

## **Appendix B – Comment Response**

## Record Hill Responses to Comments

DOE received 35 individual comment submissions totaling 167 individual comments. DOE reviewed each comment received on the Record Hill EA and has grouped the comments into the following comment categories as noted in Table 1. The individual commenters are identified in Table 2.

**Table 1 – Comment Response Matrix**

<u>Section</u>	<u>Topic</u>	<u>Commenter Numbers</u>	<u>Comments</u>
1.	NEPA Process	3, 15, 16, 18, 24, 26, 30	3a, 15a, 15m, 16b, 18e, 24a, 24m, 26a, 26l, 30f
2.	Purpose and Need	1, 2, 12, 14, 18, 25, 27, 28, 29, 33	1a, 2a, 2c, 12a, 14c, 18b, 18d, 18l, 25a, 25i, 27a, 28b, 28c, 28d, 28f, 29a, 29b, 29c, 33h, 33i
3.	Proposed Action and Alternatives	1, 3, 16, 18, 25, 29, 33	1a, 3b, 16d, 18c, 18f, 18g, 18h, 18i, 18m, 18n, 18o, 18q, 18r, 25b, 25c, 25h, 29d, 33h
4.	Water Resources	5, 15, 18, 20, 23, 24, 25, 26, 30, 32	5a, 15c, 15e, 15g, 18t, 18u, 18v, 20f, 23a, 24c, 24e, 24f, 25e, 25g, 26c, 26e, 26f, 30d, 30e, 32a
5.	Noise	11, 14, 17, 18, 19, 20, 35	11a, 11b, 14a, 14d, 17c, 18w, 19a, 20g, 35a
6.	Historic, Archaeological, and Cultural Resources	20, 22	20b, 22b
7.	Aesthetic and Visual Resources and Topography	12, 15, 18, 20, 24, 26, 33	12b, 15i, 18k, 18s, 18x, 18z, 18ab, 18ac, 20d, 20e, 24h, 26h, 33e
8.	Shadow Flicker	14	14b, 14d
9.	Occupational Health and Public Safety	11, 14, 15, 21, 24, 26	11a, 11b, 14d, 15h, 21a, 24g, 26g,
10.	Biological Resources	3, 5, 13, 15, 16, 17, 18, 24, 25, 26, 27, 28, 30, 33	3c, 5a, 5b, 13a, 13b, 15b, 15c, 15d, 16c, 17a, 17b, 17d, 17e, 17f, 17g, 17h, 17i, 17j, 18k, 18ae, 18af, 18ag, 18ah, 24b, 24c, 24d, 25d, 26b, 26c, 26d, 27b, 28a, 30b, 30c, 33g
11.	Socioeconomics	2, 5, 7, 14, 15, 17, 18, 20, 24, 25, 26, 33	2a, 2b, 5b, 7a, 14b, 15j, 15k, 17j, 18y, 20e, 24i, 24j, 25f, 26i, 26j, 33a
12.	Cumulative Effects	13, 17, 18	13c, 17c, 18e, 18ai
13.	General opposition and Local Governance	4, 6, 8, 9, 10, 11, 12, 13, 15, 16, 18, 20, 22, 23, 24, 26, 28, 29, 30, 31, 33, 34	4a, 6a, 8a, 9a, 10a, 11c, 12b, 13b, 15f, 15l, 16a, 18a, 18ad, 18j, 18n, 18p, 18aa, 20a, 20c, 20h, 22a, 24k, 24l, 24m, 25a, 26k, 28d, 28e, 29a, 29b, 30a, 31a, 33b, 33c, 33d, 33f, 34a

**Table 2 - Comment Response Key**

<b>Commenter Number</b>	<b>Commenter Name</b>	<b>Comments</b>
#1	Dan McKay	1a
#2	Peter Buotte	2a – 2c
#3	Bob Weingarten	3a – 3c
#4	Judith Allen	4a
#5	Penny Gray	5a – 5b
#6	Kevin Corbett	6a
#7	Penny Gray	7a
#8	Mike	8a
#9	Margery Ripley	9a
#10	Mike	10a
#11	Monique Aniel	11a – 11c
#12	True Engineering, Inc./ Gretchen Schreiner	12a – 12b
#13	Cathy Mattson	13a – 13c
#14	Linda Kuras	14a – 14d
#15	Coastal Counties Workforce Inc./ Christine Dube	15a – 15m
#16	Casco Bay Engineering/ Eric Dube	16a – 16d
#17	Greg Perkins	17a – 17j
#18	Ron Dube	18a – 18ai
#19	Steve Thurston	19a
#20	Colleen Martineau	20a – 20h
#21	Dan McKay	21a
#22	Betsy Bell	22a – 22b
#23	Maureen Hassett	23a
#24	Silver Lake Camp Owners’ Association/ Angela Arsenault	24a – 24m
#25	Alice Barnett	25a – 25i
#26	Leola Ballweber	26a – 26l
#27	Leola Ballweber	27a – 27b
#28	Mountain Spring Farm B&B/ Barry J. Allen	28a – 28f
#29	Steve Thurston	29a – 29d
#30	Leo F. Kersey, Jr.	30a – 30f
#31	Denise Hall	31a
#32	Denis Bourassa	32a
#33	Anne Morin	33a – 33i
#34	Robert & Joann Moulton	34a
#35	Rufus E. Brown, Esq.	35a

The following responses are grouped by category and by subject within each category. For example, all the responses on comments related to bald eagles are addressed in a single response under biological resources.

## 1. NEPA Process

### **Commenters 3, 15, 16, 18, 24, 26, and 30**

### **Comments: 3a, 15a, 15m, 16b, 18e, 24a, 24m, 26a, 26l, 30f**

Several commenters provided comments on the overall process under the National Environmental Policy Act (NEPA). Commenters stated that the EA was deficient and that an EIS should be prepared; that the data used in the analyses should not be provided by the Applicant; that independent environmental studies should be completed; questioned if DOE had actually visited the site; and that the project needed more in-depth research and needed to allow the citizens of Record Hill to provide documentation and testimony.

**Response 1** - DOE prepared the EA for the proposed Record Hill project in accordance with NEPA (40 CFR Parts 1500 to 1508) and DOE's regulations for implementing NEPA (10 CFR Part 1021). In accordance with 40 CFR 1506.5 environmental specialists within the Environmental Compliance Division of the Loan Programs Office (LPO) completed independent reviews of the data used in the analyses contained in the EA (validated all the information provided by the applicant), conducted site visits, and met with local officials and residents. Staff from the DOE LPO Environmental Compliance Division, including the Director, as well as several staff members from the DOE LPO financial and technical teams have visited the Record Hill site and surrounding area, and met with local officials and citizens.

The independent environmental review and information collected during the site visits were used to assess and document the significance of the impacts associated with the proposed action by reviewing the context and intensity of the potential environmental impacts as defined at 40 CFR 1508.27. The consideration of context means that the significance of an action must be analyzed in several contexts such as society as a whole, the affected region, the affected interests, and the locality. In the case of Record Hill, the regional context includes a rural area of Maine situated with numerous seasonal residents, the affected interests include the existing natural, physical, and socioeconomic features, while the locality of the project area consists of land owned by a timber company that manages the land to harvest timber. The intensity refers to the severity of the impact and several considerations are evaluated to determine the intensity, including:

1. Impacts that may be both beneficial and adverse.
2. The degree to which the proposed action affects public health or safety.
3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.
5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

DOE documented its analyses of the impacts in the EA prepared for the proposed Record Hill project and ensured that accurate and sound environmental information was available to public officials and citizens before making a decision whether or not to issue a loan guarantee. In doing so, DOE issued the public Draft EA for the proposed Record Hill project for publication on February 16, 2011, by submitting the document to the State of Maine, posting an electronic copy on the DOE LPO NEPA website, and running an announcement in the Rumford Falls Times. In accordance with DOE's regulations for implementing NEPA that specifies a 14 to 30 day comment period, DOE initially provided a full 30-day comment period (February 16 to March 18, 2011). Based on requests from public officials in Maine, DOE extended the comment period to April 1, 2011, to allow public officials and citizens an extended period of time to review and comment on the public draft EA.

In accordance with NEPA and DOE's regulations for its implementation, based on the findings and conclusions presented in the Final EA, DOE has determined that there would be no significant impacts, the preparation of an EIS is not required, and has issued a Finding of No Significant Impact.

## 2. Purpose and Need

**Commenters 1, 2, 12, 14, 25, 27, 28, 29, 33**

**Comments: 1a, 2a, 2c, 12a, 14c, 18b, 18l, 25a, 25i, 27a, 28b, 28c, 28d, 29a, 29b, 29c, 33h**

Several commenters expressed general concern regarding the purpose and need of the proposed Federal action. The comments questioned the need for using or risking taxpayer money to fund or subsidize the proposed project, and that the federal loan guarantee is not needed for the proposed project because of existing and sufficient financial backing. Commenters also expressed concern about taxpayers providing subsidies for private enterprises, particularly innovative, clean energy development that is unproven economically and technically. Other comments stated that the electricity produced by the project would be too expensive and unaffordable.

**Response 2.1** As stated in Section 1 of the EA, the purpose and need for DOE's proposed Federal action is to comply with DOE's mandate under the Energy Policy Act of 2005 (EPAAct 2005), as amended by ARRA, in selecting eligible projects that meet these goals. EPAAct 2005 established a Federal loan guarantee program for eligible energy projects that employ innovative and commercial clean energy technologies. Title XVII of EPAAct 2005 authorizes the Secretary of Energy to make loan guarantees to eligible projects that "(1) avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases; and (2) employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued" (42 United States Code [USC] 16513). The two principal goals of the loan guarantee program are to encourage commercial use of new or significantly improved energy-related technologies in the United States and thereby achieve substantial environmental benefits. In accordance with the direction and authority provided by Congress, DOE issued a final rulemaking for the Loan Guarantee Program in October 2007, issued a final amendment in November 2009, and has prepared several solicitations pursuant to EPAAct 2005 and DOE's final rules.

In July 2009, the DOE Loan Programs Office (LPO) issued a loan guarantee solicitation titled, "Federal Loan Guarantees for Projects That Employ Innovative Energy Efficiency, Renewable Energy, and Advanced Transmission and Distribution Technologies, Reference Number: DE-FOA-0000140," pursuant to Title XVII of EPAAct. As authorized by Congress, and in accordance with its published rules, DOE evaluates the applications received in response to a solicitation, including the application submitted by Record Hill, to ensure the project qualifies for the programs defined in the solicitation. Because the solicitations are open for all to apply, DOE cannot dictate which Applicants and associated projects apply by solicitation and cannot exclude eligible projects from consideration. Creditworthy applications represent the least risk to the government and taxpayer and are the most likely to pay the government back with interest, which is a benefit to the American taxpayer. All the applications received for a solicitation that are determined to be eligible, are evaluated in a competitive process. The competitive evaluation process is a formal evaluation and due diligence process similar to what a private sector lender would conduct, before a single dollar of taxpayer money is put at risk by guaranteeing a loan. The formal loan guarantee due diligence process is a comprehensive evaluation, including market, technical, and legal-regulatory due diligence, and compliance with the National Environmental Policy Act (NEPA) and cross-cutting regulatory compliance, a credit analysis and fully negotiated term sheet. As part of DOE's evaluation of an application, DOE must comply with NEPA. The EA provides an analysis of the potential environmental effects of an action (in this case providing a loan guarantee to Record Hill) that the decision-maker can use as part of the decision on whether to issue the loan guarantee. Financial feasibility of the proposed project is not in the EA as it is not germane to the potential environmental impacts within the scope.

Under the Loan Guarantee Program, DOE does not directly use taxpayer funds to support the project; rather after a thorough review and evaluation of the application, DOE guarantees project debt so that the Applicant can secure a low interest rate loan with only the credit subsidy fee being underwritten with

appropriated taxpayer funds. The operations of the Loan Programs Office are self-supporting (do not use taxpayer funds) as all Title XVII program costs, including personnel, are covered by fees paid by applicants. The Loan Programs Office strives to effectively leverage the financing resources of the Federal Government to enable applicants to build projects that would not otherwise get built, and attract equity that would not otherwise be invested. When loans are re-paid, the nation has benefitted, with interest. In addition, the completed projects lower delivered cost of renewable energy, incentivize build-out of the domestic supply chain, and upgrade and expand infrastructure needed to capitalize on future energy innovation.

The cost of the electricity will be dictated by a power purchase agreement between Record Hill Wind and the project sponsor, Yale University. Because the power will be purchased by the project sponsor, the cost of the electricity will not be absorbed into the residential market and therefore not incurred by the general public.

**Commenters 18, 28 and 33/ Comments: 18d, 28f, 33i**

Three commenters expressed concern about how DOE could consider wind an innovative, or as stated a new or significantly improved technology.

**Response 2.2.** The Project will utilize Siemens latest turbine control technology, Turbine Load Control (TLC), to assure that the turbines are not exposed to loads exceeding their design. This is new technology for the U.S. market. The added benefit of the TLC system is to allow the turbines to continue to generate electricity under turbulent wind conditions by reducing their speed, rather than shutting them completely down, which is the typical method of operation for wind farms.

### **3. Proposed Action and Alternatives**

#### **Commenters 3 and 18/ Comments: 3b, 18m, 18n, 18o –**

Two commenters stated that an adequate alternatives analysis regarding site selection locations was not performed in the EA.

**Response 3.1** Chapter 2 of the EA describes the two alternatives analyzed in detail. These are the Proposed Action (i.e., DOE would issue a loan guarantee to Record Hill Wind for construction of the proposed wind energy project) and the No Action Alternative (i.e., DOE would not issue the loan guarantee). The decision for the DOE's consideration covered by this NEPA review is whether to approve the loan guarantee for the Record Hill project. Record Hill's decision process in selecting the chosen site and turbine siting is described in Section 2.3 and is supported by state and federal approvals (see Section 2.1.4). Further, there are no unresolved conflicts concerning alternative uses of available resources associated with the project area that would suggest the need for other alternatives (42 USC § 4332(2)(e)). Therefore, other than no action, the only other alternatives considered were those analyzed by Record Hill prior to applying for a loan guarantee and subsequently eliminated from consideration.

#### **Commenter 18/Comment 18f**

One commenter stated that the 2.9 miles of transmission line and substation off Route 120 does not conform to what was submitted to Maine DEP or the Roxbury Town Hall.

**Response 3.3** The original submittal to Maine DEP was amended on July 10, 2009 to reflect the now-permitted design. The amendment did not replace the original application, but rather amended those sections that were affected by the design change.

#### **Commenters 18 and 25/ Comments: 18g, 18h, 25c**

Two commenters stated that the acreages associated with the project clearing are not consistent or accurate. One commenter stated 30-60 acres are "required for each turbine" and "6-10 acres clear cut." Another commenter stated that the turbine area is 37 acres and not 18.8 acres and that "6.1 miles of road, 30 feet wide = 22 acres; not 12.7 acres."

**Response 3.4** The total acreages stated in Section 2.1.1 are accurate. Clearing for the generator lead line does not create impervious surface. Additionally, the 12.7 acre number set forth in the EA is in reference to operational area, not construction area. The crane path will be reduced to 16 feet in width after construction.

#### **Commenter 18/Comment 18i**

One commenter requested information regarding the amount of clearing needed for the overhead line, and whether surveys had been completed on it.

**Response 3.5** Clearing for the generator lead will be no greater than 80 feet wide, as such a width will allow for safe operation of the electrical infrastructure. The routes were assessed in 2009 and the data collected during those assessments were set forth in the July 2009 amendments to the MDEP and US ACOE permit applications. Sections 2.1.1 and 2.1.2 provide further detailed discussion.

#### **Commenters 16, 18, 25, 29 and 33/Comments: 16d, 18c, 18q, 18r, 25b, 25h, 29d, 33h**

Several commenters questioned the potential power estimates and nameplate capacity generated by the proposed project. One commenter stated that the 3.1 million megawatt hours (MWh) of production would be significantly reduced under real world conditions. The same commenter also expressed concern about the associated reductions of carbon dioxide, sulphur dioxide, and nitrogen oxides and that "conventional units would not be shut down because of the unreliability of wind."

**Response 3.7** The Department of Energy's Loan Program Office contracted an independent engineer to conduct an analysis of the wind generating potential of the Record Hill project. This analysis showed considerable agreement with a previous independent wind analysis conducted by a separate third-party. The average power generation expected in any one year over the life of the project is 115,000 MWh. It is estimated that half of the years it will be above this number, and half of the years it will be below this number. Because the Siemens turbines have an expected life of 20 years, the EA has been revised to state that "Over its estimated 20-year projected life, Record Hill expects the proposed wind energy facility to produce approximately 2.3 million MWh of electricity under peak conditions." The text in Section 1.1 of the EA that describes the megawatts produced by the turbines and the associated reduced emissions provides the caveat of operating under peak conditions.

**Commenters 1, 18/ Comments: 1a, 18m**

Commenters state that other wind projects (such as off-shore wind) would make more sense.

**Response 3.8** DOE acknowledges the commenters' statements and suggestions. While these type of projects are worthy of consideration, the alternatives that are being considered for this project are limited to the scope of the EA/proposed action.

#### 4. Water Resources

##### **Commenter 5/Comment 5a**

One commentator stated that the project is in violation of the Clean Water Act (CWA).

**Response 4.1.** Section 3.5.2.1 of the EA identifies the potential impacts on resources protected under the CWA, and identifies the permits issued by the U.S. Army Corps of Engineers in accordance with the CWA, which demonstrates compliance. The Record Hill project has been permitted by the U.S. Army Corps of Engineers for a Section 404 programmatic general permit under the Clean Water Act.

##### **Commenters 15, 24, 26/Comments: 15c, 24c, 26c**

Two commenters stated that the proposed project would impact the water quality in Ellis/Roxbury Pond.

**Response 4.2** Section 3.5, Water Resources of the EA contains a discussion of the potential impact on water quality. Specifically, to protect water quality during construction, an Erosion and Sedimentation Control Plan was developed for the project. The plan was developed following the *Maine Erosion and Sediment Control BMPS Manual* and it defines the various erosion control measures to be employed, when and where these measures should be installed, how they are to be maintained, and when they are to be removed. As part of the MDEP Site Location of Development permit (38 M.R.S.A. §§ 481– 490), Record Hill developed a comprehensive stormwater management and control plan and received a Site Location of Development/NRPA permit number for the project (L-24441-24-A-N/L-24441-TF-B-N). In addition, CMP received a Site Location of Development permit and an NRPA permit for the Section 270 transmission line and associated substation (L-24663-24-A-N, L-24663-TF-BN, and L-24663-VP-C-N).

Stormwater modeling completed for the project indicates that there would be no significant increase in discharge rate from the site following construction, and that there should be no adverse impacts to adjacent waterbodies or properties if the stormwater management plan is properly implemented. In addition to the stormwater management plan, a phosphorous control plan was developed for the project, as required by Maine's Site Law. This plan was developed using the MDEP's *Phosphorus Control in Lake Watersheds: A Technical Guide for Evaluating New Development*. See **Response 10.6** for a complete response on the water quality of Ellis Pond (a.k.a Roxbury Pond) and associated biological impacts.

##### **Commenters 15, 18, 24, and 26/ Comments: 15e, 18u, 18v, 24e, 24f, 26e, 26f**

Commenters stated that vernal pools and wetlands would not be protected, and questioned the impacts on streams, vernal pools, and wetlands due to blasting and associated activities. One commenter also questioned the actuality of timber harvesting on the ridge lines and its affect on wetlands as noted in Section 3.5.2.

**Response 4.3** As described in the EA (see Sections 2.1.4 and 3.5), the State of Maine has issued permits pursuant to State of Maine, Natural Resource Protection Act regarding the impacts on vernal pools and wetlands, and the U.S. Army Corps of Engineers has issued Section 404 programmatic general permit under the Clean Water Act regarding impacts on wetlands. The impacts associated with the permitted activities (the proposed action) are further described in Section 3.5.5.

##### **Commenters 15, 18, 23, 24, 25, 26, 30, 32/**

##### **Comments: 15g, 18t, 18v, 23a, 24f, 25e, 25g, 26f, 30d, 30e, 32a**

Commenters stated that watersheds and water bodies, such as local rivers (Swift River) and ponds (Roxbury Pond), and the drinking water collected from shallow and drilled wells would be impacted as a result of runoff from the project.

**Response 4.4** The analysis contained in the EA (see Section 3.5) reviewed the watershed, wells, and aquifers in the area and assessed the potential impacts. As stated in the EA, the Applicant would implement measures to protect surface and ground water quality (e.g. no fueling or vehicle maintenance would be performed within 100 feet of wetlands, streams or other sensitive natural resources) and prevent spill and releases (e.g. employees operating construction vehicles are trained to promptly contain, report, and clean up any spill in accordance with standard procedures).

**Commenter 20/Comment 20f**

A commenter expressed concern over the permits issued by the U.S. Army Corps of Engineers and that the impacts have not been evaluated to the satisfaction of many of the local residents. The commenter stated that although a permit was obtained, the transmission line is still undergoing litigation regarding landowner easement issues.

**Response 4.5.** The DOE has no authority to deny a permit issued to an Applicant by the U.S. Army Corps of Engineers under the Clean Water Act. However, DOE did review the permits and the permit conditions and has incorporated the findings and requirements of the permits into the Environmental Assessment. Regarding the transmission line litigation, an easement was executed in March 2011 after the dispute was settled out of court.

## 5. Noise

### **Commenter 11/Comments 11a, 11b**

One commenter suggested that noise levels would be higher at the local residences than at the base of the ridge. The commenter stated that Maine Department of Environmental Protection (DEP) regulations are not good enough to prevent sleep disturbance.

**Response 5.1** A modeling of the noise impacts at the nearest residential locations is displayed in Tables 3-8 and 3-9, all of which are below the nighttime threshold as established by the Maine DEP. The adequacy of Maine DEP regulations is not within the scope of this EA. However, the noise analysis performed is consistent with current state-of-the-art techniques and conclusions regarding the effects of noise on human populations.

**Commenter 14/Comment 14a** One commenter stated that echoing of the noise from the wind farm because of topography and reflections off Roxbury pond would result in unreasonable noise impacts.

