic quality, abandoned turbines can have a catastrophic impact. There are also land and water environmental risks from turbine materials, not to mention fires. And of course, they can harm our economy. But the primary decommissioning issue with abandoned wind turbines is the same as with the abandonment of any other commercial or industrial equipment: safety hazards.

Wind turbines are akin to 40 to 50 story buildings atop mountain ridges. In darkness there is no way a low flying aircraft or flock of migratory birds is going to know the structures are present. The steel towers are magnets for lightning and concomitant fires where it is difficult to get suppression access. Abandoned structures are also major attractions for curious kids, and it is not worth the life of one teenager who thinks it would be cool to climb inside to see if it is possible to reach the top. The Bingham to Guilford area is snow country, and "it's too far to walk" does not apply to a group of snowmobilers in winter. In keeping with the expression "build it and they will come" we can project into the future a ridgeline of abandoned towers, and people who will find a way to get access, and to have their version of fun. Add alcohol or drugs and the potential problem is compounded. Maybe not the first year, or the second. But in time people will find their way to the abandoned towers and get hurt. *Then some unfortunate parent will be left wondering why "they" didn't get rid of the towers when they were supposed to.*

If the applicant is going to build and profit from potential safety hazards then the Department must hold them accountable for thorough removal when the structures are no longer functional. It is the only fair and responsible thing to do. Given the monumental liability, we applaud the Department for its effort to front-load the decommissioning fund. But it must be done right. The dollar amount proposed by the applicant appears almost as though it was plucked out of air. Wherever it comes from, it is not enough money.

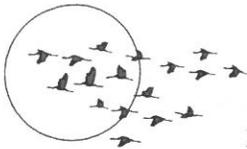
There is little empirical industry information on the actual decommissioning of current grid scale wind turbine installations. But based on what we do know and employing some simple math, we conclude that the Bingham Wind Project (BWP) decommissioning plan is multiple disasters waiting to happen.

In a nutshell, its estimated revenues from salvage value are excessive and its decommissioning reserve funds are inadequate. Given the precarious nature of the business model, the BWP decommissioning plan is bad both "coming and going."

We assert that the actual cost to reduce all the towers to market scrap size is substantially higher than projected, and the actual recoverable value from the scrap steel is substantially less than estimated by the applicant. The Department must maintain its effort to require full funding, but the applicant's dollar estimates must be recalculated.

COSTS MORE

There is little if any historical experience to guide decommissioning large turbines. The net cost today in California to remove 100 KW turbines that originally cost \$250,000 to erect is \$15,000 - \$30,000. So 10% of original acquisition might or might not be a reasonable number for the larger turbines. BWP's estimated removal costs are alarmingly below that 10% mark. The submissions grossly underestimate both the cost to "reclaim" the land and the care that is required to disassemble the



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turbines. They also neglect to add high transportation and scrap metal processing costs.

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Attached is a copy of **Scrap Definitions**. Please note that "#1 Steel" assumes maximum size for length and width, and it excludes "coated" steel. Wind turbine towers are coated inside and out to prevent rusting, normally with high zinc content. Protective metal coatings contaminate the smelting process so such steel sells at a discount to raw steel.

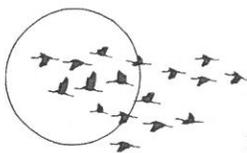
Moreover, the maximum size of scrap to be processed is determined by manageable size. A typical 100 meter tower is approximately 14 feet in diameter at the base and 10 feet in diameter at the top. The steel width at the base is typically 2 inches while the steel width at the top is 1/2 inch. The most efficient method for cutting such steel is either acetylene or plasma torch. Sewall estimates that it will take only 100 man-hours at \$15/hour to completely reduce each tower to "scrap" size. Using the maximum scrap size (5 feet by 3 feet) means that the minimum 6,260 square foot surface area will be cut into 417 pieces. Their projection would produce one piece every 15 minutes, each weighing an average of 1,200 pounds. There are no line-item provisions in the Sewall report to account for tools, cutting fuel, scaffolding, material handling equipment and other incidentals. Assuming the scrap maximum size limit, it is incomprehensible that 2 inch-thick steel can be cut at a rate of 1 foot per minute using non-industrial equipment given the remote site location. And this does not include any time allocated for work preparation and material handling, shipping, etc.

I. The Department should ask the applicant for a recalculation with more realistic and more accurate disassembly and scrap preparation cost projections.

We recently spoke with the Public Works Director in Falmouth, Massachusetts. That community has been overwhelmed by wind turbine turmoil for the last two years, and they recently held a decommissioning referendum. He told us that they used an estimate of two million dollars per turbine just to dismantle their two turbines which are located not in remote mountains, but in a flat industrial park setting. The local voters chose not to decommission because the town proposed a bond issue of \$14 million, with the additional monies to pay remaining purchase debt, fronted RECs, grant repayment, and other liabilities. He advised several times that a surety bond or some form of insurance should be required to cover the cost of decommissioning. This begs the question of whether similar liabilities should be anticipated in the premature decommissioning of a commercial wind project like BWP.

J. The Department should require a thorough accounting of other costs expected as a result of premature distressed decommissioning.

K. The Department should obtain a clear and realistic plan and accounting for decommissioning costs for hazardous materials, lubricants, rare earth, fiberglass, carbon composite, etc.