**Response 5.2** The Sound Level Assessment for the Record Hill Wind project was completed by Resource Systems Engineering (RSE), an acoustical engineering company with significant experience modeling the predicted sound output of wind farms in pre-development and in assessing actual sound output of operational wind farms. RSE utilized the internationally accepted CADNA/A software to generate noise contours for a proposed wind farm. CADNA/A uses three-dimensional terrain, sound power level as a function of frequency of the proposed wind turbines, and a number of other factors to model the noise contours due to the proposed wind turbine generators.

As the CADNA analysis shows, the noise contour plots shown in the EA already include these effects, and as presented in Section 3.7.3 results of the analysis indicate that sound levels at full sound power production would be between 5 to 11 dBA below the nighttime sound level limit of 45 dBA at the nine receiver points. In addition, results of this analysis indicate that sound levels at full sound power production would be between 12 to 20 dBA below the daytime sound level limit of 55 dBA for these locations.

**Commenter 17/Comment 17c** One commenter referenced a study on the cumulative noise impacts from snow mobiles and skiing on wildlife. The study is a literature review of studies which examine the effects of snowmobiling and skiing on ungulates. The study also reviews the limitations of the research as well as conflicting conclusions between the studies. (Welch, 2003)

**Response 5.3** The effects of snowmobiles and cross country skiing is not analogous to wind turbines in terms of noise impacts or effects on wildlife.

**Commenter 14/Comment 14d** One commenter stated that vibro-acoustical syndrome, defined as a whole-body pathology caused by excessive exposure to low frequency noise, would result from the project.

**Response 5.4** A DOE search of the current research on windpower-induced health effects, such as sleep disturbance, annoyance, poor mental health, and respiratory problems associated with vibro-acoustical syndrome (VCS), identified several peer-reviewed studies suggesting that symptoms associated with VCS can be explained as an indirect effect caused by annoyance towards wind turbines. For example, a study performed by Pedersen et al<sup>1</sup> showed that the people's own conviction of whether wind turbines were good or bad influenced their perception of the wind turbine noise and visual impact. Residents, who

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<sup>1</sup> Danish Energy Authority, performed by Delta Acoustics, Low frequency Noise from Large Wind Turbines, Journal No AV 140/08 Rev.1 December 2008

benefited economically from wind turbines by having them placed on their land, hence living closer to them, were less annoyed and displayed less health effects compared to the people who lived further away.

**Comment 18/Comment 18w** One commenter stated that the impacts from noise would be significant under the Council on Environmental Quality's definition of significance at 40 CFR 1508.27(b) #2, #3, and #5.

**Response 5.5** DOE has performed an independent analysis of the noise impacts from the project in Section 3.7.3 of the Final EA and deemed that they will have no significant effects to public health or safety. Additionally, the noise levels and their impacts on the surrounding community are not considered to be highly uncertain, or involve unique and unknown risks.

**Commenters 19, 20, 35/Comments 19a, 20g, 35a** Three commenters referenced an alternative study produced by the Concerned Citizens to Save Roxbury. The study stated that use of turbines that can operate in high turbulence will result in higher levels of noise pollution of 5 to 10 dBA.

**Response 5.6** DOE reviewed the study, compared it with the study described in the EA, and concluded the following:

A critical turbine characteristic for purposes of sound modeling is the total sound power of the turbine. The total sound power of turbines is guaranteed by most turbine manufacturers. This guaranteed sound power is the "loudest" a turbine will operate when properly functioning (i.e., when not in need of repair). Record Hill Wind is proposing to use the Siemens SWT-2.3-93 turbine for its project and Siemens has guaranteed this turbine's total sound power to be 107dBA (8 meters/second measured at 10 meters above the ground level of the turbine), assuming the use of Turbine Load Control (TLC) technology. Siemens has confirmed that their Turbine Load Control technology does not affect their guaranteed maximum sound power. Siemens confirmed this issue via email on April 13, 2011.

At Record Hill, in addition to having the Siemens guarantee, RSE also had the benefit of an independently conducted, IEC-compliant sound assessment of the Siemens SWT-2.3-93 turbine while in actual operation. This real-world assessment recorded the actual maximum sound output of the Siemens SWT-2.3-93 to be 105.1dBA. Because RSE wanted to be conservative in its assessment, RSE added five (5) decibels to the 105.1dBA figure for a total modeled maximum sound power of 110.1dBA (other conservative factors were also included, including assuming downwind conditions in all directions simultaneously). As mentioned above, Siemens has guaranteed a maximum sound power for its SWT-2.3-93 technology—including TLC—of 107dBA. The 3.1dBA safety factor from the guaranteed figure is not insignificant. The State hired an independent peer reviewer—Warren Brown of En-Rad Consulting—to review the work of RSE in both the initial permitting proceedings and in the project opponent's appeal before the State's Board of Environmental Protection. Mr. Brown agreed that RSE's modeling was technically correct and consistent with standard engineering practices.

The commenter's assertion that TLC technology will result in higher than predicted sound levels is unsubstantiated and is directly refuted by Siemens' statement that TLC does not affect the turbines' total guaranteed sound power. It is worth noting that Siemens has a contractual "make good" obligation on turbine noise output as part of its guarantee.

The DEP concluded that when applied correctly, point source and line source sound propagation produce the same results. In the case of known sound sources in a linear array, such as wind turbines along a ridge, calculations are most accurate when each turbine is modeled as a point source. The net effect of a line of point sources is in fact a line source. However, it is important to understand that oversimplifying this situation by assuming line source propagation (or purely point source propagation) will lead to incorrect results at certain distances from the turbines. RSE's modeling each turbine as a point source leads to the correct result at any distance or location.

Finally, it should be mentioned that RSE has modeled wind projects across Maine using the same “point source” approach. Importantly, RSE has utilized this approach in predicatively modeling projects prior to development, and then has confirmed the conservatism and accuracy of the model by collecting real world operating sound data from the same projects after operation. This "before and after" test is the best confirmation of RSE's predictions. In the Stetson Wind project in eastern Maine for example, RSE utilized the same predictive modeling software with exactly the same conservative assumptions as in Record Hill and then tested the model against the actual operating measurements. The field data collected during project operations at Stetson were found to be from 4 to 9 dBA below RSE’s pre-construction modeling predictions at all locations, thus confirming the validity (and conservatism) of the model used in connection with the Record Hill project.

DOE concludes that the Ecoustics thesis that higher than expected noise from the project would occur during high turbulence is incorrect on the basis of the evidence provided by RSE’s proven point source models, which display that the expected noise from the project would not exceed DEP standards.

## 6. Historic, Cultural and Archaeological Resources

**Commenter 20/Comment 20b** One commenter pointed to the potential for impacts on Native American and related cultural resources in the area.

**Response 6.1** The Army Corps of Engineers (ACOE) was the lead agency for conducting the section 106 Historic Preservation Act consultation and any necessary related Tribal consultations. A records search by the ACOE established that there were no Federally-recognized tribes with an interest in Oxford County.

**Commenter 22/Commenter 22b** One commenter stated that there are many historic homes in the project area besides the three that would be affected as determined by the Maine Historic Preservation Commission (MHPC) including the commenter's home "an 1828 cape on the Roxbury/Mexico town line rumored to have been a station on the Underground Railroad in the 1800's."

**Response 6.2** The section 106 review and independent analyses were performed by the U.S. Army Corps of Engineers (ACOE) during their section 404, Clean Water Act permit process. These concluded that there would be adverse impacts to two historic farmsteads, which were discussed in the EA at Section 3.8.3, and documented in the Maine Historic Building Report per a Memorandum of Agreement between ACOE, DOE, and the Maine Historic Preservation Commission.

## 7. Aesthetic and Visual Resources

### **Commenters 15, 18, 20, 24, 26, 33/ Comments 15i, 18s, 18ab, 18ac, 20d, 20e, 24h, 26h, 33e**

Three commenters stated that the project will alter the natural landscape and greatly detract from its rural character and beauty.

**Response 7.1** As noted in Section 3.9.3, the project would change the ridgeline from one that is predominantly natural to one with distinct artificial features that would be highly visible to residents and businesses, roadway travelers, and recreationists on the pond or on hiking trails. Relative to baseline conditions, these turbines would affect the existing visual character and quality of views toward the ridge. The turbines would become prominent visual features on the ridgeline and alter the visual character and quality for all viewer groups. However, as shown in other simulations (Figures 3-6 to 3-13) the turbines would not be very noticeable from farther vantage points (e.g., Byron or Mexico). Moreover, movement of the turbines from this vantage would not be very noticeable due to distance.

**Commenter 18/Comment 18k** One commenter noted that the 115kv transmission line poles would not be hidden from view as there are few 70' tall trees in the project area.

**Response 7.2** As noted in Section 3.9.3, the Section 270 line upgrade would be visible from Memorial Park, Bean Brook, Swift River, SR17, one residential property in Mexico, Maine, and one in Roxbury, Maine. Installation of the transmission line upgrade is expected to have minor visual impacts on the project area.

**Commenters 12, 18/Comments 12b, 18x** Two commenters noted that the highway in the project area (Route 17) is a scenic highway that would be adversely impacted by the project.

**Response 7.3** The Roxbury section of Route 17 is the southernmost extent of the State-designated Rangeley Lake Scenic Byway. Potential impacts to Route 17 are described in Section 3.9 of the EA. As noted in Section 3.9.3, the additional corridor width and taller structures associated with the Section 270 line would increase the corridor visibility somewhat, but views would still be intermittent. Due to the limited visibility of the transmission line outside of the transmission corridor, there would be relatively minor contrasts in line from Section 270 to the scenic byway.

**Commenters 18, 20/Commenters 18z, 18ac, 20e** Two commenters noted that the project will be visible at many points along the Appalachian Trail, and adversely impact the natural quality of the area.

**Response 7.4** As noted in Section 3.9.3, three scenic viewpoints or trails, including the AT, Tumbledown Mountain and its associated trails, and Little Jackson Mountain and its associated trails would have views of the proposed project. A two-mile section of the AT is located within eight miles of the project, but there would be few views of the project from this section of trail because of intervening topography, including other mountain ridgelines. The turbines should have a minor impact on the view from Old Blue Mountain, but the rest of the AT is in forested land and would not have a view of the project. Due to the distance from the AT and their relatively small apparent size, the turbines would not dominate the landscape or create an obvious contrast in scale. The maximum view of the project from Tumbledown Mountain would occur from the mountain's west peak. This viewpoint would be approximately 5.7 miles from the nearest turbine, and all of the project turbines would be visible. Views from the summit of Little Jackson Mountain would be similar to the West Peak of Tumbledown Mountain although the turbines would appear small since Little Jackson Mountain is further from the project area.

## 8. Shadow Flicker

**Commenter 14/Comments 14b, 14d** One commenter expressed concern about the effects of shadow flicker on the west side of Roxbury Pond.

**Response 8** As noted in Section 3.10.2, the project is situated such that no structures are located within 1,000 feet of a turbine with the nearest structure located approximately 2,345 feet from the turbine string. This nearest structure is abandoned and is not habitable. The shadow flicker analysis was designed to assess any potential impact to residences in the vicinity of the project; Figure 3-15 displays the results. This analysis quantified impacts out to 3,280 feet (1,000 meters). Based upon this analysis four potential receptors were identified. Each of these receptors is located south of the turbine string. Of the four potential shadow flicker receptors analyzed using the WindPRO software, none showed a possibility of any shadow flicker impact.

## 9. Occupational and Public Health Impacts

**Commenters 11, 14, 15, 24, 26/Comments 11a, 11b, 14d, 15h, 24g, 26g** Three commenters expressed concern regarding health effects from blade thump, noise, shadow flicker, as well as the potential for suffering from vibro-acoustical syndrome as a result.

**Response 9.1** A DOE search of the current research on windpower-induced health effects, such as sleep disturbance, annoyance, poor mental health, and respiratory problems associated with vibro-acoustical syndrome (VCS), identified several peer-reviewed studies suggesting that symptoms associated with VCS can be explained as an indirect effect caused by annoyance towards wind turbines. For example, a study performed by Pedersen et al<sup>2</sup> showed that the people's own conviction of whether wind turbines were good or bad influenced their perception of the wind turbine noise and visual impact. Residents, who benefited economically from wind turbines by having them placed on their land, hence living closer to them, were less annoyed and displayed less health effects compared to the people who lived further away.

**Commenter 21/Comments 21a** One commenter expressed concern regarding the potential for a hydraulic system rupture resulting in an oil spill.

**Response 9.2** As discussed in Section 3.17.3.1 of the Final EA the Project has an approved Spill Prevention, Control and Countermeasures plan in place for operation and, prior to the start of commercial operations, is required to develop a second plan to address spills during the project's operational phase.

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<sup>2</sup> Danish Energy Authority, performed by Delta Acoustics, Low frequency Noise from Large Wind Turbines, Journal No AV 140/08 Rev.1 December 2008

## 10. Biological Resources

### **Commenters 3, 5/Comments 3c, 5b –**

A commenter expressed concern on the impacts about bald eagles from the turbines and on wildlife from the proposed development and associated habitat fragmentation and introduction of exotic species.

**Response 10.1.** Section 3.13.3.1 of the draft EA discusses the impacts on vegetation and wildlife, to include wildlife habitat and exotic species, and Section 3.13.3.2 discusses the impacts on bald eagles. As presented in the EA, DOE evaluated the impacts associated with habitat loss and exotic species, as well as the impacts on bald eagles and has determined that the impacts would not be significant.

### **Commenter 5/ Comment 5a –**

A commenter stated that the Record Hill project will be or already is in violation with the Migratory Bird Treaty Act (MBTA) and the Clean Water Act (CWA).

**Response 10.2** Section 3.13.1.1 and 3.5.1.1, of the draft EA provides a description of the MBTA and the CWA and their requirements, respectively. Section 3.5.2.1 of the EA identifies the potential impacts on resources protected under the CWA, and identifies the permits issued by the U.S. Army Corps of Engineers in accordance with the CWA, which demonstrates compliance. Section 3.13.3.1 of the draft EA describes the measures that have been taken to minimize and avoid impacts on resources protected under the MBTA. As described in the EA, the applicant has completed several surveys and has worked with the State of Maine and the U.S. Fish and Wildlife Service in compliance with the MBTA to develop post construction monitoring to help ensure that unreasonable adverse impacts to populations are avoided and minimized to the extent practical.

### **Commenter 13/ Comment 13a–**

A commenter inquired about the adequacy of the bird and bat studies/surveys and identified that there are three documented bat hibernacula (caves) near the project area.

**Response 10.3** The Applicant worked with the Maine Department of Inland Fisheries and Wildlife in the development and final approval of pre-construction bird and bat surveys of the project area. An independent consulting company (funded by the Applicant) conducted two seasons of nocturnal radar surveys and acoustic bat surveys, which captured the spring and fall migration period. The results of the surveys were provided to the U.S. Fish and Wildlife Service, who reviewed and approved the survey results for Federally-listed endangered species as well as eagles.

In summary, the acoustic bat surveys identified between 0.6 to 1.5 bat calls per detector night from detectors located in the met towers, and between 11 and 55 bat calls per detector night from detectors located in the trees. The detection rate of bat calls from the detectors located in the met towers was at the low end of detections from the surveys conducted in Maine in 2007, while the detection rate from the detectors located in the trees was in the middle of the overall detection rate. These results also show that the majority of the calls (between 86% to 96%) were documented from the detectors in the trees, indicating that bat activity occurs at heights well below the proposed wind turbines.

*Maine's Comprehensive Wildlife Conservation Strategy* (Maine Department of Inland Fisheries and Wildlife 2005) identifies a total of four caves/mines that represent bat hibernacula in the state of Maine. Three of these hibernacula occur in the Central and Western Maine Ecoregion, which includes the Record Hill project area. The closest of these three hibernacula occurs approximately six miles to the southwest of the nearest project turbine. According to information available through Maine's Beginning with Habitat program, "Bats roosting here [east of the Ellis River] likely feed upon the insects associated with the Ellis River." The other two hibernacula in this area occur approximately 10 miles to the northwest and 10 miles to southeast, respectively, of the Record Hill project area. Bats typically fly from half a mile to six miles from their roosts to feeding sites

([http://www.patracompany.com/IFWBuild/wildlife/human/LWW\\_information/bats.html](http://www.patracompany.com/IFWBuild/wildlife/human/LWW_information/bats.html)). Based on the

information collected from the acoustic bat surveys, information on feeding habits of bats roosting east of the Ellis River near their hibernacula and the typical maximum distance bats fly to feeding sites, DOE determined that the impacts on bats would not be significant as documented in Section 3.13.3.2 of the EA. In addition, throughout the consultations and permitting process with the Maine Department of Inland Fisheries and Wildlife, no issues with the hibernacula were identified or incorporated as part of the permit conditions.

**Commenter 13/ Comment 13b –**

A commenter noted differences between the draft and final permits issued by Maine Department of Environmental Protection.

**Response 10.4** The changes between the draft and final permit were made by the Maine Department of Environmental Protection. The changes included corrections of typographical errors such as the dates of the nocturnal radar surveys, and changes to some of the conditions (e.g. the incorporation of the word “consider” into some of the conditions of operation). The final permit issued by the Maine Department of Environmental Protection is the current and valid permit for the proposed project.

**Commenters 15, 16, 17, 18, 24, 26, 27, 28, 33/ Comments 15b, 16c, 17b, 18ah, 24b, 26b, 27b, 28a, 33g**

Eight commenters were concerned about the impacts of the turbines on eagles. One commenter stated that the “developer’s study” stated that the eagles only fly within a short radius of the active nest at Ellis Pond.

**Response 10.5** Two seasons of raptor migration surveys and a summer survey specifically targeting bald eagle use of the area were conducted from 2007 to 2009. Two adult bald eagles were observed on September 4, 2007. Both were seen migrating at approximately 70 meters over Flathead Mountain. A juvenile bald eagle was observed on September 20, 2007, migrating west of the project ridgeline at an altitude of 200 to 300 meters. Two bald eagles were observed during the spring 2008 raptor migration survey on May 1 and May 6, 2008. These individuals were observed flying parallel to the ridgeline over the valley to the west of the project. One eagle was observed flying low along the valley, while the other was estimated at 200 meters above the valley. Seven bald eagles were observed during the summer 2009 raptor migration between July 13, 2009 and August 16, 2009. These individuals were seen flying over Ellis Pond. In their review of the survey data the Maine Department of Inland Fisheries and Wildlife biologists determined that results from the studies showed relatively low use of the ridgeline by bald eagles, and the U. S. Fish and Wildlife Service approved the project without objection after seeing the results of the summer eagle use survey.

In describing the existing conditions of the affected environment (Section 3.13.2), the EA describes the location of the active nest on the island located in Ellis Pond and describes the movements of bald eagles to include the statement that “they [bald eagles] also often expand their feeding grounds for many miles to lakes, ponds, and other waterbodies. Additionally, the discussion of the raptor and migratory bird surveys in the EA documents that bald eagles fly over the ridge line where the turbines would be constructed. In describing the potential impacts (Section 3.13.3), the EA states that based on the surveys, the majority of the raptors fly below the maximum height of the turbine blades and that studies documented that diurnal raptors avoid modern wind turbines; therefore, there would not be a significant impact on these populations.

In addition, pursuant to the Section 404 Programmatic General Permit issued by the U.S. Army Corps of Engineers, the Applicant must submit an Eagle Risk Minimization Plan to the Corps, U.S. Fish and Wildlife Service and the Maine Department of Inland Fisheries and Wildlife prior to operation. In addition, DOE consulted with the U.S. Fish and Wildlife Service on the potential impacts on bald eagles, and FWS determined that based on the project as currently proposed, no additional consultation or mitigation measures are required.

**Commenter 15, 24, 26, 28, 30, 33/Comments 15c, 24c, 26c, 28a, 30b, 33g –**

Six commenters stated that the proposed project would impact the water quality in Ellis Pond, which would adversely affect the fish in the pond and the ducks and loons that stop over at the pond, and that the turbines would adversely affect the loons.

**Response 10.6.** Stormwater modeling completed for the project indicates that there would be no significant increase in the discharge rate from the site following construction, and that there should be no adverse impacts to adjacent waterbodies or properties if the stormwater management plan is properly implemented. In addition to the stormwater management plan, a phosphorous control plan was developed for the project, as required by Maine's Site Law using the MDEP's *Phosphorus Control in Lake Watersheds: A Technical Guide for Evaluating New Development*. Because there would be no adverse effects on the water quality of Ellis Pond, there would be no impact on the fish in the pond and the ducks and loons that stop over at the pond. Section 3.13.3, discusses the impacts on migratory birds and fishery resources that would be impacted by the proposed project.

During the Maine permitting process, the Maine Department of Inland Fisheries and Wildlife commented that loons are protected by state and Federal laws that prohibit the harassment of wildlife; however, they are not classified as a rare, threatened, or endangered avian species. MDIFW stated that there is a potential risk that loons may collide with a turbine associated with the Record Hill Wind Project. However, MDIFW believes that this risk is low since most of the loon flights would occur during daylight hours when they could see the structures. The surveys conducted for the proposed project found that loons do not utilize the ridgeline where the turbines would be located, and MDIFW concluded that neither the local loon population nor migrating loons, would be adversely impacted by the Record Hill Wind Project. DOE concurs with this conclusion.

**Commenters 15, 24, 25, 26, 28, 30, 33/ Comment 15d, 24d, 25d, 26d, 28a, 30c, 33g –**

Seven commenters expressed concern on the impacts on land based wildlife when the turbines are up and running.

**Response 10.7.** Section 3.13 of the EA describes the affected environment and describes the potential impacts on flora and fauna, to include land based wildlife. As described in the EA, the project area is currently owned by a commercial timber harvesting company and the area is subject to timber harvesting operations. The impacts on land based wildlife were found not to be significant based on the existing conditions, and that suitable wildlife habitat is available in the immediate vicinity of the proposed action that the displaced wildlife could utilize. In addition, MDIFW found that based upon the established purpose of the project, the proposed design represents the least environmentally damaging alternative and that the project would not “*degrade any significant wildlife habitat, unreasonably disturb the subject wildlife, or unreasonably affect use of the site by the subject wildlife...*”

In addition, after initial site clearing of the Record Hill Wind Project area, white-tailed deer, moose, black bear, and red fox have been observed in the area. The Searsburg Wind Project in Vermont has conducted a wildlife camera survey at that site that has documented similar game species within immediate proximity to the turbines.



**Photo:** White-tailed deer. Stetson Wind Project, Maine. Stantec Consulting, 2009.

**Commenter 17/ Comment 17a –**

A commenter noted that virtually no research has been done in Maine on the impacts of wind farms on mammals.

**Response 10.8.** DOE notes that the Applicant and State of Maine, through its permit processes, have reviewed and mitigated potential impacts on biological resources to include mammals. DOE, through the development of this EA has reviewed the information and analyses completed by the applicant and the State of Maine and has concluded that, given the available information, that the impacts on wildlife would not be significant (see Section 3.13).

**Commenter 17/ Comment 17d –**

A commenter noted that the Maine Audubon Society opposes a wind project in Redington, Maine, and implies that the same may be true for Record Hill.

**Response 10.9** DOE did not receive any comments on the Record Hill EA from the Maine Audubon Society.

**Commenter 17/Comments 17e-17j**

A commenter provided several comments regarding the potential impacts of a linear project (such as a wind farm) on wildlife, to include individual disruption, social disruption, habitat avoidance, habitat disruption, direct and indirect mortality, and population effects.

**Response 10.10** DOE notes that the article cited by the commenter does not include a discussion of turbines as a linear project, and that the article focuses on the types of roads and linear developments created by the oil and pipeline industries in western Canada, which is an entirely different ecosystem than those present in the project area.

In Section 3.13 of the EA, DOE describes the affected environment and goes on to describe the impacts associated with the construction and operation of the proposed project on the terrestrial wildlife. In accordance with NEPA, the impact assessment takes into account the existing environment, which is land that is owned by a timber company that is actively harvested for timber, and that has several existing logging roads throughout the property. In addition, the area is subject to hunting. As described in the EA, because the majority of the existing logging roads would just be upgraded, and the majority of the power transmission line would be within and adjacent to an existing powerline right of way, the proposed project would not have a significant impact on the local wildlife, to include individual disruption, social

disruption, habitat avoidance, habitat disruption, direct and indirect mortality, and associated population effects.

**Commenter 18/ Comment 18k, 18ae –**

A commenter indicated that the project may impact essential fish habitat associated with the Atlantic salmon.

**Response 10.11** As described in Section 3.13, DOE has reviewed the measures to protect the habitat associated with the Gulf of Maine Distinct Population Segment of the Atlantic salmon that are incorporated into the proposed action, and the findings of the USACE Section 404 permits (USACE Permit Numbers NAE-2008-03763 and NAE-2009-01866). DOE has concluded that the proposed action would have no impact (a no effect determination pursuant to Section 7 of the ESA) on the Atlantic salmon, and no impact on its designated essential fish habitat. In addition, the proposed action would have no impact on designated critical habitat for the salmon, as none is located in the project area.

In addition, USACE consulted with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service during the Section 404 permit process and determined that the wetland and stream impacts would have no impact, and therefore no effect (pursuant to Section 7 of ESA), on the Gulf of Maine Distinct Population Segment of the Atlantic salmon, and its essential fish habitat.

**Commenter 18/ Comment 18af –**

One commenter expressed concern that birds that fly over the ridge would be flying directly into path of the turbines and that the turbine would represent a significant loss of habitat.

**Response 10.12** As discussed in Section 3.13, DOE evaluated the impacts on flora and fauna, to include birds and concluded that the impacts would not be significant. DOE found that the resident bird species that currently utilize the project area would be expected to continue their use with potential temporary displacement during the actual construction phase. Based on the results of the nocturnal radar surveys, raptor surveys, and acoustic bat surveys in 2007 and 2008, the operation of the wind turbines would not pose a significant threat to birds or bats. The radar surveys indicate that passage rates at the project are comparable to other turbine sites in the state. Flight height and flight direction data indicate that the majority of targets or animals are flying at a height sufficient to avoid the proposed turbines and blades. Raptor surveys indicate that passage rates of raptors is low in the project area, which is due to the lack of large landscape features that would concentrate raptor activity and migration. For additional information see responses 11c and 11e.

**Commenter 18/ Comment 18ag –**

One commenter questioned the impacts on vegetation and wildlife and the data associated with the bird and bat surveys.

**Response 10.13** DOE evaluated the impacts on vegetation and wildlife by reviewing the context and intensity to determine the significance of the impact. As described in Section 3.13.3.1, the implementation of the proposed action would not result in a significant impact. Regarding the bird and bat survey data, it has been filed with the State of Maine, and was used in developing the permits issued by the State of Maine, see response 11e for additional information.

**Commenter 18/ Comment 18ah –**

One commenter questioned the timeframe for clearing activities and its impacts on migratory birds and on the potential impacts of the turbines on the birds.

**Response 10.14** The timeframes for clearing activities as presented in the EA are accurate; Record Hill and CMP are planning to conduct the remaining clearing activities during the winter months.

Per the application submitted to the State of Maine for the Record Hill project, the majority of North American land-birds migrate at night, most likely to take advantage of more stable atmospheric conditions for flapping flight (Kerlinger 1995). Conversely, species using soaring flight, such as raptors, migrate during the day to take advantage of warm rising air in thermals and laminar flow of air over the landscape, which can create updrafts along hillsides and ridgelines.

Nocturnal radar surveys from sunset to sunrise (using X-band marine radar) were conducted in the spring and fall 2007 migration periods to monitor nighttime migratory bird activity at the project site. The radar site was located at the summit of Flathead Mountain. The spring radar survey included 20 nights of sampling from April 22 to June 8, 2007, and the fall radar survey included 20 nights of sampling from September 5 to October 13, 2008.

In spring, the overall passage rate for the entire survey period was 539 targets per kilometer per hour (t/km/hr) with a seasonal average mean flight height of all targets of approximately 1,023 feet (312 meters) above the radar site 20 feet (6 meters) above the ground. In fall, the overall passage rate for the entire survey period was 420 t/km/hr with a seasonal average mean flight height of all targets of 1,198 feet (365 meters) above the radar site. The overall mean flight heights by hour, night, and season suggests that a small portion of night migrants have the potential to encounter wind turbines along the ridgeline during spring and fall migration seasons.

Diurnal raptor surveys to monitor raptor migration activity were conducted for 14 days in the fall of 2007, and for 15 days in the spring of 2008. In 2007, a total of 96 individual birds of 12 different species were observed, with an overall passage rate of 1.12 raptors/observation-hour. In 2008, 118 individual birds of 12 different species were observed, with an overall passage rate of 1.15 raptors/observation-hour.

This information was reviewed by DOE and was summarized to support the findings presented in Section 3.13 of the EA to document that the impacts on raptors and migratory birds would not be significant.

#### **Commenter 17/ Comments 17b**

One commenter suggested possible disruption to bird species mate calling activities “due to high frequency and low frequency sounds being emitted from the turbines.”

**Response 10.15** DOE evaluated the impacts on vegetation and wildlife, including birds, by reviewing the context and intensity to determine the significance of the impact. As described in Section 3.13.3.1, the implementation of the proposed action would not result in a significant impact. Specific to the possible disruption to bird species mate calling activities, DOE reviewed a Technical Report prepared by the National Energy Renewable Laboratory, titled Avian Hearing and the Avoidance of Wind Turbines (NREL/TP-500-30844) dated June 2002. The report notes that compared to most mammals, including humans, birds do not hear well at either high or low frequencies. At the high-frequency end of the audiogram, there are no cases in which birds hear at frequencies higher than about 15 kHz. Generally, birds do not hear as well as mammals, including humans, at low frequencies. The significance of poor low-frequency hearing in birds is that the bulk of the energy generated by wind turbines is at lower frequencies (less than 1–2 kHz). On average, the spectral limit of "auditory space" available to a bird for vocal communication extends from about 0.5 to 6.0 kHz, with the majority occurring above 2.0 kHz. Because the noise emitted by wind turbines is at a lower frequency than most birds vocalize and can even hear well, there would be no notable disruptions to bird species mate calling activities.

## 11. Socioeconomics

**Commenter 17/Comment 17j** One commenter suggested that impacts to recreation would be adverse as a result of the project.

**Response 11.1** As stated in Section 3.12.2, the project's impact to recreation would be relatively minor. Hunting would continue to be allowed on the lower slopes but not where people are working on the ridgeline. This is consistent with historic and current policies on these lands. Brook fishing opportunities would remain as they are now. Erosion control methods would ensure that stream quality is maintained in all streams. Snowmobile access on the Yellow Gate Rd. and Bunker Pond Rd. would remain unchanged. The Bunker Pond Rd. summer and fall usage for vehicles and ATVs would also not be changed due to the project. During construction vehicle access on the Mine Notch would be restricted. The ATV trail which crosses the access road has been relocated for reasons not related to the project. The trail followed an old discontinued county road which inappropriately crossed some forested wetlands. In addition, the trail was closed by an adjacent landowner. A new location has been approved on this tract that restores the connection with the existing trail network, avoids crossing the access road and is more environmentally acceptable.

**Commenter 2, 14, 15, 24, 26/ Comments 2a, 2b, 14b, 15k, 24j, 26j** Several commenter expressed concern about the potential for lowered property values in the region as a result of the project.

**Response 11.2** The EA did not address the potential impact of the Record Hill project on property values because such effects are outside the scope of the environmental assessment. However, DOE reviewed a study prepared for the DOE Office of Energy Efficiency and Renewable Energy on the impacts of wind power projects on residential property values in the United States (LBNL, 2009<sup>3</sup>). The study presents data on almost 7,500 sales of single family homes situated within 10 miles of 24 existing wind facilities in nine states. The conclusions of the study were drawn from eight different pricing models, as well as both repeat sales and sales volume models. The various analyses used were strongly consistent in that none of the models uncovered conclusive evidence of the existence of any widespread property value impacts that might be present in communities surrounding wind energy facilities. Specifically, neither the view of the wind facilities nor the distance of the home to those facilities was found to have any consistent, measurable, and statistically significant effect on home sales prices. Although the analysis cannot dismiss the possibility that individual homes or small numbers of homes have been or could be negatively impacted, the study found that if these impacts do exist, they are either too small and/or too infrequent to result in any widespread, statistically observable impact.

**Commenters 5, 7, 15, 18, 20, 24, 25, 26/ Comments 5b, 7a, 15j, 18y, 20e, 24i, 25f, 26i** Eight commenters expressed concern regarding the impacts on local tourism from the project.

**Response 11.3** The EA did not directly address the potential of the proposed Record Hill wind project to impact tourism. However, Section 3.9 did address the potential impacts to visual resources, including trails, scenic byways, rivers, ponds, and parks; all of which are likely to be used by visitors to the region. Section 3.9 concluded that while the turbines would be visible from some of these locations, the impact would not be significant. Tourist attitudes to the project may depend on whether the turbines are viewed for a short period while driving or hiking through the area or for longer periods when visible from tourist

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<sup>3</sup> Ernest Orlando Lawrence Berkeley National Laboratory (LBNL). December 2009. *The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis*. Environmental Energy Technologies Division. LBNL-2829E.

accommodations. Attitudes may also differ among visitors depending on whether wind power projects (and other renewable energy projects) are viewed favorably or unfavorably. Landscape and scenic views are likely to be important qualities valued by visitors to the region and therefore, the potential visual impacts of the project are likely to be important to tourist attitudes. Studies on the impacts of wind power developments on tourism tend to be based on surveys of visitors and anecdotal evidence. DOE was not able to locate any studies that use empirical data to evaluate the before and after effects of wind farms on the tourist trade. Several survey-based studies from the United Kingdom and France have shown that there is unlikely to be much of a negative (or positive) effect on tourism due to the presence of large scale wind developments. Many factors weigh into tourists' decisions to visit an area and into the amount tourists spend. DOE was not able to identify a direct causal link between the proposed project and any potential reduction in the tourist economy. DOE has concluded that while there is some uncertainty in the likely effect of the project on tourism, the economic impacts on the tourism sector would be negligible.

**Commenter 33/ Comment 33a** One commenter stated that the number of jobs created is not enough to warrant the project.

**Response 11.6** As stated in Section 3.14.2 of the EA, direct and indirect beneficial impacts on socioeconomic resources would occur as a result of up to 200 additional job opportunities. Short-term impacts would include employment opportunities (i.e., timber harvesters and equipment operators) as well as increased activity at local businesses such as hotels and restaurants during construction of the proposed project. Long-term benefits would include three to five full-time jobs for employees to operate the facilities as well as seasonal work associated with road maintenance.

## 12. Cumulative Impacts

**Commenter 13 and 18/Comments 13c, 18e, 18ai** Two commenters noted that there are five to seven other proposed projects in the region, including one posed by First Wind, which could cumulatively contribute to an adverse impact on bat species.

**Response 12.1** Currently, there is one pending application for a windpower project in the neighboring towns of Carthage, Canton, and Dixfield. This project is over 10 miles from the Record Hill project and not expected to contribute to a cumulative impact on any resource areas. There is currently only one proposed project in the Roxbury area, which is posed by First Wind. Maine DEP had a meeting with First Wind for the project that would potentially span ridgelines in Roxbury and the neighboring town of Rumford. However, no application has been received, and therefore DOE has no information with which it could use to assess the incremental contribution to cumulative effects on the specific resources that are also affected by the Record Hill project.

**Commenter 17/ Comment 17c** One commenter suggested that there will be cumulative impacts to wildlife and referenced a study on the cumulative noise impacts from snow mobiles and skiing on wildlife. The study is a literature review of studies which examine the effects of snowmobiling and skiing on ungulates. The study also reviews the limitations of the research as well as conflicting conclusions between the studies. (Welch, 2003)

**Response 12.2** The effects of snowmobiles and cross country skiing is not analogous to wind turbines in terms of noise impacts or effects on wildlife. DOE reviewed the potential cumulative impacts of the project as described in Section 3.18.

### **13. General Opposition and Local Governance**

**Commenters 4, 6, 8, 9, 10, 11, 12, 13, 15, 16, 18, 20, 22, 23, 24, 26, 28, 29, 30, 31, 33, 34**  
**Comments 4a, 6a, 8a, 9a, 10a, 11c, 12b, 13b, 15f, 15l, 16a, 18a, 18ad, 18j, 18n, 18p, 18aa, 20a, 20c, 20h, 22a, 23a, 24k, 24l, 24m, 25a, 26k, 28d, 28e, 29a, 29b, 30a, 31a, 33b, 33c, 33d, 33f, 34a**

Several commenters were generally opposed to DOE issuing a loan guarantee to Record Hill LLC., requesting that DOE not issue a loan guarantee, put tax dollars at risk, or to generally support or promote wind projects. Several of the comments classified as general opposition referenced natural (wildlife impact) or physical impact (viewshed impact) associated with the general opposition, and the substantive resource-specific comments are addressed under the relevant resource section. One commenter stated that her artistic craft would be adversely affected by the altered natural landscape. Other commenters expressed concern regarding local and state permitting issues.

#### **Response 13**

As defined in 40 CFR 1500.1, NEPA procedures ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. DOE appreciates the participation of the public officials and citizens throughout the NEPA process, as the Agency uses the NEPA process to help officials make decisions that are based on an understanding of the environmental consequences.

As discussed in Response 1, DOE completed an independent review and documented its analyses of the environmental impacts in the EA prepared for the proposed Record Hill project. DOE ensured that accurate and sound environmental information was available to public officials and citizens before making a decision whether or not to issue a loan guarantee. In doing so, DOE issued the public draft EA for the proposed Record Hill project on February 16, 2011, by submitting the document to the State of Maine, posting an electronic copy on the DOE LPO NEPA website, and running an announcement in the Rumford Falls Times. In accordance with DOE's regulations for implementing NEPA that specifies a 14 to 30 day comment period, DOE initially provided a full 30-day comment period (February 16 to March 18, 2011). Based on requests from public officials in Maine, DOE extended the comment period to April 1, 2011, to allow public officials and citizens an extended period of time to review and comment on the public draft EA.

As discussed in Response 2.1, in addition to the NEPA process, DOE performs a formal loan guarantee due diligence process that includes financial, technical, market, and legal-regulatory due diligence. As described above, DOE has completed a thorough evaluation of the project, to include environmental factors, prior to making a decision whether or not to issue a loan guarantee. The rigorous due diligence process is intended to minimize the risk to the American taxpayer.

Regarding concerns related to local and state permitting issues, DOE has no control over the state and local process and must defer to affected officials to address any concerns with these processes. DOE appreciates the participation of the public officials and citizens throughout the NEPA process, and as described above, has given careful consideration to all comments received.

**From:** dan mckay [mckaydan2@gmail.com]  
**Sent:** Tuesday, February 22, 2011 6:22 AM  
**To:** Marhamati, Joseph  
**Subject:** "Record Hill Draft EA Comments."

**Deepwater wind power given boost from report**  
**The University of Maine study should give the state 'a major leg up' in attracting developers.**

1A

The vision is for thousands of megawatt generation. The available resource (wind) provides capacity ratings far exceeding land-based units. Public disturbance is far less than land - based.  
Capital costs are higher due to different site factors, but federal funding has been received by the University to develop R & D.  
Just seems to me, that if taxpayer money is to be used to provide impetus to wind, deepwater wind power makes more sense here in Maine than land-based. I believe Former Governor Angus King has alluded many times to deepwater wind and promotes it's development.  
Location,location,location.....big factor.....physically and politically.  
I think of wind power, at best, an experiment, but if the DOE is compelled to do this thing, at least do it in a way that has chance for the best " bang for the buck ".....Thank you

Dan McKay  
Dixfield, Maine

**From:** Peter Buotte [jsailboat@myfairpoint.net]  
**Sent:** Friday, April 01, 2011 8:58 PM  
**To:** Marhamati, Joseph  
**Subject:** Comment on DOE Application for Record Hill Wind LLC Roxbury, Maine

Mr. Marhamati,

2A Please accept my following comment on the DOE Application for Record Hill Wind. It bothers me that my tax dollars could be funding something that will decrease local property values and have a negative effect on the area tax base. In speaking with a local real estate agent that represents property in Roxbury, the current state of the housing market is bad enough without adding in extra outside factors. During my conversations with the real estate agent he mentioned that while showing property in the area and disclosing that there is a Wind Farm in the permitting stage, 2B people's attitudes and interest levels change. The most widely make comments are that they want to see what is going to happen in regards to views, sounds, and value due to the Wind Farm before they go any further . When you decrease the group of potential buyers it has a negative impact on the value of the property in the area. My question also is why 2C should US taxpayers assume the risk for a LLC which supposedly has enough funds to complete the project. The investors that are reaping big rewards should bare the risk not the taxpayers. This is just one of the many reasons why I feel that the Record Hill Wind LLC request for a US taxpayer backed federal loan guarantee should be denied.

Sincerely,

Peter Buotte  
29 Isthmus Rd.  
Rumford, ME 04276

**From:** Bob Weingarten [bpw1@midmaine.com]  
**Sent:** Friday, April 01, 2011 9:58 PM  
**To:** Mcmillen, Matthew C  
**Cc:** Marhamati, Joseph  
**Subject:** Comments on Draft EA for Record Hill Wind, LLC, Roxbury, ME

Matthew McMillen  
Director, Environmental Compliance  
DOE Loan Programs Office

Dear Mr. McMillen,

I am writing to offer my comments concerning the draft Environmental Assessment (EA) issued by the Department Of Energy for reaching a determination as to whether a loan guarantee should be provided to Record Hill Wind LLC for the construction of a wind energy project in Roxbury, Maine.

3A

I am a resident of Vienna, Maine and live in the general vicinity of the proposed site. After reading the EA and discussing it with a number of other residents, I would like to strongly urge DOE to hold off on approving the loan guarantee and move to implementing a full Environmental Impact Study on this project.

The EA is deficient in a number of areas, which points to the need for an EIS employing objective data not sourced solely from the developer.

In the EA the DOE has failed to adequately identify and properly evaluate alternatives to the proposed site, as required by NEPA. While it is claimed that the developer examined 20 other sites, the EA does not contain any specifics as to these other sites, therefore a comparative analysis cannot be undertaken. It is truly impossible to conclude that Roxbury Pond is the best available site from the limited data found in the EA.

3B

The wind blows nearly everywhere, not just on mountains, and these days wind power developers are siting projects in locations that do not jeopardize such a valuable and fragile natural resource as Roxbury Pond.

Since the developer's wind power project does not depend on any particular natural feature of the Roxbury Pond location, alternatives to the proposed site are numerous and should be thoroughly investigated before allowing the extreme adverse impacts to wildlife, the natural environment, and the recreational resource that construction and operation of turbines, transmission lines and access roads at Roxbury Pond will certainly create.

3C

While the turbines present great risk to the eagles at Roxbury Pond, the proposed roads and transmission lines represent an even larger potential threat to wildlife because such infrastructure can result in extensive habitat fragmentation and can provide avenues for invasion by exotic species.

3B

This project can be just as effectively accomplished elsewhere in Maine or in New England. A scientific study and new wind map published in the Journal of Geophysical Research- Atmospheres gathered wind resource data from 8000 spots across the globe. They found that 13 percent of the 8,000 spots were capable of averaging Class 3 wind speeds throughout the course of the year. The authors state: "Class 3 winds are greater than 15.4 mph (6.9 meters per second), which is considered strong enough to be economically feasible for electricity production". Many of the alternative sites would be less damaging to the natural environment



than building at Roxbury Pond. Therefore, I urge a full EIS with detailed analysis of feasible alternatives.

Thank you for the opportunity to present these comments. Please consider them and make them a part of the official record.

Sincerely,

Bob Weingarten  
Vienna, ME

**Marhamati, Joseph**

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**From:** Judith Allen [jmcam@roadrunner.com]  
**Sent:** Wednesday, February 23, 2011 11:18 AM  
**To:** Marhamati, Joseph  
**Subject:** Federal loan guarantees

4A

**Please cut all federal loan guarantees which will fund wind projects in the mountains of the State of Maine. When they are improved to the point where they are beneficial instead of detrimental then put them offshore.**

**Judith C. Allen**  
**Strong, ME**  
[jmcam@roadrunner.com](mailto:jmcam@roadrunner.com)

**From:** Nadianichols [nadianichols@aol.com]  
**Sent:** Wednesday, March 30, 2011 7:46 AM  
**To:** Marhamati, Joseph  
**Subject:** Fwd: Record Hill Project

Please accept these comments as public record.