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PAYS LESS

The history of scrap prices is volatile. There is no way to predict future prices, especially 25 years out. The conventional approach for future-year projections is to assume current prices, because all other costs will likely move in the same direction, more or less on pace with inflation. However, market forces can turn prices dramatically in a very short time, so flexibility and caution should be built into these decommissioning projections.

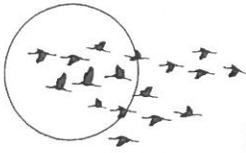
The applicant assumes a price of \$230/Ton for 724,223 pounds of steel without any specificity on meeting the current scrap condition requirements. Heavy Metal Steel (HMS) has very strict handling requirements in order to fit into smelting mills. Most scrap pricing sources require subscription to their services (we do not subscribe) but cursory research will indicate to the Department that today's prices nationwide for "unprepared" steel are from \$145/Ton (Iowa) to \$200/Ton (Detroit). Distance from the smelting mill is a major factor for local pricing and net cost, and we know of no such mills near the Kennebec Valley.

The applicant appears to be subscribing to a concept of near-full salvage value recovery where decommissioning could ultimately become a local or state burden. If this full salvage concept were such a solid assumption, then why wouldn't Western US localities, where thousands of old wind turbine towers have been rusting idle for two decades, allow the removal of towers by professional or amateur scrap vultures -- free of any other reclamation responsibilities -- just to lose the hazards and eyesores?

Again, we remind the Department that there is little history for decommissioning the newest generations of large turbines. The net cost today in California to remove 100 KW turbines that originally cost \$250,000 to build is \$15,000 - \$30,000. So 10% of original acquisition might be a reasonable number for our larger turbines. BWP's estimated removal costs are alarmingly below that 10% mark, and the terrain here is certainly more challenging than it is in the desert. The Department should assume that the applicant grossly underestimates both the cost to "reclaim" the land and the care that is required to disassemble and dispose of the turbines. They estimate the salvage values based solely on gross tonnage. They neglect to add high transportation and scrap metal processing costs.

In 2008 a West Virginia community scrutinized the decommissioning plan for the Beech Ridge Wind Project. The applicant estimated scrap values at \$12.64 million in current dollars. A third party consultant was hired to review the details of those estimated values. The consultant contacted the major regional scrap yard, which said the scrap (steel and copper) was worth \$2.63 million after it was shipped to the yard and processed into acceptable sizes. (See *Hewson*, attached.)

L. The Department should get more specificity and accuracy from the applicant on realistic salvage value projections.



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RAPID OBSOLESCENCE

The BWP decommissioning plan appears built on assumptions of tangential market activities. We should all know better after so many years of lessons learned. For example, in 2007, the consensus of all the "smart" people was that fossil fuels consumed by the power industry would escalate into perpetuity much as the same smart people had assumed in the 1970s and 1990s. Markets react when prices begin to bubble. Natural gas prices are now below prices of 20 years ago after inflation, and are as close to a sure bet to stay fairly low as any bet we have seen in decades. A similarly erroneous view could be taken of the scrap steel industry. Its market essentially did not exist 20 years ago and nobody knows where it will be in 20 years.

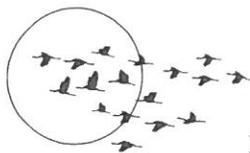
Apply that same concept to turbines. It has been the consistent track record of the wind industry over the last 40 years to leapfrog into the next technology before the old technology has proven itself. It is easy to dismiss the problems of the past when the industry avoids addressing the long-term issues.

Some items of note:

- 1) A Danish utility installed 13 - 600 KW turbines in 1993. In 2006 the wind project was decommissioned as uneconomic (a 13-year economic useful life). The utility stated that the composite blades disintegrated when touched by hand;
- 2) The first pilot 1 MW turbine was built in 1999 and the turbine only became commercially available in 2001. There is only 10 years of experience with the "big" turbines. The period of the real test of economic useful life is just beginning, and Maine is not a guinea pig;
- 3) The trend toward bigger turbine size has been well studied by researchers as to the likely problems associated with the added stresses and vibration on gearboxes and generator sets. These expensive components have not yet had sufficient operating experience to determine if the incremental size increase is worth the up-front investment versus the long-term maintenance and rebuild costs, particularly with severe Maine winter weather to exacerbate wear.

Today's turbines might very well be worthless in only a few years as the technology continues to leapfrog and as energy markets evolve.

M. While the Department cannot control the usefulness of turbines, the total risk level posed should be fairly counted as no greater than the level of assurance achieved.



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LIABILITY & DEBT

These risks are not insignificant. Now is the time to establish a viable decommissioning plan, before it is too late. The price we will pay for failure in this requirement will be catastrophic.

The estimated economic useful life of a wind turbine at 20 years is the point where escalating operating costs necessary to maintain the unit's minimum performance exceed recoverable revenues. It is customary in energy projects for equity investors to withdraw every unrestricted penny from the project's coffers as soon as possible. Restricted cash covenants are customarily set by the lenders and, to a lesser extent, by any government authority that has a vested interest in future financial performance. Once a lender is paid off, most financial covenants cease. If a wind project has inadequate cash on hand at the time of decommissioning it is unlikely that it will be able to fund the ongoing day-to-day de-installation of all turbines. The Sewall Report states optimistically on page 3 that two cranes will be needed for 31 weeks (almost 8 months). We do not know any vendor that can so long wait to be paid.

N. The Department should require a detailed and more realistic projection of all decommissioning tasks and costs that contractors would be paid to perform.

There is no market for an in-place wind project that does not work. Wind projects have no collateral value other than their net salvage value at almost every point in time after just a few years of operation. In virtually any other type of project, financed equipment can be dismantled, sold, and used elsewhere. With wind projects, siting and matching turbine configuration to a site will make it cost-prohibitive to relocate when one considers that the front-end subsidies sustaining the industry today would not be available for used or obsolete equipment.

If the lenders to a failed project see that they have a high probability of recovering a significant portion of any outstanding debt via net salvage, they would dismantle and remove the turbines and towers. But do we seriously expect them to complete land reclamation? The lenders are more likely to write-off the debt and walk away.

In that scenario, would the Department seek enforcement action against the turbine pad leaseholders? Are these private landowners ignoring any future reclamation responsibility possibilities or are they expecting that the applicant will fulfill its obligations? Would landowners be subject to any claims by the state as a last recourse to restore the land via reclamation, since they were financial beneficiaries of the project? Can we expect the landowners to plead ignorance and do nothing that might cost them a dime to fix the problem? Would the state take not only the land where the turbines are located but also all the access roads, buffers, and lead lines? The state should minimize, or better yet, assume **no** risk in this regard.

O. To clarify and indemnify risks, the Department should include clear and acceptable answers to the foregoing questions.



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We call your attention to an application you have in-hand for another project (Canton). While the language below does not *verbatim* appear in the BWP submissions, it is clear that the same presumptions are in play for BWP. The Canton application narrative makes several assertions about the low risk of the venture, hence no need for the DEP to get onerous surety. Here is one excerpt:

"In the highly unlikely event that a project fails to make its debt payments, and after a reasonable period fails to cure its default, the Lender has the right to take over the project to protect its investment. If a Lender steps in to cure a default, it has every incentive to bring in skilled personnel to operate the project, generate revenue and return the project to profitability. Because the loan balance is secured by the assets of the project, the Lender is in effect a backstop in the unlikely event that original management team fails to perform. In this way, these highly structured, project-financed entities... are actually more stable than a typical business exposed to the uncertainties of the marketplace over a period of 10 to 20 years..."

The language from that application is relevant to BWP because it so brightly shines light on an egregiously erroneous presumption, one that is implied or explicit in apparently all wind applications. In their "security" scenario is a banker's worst nightmare: to repossess an operating project -- and particularly an energy project.

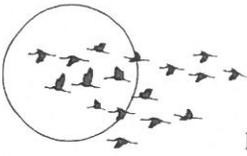
First, no matter when it occurs it is certain that the bank officers directly involved in making the original loan will be fired for bad judgment if they are still with the bank -- and it doesn't matter even if it is 15 years later. It will happen.

Second, energy projects -- particularly mountain wind energy projects -- are not commodities that can be turned around and sold like a repossessed car or warehouse. Bankers have experience making loans but not operating the assets or facilities they finance. If the supposed experts at developing and operating an energy project cannot make it work, what makes them think that their bankers can do it better? Any potential recovery from a poor-performing asset means that the bank must take a big haircut because it now must find and engage professional, experienced third parties in order to rehabilitate the value of the collateral. The cost to do so is apparently not built into the BWP plan.

And third, bankers take on no liability in the legal structure of an energy project. If a project fails and a net recovery (even a partial recovery) is not assured, the bank will walk away from the project rather than risk additional capital, which would require new internal bank credit approval.

P. The Department should require accounting for the cost of third party operation as a component of the decommissioning costs.

The applicant's presumption of low risk, whether explicit or implied, should be extremely troubling to the Department. To presume that a long-term lender is willing and prepared to step into a foreclosure situation to fix all the obligations of the owner/operator is fantasy. To illustrate the point: if the lender has properly evaluated the project then it will have required financial covenants that are in force throughout the entire loan period. These covenants will require, at a minimum,



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operating cash flow ratios that fund both *operating* and *debt service* reserves for 12-18 months. The initial and later-term reserve amounts will have been determined by *base case projected operating cash flows*. If the covenants are not in force or at inadequate levels then there will be a high probability of grave problems in the future.

Q. The Department should have both access to - and authority over - the *projections* and *covenants*.

These wind projects are front-loaded with subsidies and bereft of liability to the parent entities. So the long-term economic viability of the projects matters little, if at all. Once the investors extract the money during the first ten years, their only interest in the later years is if they are somehow generating an abundance of cash flow. Once turbines become marginally profitable the owners/operators will likely walk away.

R. The Department must engage competent counsel and must ask and answer the following:

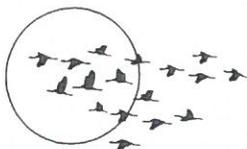
1. If in the later years or at the end of the license period that an energy project is marginally or not profitable, and there is only the prospect of making money by getting more out of the salvage value than the cost of reclaiming the land as required by the decommissioning plan, then what is Plan B if the salvage value is low?