5A

The Record Hill Project, along with all the other projects in Maine's expedited permitting process and those already in operation, will be, or already are, in violation of both the Federal Migratory Bird Act and the Clean Water Act. I'm sure you are aware of this; the wind industry admits it openly but they control all the law offices in the state and feel there is nothing to fear from us rural low income Mainers. They are also working hard to change the Migratory Bird Act. If bats were a protected species, as they should be, none of these projects would have gotten off the ground.

5B

There are bald eagles on Roxbury Pond. I'm sure you are aware of this, as well. I'm sure you're also aware of pending legislation that would give constitutional rights back to the citizens of Maine. Baldacci's expedited wind law was seriously flawed. Law suits are pending in Mars Hill and Vinalhaven. Aside from the ecological destruction and the negative impacts on water and wildlife, industrial wind will bankrupt Maine's biggest economic engine: tourism. North Carolina has put a moratorium on mountain top wind in recognition of the fact that their economy depends on tourism. Our economy is no less tied to the scenic viewsheds in Maine. Industrial wind doesn't belong here. We don't need the electricity. We don't need to destroy the best parts of our state to provide electricity to southern New England when Canada is eager to sell them cheap renewable hydro.

I speak for the eagles and ravens, the lynx and the bobcat, the deer and the moose. I speak for the fischer and the fox, the kestrel and the thrush and all the wildlife who have no voice in this process that takes away much of what they need to survive. I speak for the residents who are being bulldozed by the falsely subsidized greed of big wind.

This is wrong. This is criminal.

JUST SAY NO.

Thank you.

Penny Gray  
co-owner, Harraseeket Inn  
Freeport Maine  
Maine Master Guide  
270 River Road  
Carthage Maine

**Marhamati, Joseph**

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**From:** Klcorbett [klcorbett@aol.com]  
**Sent:** Thursday, March 31, 2011 8:14 AM  
**To:** Marhamati, Joseph  
**Subject:** Matthew.McMillen@hq.doe.gov

Mr Marhamati,

6A I do not support the use of our tax dollars being used to support the project at Roxbury Pond.

Kevin Corbett  
57 Saunders Rd  
Woodstock, ME 04219

**From:** email@addthis.com on behalf of nadianichols@aol.com  
**Sent:** Wednesday, March 30, 2011 7:44 AM  
**To:** Marhamati, Joseph  
**Subject:** Maine's mountains are an economic treasure | Guest Columns

Please accept this addition to the comments I have already submitted regarding Record Hill.  
Thank you. Penny R. Gray

7A

[http://www.sunjournal.com/guest-columns/story/1004289?sms\\_ss=email&at\\_xt=4d93177e0e39b9e6%2C0](http://www.sunjournal.com/guest-columns/story/1004289?sms_ss=email&at_xt=4d93177e0e39b9e6%2C0)

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## Maine's mountains are an economic treasure

By Penny Gray

Mar 27, 2011 12:00 am

In the 1970s and '80s, there was a rush to dam all of the rivers in Maine when Federal Energy Regulatory Commission laws were eased to meet an energy crisis. What stopped that from happening? Something called the Maine Rivers Study. Maine was the first state in the nation to survey its rivers and designate them in three classes. The rivers that were spared, the Dead, Kennebec and Penobscot, have become multimillion-dollar economic assets for Maine with large economic multipliers that ripple through rural and state economies, providing thousands of jobs. It would have been a tragedy to destroy those assets.

The state is about to make that mistake with its mountains. Three hundred miles of the state's ridge lines and wild mountain areas are being targeted to solve a perceived energy crisis in southern New England, but the expedited legislation pushed through by former Gov. John Baldacci was deeply flawed. Not one representative of Maine's largest employment sector — tourism — was on the governor's task force.

There was no discussion of the current mountain and wild land economies that support Maine's rural areas. There was no Maine Mountain Study.

What is the economic value of a viewscape that tourists travel to from all over Maine, New England, the U.S. and the world to see and experience?

What will this multimillion-dollar value be when these same viewsapes are bristling with blades, dissected with industrial roads and transmission lines, and blinking with red aviation lights?

What will this value be when there are so few unspoiled landscapes left in this state?

Will Maine be positioned to be a world tourism leader and destination because it wisely assessed these viewsheds and their greater economic value and set them off limits to wind power and other transforming, fragmenting development?

Or will Maine's economy be bankrupted by the rush to industrialize its most valuable assets?

The Maine Department of Tourism figures prove that tourism is by far Maine's biggest economic engine. In 2009, 34 million tourists provided more than 170,000 full-time jobs, \$535 million in tax revenues, and \$10 billion in goods and services.

The Department of Environmental Protection permitting applications for industrial wind mandate proof of tangible benefits for the host community. What about all the other communities within a 30-mile radius that have to live with it, visually?

What about Mount Blue State Park, one of the state's most scenic and popular recreation destinations? The proposed Saddleback Ridge project is right on Mount Blue's doorstep.

Do the tangible benefits of all of Maine's proposed industrial wind projects combined even come close to tourism's figures?

Has the cumulative visual impact of these projects on 12,000 square miles of Maine's scenic viewshed been evaluated from an economic perspective? And if not, why not?

The tangible benefits of tourism will last forever only if residents protect Maine's iconic viewsheds from inappropriate development. The tangible benefits gained by host towns such as Carthage won't be enough to decommission one single turbine in 20 years if Patriot Renewables declares bankruptcy prior to its 15th year of operation, which is a very real possibility when the federal subsidies dry up.

Furthermore, those two to three jobs created are hardly worth the enormous TIF package Patriot Renewables was granted by the town.

At a recent DEP meeting held in Dixfield to discuss the Saddleback Ridge project, only four people out of more than 100 spoke in favor, and all were making money from it.

Complaints were voiced by Patriot Renewables representatives about people from out of town attending this meeting and speaking against their project. Perhaps they are unaware that nearby Mount Blue State Park belongs to all Mainers, and that their proposed project will negatively impact many neighboring towns as well.

Industrial wind provides no benefits for the majority of Mainers, and even less for Maine's mountains, waters and wildlife. Worse, it could very well destroy the tourism infrastructure rural natives count on for their very survival.

***Penny R. Gray is a Maine master guide and co-owner of the Harraseeket Inn in Freeport. She lives in Carthage.***

**From:** Mike [zeus52@207me.com]  
**Sent:** Friday, April 01, 2011 11:19 PM  
**To:** Marhamati, Joseph  
**Subject:** NO

8A

Please do not give one red cent to the scam artists trying to develop industrial garbage wind turbines aka Record Hill Wind. These con artists are after subsidies and do not care about the people or wildlife which will be impacted. The cumulative effect will reach sickening levels and there will not be any place in our beautiful state where one may go to find a natural skyline. It is wrong for many reasons. Thank you. Mike DiCenso

**Marhamati, Joseph**

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**From:** Margery Ripley [margery.ripley@gmail.com]  
**Sent:** Thursday, March 31, 2011 8:29 AM  
**To:** Mcmillen, Matthew C  
**Subject:** please consider

9a

Un known health side effects, fast track approvals based on developer paid for environmental studies, millions spent on promoting a "rural life" vacation area wasted by placing a HUGE ugly distraction and wildlife devastating project in the middle of it, FALSE claims of health benefits based on closing down fossil fuel plants( not possible because wind is so undependable)

PLEASE think of our long term need for a safe productive planet not just keeping your job.

If there were no subsidies or at most the subsidy levels were the same as other energy production methods, there would be NO ONE investing in commercial wind power.

I am crying over what you are not just allowing, but PROMOTING in this doomed to failure project-- commercial wind !

**From:** Mike [zeus52@207me.com]  
**Sent:** Wednesday, February 16, 2011 8:59 PM  
**To:** Marhamati, Joseph  
**Subject:** Record Hill draft Comments

10A

Good God..... JUST SAY NO!!!!!!!!!! I am watching the Rollins project go up here in Lincoln and I have to say these industrial turbines are the worst idea ever to afflict Maine. The Record Hill project is more of the same. The trans. lines are too expensive. Have you priced copper lately? The Bristol Bay watershed of Alaska will be destroyed by strip mines for the foolish rush into the fad of wind turbines. Rare earth mines in China are plundered with zilch env. regs. just to supply the parts for the tech. industry. How can wind turbines be environmentally practical if they can never make up the c02 it takes to produce, deliver, install and maintain them? Boot the greedy ex-Enron developers out of the Record Hill area and out of Maine. Thank you . Mike DiCenso

**Marhamati, Joseph**

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**From:** sherwats2 [sherwats2@wildblue.net]  
**Sent:** Friday, April 01, 2011 9:23 PM  
**To:** Mcmillen, Matthew C; Marhamati, Joseph  
**Cc:** Darryl Brown  
**Subject:** Record Hill Draft EA Comment  
**Attachments:** DEP Memo on Noise.pdf; Mills 2-09 to 9-09.pdf

Dear Mr. Marhamati and Mr. McMillen,

11A As a retired physician who has done comprehensive research on the available literature on wind turbine noise and human health, I believe it would be improper for the DOE to participate in the Record Hill Wind project. Mounting evidence from all over the world suggests that the wind industry and governments have been far too ambivalent about the impacts of locating grid scale wind turbines in otherwise quiet rural areas. Ridge mounted turbines are particularly problematic since there can often be sufficient wind high above a ridge for turbine operation even though noise levels near the base of the ridge, where homes are located, can often be 15-20 dBA lower than the noise reaching the homes from the turbines. The cascade of health effects which result from sleep disturbance induced by such an increase above background noise levels includes high blood pressure, anxiety and depression, headaches, poor job or school performance.

11B As an example of how the Maine DEP is not protective of citizens, Maine's noise regulations do not currently include limitations on increases above background noise levels, or language specific to the low frequency noise emitted by wind turbines, which is the component of turbine noise most responsible for sleep disturbance. This despite clear language in the report to the Governor's Task Force on Wind Power by DEP Commissioner David Littell, advising that "noise generated from wind turbine does low frequency noise does have attributes that warrant particular focus in the review of projects, including the low frequency modulating noises generated as turbine blades pass by towers." (See attached "DEP Memo on Noise".) Three years after this report was given Maine's noise regulations still do not require that low frequency noise from wind turbines be predicted, or assessed. In isolated rural areas such as Roxbury Pond, where nighttime noise levels become very quiet due to the absence of human activity, it is my professional opinion that the presence of turbine noise has the potential to cause significant health problems for some residents.

As further evidence that Maine DEP has failed its duty, morally if not ethically, to protect its citizens, I am attaching a series of emails, obtained through a Freedom of Access request, between then CDC head Dr. Dora Mills and DEP staff. These emails show that Dr. Mills exhibited a lack of expertise, and a desire to refute claims of adverse health effects, instead of exhibiting the scientific curiosity and empathy that such claims should have produced. This has been a great concern of mine, both ethically and scientifically, because the DEP relied on Dr. Mills as a 3rd party independent expert to provide opinions in wind project applications, including Record Hill Wind. Ironically, shortly before leaving office, Dr. Mills apparently had a change of heart. She contacted Senator Tom Saviello and asked him to submit a bill to require the DEP to address turbine noise through rulemaking hearings, which he has done.

11C For these reasons it would be unacceptable for the DOE to partner with this project.

Monique Aniel, MD  
PO Box 345  
Oquossoc, ME 04964

**Marhamati, Joseph**

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**From:** True Engineering Inc [smartcarts@fairpoint.net]  
**Sent:** Tuesday, March 15, 2011 11:12 AM  
**To:** Marhamati, Joseph  
**Subject:** Record Hill Draft EA comments

Dear Mr. Marhamati, I am writing to you out of concern regarding the proposed Record Hill Wind turbine project in the town of Roxbury, Maine. Please evaluate the environmental impacts very carefully and familiarize yourself with the problems that people are having here in Maine living near these industrial wind farms (see windwatch.org and windaction.org in the Maine section). The disasters here at Mars Hill and Vinalhaven are only two of many across the country; wherever these turbines have been sited close to communities problems have followed, and they have not lived up to anyone's expectations of performance or "livability". As an investment, it is well-known that nobody would bother to put these turbines up were it not for taxpayer funding and subsidies. Mr. T. Boone Pickens, who as you know has invested a fortune in wind energy and was one of its biggest promoters, was heard to say recently on National television that he is through investing in it..."No-one can make money on these things". Clearly, this is not an industry that makes good sense from either an economical or environmental standpoint, and the developers have come to you for funding because they cannot find it elsewhere. This is not a worthwhile investment. The Section 1603 cash grant program would allow these developers to fund 30% of their projects on the backs of the taxpayers. I do not believe that the public should have to fund any private commercial enterprise, and this one is particularly onerous because of the cost to the immediate environment, the quality of peoples' everyday lives and the values of their properties. The past performance of these turbines has shown them to be inefficient, unreliable and unprofitable. They are at best a poor and outdated energy source, and at worst an environmental travesty. At the very least, they are the biggest "Green scam" out there. Record Hill Wind won approval for their project in the town of Roxbury by a margin of less than 6 votes. Were that same vote taken again today (three years later) with what the people now know about this technology, it would never pass. There has never been wide support for this project that will have such a negative impact on the lives of the townspeople or the environment of the Swift River Valley.

To my mind, the goal of protecting the environment should be to preserve the quality of life that we all share, human and animal alike. These huge industrial projects are in direct conflict with this goal when they are sited on valuable mountaintops for the gain of a few at the expense of so many. The Swift River Valley is a beautiful and popular vacation area, and a valuable asset to Maine's ecology and economy. It is also a State Scenic Highway and an inappropriate location for a project of this magnitude. I implore you to not allow this special place to fall victim to special interests; please do not approve any funding for Record Hill Wind. Respectfully yours, Gretchen Schreiner (writing from Standish, Maine)

**From:** fryewood@roadrunner.com  
**Sent:** Friday, April 01, 2011 10:05 PM  
**To:** Mcmillen, Matthew C; Marhamati, Joseph  
**Subject:** Record Hill Draft EA Comments -- Bat Studies  
**Attachments:** Bats in Maine and concerns regarding Wind Turbine Developments.pdf

April 1, 2011

Mr. Joseph Marhamati  
Mr. Matthew McMillen

Record Hill Draft EA Comments -- Bat Studies

Draft EA 3.13.2.3 Biological Surveys and Results

From the Draft EA "The 2007 nocturnal radar surveys conducted on the ridgeline in both the spring and fall, documented the passage rates of nocturnal migrating animals, which would include birds (primarily passerines) and bats. This technology does not distinguish birds and bats therefore observations are described as targets....."

13A

How are the studies done to date within the Record Hill Wind project area considered even minimally adequate? With the research by the Biodiversity Institute proving that there are three documented caves in Maine of which two are located in Rumford, Maine less than five miles from the project area, I would think that this would be of great concern. To date, it would appear that the White-Nose Syndrome (WNS) has not yet infected the bats in this area. Millions of dollars of Federal money has been spent and more requested to study this disease in order to save the bat species that are so beneficial to agriculture, the fragile ecosystems and the environmental balance in general.

The attached copies of some of the articles in my file, while no where near all of the documents available; show a great interest in these valuable mammals. There is also much concern regarding interaction with Wind Turbines and it would appear that many more studies with far greater scope and duration need to be done.

I have cut-and-pasted some of the highlights, but I urge you to review the attachments as well as visit [www.windaction.org](http://www.windaction.org) and [www.wind-watch.org](http://www.wind-watch.org) where many more articles specific to Wind Turbine interaction can be easily accessed.

13B

I assume that you have reviewed the actual Maine Department of Environmental Protection Permit and Section 7.5 which addresses Wildlife and Fisheries and specifically Migratory Birds, Bats, and Raptors. I will forward you the copy in a separate e-mail. Please notice the duration of the studies as well as the change in language from the Draft Permit and the Final Permit. The years of studies seem to differ as does the language in the subsection titled "Modified Operations", "On-Site Habitat Management" and "Habitat Protection". This is a critical issue for these mammals and loss of their valuable contribution to the ecosystem should warrant some investigative research into the entire process of pre-application studies, equipment used to conduct the surveys, application, and permitting.

13C

Another concern that should be considered, is the fact that currently at least 5-7 other Wind Developments are in some stage of application or permitting within less than a 15 mile radius of the Record Hill project with one being proposed for the nearby Town of Rumford and that project includes the additional ridges of North Twin

↑ and South Twin Mountains also located in Roxbury, Maine. The cumulative effects of these projects could have devastating impacts on the bat species in this area that are located near the two bat caves in Rumford.

I can provide additional material and maps with overlays of the specific projects should you desire them.

Thank you for your attention to this specific issue.

Cathy Mattson  
1011 Roxbury Rd  
Roxbury, Maine 04275

207-364-2616

### Relevant excerpts from the attached articles:

Yates said bats provide a valuable service, eating the equivalent of their own weight in insects each night. For the little brown bat, that's 6 grams, about the weight of six paper clips.

Bats are an important defense against insects that spread disease and threaten agriculture, Yates said. They're also under siege, from diseases, contaminants and environmental changes.

He has studied only a handful of the 1,100 known species of bats. Maine is home to eight species.

Tree bats appear to be especially affected by the blades of wind power turbines, but no one knows why. Yates said it could be that tree bats follow ancient migration routes along the mountain ridges where the turbines are most often erected.

He said another theory is that tree bats, which swarm in the tallest available tree during mating, are confusing the soaring turbines with trees.

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With bats threatened by careless wind-turbine development in major flyways and, more pressingly, by the new and dreadful [White Nose Syndrome](#), protecting them isn't just ethical. It makes bottom-line sense.

If bat mortality "continues unabated, we can expect noticeable economic losses to North American agriculture in the next four to five years," wrote the researchers, whose study was published online March 31 by *Science*. "A wait-and-see approach to the issue of widespread declines of bat populations is not an option."

The estimates are an informed, back-of-the-envelope calculation based on earlier research by study co-author Tom Kunz, a Boston University bat specialist who in 2006 published the most detailed look ever at the relationship of bats to insects and agriculture.

Estimated annual value of insectivorous bats in agriculture by county. Multiply values by \$1,000, e.g., 2100 to 3400 equals \$2.1 million to \$3.4 million (*Science*).

Kunz's emphasis reflects two critical threats to bats' future. One is the installation near bat caves and flight routes of wind turbines, which suck bats into their blades. By 2020, wind turbines will kill about 60,000 bats each year in the mid-Atlantic states alone.

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*"The cumulative impacts on bat populations from proposed and/or constructed wind farm developments, especially in the eastern United States, may lead to further population declines, placing multiple bat populations at serious risk of extinction." — Dr. Thomas Kunz, Director of the Center for Ecology and Conservation Biology, Boston University*

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**An unexpected side effect of wind power:** bats on ridgetops in the East show an unexplained tendency to collide with the blades of wind turbines. While that may not seem important to the average person, bats are vital to the health of the environment and to many human economies. They are primary predators of night-flying insects, including many agricultural pests that cost farms and forests billions of dollars of damage annually. Some are important pollinators and seed dispersers.

There are 9 species of bats in NY and 46 species in the U.S. Nine of them account for almost 90% of the deaths and several of those species are in decline. Bats have a longer life cycle than birds and their numbers will decline much quicker. It's not clear why some bats are susceptible to colliding with turbine blades, but the Government Accountability Office has stressed the need for further study. Unfortunately, turbines continue to be slapped up at an alarming rate on ridge tops in the East, before proper study can be done. Often, no pre-construction study is done at all, even when requested by the US Fish and Wildlife Service. The USFWS has drawn up guidelines for turbine placement, but has no authority to enforce the guidelines.

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Bat Hibernation in Maine -- Presentation in Rumford at the Rumford Memorial Library on March 18, 2011.

The speaker for the event is David Yates of the Biodiversity Research Institute. His subject is Bat Hibernation in Maine. Though it is not well known, there are three bat caves in the State of Maine, and two of them are in Rumford; both are on or near Mahoosuc Land Trust conservation sites: Rumford Whitecap and the Concord River preserve.

Yates will discuss the role bats play as an indicator species to determine levels of mercury in the environment.

Dave is a Unity College graduate (1999), where he earned a degree in Environmental Sciences with an emphasis in Wildlife Biology and Management. He has an M.Sc. from Antioch University New England in Environmental Studies with an emphasis in Conservation Biology.

**Marhamati, Joseph**

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**From:** Linda Kuras [lkuras1@roadrunner.com]  
**Sent:** Wednesday, March 30, 2011 11:47 PM  
**To:** Marhamati, Joseph  
**Subject:** Record Hill Draft EA Comments DOE/EA 1824  
**Attachments:** 086.JPG; 087.JPG

Mr. Marhamati,

14A Noise during the operational period is not expected to result in a 'significant' impact. What is the measure of 'significant'? My grandparents emigrated from Lithuania in the early 1900's. In 1995 I converted our family camp to a year round retirement home. Our pond is a basin surrounded by mountains. I love my home and my lifetime of memories here. The sound carries and bounces off the mountains as in an echo. A wood splitter across the pond can rouse you from a sound sleep. The fact that these Industrial Turbines will be geared for high winds so that they will not have to be turned off is a double red flag resulting in unbearable night noise in the winter months. I don't want to be the victim of an experiment for an inefficient energy source. We are being sacrificed to post construction monitoring. The existing power line was the main attraction in selecting our area. I believe the noise level of this project will far exceed the noise level the state deems tolerable due to the topography and the echo of noise over the water. The three projects currently operating in Maine all have citizens suffering the impacts of excessive noise. Solutions still are 'in the works.'

14B I also want to go on record asking you not to grant funding to Record Hill Wind LLC . The deprivation of a person's property by destroying it's value is protected by a Constitutional Guarantee. Not only will I be subject to noise infringement, but the shadow flicker on my camp and two homes on the West shore of Roxbury (Ellis) pond will be double the assault. I have attached photos to show you how the mountains will reflect the turbines turning right 'on' our houses at times. The sun rises behind the proposed turbines every summer morning. Underplaying the aspect of shadow flicker in this draft exhibits blatant disregard for the citizens of Roxbury pond. This project barely passed a town vote and would have been defeated if the summer residents had voting ability. 8 votes is not 'unanimously welcomed.' RHWLLC's promise of a discount on the electric bill as well as a property tax reduction barely sealed the deal for them.

14C The President of Record Hill Wind in filing to the DEP of Me. stated they had sufficient funds to complete construction without any additional capital. They don't NEED a loan guarantee. They even are partnered with the Yale Endowment Fund.