2. If the project risks are non-recourse to the principals, what does the Department do then?

Inadequate decommission planning is at best irresponsible, and at worst calamity. Maine's economy is already under much duress as a result of recent aggressive wind power expansion - over a billion dollars in unnecessary generation spending in just five years - not counting the attendant T&D expenditures. The BWP is the largest Maine wind proposal yet, so its risk is largest. We cannot afford the perfect storm awaiting us if these high impact installations are allowed in failure to also foist the environmental and economic penalties of their excessive risk upon our citizens.

Yours truly,

Chris O'Neil
Public Affairs Director



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Scrap Definitions

www.steelmarketupdate.com

Steel Market Update offers the following definitions of the various forms of scrap utilizing the basic guidelines described by the Institute of Scrap Recycling Industries (ISRI):

HMS = Heavy Melt Scrap #1 & #2

- HMS #1 steel scrap is wrought iron or steel scrap .250" (one quarter inch) and over in thickness with individual pieces not exceeding 5 feet (60") in length with widths around 18" to 36". The material is bundled in a manner consistent with charging box size so the product will insure compact charging (in a furnace). Number 1 HMS is not supposed to have galvanized or other metallic coated steels.
- HMS #2 steel scrap (common foundry grade) is wrought iron and steel scrap – both black and galvanized (coated) at least .125" (one-eighth inch) thick. This material is also bundled in a manner consistent with charging box size so the product will insure compact charging.

Shredded Scrap

- Shredded scrap (shred or frag) is homogenous or a blend of iron and steel scraps which is magnetically separated. Shredded scrap origins are from automobiles (with engines, tires and gas tanks removed) as well as unprepared #1 and #2 steel, miscellaneous bailing and sheet scrap. The average density is 50 to 70 pounds per cubic foot. Typically 25% of the shredded scrap is automotive parts.

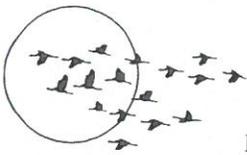
#1 Busheling

- Number 1 (#1) Busheling (bush) is clean steel scrap not exceeding 12 inches in any dimension. Most material are new factory sheet clippings, drops, stampings, etc. According to the ISRI guidelines for ferrous scrap (FS-2009) number one busheling cannot include old auto body and fender stock. The material is to be free of metallic coatings (such as galvanized), vitreous enameled and electrical sheet steel containing over 0.5% silicon.

#1 & #2 Bundles

- Number 1 (#1) Bundles are new black sheet steel scrap (no coated material) from clippings, sheet side trims, and skeleton scrap. All material is bundled and banded to charging box size so the material can be handled with a magnet. The bundles should not weight less than 75 pounds per cubic foot. Can include mandrel wound bundles (such as slitter side trim). No metallic coated material, vitreous enameled and electrical steel containing more than 0.5% silicon.
- Number 2 (#2) Bundles are old black (uncoated) or galvanized sheet scrap, drops, or metallic coated materials which have been compressed and are banded to charging box size.

[Steel Market Update](http://www.steelmarketupdate.com) follows Heavy Melt Scrap Pricing (HMS) as well as Shredded and #1 Busheling. For many years Bundles was a key component in determining scrap prices but was removed in 2008 when Chrysler stopped publishing (or allowing to be published) the results of their auto bundle auctions.



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Author: Hewson, Tom

Last month, EVA was hired by the Mountain Communities for Responsible Energy to evaluate a Decommissioning Cost Report prepared for the Beech Ridge Energy Project — a 124-turbine project proposed for Greenbrier County, West Virginia. The project wind developer (Invergy) had argued that the scrap value of the wind turbines would far exceed the cost to decommission the wind project and that therefore they should be responsible for bonding \$2,500/turbine that would slowly escalate to \$25,000/turbine by year 16.

EVA completed an independent estimate of the salvage value of the Beech Ridge Wind turbines. The applicant's consultant estimated that its salvage value credit would reach \$12.64 million (\$101,900/turbine) in their decommissioning fund study based upon application of general scrap factors and prices. This scrap value credit would more than offset their estimated demo costs (\$8.68 million: \$70,000/turbine).

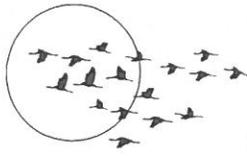
EVA contacted the major regional scrap yards directly and got current scrap prices for steel, copper and transport. From these data, EVA developed a Beech Ridge project-specific salvage credit estimate of only \$2.63 million, i.e., \$10.01 million less than the original applicant study. We uncovered several major flaws in the applicant study methodology and pricing. They not only used old scrap prices but failed to take into account that they would have to transport the scrap to a yard. In addition, to obtain the posted scrap price, they would need to break down the tower into 3-4 ft long pieces or else the quoted price would be significantly less. In addition, the copper materials must also have their insulation stripped and/or copper pieces separated to obtain their posted copper price. If not, their scrap value would be far less than the common posted price. Given the large drop in scrap prices this year (>40%), scrap value can no longer cover decommissioning costs.

EVA also compared the estimated demolition costs to another decommissioning report for another wind project developer that had contained detailed cost breakdowns. The other study estimated demo costs of \$97K/turbine vs. \$70K/turbine by Beech Ridge. The bottom line is that using the demolition costs from the other wind turbine project decommissioning study would translate to a Beech Ridge demo cost of \$12.03 million, i.e., \$3.35 million more the applicant's \$8.68 million estimate. (Note: In another very recent project I have just reviewed, the decommissioning costs were again severely underestimated by more than 50% by not taking into account recent crane rental rates, extremely low earth moving costs, and assuming high productivity rates (6 turbines/wk).)