I understand you personally have been here. Have you traveled down West Shore Road and considered what the taxpayers here will think of our own tax dollars being put to use to lower our own property values as well as our daily existence at home. I invite you to stay in my small rental the next time you are in the area. You could quickly see what a doomed project this is going to be. This is no place for a wind farm.

14D Vibro-acoustical syndrome as well as shadow flicker will deprive me of my property rights. These effects also lower my property value. For these personal and desperate reasons , please deny Record Hill Wind a federal loan guarantee they have already stated to the DEP they don't need.

Sincerely,  
 Linda Kuras  
 P.O. Box 121  
 Roxbury, Me. 04275  
 207-545-2147

**From:** Coastal Counties Workforce Inc [ccwi.virtual@gmail.com]  
**Sent:** Friday, April 01, 2011 7:42 PM  
**To:** Marhamati, Joseph  
**Cc:** Mcmillen, Matthew C  
**Subject:** Record Hill Draft EA Comments (Christine Dube)

Dear Mr. Marhamati,

I am greatly concerned that the Department of Energy's Environmental Assessment is not adequate to allow the project to move forward. I am requesting the Department of Energy to do a full Environmental Impact Study. This request is based on much correspondence with professional experts as well as local residents with specific interest areas.

Some of my concerns are:

- Environmental Studies: No independent environmental studies were done; requests were made to Maine DEP to do one; the only environmental studies done were those by the developer as part of their permit application. Did not take into consideration the following:
  - Eagles who have nested on French Island for the past 25+ years; they have already constructed their nests this year. There is much concern about them soaring too close to the wind turbines. These eagles stay year round and fly over the ridge (where the turbines will be erected) to feed at the Swift River. The developer's study stated the eagles only fly within a short radius of the island; however, an avian biologist countered that eagles minimally fly a 5-8 mile radius daily.
  - There are several families of nesting loons and duck species at the pond who depend on the water quality. In the fall, there are as many as 100+ migratory loons that stop for a week or two just before the ice is in. I have seen these personally for the past 3 years. It is quite a site to see. My concern is that they will be severely impacted by the turbines on the ridges. Degrading water quality will also affect the fish which the loons, eagles and ducks feed upon. In February, an annual Fishing Derby is held which more than 500 people attend to take part in this activity.
  - Land based wildlife (such as deer, moose and bear) have already been impacted by the work which has been done to date. As a result of the ecological damage done to the area, hunters have witnessed minimal activity this past season as compared to before construction. It has been proven in New York and other states that animals will not remain in an area where turbines are located due to the noise. We are already experiencing a decrease in wildlife due to the blasting and groundwork that has been done. What will the result be when the turbines are up and running?
  - Vernal pools and wetlands are not being protected. Vernal pools are shallow depressions and are often found in forested wetlands. Usually, they fill up with water, but only for part of the year. Peepers and toads call them home. And sometimes, so do animals like spotted turtles, ribbon snakes and different types of inland waterfowl. Pools with endangered, threatened or rare species like these are called "significant vernal pools". Wetlands scientists say protective buffer zones surrounding the pools are keeping certain species from going extinct. Currently Maine law prohibits development within 250 feet of significant vernal pools, unless the builder gets a permit from the state which is the case regarding this project. What attracts many people to Maine is that the state still has a vibrant wildlife community and research shows that if the state conserves vernal pools, it will also conserve wildlife.
  - Roxbury Pond is a fragile environment and needs to be carefully and responsibly addressed by environmental experts who are not influenced by project preferences.

- 15G • Watershed: Because of the location of this project (3 miles along the mountain ridges), the watershed will be compromised on both sides of the mountains; namely, the Swift River, Roxbury Pond and possibly Garland Pond. The amount of blasting and the degradation of the proposed project area is of significant concern to these fragile watersheds. Roxbury Pond has 42 natural run offs and a 30 square mile watershed. There is no public drinking water supply available and residents throughout the area depend on shallow wells, drilled wells and some even from the pond itself.
- 15H • Health Impacts: Improper evaluations of the health impacts this project will have on people living within 5 miles of the project site as based on previous projects in Maine that are currently in litigation; such as, Mars Hill, Freedom and Vinal Haven. Health impacts as they relate to: noise, shadow flicker and blade thump.
- 15I • Quality of Place: Maine is branded for its Quality of Place as referenced by the Brookings Institute Report. This is a peaceful, scenic, tranquil, natural area to be enjoyed during the four seasons. This is why people choose to visit this area and why they continue to return. Currently, pond residents can see mountains as far away as the New Hampshire border to the west. This proposed project would be a dominate feature of the otherwise natural landscape and will greatly detract from its rural character and beauty. Because of their siting and overall dominance of the horizon, they will be a visual blight on the landscape for as far as the eye can see.
- 15J • Ecotourism: This area as well as most of Maine relies heavily on the tourism-based industry for its livelihood. Many property owners offer rentals of seasonal cottages. Many own and operate campgrounds, local stores, bed and breakfast facilities, farmers' markets and numerous small businesses. There are many registered guides providing their services for hunting, fishing or hiking. Once what the visitors find that all of this does not exist in the area, what will be the incentive for them to return for future vacations?
- 15K • Property Values: Not only will property values decrease due to this industrial project; but it could have an effect on the tax base for the town. Many owners are very concerned about this impact.
- 15L • Record Hill Wind, LLC website: No longer active even though they said they would be managing this project for the long term. All of the DEP Third Party Inspector's reports and photos are unavailable. Reports for meetings that were held are also apparently removed. Why has all the information on their website been removed? Inquiries indicate that Wagner Wind Energy will be managing the project; but research to verify this has not been found. Who owns this company, when was it organized and is there any affiliation with Independence Wind or has the company either merged or perhaps been acquired?
- 15M This project needs much more in-depth research from an environmental, ecological and economical aspect. I urge you to please allow the people of this area to provide you with both the documentation and the expert testimony before you approve this application.

Thank you for the opportunity to comment on this. Please do not hesitate to contact me should you have any questions.

Sincerely,  
 Christine Dube  
 207-751-3231

**Marhamati, Joseph**

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**From:** Eric Dube [ericd@casco bayengineering.com]  
**Sent:** Friday, April 01, 2011 10:04 PM  
**To:** Marhamati, Joseph  
**Cc:** Mcmillen, Matthew C  
**Subject:** Record Hill Draft EA Comments (Christine Dube)

Dear. Mr. Marhamati,

16A Why is it that Cities are the largest consumers of energy, the largest polluters and emit the bulk of the carbon into the atmosphere but not one windmill similar in size to the proposed windmills is constructed in the City of Portland, Augusta or Bangor? Could it be that the people who live in Cities don't want them due to their aesthetic views or flickering of light all day. They would rather have them far from their view, somewhere where they have probably never visited. To put it bluntly – Out of Sight, Out of Mind. Forgive my sarcasm but I am beyond frustrated at this ridiculous proposal of installing windmills on scenic vistas where people from other areas of the country visit due to the fact that Maine truly is Vacationland.

16B Have you even been to the Record Hill Area? I bet I can I can answer that question for you, I would bet my house on the fact that you or Matthew have Never been to the site in question. What a tragedy.

I own my own engineering business in the Portland area and I work to develop sites all of the time so I do have experience in this field. I also base my opinions on facts and numbers.

16C **Fact:** There have been Eagles nesting on French Island for many, many years. I have also witnessed them in person (along with many, many others) flying over the Record Hill range to the Swift River. I find this ironic that the windmills are installed for clean energy and the environment yet we humans destroy a piece of the environment and nature to install and operate them. Kind of silly when you step back and look at the big picture. As usual, the rules only apply to other people, not the Government.

16D **Question:** Can you guarantee that the windmills will produce the power estimates used as the basis to install the proposed towers? The answer – Sadly, no you can not. I have major concerns with the fact that these windmills will most likely not produce the energy that was originally promised. What a shame. Plus add in the fact that the Government (which is us by the way) is subsidizing the installation of the windmills.

I could go on for many hours discussing the major faults with this concept but I fear it will fall on deaf ears so I will end it here with this statement:

I challenge you to contact me via cell phone and make an appointment with me to visit the site before this project continues. I will make myself available at ANY time you wish.

I look forward to hearing from you personally regarding this challenge.

Regards,

Eric Dube  
Casco Bay Engineering  
424 Fore Street  
Portland, ME 04101  
Tel 207.842.2800  
Fax 207.842.2828  
Cell 207.712.7022  
[www.cascobayengineering.com](http://www.cascobayengineering.com)

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**From:** Coastal Counties Workforce Inc [mailto:ccwi.virtual@gmail.com]  
**Sent:** Friday, April 01, 2011 7:42 PM  
**To:** joseph.marhamati@hq.doe.gov

From: Greg Perkins [gregperkins096@yahoo.com]  
Sent: Friday, April 01, 2011 11:11 PM  
To: Marhamati, Joseph  
Cc: thurston.steve@gmail.com  
Subject: Record Hill Draft EA Comments

**RE: Dept. of Energy proposed federal loan guarantee to Record Hill Wind  
Comments on behalf of the Concerned Citizens to Save Roxbury, PO Box 121, Roxbury, Maine 04275**

Dear Mr. Marhamati,

I am writing this letter out of concern for the impacts of industrial wind turbines on the wildlife species found in the higher elevation areas of Maine. In particular, I am concerned about the proposed Record Hill wind farm development in Roxbury. I am requesting that you make my comments part of the record.

Virtually, no research has been done in Maine on the impacts of wind farms on mammals; whereas anecdotal evidence from areas where wind turbines have been constructed in the northeast indicates that the noise (both high frequency and low frequency) from wind turbines may have very disturbing effects on mammal populations. For instance, wind turbines potentially causing the death of 400 goats on an island in Tiawan. Sleep deprivation appears to be the cause of these animals dying.

<http://af.reuters.com/article/oddlyEnoughNews/idAFTRE54K0PJ20090521>

There is much more evidence of avian mortality from research already completed on similar wind power developments throughout the world. French Island on Roxbury Pond has an active bald eagle nesting site. Certainly, these eagles are at risk from certain death from the collision of turbine blades as the young are learning to fly. Another negative impact from turbine noise on bird populations may result from various species mate calling activities being disrupted from both the high frequency and low frequency sounds being emitted from the turbines. Since ample evidence of avian mortality due to industrial wind turbines can be found in the literature, the following comments will focus on mammals.

**NOISE**

A literature review on the effects of snowmobiles and cross country skiers on ungulates by Theresa Welch, a graduate student in Environmental Studies at the University of Montana (<http://www.wildlandscpr.org/node/215>) found the following:

“Research has shown, however, that both groups have the potential to negatively affect ungulates; therefore our primary concern should be on cumulative detrimental impacts. Although none of the published studies have proven that either type of recreation influences ungulates at the population level, Creel et al. (2002) and Hardy (2001) have presented evidence that individuals are feeling stress from wintertime recreation. The cumulative effects of this stress may someday lead to a reduction in ungulate populations.”

It is this “cumulative effect” on wildlife – fragmentation of habitat, noise effects from turbines, etc. that needs more extensive study.

Maine Audubon found the Redington Wind Power site to be unacceptable because of its potential impact of

wildlife ([http://www.maineaudubon.org/act/redington\\_072006.pdf](http://www.maineaudubon.org/act/redington_072006.pdf)). The organization stated, “**This project poses unacceptable risks to rare wildlife and fragile habitats in the heart of a pristine high elevation ecosystem.**”

1.

Jalkotzy et al. (1997) found that linear developments, such as wind farms, affect wildlife in several ways:

### **“1. Individual Disruption**

This refers to wildlife disruption that occurs in the immediate vicinity of a linear feature. Although all linear developments can cause problems, roads probably have the greatest impact on wildlife populations (Foreman et al. 2003). Larger-ranging, more sensitive species are most affected by roads in sometimes not so obvious ways. Wolves, for example, are sensitive to road activity near their natal dens and these disturbances can cause wolves to move pups to less-disturbed areas (Chapman 1977).

The effects of trails on wildlife can have similar negative impacts. In general, smaller linear barriers tend to be less disruptive because they usually have narrower rights-of-way, more curvilinear and less intense human use (Foreman 1995). Large carnivores tend to be quite sensitive to human presence on trails. Both grizzly bears and black bears avoided trails and tended to maintain an average distance of 274m from trails. Avoidance distances by bears increased to 883m of trails in areas that were more heavily used (Kasworm 1990). Mountain lions were found to adopt a greater degree of nocturnal feeding behavior in order to avoid humans on trails (Jalkotzy et al. 1997).

### **2. Social Disruption**

Social disruption is considered any change to the social structure of a population that results from a linear barrier. Changes can include displacement into habitat areas already occupied by other animals of the same species, changes in group structure, or mortality in different age classes as a result of the linear feature (Foreman 1997). Again, these impacts vary significantly for different species and can therefore be difficult to quantify in terms of general impacts on wildlife when comparing and contrasting roads and trails.

### **3. Habitat Avoidance**

When wildlife avoid habitat because of linear barriers or the activities associated with them, habitat can be lost or not used to its full potential (Jalkotzy et al. 1997). Elk tend to avoid habitat close to roads, particularly in areas where they are hunted (Czech 1991). In northwest Montana, grizzlies avoided habitats within 274 m of trails (Kasworm 1990). Mace (1996) found that grizzly bears in the Swan Mountains of Montana appeared to move away from trails during spring, summer, and autumn. They concluded that grizzly bears had become negatively conditioned to human activities and avoided what would otherwise have been valuable habitat. In general, the impacts of trails depend on the types of activities and frequency of use (e.g., hiking, snowmobiling, and biking). Studies revealed a broad variation among species in their response to human presence and specific recreational activities on trails.

### **4. Habitat Disruption or Enhancement**

Linear developments can disrupt habitat by introducing exotic plants, and pollutants like dust, salt and vehicle emissions (Foreman 1995). Habitat can also be altered when vegetation is removed for road construction or when new plants or grasses are planted in highway right-of-ways. Whether these human activities disrupt or enhance a particular habitat can usually be linked to the width of the linear feature. The effects of habitat disruption on wildlife are probably small when compared with the effects of habitat avoidance (Jalkotzy et al. 1997).

### **5. Direct or Indirect Mortality**

Direct mortality is a result of the road itself (e.g. wildlife-vehicle collisions or power line collisions/electrocutions), while indirect mortality can result when roads or trails provide greater access for hunting, trapping, and poaching. A report compiled by Hellmund Associates cited research where aggressive

↑ bird species were observed following trails and displacing other sensitive species, resulting in increased predation on songbirds and other neotropical birds. Changes to the area surrounding a trail can have impacts that extend for hundreds to thousands of feet and are referred to as the trail distance effect (Hellmund Associates 1998).

## 6. Population effects

Population effects are defined as wildlife populations suffering losses as a direct result of linear developments. Roads and vehicles can have a tremendous negative impact on terrestrial vertebrates, but seem to have less impact on overall population size (Foreman and Alexander 1998). There are many information gaps that make it difficult to assess the impacts of roads, but there is growing evidence that linear developments can affect the distribution, movements, and overall populations of wildlife species (Jakotzy et al. 1997). For example, there is concern that development within the petroleum and forest industries has impacted woodland caribou populations (James et al. 2000).”

They go on to say about measuring impacts of linear developments, “Cumulative effects of roads, trails, and other linear barriers on wildlife should be measured through a cumulative effects assessment (CEA) and utilize geographic information systems (GIS). Fairbanks and Tullouse (2002) urged managers to incorporate research findings on wildlife into GIS mapping to help assess the impacts of proposed linear developments. The three main ways to measure the cumulative impacts of linear features are: 1) measure road densities, 2) assess road/trail design, and 3) **conduct an ecological evaluation prior to development** (Hellmund Associates 1998).”

The state of Maine is a unique place with many unique areas like Roxbury Pond. Any place where deforestation has to occur to accommodate a wind farm development, by definition, has detrimental effects on the geography and wildlife of the area. Wind farms, while being part of the solution for mitigating global warming, are best sited in open areas such as offshore locations. There is just too much potential for destroying both the quality of place (and, ultimately the outdoor recreation economy of Maine) through the destruction of our matchless wildlife and scenic values by allowing the construction of industrial wind developments such is proposed for Record Hill.

Because of the above mentioned potential impacts to local wildlife populations, I feel very strongly that the construction of the Record Hill project should not occur, and that a federal loan guarantee should not be used to support its construction.

Yours truly,

GregPerkins  
P.O. Box 1233  
Holden, Maine 04429

1. Jakotzy, M.G., P.I. Ross and M.D. Nasserden. 1997. The Effects of Linear Developments on Wildlife: A Review of Selected Scientific Literature. Prepared for Canadian Association of Petroleum Producers. Arc Wildlife Services, Ltd., Calgary. 115 pp.

**Marhamati, Joseph** Response in Sections 1, 2, 3, 4, 5, 7, 10, 11, 12, and 13

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**From:** rdube6@roadrunner.com  
**Sent:** Friday, April 01, 2011 4:14 PM  
**To:** Marhamati, Joseph  
**Cc:** Mcmillen, Matthew C  
**Subject:** Record Hill Draft EA Comments  
**Attachments:** DoE Response Regarding Record Hill DRAFT EA Comments.pdf; Guest column by Penny Gray 3-27-11.pdf; Doing Wind Right 3-31-11.doc

Dear Mr. Marhamati,  
Please find enclosed my comments to the Record Hill Draft EA along with a copy of a column by Penny Gray and also a copy of a meeting which took place last evening which indicates the growing concerns of many Mainers in regards to industrial wind.  
Thank you for the opportunity to submit this information. Please do not hesitate to contact me should you have any questions.  
Thank you,  
Ron Dube  
Roxbury  
207-353-4540

March 31, 2011

Joseph Marhamati  
DOE Loan Programs  
Environmental Compliance Division  
Washington DC

**RE: “Record Hill Draft EA Comments”**

Dear Mr. Marhamati:

I would like to start with a few general comments and then will proceed to address my concerns. Some statements will not be so much as “significant” but rather points of clarification or rebuttal on my part. Obviously there are varying degrees of significance pointed out that cumulatively carry quite a bit of weight; and along with other submittals should tilt the scales of justice for the citizens and the environment. I believe you will consider the developers’ submittals are not to be taken as gospel for they are for the most part opinions based on the results of studies they paid for. Reverse Engineering, simply put, means here are the results needed and apply engineering as required to justify them.

I have kept your guidelines of significant (1508.27), and its definitions (context and intensity) in this report to help me establish to you why DOE should perform a full environmental analysis on its own. I have also reviewed your policy, DOE P 141.2, Public Participation and Community Relations; as an encouragement that my assessment and others, have our statements applied as significant. Please remember your “core values”.

18A

Roxbury Pond residents pay 66% of the taxes in town but only a small percentage live there year round and are registered to vote. The others have no voice other than at the Silver Lake (Roxbury Pond) Camp Owner’s Association at which 99% voted to oppose this development. The town vote on this project was held in mid winter and narrowly passed (89 – 82); by people who were told they would get free electricity (with conditions) and their taxes would go down. Putting food in front of hungry people and asking for their vote is flat out bribery and unethical, but these are the traits of the wind developers.

18B

Record Wind Hill currently has funding from Yale, why do they need \$102 million from the Department of Energy?

When the Planning Board met with Matt McMillan, September, 2010, it was after the developers escorted the DOE group around and showed them their version of things. In fairness, I believe people who do not support this project should have access to the same DOE people to discuss and show them their version. One of Matt’s last statements that day, still rings in my ears, “We have a lot of money to give away”. I hope that statement

does not reflect a blind effort to do so and that no matter what the opposition to this project submits, it won't summarily be dismissed and the project funded.

Keep in mind we are trying to protect what is, from what shouldn't be.

I have reviewed the EA draft and commented on the following parts:

### **1.1 Purpose and Need for Action**

18C

In addressing items noted in paragraph 3, Record Hill Wind states they will develop 3.1 million megawatt hours under peak conditions. These units typically run between 25 – 30 % capacity; that being the case, the reductions of carbon dioxide, sulphur dioxide and nitrogen oxides can be reduced by 75% at best. Conventional units will not be shut down because of the unreliability of wind.

### **1.2 Background**

18D

How can DEE consider wind to be an innovative technology or as stated a new or a significantly improved technology? These things have been around for quite some time and the newness has worn off.

### **1.3 Scope of This Environmental Assessment**

18E

I believe that potentially significant impacts will be identified and that the DOE should prepare its own environmental impact statement. The cumulative impacts that could result from the proposed action relates to other possible projects in the same area. This project can be considered the cornerstone of all wind projects knocking at the door of the Western Maine mountains.

### **2.1 Proposed Action**

18F

The 2.9 miles of collector lines and substation location off Route 120 is not as shown in the original submittal to Maine DEP and as on file at Roxbury Town Hall. There is a significant difference in what is proposed and what is actually on file.

#### **2.1.1 Wind Turbines and Associated Infrastructure**

18G

Turbine area is 37 acres; and not 18.8 as stated in the proposal. The mountain roads are 22 acres on the mountaintop alone, not including clearing for generating lead line from the turbines to the substation – 2.9 miles. Also there are no existing logging roads along the mountain tops. This section indicates a significant difference.

##### **2.1.1.1 Wind Turbines**

18H

6.1 miles of road, 30 feet wide = 22 acres; not 12.7 acres.

##### **2.1.1.2 & 4: Electrical Collection System**

18I

As noted in 2.1, this 2.9 mile overhead line run, and collector/substation on Route 120 are not shown on the Maine DEP copy in Roxbury Town Hall. What amount of clearing is required for routing of the line and has this area been assessed? Where is the survey on this corridor and substation?

### **2.1.1.5 Office and Operations and Maintenance Building**

18J

The permits for these three buildings in this area have been put on hold by the Roxbury Planning Board for lack of information as this is not shown in the Maine DEP submittal on file at the Roxbury Town Hall.

### **2.1.2.2 CMP Section 270 Transmission Line**

18K

The new proposed transmission line routing passes over Scotty Brook. It has been reported that Atlantic Salmon use the Androscoggin, Swift Rivers and Scotty Brook to spawn.

I noticed the new 70' high, 115 KV poles shown in the attached drawings (SK-002 1-6) as being next to 70' high trees. This ploy is done to make the reader think that they will be hidden from view. There are very few, if any, 70' high trees in this area.