The bottom line is that even if the permitting agency allows the salvage credit, the total net cost of decommissioning this project today would be \$10.4 million (\$83,900/turbine). Our analysis quantified the large scrap price and demo cost escalation risk being assumed by the local community. To protect the community, the permitting agency should require a bond of a minimum \$100/K per turbine (\$12.4 million) to capture demolition cost escalation risk. If the wind developer can convince the bonding company of the high salvage value, then they should be able to negotiate a lower rate for the bond. If they were right, there would be very little price difference for a larger \$12+ million bond. Shift the risk to the bonding company. Let the developer and bonding company assume the price risk — not the community.

Tom Hewson
Principal
Energy Ventures Analysis
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*Friends of Maine's Mountains is a nonprofit, nonpartisan, tax-exempt organization with IRS 501(c)3 status.
Visit us on-line at www.friendsofmainesmountains.com or e-mail to info@friendsofmainesmountains.com.*



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Commissioner Patricia Aho
 Department of Environmental Protection
 17 State House Station
 Augusta, ME 04333-0017

September 4, 2014

Dear Commissioner Aho:

The Department has permits under consideration for First Wind projects at **Bingham** and **Hancock**. A draft approval order has been drafted for Bingham. At Hancock, First Wind seeks to amend the project, which has already been permitted.

FMM urges the Department to halt progress on each project for a variety of reasons:

1. In both cases, First Wind's financial capacity is doubtful.
2. In both cases, the decommissioning plan grossly underestimates the costs.
3. In both cases, the presented tangible benefits need stronger scrutiny.
4. The amended Hancock application constitutes a new project, with turbine height rising from 492 feet to 512 feet to 574 feet.

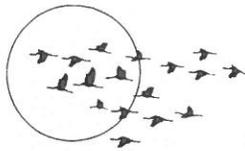
FMM's objections to First Wind's decommissioning plan at the Bingham project were submitted September 30, 2013, and they appear to have been ignored in the draft order. We ask the Department to look again at the applicant's presumptions.

The Hancock application is similarly deficient in its accounting for the true costs of decommissioning.

FMM's Bingham comments on tangible benefits also seem to have been overlooked. We ask that the Department calculate benefits in a "net" fashion, by also considering the value of impacts. The same lens should be used at Hancock.

The financial capacity question is serious. Given the massive footprint of wind projects, their long-term potential liability, and the tenuous nature of their business, the Department needs to exercise great care in evaluating this criterion.

In response to the Department request, First Wind Counsel Juliet Brown submitted an "unaudited" balance sheet, which for all intents and purposes, was a cavalier brushoff. It is impossible to make any credible, technical and informed judgment on the financial capacity of First Wind solely on the basis of that one-page "Unaudited" Balance Sheet or any of the Letter's assertions. The simple arithmetic showing the huge increase in First Wind Holdings' Accumulated Deficit account should be a warning that we need far more information and expertise to evaluate the company. Even though First Wind may be able to work the market to fund its projects it doesn't mean that First Wind is a viable going concern. The Department should be focused on First Wind Holdings' deteriorating financial position and the role it fills in its projects after they are placed in service.



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Comparing the Balance Sheet of "April 2014" to a copy of First Wind Holdings "Unaudited Balance Sheet of June 30, 2012" (see attached) the Member's Capital has declined by \$82.9 million and the Accumulated Deficit (i.e. losses) has increased by \$306.5 million in 28 months (Dec. 31, 2011). This means that the original owners (DB Shaw and Madison Dearborn) are pulling cash out of the company as fast as they can while the holding company is losing an average of \$11 million per month. If First Wind was being straightforward they would have provided copies of Balance Sheets both currently and from a period of at least two years earlier to reflect the company's ongoing performance.

A key issue in the financial information provided by First Wind over the past few years since its failed attempt at an IPO, is that all the financial information has been Unaudited. The most important first step in reviewing audited financial statements is the auditor's Opinion on the viability of an audited company as a "going concern." What do its auditors think of First Wind's prospects and/or the quality of its internal controls? First Wind has a history of problems with its previous auditors. [NOTE: A Balance Sheet is dated to reflect a discrete moment in time or a picture of a company's status, i.e. a specific date. Alarm bells should ring when a period of time is used, e.g. the month of April. In most cases one would not be concerned if a very successful company made such a reference. But First Wind has a history of non-disclosure and lack of transparency and its little omissions are often a sleight of hand which are not picked up by the casual or unsophisticated observer.]

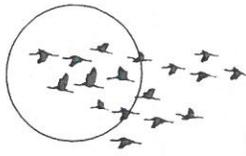
On Ms. Brown's Letter:

First point: "while the Joint Venture remains an attractive source of capital" - No information has ever been supplied by First Wind as to how much of the Emera Commitment has been funded nor how much they are obligated to fund going forward. If Emera has fully funded its original obligation to the JV then it may not have any further financial obligations and the reference to it as a potential future funding source is superfluous.