## **2.2 No Action Alternate**

18L

It appears that Record Hill Wind has the necessary assets for the project and a letter from Robert Gardiner (RHC) to Jim Cassida (Maine DEP) on 3/4/11 states: "Although Record Hill Wind anticipates a loan guarantee from under this DOE program, Record Hill Wind possesses sufficient funds to complete construction without any additional source of capital". Why are they asking for an additional \$102 Million from DOE? Also, is Record Hill Wind getting an additional \$70 Million cash grant from Section 1603?

### **2.3.1 Site Selection**

18M

Angus King (RHW) keeps talking about off shore wind which would minimize environmental impacts to the most practical extent. Why destroy one already known valuable economic asset (tourism in the Western Mountains) with a questionable offsetting one that can be located off shore before too long? They claim that 20 sites were screened; would it be possible to get a copy of this list of these areas? I don't think such a list exist.

#### **2.3.2.1 Turbine Siting**

18N

Initially the project had 19 units in Roxbury and 6 in Byron (an adjoining town). Byron tossed them out and subsequently they stuffed three more in Roxbury. As noted in the second paragraph of this section, the collector substation was changed from the initial to the final design. Again – these changes noted about the substation are not reflected on the DEP application on file at Roxbury Town Hall. This electrical collector route and substation needs Maine DEP evaluation.

#### **2.3.2.2 Transmission Line Corridor**

18O

As noted at the end of this section, the substation location was selected by Central Maine Power; why was it not selected by Record Hill Wind?

## **3.2.1 Regulatory Framework**

18P

The Governor's Task Force and wind power development consisted of wind proponents and was "emergency" legislation. This was deemed to be "immediately necessary for the preservation of the public peace, health and safety". It has divided towns, pitting

18Q

neighbor against neighbor, instigated by outsiders “wind developers”; not really “preserving public peace”. How health and safety ties into “immediately necessary” is pure speculation. This does not displace power generation; other sources must be ready when a fickle wind does not blow. I don’t see how environmental quality can be “improved” by destroying it. The megawatts currently installed or permitted are rated capacity - not actual.

18R

### **3.2.3 Potential Impacts of the Proposed Action (Climate)**

The 3.1 megawatt hours “under peak conditions” is actually about .85 million megawatt hours under true conditions. All figures listed in Tale 3.-1 should be adjusted to reflect this and the fact that no existing units are taken off line.

18S

### **3.3.2 Potential Impacts of the Proposed Action (Topography)**

The removal of 3.5 miles of mountain top will not “significantly” alter the sites natural typography? How does this version of “significant” differ from 1508.27?

18T

### **3.4.2 Project Setting**

The cleared mountain tops “60+ or minus acres, will encourage runoff on both sides of a fairly steep grade down to Roxbury Pond on one side and the Swift River on the other side. Runoff is bad enough now even with minimal growth on the mountain tops.

18U

### **3.5.2 Project Setting – Surface Water and Wetlands**

77 streams will be put at risk and channel silt, etc. into two pristine watershed areas; is this significant? We believe this is extremely significant.

There are 245 delineated jurisdiction wetlands noted on the ridgelines. “These wetlands are generally small and in most cases have been altered by activities associated with timber harvesting.” First, I have not noticed any timber harvesting on the ridge lines; and second, if they have already been altered that means it is ok to keep doing so? That doesn’t seem like a good plan to help the environment. I don’t like how vernal pools and scrub-shrub cover are summarily mentioned and dismissed. Are these areas significant?

18V

#### **3.5.2.1 Potential Impacts of the Proposed Action (Water Resources)**

I don’t like the rationale used that “unavoidable impacts” to small isolated and relatively low functioning resources are not significant and can be bulldozed. Collectively; enough of these “low functioning” areas support the life of many animals and vegetation in the area.

Why do we have any rules at all concerning wetlands when \$15,025.26 paid to a “mitigation fund” will take the place of rules. All this is justified by the “least environmentally damaging alternative” that meets the overall purpose. What happens when phosphorus takes over the pond and renders it stagnant? Is this not significant? We can prevent disasters or encourage them with projects such as this.

### 3.7 Noise

Noise = unwanted sound. There are currently 3 wind facilities that were deemed ok by Maine DEP for sound levels; however, each facility is now in court to find some sort of relief from the noise for the surrounding residents.

18W

Maine DEP won't ever return phone calls from residents affected at the first facility. I would deem this to be significant and listed in 1508.27 under #2, #4, and #5. We are taxpaying citizens; not guinea pigs. I know enough other people are commenting on this subject.

### 3.8.4 Potential Impacts of the Proposed Action (Historic Archaeological and Cultural Resources)

18X

If you look at Figure 3-12, the photo from the Mitchell Farmstead; you see a sign on Route 17 (road in picture) on the right side – it says “Scenic Highway”. It appears that the definition of “scenic” by developers and the highway department are quite different.

### 3.9 Aesthetics and Visual Resources

It never ceases to amaze me, how a group of lawyers and others whose only concept of “green” is money, can use weasel words and twist common sensibilities to justify their obvious mistakes. Buzz words like “perceived visual impression” and “thus defined” are not what keeps thousands of tourists coming back to Maine’s Western Mountains. No one from Boston packs up the family and heads north to come to the Western Mountains to be in an industrial wasteland. “Visual expectations” are not wind turbines. “The measure of the quality of a view must be tempered with the overall sensitivity of the viewer.” And in this case, the insensitivity of the developer. It is hard to comprehend how billboards have been outlawed; but 415’ monstrosities are legal.

18Y

#### 3.9.1.1 Federal (Appalachian Trail)

This project will be seen from many places along the Appalachian Trail and distance does not diminish the ugliness and displacement of these units. They do not fit harmoniously into this environment as anyone who cares about the environment can clearly see. This project will breed others and soon the mountain tops will look like a pin cushion. How significant are the people who recreate in these mountains? It is stated that the trails provide “maximum outdoor recreation potential” and “enjoyment of the nationally significant scenic, historic, and natural qualities of the area”; not unnatural.

18Z

#### 3.9.1.2 State

“Maine Wind Power Development Law” was written by a consortium of people in the wind business and was written to be deciphered as pro-wind only. By this law, Roxbury was one of the areas that was put in the expedited area which allowed developers to put this project on the fast track and also to legally minimize any opposition to wind projects. When government and wind developers define “scenic”, you can bet it will go against any standard definition.

18AA

### 3.9.2 Project Setting

2<sup>nd</sup> Paragraph: *“The project area landscape is scenic, as are areas surrounding the project area, and the presence of human activity upon the landscape does not greatly detract from the natural character”*. This will greatly detract from the natural character of an admitted scenic area. *“Does not greatly detract”* is written by a developer who will justify and compromise any values to pad his bank account. This, to me, is the “most significant” reason not to fund this rape of the land.

18AB

Table 3-10: Scenic Viewpoints: This project will be seen from more points on the Appalachian Trail than it stated in the table; Old Speck Mountain (Grafton Notch State Park) for one. They actually admit the three (3) ponds in the area “possess high quality scenic value.” Just because some camps are “oriented with their backs toward the project” doesn’t mean they don’t have a back door or back yard from which to view the project.

18AC

As is quoted by the developer, “the ponds are used for recreation and include passive recreational uses such as, fishing, boating, and nature viewing.” Not turbine viewing. “The project will be visible from the pond.” This ends the paragraph about the scenic values with no stated conclusion. I have heard it said in meetings put on by the developer that some have to suffer for the greater good. I find this to be significant that they can so easily dismiss people, their quality of life, their interests, possibly their health and the surrounding environment. Are we to be dismissed as insignificant and with no voice in the process? Who are they to determine that Roxbury is to be sacrificed, and for whose greater good – theirs?

### 3.9.3 Wind Turbines and Associated Infrastructure

Maine DEP found that “wind generating facilities would not have an unreasonable adverse effect on the scenic character”. Just what would have to be put there to have them say a “reasonable adverse effect”? What is 415’ tall and uglier than a wind turbine? Maine DEP has been part of the problem right along as most of the people in charge have been appointed by the developer (in his role as the previous Governor of Maine); but no one sees a conflict of interest. I deem this to be “significant”.

18AD

Further in the same paragraph, they talk about the crane paths only; not the tower bases, as being screened by vegetation. If you level the tops of the mountains, you remove the vegetation, this will be a non-repairable scar visible for miles.

In the next paragraph, the lawyer weasel words hit the absurd level of calling ugly wind turbines 415’ high and referencing them as “distinct artificial features”. Same paragraph, “the turbines become prominent, visual features on the ridgeline and alter the visual character and quality for all viewer groups.” That admittance alone, should stop this project. They go on to say, “the turbines would not be very noticeable from farther vantage points”. So what is the recommendation of these statements? Not given. I have one. Since moving the pond seems impractical how about moving the turbines out to sea? I surmise the real conclusion here is if you weren’t bought out or paid off by the

developer, you are supposed to just take it. That is really what Maine DEP and the developer are saying. This is significant.

I have included an editorial comment by Penny Gray, a Maine Master Guide, which recently appeared in a local newspaper. She captures the true meaning of this and other projects about to take place in the Western Mountains of Maine.

#### **3.13.2.1. Vegetation and Wildlife**

18AE

Based on the fact that Scotty Brook provides a habitat for brown trout, rainbow trout and others; and then pointing out that the “Androscoggin and its associated tributaries are designated as essential fish habitat for Atlantic salmon”, it seems highly probably that Atlantic salmon have ventured into the Swift River and Scotty Brook. Activities associated with this project will most likely affect the watershed of the Swift River and put the Atlantic salmon in harm’s way. “Correspondence from the USFWS identified that the proposed project occurs within the range of the federally endangered Gulf of Maine distinct population segment of Atlantic salmon”. I deem this to be highly significant.

Also, the paragraph about the bald eagles in the area, states that “they also often expand their feeding grounds for many miles to lakes, ponds and other water bodies”. This they do, and in doing so, fly over these very mountain tops to get to the Swift and Androscoggin Rivers.

#### **3.13.2.2. Biological Survey and Results**

18AF

As noted in the 2<sup>nd</sup> paragraph about nocturnal bird flights, they were “not necessarily utilizing the ridgeline itself, but they were passing through the air space above the ridgeline.” “Above the ridgeline” is where 22, 415’ high whirling bird and bat killers will reside.

As it is noted, several bird species on conservation watch lists, “are on the conservation watch lists because of certain declines in their regional population trends, mainly due to loss of habitat”. Projects such as this and others proposed in the area, will just increase the loss of habitat, significant? Yes.

#### **3.13.3.1. Impacts on Vegetation and Wildlife**

18AG

In the 3<sup>rd</sup> paragraph it states, “the temporary and permanent changes on vegetation and the habitat conditions would impact wildlife that are present in the area. Direct and indirect impacts to wildlife include: injury, mortality, and displacement; however, the impacts are not considered significant.” This is the slanted opinion of the developer. When does it cross the line and become significant?

Same paragraph further along: “flight height and flight direction data indicate that the majority of targets or animals are flying at a height sufficient to avoid the proposed turbines and blades.” Why isn’t the “direction data” shown here? I would like to see a copy of this “data” (if it exists). Let’s hope that somebody informs the birds about how

to avoid 22, 415' high structures with a total sweep area of 37 vertical acres. This seems very significant.

### **3.13.3.2. Impacts on Protected Species and Habitat**

I have already discussed the probability of Atlantic salmon in these waterways so I won't re-discuss it again here. In the first paragraph under "Migratory Bird Treaty Act....."; it is mentioned about clearing for the electrical corridors and that "the preferred time of year to conduct these activities is under frozen ground conditions and Record Hill anticipates conducting clearing for the generator lead during the winter months". Their schedule indicates the energizing of the substation to be mid to late summer and there is no evidence of clearing the yet, not approve, transmission corridor to the substation. They talk of doing this optimally during the winter months and it is now spring. It doesn't look like it will be completed prior to the migratory bird breeding season as stated.

18AH

Next paragraph: Again it is written that "although wind turbines pose a threat to migratory birds and bats, based upon surveys conducted on the project ridgeline, this threat would be not expected to be significant". I would also like to see these "nocturnal radar surveys" that conveniently have the birds flying above 415'. Yet again, another "diurnal raptor surveys indicate many of the raptors flying through the project area passed below the maximum height of the turbines. Because the passage rates of raptors in the project area are relatively low to other sites and because diurnal raptors have been documented to avoid modern wind turbines, there would not be a significant impact on these populations." But there would be an impact and it could definitely be significant the way this whole paragraph is written with its assumptions and phantom surveys. Dead birds would be tracked and "the information would be used to help ensure that unreasonable adverse impacts to populations are avoided and minimized to the extent practicable". What does one suppose the "extent practicable" will translate to when birds are entering the no fly zone? This is more than significant, it is a death sentence for these animals.

The next paragraph refers to "an Eagle Risk Management Plan". I think it would be prudent to request this plan be submitted now rather than later as all I could envision is another survey being done. A significant item needed to protect wildlife.

In the following paragraph it states: "Bald eagle mortality from collisions with turbines would not be expected due to the location of the turbines on upland ridgelines, as bald eagles tend to hunt on bodies of water". As explained earlier, these ridgelines are the ones the eagles fly over to get to these other bodies of water. This whole paragraph is "based upon results of the surveys". This area needs an independent significant survey by the Department of Energy.

### **3.18 Cumulative Effects**

End of paragraph #3: "No future development projects are anticipated for the project area". Other wind developers are currently knocking at the door of this project and areas at each end of the project stand to be developed. This is well known and "no future

18AI

↑ projects” is an outright lie. First Wind wants to start directly on the other side of Roxbury Notch and stretch towards Rumford. From the air and ground, it will look like one continuous project. So there is a “cumulative effect analysis” to be done. Very significant.

In conclusion, I believe that the frailties of the developers’ environmental assessment as pointed out by me and other submittals warrant a full environmental analysis by the Department of Energy before any monies are released. Keep in mind your own “core values” (DOE P141.2) and responsibilities to the public and the environment that we are both trying to protect.

I thank you for the opportunity to comment. Please do not hesitate to contact me should you have any questions or need further clarification. I look forward to hearing from you.

Sincerely,  
Ron Dube  
Roxbury

Enclosure

**From:** Steve Thurston [thurston.steve@gmail.com]  
**Sent:** Friday, April 01, 2011 7:24 PM  
**To:** Marhamati, Joseph  
**Subject:** Record Hill Draft EA Comments  
**Attachments:** 11-04-01 Comments Against Support for the Federal Loan Guarantee to Record Hill Wind.pdf

Dear Mr. Marhamati,

19A

Attached is a report from E-Acoustic Solutions regarding wind turbine noise issues for the Record Hill Wind project. Please review this report very carefully, for it makes a very clear case for why the Record Hill Wind project has great potential to become a potential health hazard for Roxbury property owners. I can assure you that if that is the case the property owners will do what other citizens in Maine have done in response to adverse turbine noise impacts - which is to seek a remedy in the courts.

Thank you for your consideration.

Sincerely,  
Steve Thurston  
Concerned Citizens to Save Roxbury  
PO Box 121  
Roxbury, ME 04275

**Marhamati, Joseph**

Comment 20 Response in Sections 4, 5, 6, 7, 11, and 13

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**From:** fryewood@roadrunner.com  
**Sent:** Friday, April 01, 2011 6:03 PM  
**To:** Marhamati, Joseph; Mcmillen, Matthew C  
**Subject:** Record Hill Draft EA Comments from Colleen Martineau  
**Attachments:** Record Hill Wind Draft EA Comments from Colleen Martineau.pdf

Mr. Marhamati and Mr. McMillen:

Please find the pdf of a letter commenting on the "Record Hill Wind Draft EA" from Colleen Martineau.

If you are unable to open or view it, please either call me or contact me at the above e-mail address.

Thank you,  
Cathy Mattson

207-364-2616

March 24, 2011

Mr. Joseph Marhamati  
Mr. Matthew McMillen  
Department of Energy  
Washington, DC 20585

"Record Hill Draft EA Comments"

This is to inform you that there is much documentation and studies that are lacking in the processing of the Record Hill Wind, LLC, application. Maine has been permitting various wind projects across the state according to a recently enacted law known as LD 2283 or the "Expedited Wind Energy Law".

20A

I have been involved for over three years with the Record Hill project and have followed a number of other projects throughout the State of Maine. It is my opinion, that the environmental studies and the overall impact of these projects have not been adequately evaluated before permits are issued. This newly adopted law states that permitting agencies must consider only certain aspects of a project and not fully investigate whether an issue is significant to that area or not. The adoption of this law in my opinion was a very politically driven event and one which many citizens have been trying to get either amended, repealed or in some way changed to protect the Natural Resources of Maine. The citizens have spent untold amounts of money appealing cases, hiring experts to file testimony, hosting public informational meetings and yet have been denied a right to a Public Hearing by the DEP, the BEP and just recently the Maine State Supreme Court. This is not fair to the common citizen and possibly not even Constitutional.

20B

The mountain and valley areas that this Record Hill Wind project covers are filled with rich history of our Native American ancestors. The Rumford Falls, the Swift River, the Ellis Falls and River and its many branches; Coos Canyon; the mountains of Partridge Peak, Flathead, Record Hill, and Old Turk; the towns of Roxbury, Andover, Rumford, Mexico, Byron; historically the very ground that Mollyocket and Perepole and their families and ancestors walked upon has been totally ignored. The Rumford library and local historians have much information of the historical significance of this area. Where were the independent parties researching this area before this Native land was totally obliterated?

Woodlot Alternatives, now Stantec, supposedly sent letters to the tribal Chiefs but there is no record of any response or that the appropriate parties even received the requests. Furthermore, there was no time available for proper studies or research. The local population in this River Valley Area is comprised of many families with Native American Ancestry and they are being deprived of the proper respect given to their ancestor's sacred land.

20B

↑ People here trusted that the State Agencies and even the local Town Administration would preserve and protect the heritage in this area. The local residents never expected that a developer would come in like a thief and steal what was rightfully theirs. Also, where are the proper environmental assessments by independent parties? How is it that only the developer and their hired companies are doing the studies and making the recommendations?

20C

As a previous small business owner here in this area, I would have never been able to develop that land on top of these mountains for any type of business, regardless of the number of jobs it would have created or how much it would have boosted the economy in the area. My evaluations and permits would have taken at least five years minimum just for the processing. This Record Hill Wind project got a special exception for wildlife studies, didn't adequately prove financial capacity, was not required to meet the decommissioning standards, and most importantly has chosen to ignore the noise levels that potentially will exist should this project become operational.

By not doing adequate studies for noise emission, shadow flicker, reflection in the water of Roxbury Pond itself and a number of other issues, even the impact upon Human Health is looked at as "insignificant" it would seem. Two of my grandchildren have been diagnosed and live with Autism Spectrum Disorder; they will never be able to enjoy "Gran's" summer home once the RHW project is completed and operational. Summers for them at my home, have been the most heavenly place on earth in their minds and their behavior supports my observations.

20D

Smart lawyers working for the developers "helped" the Town of Roxbury amend their Comprehensive Plan and Land Use Ordinance to allow Mountaintop Industrial Wind Turbines within the town. Prior to these amendments, the town was known for its rural characteristic, its quiet peacefulness, its various animals and birds that lived in harmony with the human inhabitants. Tourists travelled through on Routes 120 and 17 on their way to the many lakes and mountains between Rumford and the New Hampshire border. Route 17 in this area is a State Designated Scenic Byway from Mexico to Rangeley and yet that didn't seem to make any difference. I notice that even the photo simulation of Route 17 in the application was "clouded" that day and is not even close to being accurate. The visual blight will be very obvious and significant once the project is completed.

20E

People coming to this area always have believed that the fishing and hunting were worth the trip; the hiking trails and the views from various summits were exquisite and because of that, the local Maine Guides had businesses here and were happy to provide their services. The air was fresh and had that undisturbed and unique sense of being in the woods and away from civilization. Much income throughout the four seasons is dependent on what this area has to offer. Many lodges have been built, eating establishments are available for the seasonal visitors.....Maine and its natural areas are truly a destination for those loving the outdoors! What will those same people think when they return to 480 foot wind turbines on those same mountain ridges that they marveled at?

20F

The existing Maine DEP and Army Corps permits need to be carefully scrutinized and evaluated for accuracy. The source of the application studies and the time of year as well as the length of such studies also need to be investigated. There are appeals still unresolved regarding the associated permits. The transmission line, while having a permit, is also still in litigation by some of the landowners who feel that their easements with the power company have been misrepresented. The environmental impact of the wetlands and vernal pools along the transmission corridor has not been evaluated to the satisfaction of many of the local residents.

20G

Roxbury Pond, where I currently own a home; has been passed over for not being significantly impacted by a project that covers the tops of three significant mountains in the area. The Maine DEP has used an acoustical professional who is not an acoustical engineer and is not ICNE Board certified. Some of the residents in this area have paid to have an independent noise evaluation done and the results are in great conflict with what the developer is projecting.

20H

This RHW project is going to greatly disturb those residents who live around Roxbury Pond. One only has to talk to people in Mars Hill, Freedom and Vinal Haven as well as in other states to find out what the flicker, noise and blade thump has done to their lives. These three projects also have court cases still pending. The Rollins Wind project in Lincoln is not operational yet, but is currently under construction even with cases filed against the developer as well as the town. Until some of these cases and problems with the existing projects have been addressed and resolved, there should be no additional permits issued or funded for projects of this nature.

If you would like more information or would like me to forward resources to you, please let me know as I would be happy to help in any way possible. Thank you for addressing these issues for me. My family and friends thank you as well.

Sincerely and greatly concerned,

Colleen Martineau  
Roxbury, Maine

207-562-7562

**From:** dan mckay [mckaydan2@gmail.com]  
**Sent:** Thursday, March 31, 2011 5:50 AM  
**To:** Marhamati, Joseph  
**Subject:** "Record Hill Draft EA Comments."

Mr. Marharmati,

21A

This project's location is very troublesome and has people who enjoy the pond very nervous. Atop land of steep terrain, 22 wind machines are proposed to be installed. Machines that are very much like excavation equipment with similar operational devices. Hydraulics, heavy dynamic movements, electrical and electronic components, steel elements subjected to massive forces.

Having worked around construction equipment for most of my life, I am familiar with the extreme wear and tear such machines are subjected to.

Have you ever seen a construction machine that is 20 years old that has been worked year in and year old challenged by the soil and weather conditions in Maine ?

If I had a nickel for every hydraulic system rupture I have seen over the years, I'd be fairly rich now. A wind machine can expect to undergo hydraulic stresses similar to an excavator as the system attempts to position the blades to changing wind conditions. An event that will happen thousands upon thousands of times. Each time building up heat within the system. A system that has a 200 to 300 gallon oil reservoir. A system that can leak profusely and if spilled to a water course originating near it, it won't take long to reach the pond and spread out encompassing a vast area. There's nothing pretty about an oil slick sitting atop a body of water.

I also seen many a construction machine catch fire and almost every time there was no putting it out as the oil burns quickly. Heat build up within the nacelles of wind machines, as related to me by a person who works installing industrial wind machines, is an ongoing problem requiring constant vigilance.

What is needed is a study of past system failures relating to industrial wind machines and environmental impact potential. Atop a mountain with steep slopes and with several runoff avenues isn't a scenario for favorable results if a system failure occurs. It's a real toss of the dice if something like this is assumed not to happen within a 20 year time span.....Dan McKay.....Dixfield, Maine

**From:** Betsy Bell [bgbell@gmail.com]  
**Sent:** Thursday, March 31, 2011 9:36 AM  
**To:** Marhamati, Joseph  
**Subject:** Record Hill Draft EA Comments

Mr. Marhamati:

I am writing to you in regard to the decision of whether to issue a loan guarantee to Record Hill to support their wind turbine project in Roxbury, Maine. I do not see the issues that concern me addressed in the document, so I would like to add my comments.

22A

The Socioeconomics section addresses benefits of the project, but none of the adverse effects that I personally would experience. I am a naturalist and an artist, so like many other “invisible” people in this part of the state, my livelihood is dependent upon the unique character and beauty of the mountains in which we live. The collectors of my work expect paintings of the landscape and nature, not wind turbines and industrial parks.

22B

Maine Historic Preservation Commission (MHPC) determined that the wind energy project *would have an adverse effect on the properties officially listed on the National Register*. There are many other historic homes in this area besides just those three who would be negatively affected, including my own (an 1828 cape on the Roxbury/Mexico town line, which is rumored to have been a station on the Underground Railroad in the 1800’s).

These mountain slopes are crisscrossed with old stone walls, mute testimonies to the men and women who tried to farm them and failed. They were trying to turn the mountains into something they are not: arable farmland. The concept of building industrial parks on the peaks here is also an attempt to turn these mountains from the valuable resource they are now into something they are not. What legacy will the wind turbine project leave on our landscape for generations to come, after it has also failed?

I would heartily urge you to listen to the people who live here and not thoughtlessly support this project with a loan guarantee in the face of our opposition.

Thank you very much.

Betsy Gray Bell

--  
Betsy Gray Bell  
Swift River Studio  
Fine art, classes and workshops  
917 Roxbury Road, Mexico, Maine 04257  
(207) 364-7243  
[bgbell@gmail.com](mailto:bgbell@gmail.com)  
<http://betsy-bell.artistwebsites.com>

**Marhamati, Joseph**

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**From:** Maureen Hassett [maureen@customcomposite.com]  
**Sent:** Tuesday, March 15, 2011 4:54 PM  
**To:** Marhamati, Joseph  
**Subject:** Record Hill Draft EA Comments

Dear Mr. Marhamati:

23A

This letter is to oppose funding for this project. As a lifelong member of this area, I have concern that placing a windfarm on this location will cause damage to the body of water known as Roxbury Pond (Ellis Pond) and other bodies of water in the area. I also have concern that an article in Bloomberg has already identified this project has having received the funds for this project from the Dept of Energy. It is simply not right.

I do not live in this area but frequent it for winter and summer recreation.

I sincerely hope that that it is realized that building wind farms in these majestic and pristine areas will destroy the natural land and is not worth the trade off of the limited amount of energy that can be gained from wind in these areas. It is more profitable to put that money toward the research and development of off shore wind if that is possible.

Thank you for the opportunity to share my thoughts.

Best Regards,

Maureen Hassett  
Custom Composite Technologies, Inc.  
15 Wing Farm Parkway  
Bath, ME 04530  
207-442-7007

**Marhamati, Joseph** Response in Sections 1, 4, 7, 9, 10, 11, and 13

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**From:** Coastal Counties Workforce Inc [ccwi.virtual@gmail.com]  
**Sent:** Wednesday, March 30, 2011 5:42 PM  
**To:** Marhamati, Joseph  
**Cc:** Mcmillen, Matthew C  
**Subject:** Record Hill Draft EA Comments  
**Attachments:** SLCOA letter to DoE 3-29-11.pdf

Dear Mr. Marhamati,

Attached please find a copy of the letter from SLCOA regarding the "Record Hill Draft EA Comments". This letter is written on behalf of the SLCOA.

We look forward to your response.

Thank you,

Christine Dube

Secretary, SLCOA

**SILVER LAKE CAMP OWNERS' ASSOCIATION**  
P.O. Box 204  
Roxbury, Maine 04275

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March 29, 2011

Mr. Joe Marhamati  
DOE Loan Programs  
Environmental Compliance Division  
Washington, DC

**RE: "Record Hill Draft EA Comments"**

Dear Mr. Marhamati:

24A

This letter is written on behalf of the Silver Lake Camp Owners' Association (SLCOA) regarding the "Record Hill Draft EA Comments". The Silver Lake Camp Owners' Association is requesting that the Department of Energy's Environmental Assessment is not adequate to allow the project to move forward. We request the Department of Energy to do a full Environmental Impact Study. This request is based on much correspondence with professional experts as well as local residents with specific interest areas.

Some of our concerns are:

- Environment Studies: No independent environmental studies were done; requests were made to Maine DEP to do one; the only environmental studies done were those by the developer as part of their permit application. Did not take into consideration the following:
  - Eagles who have nested on French Island for the past 25+ years; they have already constructed their nests this year. There is much concern about them soaring too close to the wind turbines. These eagles stay year round and fly over the ridge (where the turbines will be erected) to feed at the Swift River. The developer's study stated the eagles only fly within a short radius of the island; however, an avian biologist countered that eagles minimally fly a 5-8 mile radius daily.
  - There are several families of nesting loons and duck species at the pond who depend on the water quality. In the fall, there are as many as 100+ migratory loons that stop for a week or two just before the ice is in. There is concern that they will be severely impacted by the turbines on the ridges. Degrading water quality will also affect the fish which the loons, eagles and ducks feed on. In February, an annual Fishing Derby is held which more than 500 people attend to take part in this activity.
  - Land based wildlife (such as deer, moose) has already been impacted by the work which has been done to date. As a result of the ecological

24B

24C

24D

- ↑
- 24E damage done to the area, hunters have witnessed minimal activity this past season as compared to before construction. It has been proven in New York and other states that animals will not remain in an area where turbines are located due to the noise. We are already experiencing a decrease in wildlife due to the blasting and groundwork that has been done. What will the result be when the turbines are up and running?
- Vernal pools and wetlands are not being protected. Vernal pools are shallow depressions and are often found in forested wetlands. Usually, they fill up with water, but only for part of the year. Peepers and toads call them home. And sometimes, so do animals like spotted turtles, ribbon snakes and different types of inland waterfowl. Pools with endangered, threatened or rare species like these are called "significant vernal pools". Wetlands scientists say protective buffer zones surrounding the pools are keeping certain species from going extinct. Currently Maine law prohibits development within 250 feet of significant vernal pools, unless the builder gets a permit from the state which is the case regarding this project. What attracts many people to Maine is that the state still has a vibrant wildlife community and research shows that if the state conserves vernal pools, it will also conserve wildlife.
  - Roxbury Pond is a fragile environment and should not be used as a social experiment.
- 24F
- Watershed: Because of the location of this project (3 miles along the mountain ridges), the watershed will be compromised on both sides of the mountains; namely, the Swift River, Roxbury Pond and possibly Garland Pond. The amount of blasting and the degradation of the proposed project area is of significant concern to these fragile watersheds. Roxbury Pond has 42 natural run offs and a 30 square mile watershed. There is no public drinking water supply available and residents throughout the area depend on shallow wells, drilled wells and some even the pond itself.
- 24G
- Health Impacts: Improper evaluations of the health impacts this project will have on people living within 5 miles of the project site as based on previous projects in Maine that are currently in litigation; such as, Mars Hill, Freedom and Vinal Haven. Health impacts as they relate to: noise, shadow flicker and blade thump.
  - Quality of Place: Maine is branded for its Quality of Place as referenced by the Brookings Institute Report. This is a peaceful, scenic, tranquil, natural area to be enjoyed during the four seasons. This is why people choose to visit this area and why they continue to return. Currently, pond residents can see mountains as far away as the New Hampshire border to the west. This proposed project would be a dominate feature of the otherwise natural landscape and will greatly detract from its rural character and beauty. Because of their siting and overall dominance of the horizon, they will be a visual blight on the landscape for as far as the eye can see.
- 24H
- Ecotourism: This area as well as most of Maine relies heavily on the tourism-based industry for its livelihood. Many property owners offer rentals of seasonal cottages. Many own and operate campgrounds, local stores, bed and breakfast facilities, farmers' markets and numerous small businesses. There are many registered guides providing their services for hunting, fishing or hiking. Once
- 24I

what the visitors find that all of this does not exist in the area, what will be the incentive for them to return for future vacations?

24J

- Property Values: Not only will property values decrease due to this industrial project; it will then have an effect on the tax base for the town. Many owners are very concerned about this impact.

24K

- Record Hill Wind, LLC website: No longer active even though they said they would be managing this project for the long term. All of the DEP Third Party Inspector's reports and photos are unavailable. Reports for meetings that were held are also apparently removed. Why has all the information on their website been removed? Inquiries indicate that Wagner Wind Energy will be managing the project; but research to verify this has not been found. Who owns this company, when was it organized and is there any affiliation with Independence Wind or has the company either merged or perhaps been acquired?

24L

- Roxbury Pond: The majority of owners at Roxbury Pond are not allowed to vote because they are seasonal residents. However, they pay 67% of the taxes for the Town of Roxbury. 99% of the Silver Lake Camp Owners Association (SLCOA) members voted against the development of this wind turbine project by Record Hill. A letter was sent to Maine DEP during the review application process for the Record Hill project stating that the SLCOA voted unanimously not to support this project.

24M

This project needs much more in-depth research from an environmental, ecological and economical aspect. We urge you to please allow the people of this area to provide you with both the documentation and the expert testimony before you approve this application.

Thank you for your attention to this matter and please do not hesitate to contact me should you have any questions.

Sincerely,



Angela Arsenault  
President  
SLCOA  
207-545-2103

Cc: Matthew McMillen, Director, Environmental Compliance

**Marhamati, Joseph**

Comment 25    Response in Sections 2, 3, 4, 10, 11

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**From:** Alice Barnett [gempaint@yahoo.com]  
**Sent:** Wednesday, March 30, 2011 7:33 AM  
**To:** Marhamati, Joseph  
**Subject:** Record Hill Drafts EA Comments  
**Attachments:** DOERRecordHill.rtf

Please see attached. Thank You    alice barnett

- 25A | 1.) all wind energy going out of state. Maine cannot afford it.
- 2.) the tax valuation gained in host communities is offset by abatements of land value with-in 2 miles.
- 25B | 3.) nameplate capacity reduced to 25% (when wind blows)
- 4.) "parasitic" (when wind doesn't Blow, turbines require heat) reduces capacity another 5%.
- 5.) loss of electricity in transmission lines reduces capacity again. 10-30%
- 25C | 6.) 30-60 acres required for each turbine. 6-10 acres clear cut.
- 25D | 7.) birds, bats, bugs dead in the wind. wildlife disrupted.
- 25E | 8.) erosion from stormwaters changes the environment
- 25F | 8.) tourism killed

Record Hill Drafts EA Comments."---Joseph Marhamati@hq.doe.gov

US Department of Energy,1000 Independence Avenue. SW (LP-10), Washington, DC 20585

I cite:

Lake and Resourse Management Associates. P.O.Box 65, Turner ME 04282

2008 Roxbury (Ellis) Pond Water Quality Report.

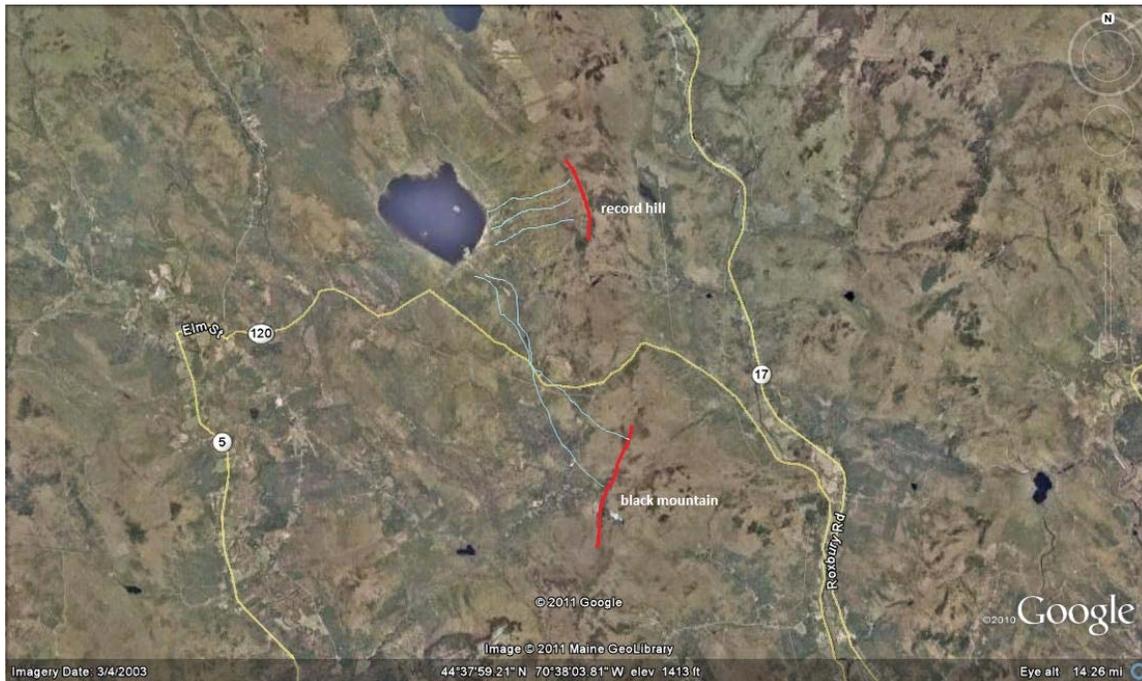
25G | One reason for the low seasonal average in 2008 was that the lowest reading for the season was 2.8 meters, which is tied for the 3rd lowest (poorest) reading on record for the pond. This was most probably linked with unusually heavy precipitation that occurred throughout the months of July and August, which undoubtedly resulted in the runoff of eroded soil into the lake from the watershed, resulting in reduced water clarity from suspended sediment, and from increased algal growth from the phosphorus associated with the sediment. Our field log for the July 23 sampling visit noted severe soil erosion on the Byron Road, which showed evidence of material having washed directly into a tributary to the lake.

If this erosion threatens

lake to bloom...look at the access roads and blasting for wind turbines.

Everything from the top of Record Hill flows down stream to the pond.

In the best BMP (best management plan)s storm waters do come. Look out.



25H

60 megawatt nameplate; reduce to 25% (when wind blows), reduce 5% "parasitic" (suck from grid) , reduce 30% loss in transmission.

about 8 megawatts makes it to the grid. And lost along the way.

25I

Please D.O.E. look at the destruction for no pay back.

Alice Barnett, P.O.Box 588, Carthage, ME 04224 [gempaint@yahoo.com](mailto:gempaint@yahoo.com)

**Marhamati, Joseph**

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**From:** Leola Ballweber [muttermutter@yahoo.com]  
**Sent:** Friday, April 01, 2011 7:32 PM  
**To:** Marhamati, Joseph  
**Subject:** Record Hill in Maine

Mr. Joseph Marhamati,

26A I am concerned that the Department of Energy's Environmental Assessment is not adequate to allow the project to move forward. We request the Department of Energy to do a full Environmental Impact Study. This request is based on much correspondence with professional experts as well as local residents with specific interest areas.

Some of our concerns are:

- Environmental Studies: No independent environmental studies were done; requests were made to Maine DEP to do one; the only environmental studies done were those by the developer as part of their permit application. Did not take into consideration the following:
  - 26B ○ Eagles who have nested on French Island for the past 25+ years; they have already constructed their nests this year. There is much concern about them soaring too close to the wind turbines. These eagles stay year round and fly over the ridge (where the turbines will be erected) to feed at the Swift River . The developer's study stated the eagles only fly within a short radius of the island; however, an avian biologist countered that eagles minimally fly a 5-8 mile radius daily.
  - 26C ○ There are several families of nesting loons and duck species at the pond who depend on the water quality. In the fall, there are as many as 100+ migratory loons that stop for a week or two just before the ice is in. There is concern that they will be severely impacted by the turbines on the ridges. Degrading water quality will also affect the fish which the loons, eagles and ducks feed upon. In February, an annual Fishing Derby is held which more than 500 people attend to take part in this activity.
  - 26D ○ Land based wildlife (such as deer, moose and bear) have already been impacted by the work which has been done to date. As a result of the ecological damage done to the area, hunters have witnessed minimal activity this past season as compared to before construction. It has been proven in New York and other states that animals will not remain in an area where turbines are located due to the noise. We are already experiencing a decrease in wildlife due to the blasting and groundwork that has been done. What will the result be when the turbines are up and running?
  - 26E ○ Vernal pools and wetlands are not being protected. Vernal pools are shallow depressions and are often found in forested wetlands. Usually, they fill up with water, but only for part of the year. Peepers and toads call them home. And sometimes, so do animals like spotted turtles, ribbon snakes and different types of inland waterfowl. Pools with endangered, threatened or rare species like these are called "significant vernal pools". Wetlands scientists say protective buffer zones surrounding the pools are keeping certain species from going extinct. Currently Maine law prohibits development within 250 feet of significant vernal pools, unless the builder gets a permit from the state which is the case regarding this project. What attracts many people to Maine is that the state still has a vibrant wildlife community and research shows that if the state conserves vernal pools, it will also conserve wildlife.

- Roxbury Pond is a fragile environment and needs to be carefully and responsibly addressed by environmental experts who are not influenced by project preferences.

26F

- Watershed: Because of the location of this project (3 miles along the mountain ridges), the watershed will be compromised on both sides of the mountains; namely, the [Swift River](#) , Roxbury Pond and possibly Garland Pond. The amount of blasting and the degradation of the proposed project area is of significant concern to these fragile watersheds. Roxbury Pond has 42 natural run offs and a 30 square mile watershed. There is no public drinking water supply available and residents throughout the area depend on shallow wells, drilled wells and some even from the pond itself.

26G

- Health Impacts: Improper evaluations of the health impacts this project will have on people living within 5 miles of the project site as based on previous projects in Maine that are currently in litigation; such as, [Mars Hill](#), Freedom and Vinal Haven. Health impacts as they relate to: noise, shadow flicker and blade thump.

26H

- Quality of Place: Maine is branded for its Quality of Place as referenced by the [Brookings Institute Report](#). This is a peaceful, scenic, tranquil, natural area to be enjoyed during the four seasons. This is why people choose to visit this area and why they continue to return. Currently, pond residents can see mountains as far away as the New Hampshire border to the west. This proposed project would be a dominate feature of the otherwise [natural landscape](#) and will greatly detract from its rural character and beauty. Because of their siting and overall dominance of the horizon, they will be a visual blight on the landscape for as far as the eye can see.

26I

- Ecotourism: This area as well as most of Maine relies heavily on the tourism-based industry for its livelihood. Many property owners offer rentals of seasonal cottages. Many own and operate campgrounds, local stores, bed and breakfast facilities, farmers' markets and numerous small businesses. There are many registered guides providing their services for hunting, fishing or hiking. Once what the visitors find that all of this does not exist in the area, what will be the incentive for them to return for future vacations?

26J

- Property Values: Not only will property values decrease due to this industrial project; but it could have an effect on the tax base for the town. Many owners are very concerned about this impact.

26K

- [Record Hill Wind](#), LLC website: No longer active even though they said they would be managing this project for the long term. All of the DEP Third Party Inspector's reports and photos are unavailable. Reports for meetings that were held are also apparently removed. Why has all the information on their website been removed? Inquiries indicate that Wagner [Wind Energy](#) will be managing the project; but research to verify this has not been found. Who owns this company, when was it organized and is there any affiliation with Independence Wind or has the company either merged or perhaps been acquired?

26L

This project needs much more in-depth research from an environmental, ecological and economical aspect. I urge you to please allow the people of this area to provide you with both the documentation and the expert testimony before you approve this application. The people of Maine have not been allowed to speak on these issue and concerns to ears that will listen. Please, be those listening ears and allow the people to be heard. Our DEP is not doing their job and our wilderness is our livelihood.

Sincerely and Respectfully;

Leola R. Ballweber

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**From:** Leola Ballweber [muttermutt@yahoo.com]  
**Sent:** Friday, April 01, 2011 9:18 PM  
**To:** Marhamati, Joseph  
**Subject:** Record Hill Maine

Mr. Joseph Marhamati,

It has been brought to my attention that the Record Hill Wind Project is looking for a guaranteed loan from your agency. I encourage you to turn down this guarantee based on the fact that these LLC's continually change their names and it is getting complicated trying to deal with all these different names for the same project.

27A It has been made clear that this project is being backed by the Yale Investment Fund and has the financial capacity to see this project to the end. I encourage you to deny this guaranteed loan based on the fact that it is not necessary or needed for this project.

27B I also request that a third party do an assessment on the enviromental factors involved on this project. Bald eagles, golden eagles and other wildlife will be affected by this project and this company has already had dealings in New York State that created the requirement for them to sign an ethics agreement. Since then they have ceased development in that state and moved to Maine. It leads me to believe that ethics are missing in this company standards and it is your job to see that this does not continue.

27A It is important for you to realize that this project should not be given taxpayers money, when they have their own private financial backer. We can not continue to put taxpayers money in the wind and let it blow away. Our money is in short supply and we don't need to keep taking loans from other countries. We have to pay those bills and our economy hasn't gotten better.

Please, check the companies information, have an indepentant study, check them out thoroughly, and catch them in their willy ways.