Second point: Part A: "First Wind has continued to raise capital" - Any company which hasn't closed its doors can raise funds if it pays high enough interest rates and pledges enough other assets as collateral. However, high interest rates (i.e. junk bond rates) drain essential cash faster and pledges can inhibit future necessary financial flexibility. It is likely that the \$121 million in Restricted Cash means it is untouchable except for the individual projects designated;

Part B: "First Wind recently closed on construction financing for its Oakfield project" - This is a blanket statement without qualification. Every financing has caveats which provide for required conditions to be met before funding. It is impossible to assess the quality of this bank commitment based on the statement provided.

Third point: "evidence of final financing" - First Wind is correct in saying that it is impractical to put in place long term financing commitments until completion of a project. Such commitments are very expensive and add no value to a project. Typically the provisions of the construction financing are open-ended to mandate a long term takeout at construction completion by imposing extremely onerous terms in the event of a failed takeout. In essence, the construction loan banks are taking the risk that permanent financing will be obtained. However, the long term debt market can be finicky and can evaporate in an instant. It is highly possible that a change in the debt market's view of First Wind could turn negative and any success First Wind has had in the past is no assurance of future third-party funding particularly in light of its sustained and mounting losses.



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First Wind seems to assume that it will always be able to find third party financing for its projects. The question that the Department needs to ask is *will third party financiers be just as interested in providing funding if First Wind is defunct?* What are the default scenarios if First Wind goes out of business, given its deteriorating financial position, which is becoming more likely? If the construction lender takes over a project (Oakfield or any other project) are the same legal and financial obligations still kept in place for the project? A default which results in bankruptcy nullifies all contractual obligations.

In the absence of thorough financial reporting by FW, FMM has limited our questions to what can be gleaned from the April 2014 Balance Sheet and the information that can be obtained from the Company's filings with the SEC during its failed IPO attempt (i.e. S-1's). The Department and the people of Maine are entitled to more information.

FMM submits a spread sheet of all wind projects completed by First Wind. The spreadsheet is arranged from left-to-right in chronological order by placed in-service date. We have bifurcated the columns to reflect the financial impact to their financial statements by reporting period. The colored background on some items reflects the information by source. It is difficult to determine where Ms. Brown came up with the "\$7 billion" financing figure since completed wind projects only account for \$2.564 billion. Maybe she is including debt roll-overs, refinancings or projects with commitments without actual funding.

The spread sheet shows that First Wind's financial position is in serious decline which nobody could see without prior disclosures. A critical question: if First Wind must provide full disclosure to the rating agencies why can't the DEP see the same documents? Why should the state be limited to what First Wind thinks is appropriate information when the state is taking the risk of a default?

Also attached is a spread sheet (including Chart) of First Wind Holdings' financial history. A search of the internet for more financial reports filed with other states' agencies shows that they have been either redacted or are held as "confidential" over the past +2 years. The key issues with FWH are the rapid increase in Accumulated Deficits and the concomitant decline in Member's Capital. "Financial Capacity" is a nebulous term which lacks any objective criteria. As can be seen on the Chart, FW is increasing the rate of losses as it adds new completed projects.

Issues:

- 1) RBS indicates that FWH will likely be able to get financing for Bingham but there is no firm commitment from RBS. A recent news report indicates it is still unfulfilled.
<http://www.washingtontimes.com/news/2014/aug/28/large-maine-wind-farm-gets-preliminary-approval/>
- 2) Much of FWH's balance sheet (assets and liabilities) is attributable to completed projects where "Non-controlling Interests" are in the hands of third party investors. FWH has much less discretion on manipulating and maneuvering assets to pledge as collateral on new debt issues.
- 3) FWH should be compelled to provide a more current balance sheet to determine if losses are still growing and it should provide a copy of its last audited financial statements to assess the auditor's opinion, i.e. is "a going concern" raised by the auditor? FWH may be able to raise funds for constructing Bingham but will they be around to operate it over the long term?

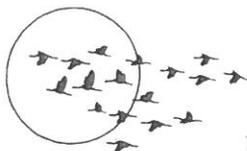


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First Wind Holdings' (the "Company") April 2014 Unaudited Balance Sheet indicates the Company has incurred an Accumulated Deficit of \$647.7 million leaving net Members' Capital of \$120.3 million. These figures are in marked contrast to the Company's last S-1 Filing (available online) showing a Balance Sheet for December 31, 2009 of an Accumulated Deficit of \$191.2 million and net Members' Capital of \$656 million. Over a period of less than five years the Company's net losses have increased by \$456.5 million and net Member's Capital has declined by \$535.5 million.

- 1) Has the Company's outside Auditor opined on the Company's performance for fiscal year ended 2013, and is that opinion available? [Note: Did the Auditor issue a "Going Concern" opinion?]
- 2) Why is the Company generating such large losses? What is the current level of average monthly losses (i.e. the 16 months from Jan. 1, 2013 thru April 2014) and how much longer can the Company sustain this level of losses without a major equity investment or third party borrowing?
- 3) Net Members' Capital has declined more than the Accumulated Deficits have risen. Are Members withdrawing cash from the Company? If so, for what reason and why is the Members' investment being reduced in the Company while the Company is procuring more third party debt which carries interest expense?
- 4) Is the Company's future viability mostly dependent upon developing new projects or can it remain viable with the current level of cash flows from existing operating projects?
- 5) For the period reviewed, Total Assets have grown approximately 20% yet the Accumulated Deficit account has more than tripled. Does this mean that developing more new projects is going to increase the rate of losses?
- 6) Since the Company has never been profitable, does it have a plan in place whereby a substitute operator will be able to fulfill the Company's obligation to manage all of its third party equity owned projects?

FMM suggests that the Department demand a current (June 30, 2014) Income Statement. If the trend line on Accumulated Deficits stays on track, FWH will have lost another \$20-30 million for the quarter. At this rate they will have depleted the \$70 million they borrowed in the spring by the end of September and will need more operating cash to stay in business.



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Thank you for your consideration of our concerns.

Sincerely,

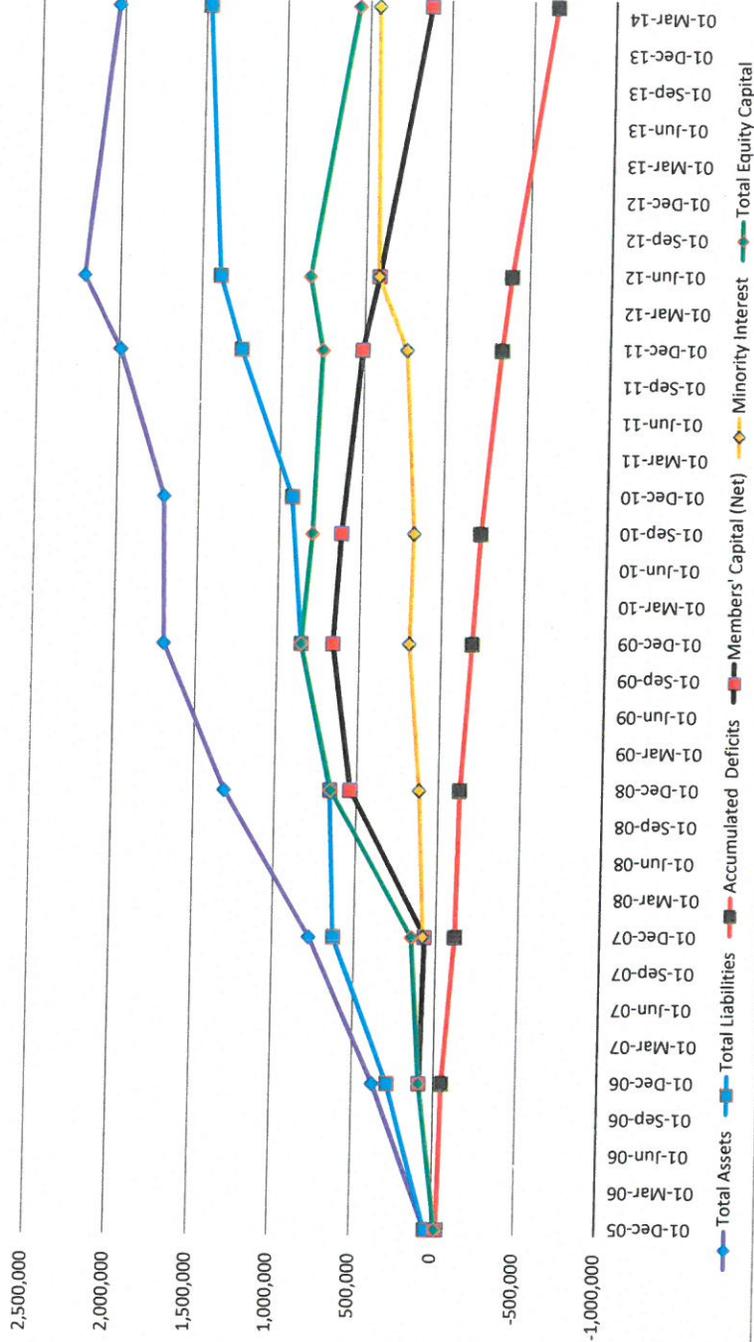
Rand N. Stowell

President

Data is extracted from either SEC Filings or financial submissions to Maine government agencies.

in \$000's	Total Assets	Total Liabilities	Accumulated Deficits	Members' Capital (Net)	Minority Interest	Total Equity Capital	Completed Project Cost	Cumulative ARRA Grants	Completed Net Project Cost
31-Dec-05	37,998	37,998	-30,434	-24,671		-24,671	0	0	0
31-Dec-06	372,500	283,981	-48,351	88,519		88,519	65,000	0	65,000
31-Dec-07	770,666	622,790	-116,422	68,795	79,081	147,876	160,000	0	160,000
31-Dec-08	1,311,591	658,499	-131,610	536,579	116,513	653,092	195,000	0	195,000
31-Dec-09	1,698,154	848,781	-191,229	656,022	193,351	849,373	1,145,000	235,109	909,891
30-Sep-10	1,712,269	920,097	-232,968	615,777	176,395	792,172			
31-Dec-10	1,996,688	1,248,371	-341,245	509,707	238,610	748,317	1,490,000	335,004	1,154,996
30-Jun-12	2,219,708	1,387,253	-393,786	413,840	418,615	832,455	1,927,488	459,314	1,468,174
31-Dec-12							2,468,488	587,860	1,880,628
31-Dec-13							2,563,688	609,697	1,953,991
30-Apr-14	2,036,815	1,475,357	-647,721	120,295	441,163	561,458	2,563,688	609,697	1,953,991

FWH Financial Data History \$000's



First Wind Projects as of June 2 2014

Info Source Color Code
 First Wind SEC S-1 Filings
 DOE Reports
 FW Permit Filings

Projects By In-Service Date	2006	2007	2008	2009		Sept 2010	2011			June 2012	2013	April 2014				
	4A	1	11A	12A	2	7A	12A	7B	5	9	10	4B	6	11B	8	3
State	HI	ME	NY	ME	NY	UT	ME	UT	HI	ME	VT	HI	HI	NY	WA	ME
Project	Kaheawa	Mars Hill	Steel Winds 1	Stetson 1	Cohocton	Milford 1	Stetson 2	Milford 2	Kahuku	Rollins	Sheffield	Kaheawa	Kawaiiloa	Steel Winds 2	Palouse	Bull Hill
Owner	KWP 1	Evergreen LLC	Erie Wind	Stetson I	Canandaigu		Stetson II			Evergreen III	Vermont Wind	KWP 2	Mauki/Makai	Erie Wind		Blue Sky East
Equity Owner	J.P. Morgan	J.P. Morgan	First Wind	First Wind	First Wind	Credit Suisse	First Wind		First Wind	First Wind	JPM Capital	First Wind	D.E. Shaw	First Wind	CIRI (AS)	Union Bank
Nameplate Capacity (MW's)	30	42	20	57	125	204	26	102	30	60	40	21	69	15	105	34
Turbines	20	28	8	38	50	97	17	68	12	40	16	14	30	6	58	19
Turbine Type 1	GE 1.5	GE 1.5	Clipper 2.5	GE 1.5	Clipper 2.5	39 GE 1.5	GE 1.5	GE 1.5	Clipper 2.5	GE 1.5	Clipper 2.5	GE 1.5	Siemens 2.5	Clipper 2.5	Vestas 1.8	Vestas 1.8
Turbine Type 2						58 Clipper 2.5										
Transmission Connector Miles				38		88										
In-Service Date	22-Jun-06	27-Mar-07	01-Jun-08	23-Jan-09	27-Sep-09	16-Nov-09	12-Mar-10	02-May-10	01-Mar-11	26-Jul-11	26-Oct-11	05-Jul-12	02-Nov-12	01-Dec-12	13-Dec-12	12-Oct-13
Project Cost	\$65,000,000	\$95,000,000	\$35,000,000	\$175,000,000	\$270,000,000	\$505,000,000	\$70,000,000	\$275,000,000	\$145,000,000	\$177,487,823	\$115,000,000	\$115,000,000	\$195,000,000	\$40,000,000	\$191,000,000	\$95,200,000
ARRA Grant Amount	N/A	N/A	\$0	\$40,441,471	\$74,648,828	\$120,147,810	\$19,328,865	\$30,436,803	\$35,148,839	\$55,246,347	\$35,814,864	N/A	\$38,458,828	\$12,776,751	\$37,308,032	\$21,838,828
ARRA Grant Date				01-Sep-09	27-Jan-09	10-Mar-10	27-May-10	28-Jul-11	03-Feb-12	29-Dec-11	23-Jan-12		28-Feb-13	30-Apr-12	28-Feb-13	21-May-13
Equity Amount			\$35,000,000											\$40,000,000	\$50,000,000	
Loan Amount Non-Recourse						\$232,000,000		\$144,000,000								\$71,600,000
DOE Loan Guarantee	N/A	N/A			N/A				\$117,000,000			N/A				N/A
Power Purchase Agreement	20 Years	Short Term	No	No	No	20 Years		20 Years	20 Years	20 Years	20 Years	20 Years	25 Years	No	30 Years	20 Years
PPA Buyer	MECO	Brunswick	N/A	N/A	N/A	SCPPA	Harvard U.	SCPPA	HECO	CMP/BH	BEV/VEC	MECO	HECO	N/A	N/A	NSTAR
PPA Pricing Structure	70% Fixed/ 30% Avoided		N/A	N/A	N/A	\$98/MWH Fir Pre-Pay 75%	50% of Gen	\$98/MWH Fir Pre-Pay 75%				70% Fixed/ 30% Avoided	\$205/MWH Fir	N/A		Sale/ Leaseback
Property, Plant and Equipment	81,452	192,076	187,316	950,610		838,165	1,258,518			1,263,432	2013	April 2014				
DEPRECIATION on BOOKS	1,945	8,800	10,611	34,185		35,678										
Accumulated Deficit (Losses)	-\$26,015	-\$68,071	-\$131,610	-\$191,229		-\$232,968	-\$341,245			-\$393,786		-\$647,721				
Average Loss by Month for Period		-\$3,505	-\$5,295	-\$4,968		-\$4,638	-\$9,023			-\$8,757		-\$11,543				
Period in Months	12	12	12	12		9	12			6		22				
Current Portion LTD	193,015	222,028	4,548	109,238			125,069			297,237		13,993				
Current Portion Deferred Rev	0	0	0	0			20,857			21,401		21,842				
LTD	206,152	338,222	527,893	522,808			631,172			597,250		947,223				
Deferred Revenue	850	850	1,447	2,777			358,352			343,885		311,653				
Total Debt (Current & LTD)	400,017	561,100	533,888	634,823			1,135,450			1,259,773		1,294,711				

980.0 Megawatts

Owner
First Wind

\$2,563,687,823 Cost
 \$609,697,167 ARRA
 \$1,953,990,656 Net

\$882,487,823