Sincerely and Respectfully;

Leola R. Ballweber  
506 Cushman Road  
Bryant Pond, Me 04219

From: Mountain Spring Farm B&B [msfbb@midmaine.com]  
Sent: Thursday, March 31, 2011 7:50 PM  
To: Marhamati, Joseph  
Subject: Record Hill Wind

I am very upset that my tax dollars will be used for such an unworthy project at that which you are reviewing for Record Hill Wind, here in Roxbury, Maine The more I learn about wind energy as an investment, the more disgusted I am that the Federal government is supporting it in circumstances like the ones we have here. here are the reasons why I think that the Federal government should examine this very carefully.

28A

1) In our little town, Roxbury Maine, we have been fighting against the placement of wind turbines in the water shed of our lake where I own a cottage and where I live half the year. The studies about the impact of the turbines on our nesting eagles, loons as well as the other forest animals have been carried out by the company that wants to put the turbines in, so naturally, everything is "just fine" in their eyes. We have been told that assessment of any damage to the environment will be done "post construction" I think this is laughable as well as very transparent. The company doesn't care about the environment or animals and will never to a "post construction" evaluation. And if they do, so what? They will not be able to undo any damage which they have caused. I have not seen personally the road building which they have initiated. The word is out that it is pretty awful and may not be up to regulation.

28B

2) Why is the federal government funding such a project when the principals of the company have given documentation that they have the funds to carry out the project? They are now getting backing from Yale University's endowment fund. This is outrageous that tax payers should be asked to not only pay for the transmission lines which will be built for this project but that we also pay monies toward their business adventure. I think that they should offer their own investors the opportunity to actually invest in their own project.

28C

3) As for the economics of this project, I think that it is time to look around at what is happening else where with approach to renewable. T. Boone Pickens, a big time money manager, investor and promoter of renewable energy sources has pulled all his support away from wind energy because it is such a bad deal economically. His mega-project for many wind turbine farms in middle America from Chicago to Texas is now defunct because of his appreciation of the role that new natural gas as a renewable resource is playing and will continue to play for a long time to come in our country. Why are we funding these projects when we know that they are not worthy.

28D

4) BOONDOGGLE is often used when federal money is used on projects that most common sense people would not invest a dime on. Maine has received federal money in the past for sugar beet production in the 60's, to breach dams on our rivers in the 70's , more stringent fishing rules and regulations for harvesting our ocean in the 80's, in the 90's paper companies were sold or closed and now in 2011 Wind projects are rage. What do all these have in common? Well it's not your savings account, your life long 401, or pension at risk, it's the FEDERAL Money... the free stuff the government gives away to a few select investors, which eventually comes out of our taxes, the money we and out children will have to . When will the government learn from past history, this wind project is another example of boondoggle. No bank, investors with their own private money, no other country will support this on its merits. Would you invest \$ 100 dollars and have only about 25 dollars in return. Wind towers do not run 100% of the time.

28E

5) We have not increased our hydro electric capacity to full potential. We shelved tidal basin dams in the Bay of Fundy with Canada in the 80's and the government keeps keep on torpedoing natural gas terminals in the Eastport area of Maine, WHY? Are the pro wind industries behind this effort? Save Maine and its people, do not fund this DOE grant to Record Hill Project to Angus King and Rob Gardner.

28F

In closing, I feel this grant does not fulfill the requirement of new advanced, leaping ahead technoloioies, a break through of mindboggling proportions. Wind turbine development is no product of Watson of DNA, or microchip from Intel, or Warp speed from the USS Enterprise. As a matter of fact most universities with mechanical, electrical or civil engineers have studied this and passed over wind power as not economical and practical and certainly not DEPENDABLE. The singular exception here in Maine is a single professor , making his academic career out of off-shore wind turbines. We'll see how the lobster and shrimp fishermen, evaluate the impact of the vibrating wind turbines on the breeding grounds off shore. For us, we are separately trying to bring a realistic view of the terrible impact of placement of hundreds of turbines all over the western Maine mountains. It starts with Record Hill and then like dominoes, all the other communities will become victims as well.

Please make a decision ot have the power of the Federal government to come to the record Hill project and do credible, truthful studies on the environment and animals. We are totally at your mercy. Barry J. Allen

**From:** Steve Thurston [thurston.steve@gmail.com]  
**Sent:** Wednesday, March 30, 2011 11:19 AM  
**To:** Marhamati, Joseph  
**Cc:** darryl.brown@maine.gov  
**Subject:** Record Hill Wind - draft EA comments  
**Attachments:** MX-B401\_20110307\_090639[1].pdf

Dear Mr. Marhamati,

I am a 5th generation occupant of my family's property on Roxbury Pond. The proposal to put 22 turbines, all within line of sight to Roxbury Pond, on the ridge overlooking the pond, has been a source of outrage, anxiety, depression, and fear for many members of my family and many of the families who own property on Roxbury Pond. There was a nearly unanimous vote of the property owners' association to oppose this project in the permitting process. The spectre of wind projects destroying the viewshed, polluting the nighttime soundscape, devaluing our property and forever altering the mountain with blasted cuts and massive fills for access roads is a heavy burden for Roxbury Pond property owners to bear. However, if these are insufficient grounds for the DOE to reject the application, there are more important reasons that reach far beyond the concerns of the affected community.

29A The application of Record Hill Wind LLC for a DOE loan guarantee should be rejected because the applicant has provided evidence to the State of Maine that they do not need the loan guarantee to construct and operate the project since they have \$127 million in the bank and the ability to self finance the project. In a filing with Maine Dept of Environmental Protection, Robert Gardiner, President of Record Hill Wind LLC provided required evidence that Record Hill Wind LLC had the financial capacity to construct the wind project. In the cover letter to James Cassida, Gardiner said, "Record Hill possesses sufficient funds to complete construction without any additional source of capital." As evidence of these funds Record Hill LLC provided documentation showing \$127 million on deposit at Mascoma Bank of Lebanon NH. (See attached copy of DEP submission).

29B As a taxpayer I am appalled that the DOE would consider using my money to provide collateral for this project. Not only does RHW LLC have the money it needs to construct the project, by admission eliminating the need for the loan guarantee, it has partnered with the Yale Endowment Fund. US taxpayers should under no circumstances be asked to assume the investment risk for the Yale Endowment Fund, which reportedly has assets of more than \$8 billion.

29C I also question the "load control" technology that forms the basis for RHW LLC to qualify for a loan guarantee in the first place. What evidence has been provided that allows DOE to conclude that there is anything groundbreaking about the turbine controller in these Siemens turbines? GE also boasts "load control" technology for its turbines. What is the difference between the two? Is it fair to ask the US taxpayer to subsidize the research and development efforts of either of these companies? Shouldn't their shareholders take the risk for the success of their products?

29D There are other technologies which are far more deserving of government support. Projects which involve electric storage technologies, reduce the cost of solar power, develop more efficient heating and cooling processes, improve the environmental impacts of hydrofracking for natural gas, make coal more environmentally friendly, etc should have a higher priority than wind power. Wind projects, without a storage solution, are of little use to the electric grid. The Record Hill Wind project with an installed capacity of 50 MW, will only generate about 12.5 MW on average at a 25% capacity factor. This small amount of electricity may easily be absorbed by the grid without any effect whatsoever on grid operation, since the ISO-NE grid operates with a 125 MW tolerance for supply and demand imbalance. It is well understood that wind generation, because of its

↑ unpredictability and intermittent production, must be "followed" with sufficient spinning reserves to regulate the constantly changing output.

The ISO-NE wind integration study is clear that accurate wind forecasts, grid scale storage, and massive and very expensive transmission construction are all necessary to allow wind generation to be effectively utilized. Since none of these necessary components of wind generation are in place, and likely won't be during the lifetime of any turbines now being constructed, it is premature at best to encourage wind power, especially in Maine and other places with high value landscapes. The cost to the taxpayer, to the residents of rural communities subjected to the impacts of wind turbines, and to future generations who will never have to opportunity to appreciate the unspoiled natural beauty of Maine's mountain landscapes far outweigh the perceived benefits of Maine's rush to wind power.

For these reasons the Record Hill Wind LLC application for a US taxpayer backed federal loan guarantee should be denied.

Sincerely,

Steve Thurston  
PO Box 345  
Oquossoc, ME 04964

**Marhamati, Joseph**

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**From:** fryewood@roadrunner.com  
**Sent:** Friday, April 01, 2011 4:17 PM  
**To:** Marhamati, Joseph; Mcmillen, Matthew C  
**Subject:** Record Hill Wind Draft EA Comments  
**Attachments:** scan.pdf

Please find the scanned copy of a letter from Mr. Leo F. Kersey, Jr.

If you are unable to open or view it, please call me or contact me at the above e-mail address.

Thank you,  
Cathy Mattson

207-364-2616

To the Department of Energy Representatives:

Regarding the Record Hill Wind, LLC, project in Roxbury, Maine

I am Leo F. Kersey, Jr. and am 88 years young. I have lived in this area and have owned a summer residence at Roxbury Pond for over 60 years. I have seen many changes over the years; but never have I witnessed the potential environmental destruction that this area is about to suffer. Roxbury Pond is located in a beautiful, pristine area where the mountain ridges completely surround one of the most beautiful unspoiled areas the State of Maine has to offer.

30A

This lake, while not officially named on the Maine's Finest Lakes Report, has all of the qualities to be designated as such. When some of the residents questioned it, they were told that it "must have been overlooked". It is high time that someone in authority looked into this matter. The property owners have worked hard to be good stewards of this lake and the land around it so that the many varieties of wildlife that consider this their habitat can exist here and thrive for generations to come. The bald eagles have multiplied over the years here and are already this Spring building their nest again. We watch the adults successfully raise their young and people of all ages watch for the juveniles to take their first flight.

30B

The loons, while not even mentioned in the project application are dependent upon this lake for their food and protection. Remarkably, we have noticed that this lake has been used by migratory flocks of loons in the Fall. They come here to feed and replenish their energy before flying to more Southern locations. It is such a welcome sight to see and be able to count more than 75 visiting loons at that time of year. Yet, there were no studies done to verify such sightings. When someone asked the State Department, they were told that the developer's studies were all that were done for birds and wildlife; that they were the experts. It would seem to me that someone looking out for the welfare of the citizens and the animals that wasn't working for the developer should do their own studies and reports.

30C

The ridges of Partridge Peak, Flathead, and Record Hill have already been cut hard for this wind development. Blasting occurred nearly every day from early October 2009 to mid-January 2010. For as many years as I have lived in this area, I never have sensed such a lack of deer and moose and terrestrial wildlife. Those that are younger than me and that are still able to hunt are so distraught over the destruction. Blasting 20-30 feet off the face of an undisturbed mountain is too much to fathom. I understand that now more blasting will have to be done for the actual bases for these turbines and that what was done so far was only for access roads and crane paths.

30D

Has anyone given any consideration to the fact that the rock composition of these mountains is unique and that the tops of those mountains are within the watershed area of not only this lake but other lakes as well as some major rivers? This is a very rural area; people have shallow wells for their drinking water with most being spring-fed. The water table here is very high and the area is abundant in wetlands and woodland seasonal

↑  
pools. I have seen much in my years here on this earth and I have always hoped that my children, grandchildren, and beyond could enjoy the wild-lands and the forest friends that I have loved.

30E

The joy of a clean lake for swimming and fishing, brings families together and is the reason that many younger families who have to move away for work, spend their entire vacations back here to get away from the business and developed areas they live in the rest of the year. We were devastated about 10-15 years ago when there was a large clearcut done near the Byron end of the lake; the phosphorus load was at a critical level--- I don't know all of the scientific words but the lake was nearly considered "dead". We all vowed that if we were ever fortunate enough to bring it back to a healthy level that we would never let it happen again. Already, people have noticed many of the feeder streams are showing a different type of sand/gravel and as much as we try to get independent studies done, we are told everything is just fine. Well, I have heard that story before.

30F

Please, do your own environmental studies up here before allowing this project to go forward. I tell you, we know what we are talking about. The wildlife, the water, the balance of man and nature is being seriously threatened and it is all about big developers coming in that don't really care about the environment.....our environment!



Leo F. Kersey, Jr.  
March 23, 2011

626 Hancock St.  
Rumford, Maine 04276

1-207-364-2821

**Marhamati, Joseph**

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**From:** denise hall [denisedelighthall@yahoo.com]  
**Sent:** Thursday, March 31, 2011 7:25 AM  
**To:** Marhamati, Joseph; Mcmillen, Matthew C  
**Subject:** Record Hill Wind LLC application should be denied

I live in Western Maine about 30 miles from where this project is proposed. I strongly oppose to the federal government getting involved in wind projects sited for Maine's mountains. These developments are not green power and they are not good for our economy. Power sources need to be placed by the power consumer, not sent up to the wilderness. The Kibby Mt project about 1.5 hours north of me is running at a pathetic 22% of nameplate capacity. It is getting no one off oil. Imagine how much oil it consumes and has consumed.

31A

Humans are leveling mountains in the Western US to ship coal to China. Then short sighted politicians borrow money from the Chinese so useless first generation wind turbines can be bought and shipped across the globe. This is earth killing madness and needs to be stopped!

It is not too late for the DOE to do the right thing and stop supporting an outdated technology that has been proven time and time again to fail. Fails in efficiency, fails in ecology, and fails in economics. There are many other choices for energy dependence. Putting up first generation wind turbine on mountain in the wilderness of New England is not the answer!

Please do the right thing for the planet and the U.S. taxpayers. Deny federal backing for First Wind in Western Maine.

Sincerely,  
Denise Hall  
28 Blackbrook Road  
Bryant Pond, ME 04219

**From:** Denis Bourassa [denisbo@live.com]  
**Sent:** Thursday, February 17, 2011 7:14 PM  
**To:** Marhamati, Joseph  
**Subject:** Record Hill Wind Project in Roxbury, ME

Mr. Marhamati:

32A

I am no way in favor of this wind project on Record Hill in Roxbury Maine. First of all, this is not a hill, but a mountain. The amount of forest that will have to be removed from the mountain for 1: leveling the top of the mountain to support the wind mills, 2: for high tension wire transmitting poles and 3: for roads to access this mountain, would mean an enormous amount of soil run off that would, over time, leach into Little Ellis pond and Ellis Pond, ruining our beautiful ponds for future generations.

Wind generated electric power should be restricted to off shore coastal locations only.

Do not approve this project.

Denis Bourassa  
Livermore Maine  
[DenisBo@live.com](mailto:DenisBo@live.com)

From: Morin-Allen [morinallen@midmaine.com]  
Sent: Thursday, February 24, 2011 9:49 AM  
To: Marhamati, Joseph  
Subject: regard ing Record Hill Loan guarantee

Dear Mr. Marhamati,

First I would like to say that I along with dozens of others have been working on stopping Record Hill Wind turbine project for the last three years. I was viscerally aware of all the wrongness of it and tried for over 18 months of meetings to inform the citizens of Roxbury what the turbines would mean to our little community. How can an under-educated and economically strapped community make such impotent decisions without information? In spite of every effort to have Mr. Angus King and Mr. Rob Gardiner answer the simplest questions, we are still without the answers. What are some of our concerns....

33A

1) This whole project was sold to the people of Roxbury as a means to get jobs....We now can see from the draft of the proposal prepared for you that the number will be from 3 to 5 positions. Our town has given up its soul for 3-5 jobs. What kind of skills will be required and fulfilled by townspeople? I know that people expected more than that.

33B

2) Our town was promised by John Sutton the chair of the town Selectmen, moments before the actual ballot, that we would have a 75% decrease in taxes and free electricity. This is a number which is in your report and which we have on videotape. The town voted by the slimmest of margins to have the turbines. There was difference of about 9 votes. We tried to challenge the vote because of some glaring irregularities during the evening. First, there were over 180 people in a room legally limited to 75. You couldn't move inside, many people could not sit or even get into the room from the minus 15 degree weather outside. We know that some people could not get in to vote. Secondly, more votes were cast than people eligible to vote. Thirdly, requests to examine the ballots in order to challenge the vote was stone-walled by the staff in the town hall, who indicated alternatively that the ballots were "lost" or were sent to the State Capitol in Augusta, both of which were not true. A petition to revote on the issue and signed by more than 90 people was dismissed by Mr. Sutton, who works for a local forest land management company and whose conflict of interest has been raised more than once. I include all of this for your reading pleasure knowing that none of it will stop former Governor Angus King and his business partner, Mr. Rob Gardiner from getting their way. They are too powerful. However, It is OUR tax dollars that are going to secure this loan and we have a right to challenge this expenditure for a project that is NOT wanted by a majority of the people who live in the area. In making your assessment as to the appropriateness of this project, you should know the whole story. While decisions like this are made in Washington, we have to live with it in rural Maine. The proposed project has already split the town in two. Ordinary people living on fixed incomes have donated thousands to fight this fight. We need you to hear us.

33C

3) I read in the draft proposal that one of the benefits was a 75% reduction in taxes. This is a number which has popped up before and which is an unsubstantiated claim. When the State of Maine sent their representative, Mr. Mike Rogers, to discuss this issue, there was no mention of a 75% decrease in taxes and the number he gave was not even close to that. The final reduction was in the area of 34%. it was only after a visit by Mr.Gardiner's lawyers to Mr. Roger's boss that the numbers were changed to show a greater benefit to the townspeople. Where did you get the evaluation of a 75% decrease in taxes and the subsequent impact on Roxbury landowners?

33D

4) Another of the benefits mentioned in your draft was 500 kw of free electricity given by Record Hill Wind to the citizens of the town. This is a bit misleading since the offer has been modified, at least verbally by Mr. Gardiner in two public meetings which I attended. It seems that after the vote was taken, the principals of Record Hill Wind learned that there were 20 "businesses" located in town and these residents who had a business would not be eligible for the free electricity. I do think that would have resulted in 20 less votes for the wind turbines had the citizens with their cottage industry "businesses" known that they would not be included after the fact.

33E

5) In the draft proposal, there is a statement that the turbines will not be seen very much but be hidden by plants and trees etc. I beg to differ with your assessment. The turbines will be seen big as life by everyone who uses Roxbury Pond. We see the met towers very clearly and we will see and hear the turbines. There will be a very big visual impact on the camps at the pond. The assessment seems to indicate that because the camps closest to the turbines are facing the pond that this will negate any impact of the turbines on their views. However, many people spend most of their time outdoors and on the lake. We will be seeing the turbines, everyday and every night, as the blinking strobe lights pollute the formerly dark night time sky.

33F

6) We have been fighting the placement of these turbines next to Ellis Pond, in the court system and are now awaiting the verdict from the Maine Supreme Court regarding the validity of the DEP permit issued to Record Hill Wind. In the application, there was a requirement that Record Hill Wind have sufficient financial backing to carry out the project. They said they did and now because they do not, they are asking the taxpayers to back up their business deal. They have not set aside any money at all from themselves for decommissioning of the turbines, another legal requirement which they have ignored. Lastly we are asking the court to order a public hearing on these issues as well as the paramount issue of noise generation from the turbines. We are asking this because of the inappropriate noise standards which even the DEP admits are not good enough. In our State, there are too many examples already of people whose lives have been dramatically altered by too close turbine placement. We want to avoid that and have collected many hard earned dollars from ordinary citizens to fight Record Hill Wind.

33G

7) The animal studies have always bothered me. I am a neuroscientist by training and am naturally drawn to scientific studies and what they tell us. I find it very disturbing that "post construction evaluation" of animal deaths will somehow be generated. I do not know what purpose such a study will have and in fact, find it ludicrous. Are they somehow going to determine that animals have been killed, moved away from the area or whatever? What exactly does this mean? It is some kind of mumbo-jumbo to placate people who are concerned about the impact of these 400 foot tall towers which are in a major flight path between the lake and the river. Are they going to tell us that the turbines killed the nesting eagles on our lake, eagles who fly in the early spring over Record Hill to get to Swift River on the other side, to feed? Why in the name of all that is sane would the consulting firm a) even bother to evaluate the impact on animals like our loons, since it would be detrimental to their clients and b) how does their telling us about animal deaths, bring back the dead! Those of us who are at Ellis Pond (aka Roxbury Pond) during the Fall and Winter see the loons migrating over the mountain. They will have to make it past the turbines to live. Wind turbines are notorious for bird killing capacity. What will be done when the hunters no longer find game in the related area? Animals who live in the wild depend on sound for their assessment of their surroundings. Have you ever seen the size of the rotating ears of a moose! How will we ever regain the animals in our environment when they move away? How will Stantec ever evaluate that? And why would they?

33H

8) With regards to the actual power produced by the turbines? How do you know that they will be able to produce and SELL that much power? Why would the New England Grid buy the MOST expensive electricity being produced? Isn't that part of the problem right now? There are no interested parties in buying the electricity because the area already has the capacity to produce electricity at a much cheaper rate. The elderly and others on fixed incomes in one of the poorer states, should not be asked to subsidize a Record Hill's business adventure which will raise their electricity bills. Raising the rates to pay for this expensive electricity as well as paying for the new high capacity delivery lines will raise the rates even if the average citizen hasn't realized this as yet.

33I

9) In the opening statement about the purpose of the program, one of the issues is to support new an innovative approaches to energy generation. Wind turbines is not a new approach. It is an approach which is being met with increasingly skeptical evaluation. Why not fund solar power for which there is not sound pollution, destruction of animal and plant habitats and which could be made available to everyone right at their homes? I find this a much more palatable approach to spending federal dollars.

Anne Morin

**From:** Robert Moulton [onsnow@roadrunner.com]  
**Sent:** Friday, April 01, 2011 9:20 AM  
**To:** Marhamati, Joseph; Mcmillen, Matthew C  
**Subject:** wind power

Dear Joseph, and Matthew,

I am writing to express displeasure with federal money being spent on wind power. I have done extensive evidenced based research and investigating on this subject. I own a seasonal residence in a Maine town that has been duped by pseudo science and smooth talking salesmen that have promised pie in the sky benefits from the wind industry. I implore you to listen to the facts and people who have actually experienced the ill effects of wind power, for example, Vinyl Haven Maine residents who live in the shadows. The western mountains of Maine will forever be changed and because of powerful capitalism everyone in authority to do something seems to have had their hands tied.

- 34A
- This power is not green when you evaluate the cost benefit ratio of what has to be destroyed environmentally, nor is it cost beneficial in terms of energy production.
  - The ill health effects cannot be ignored, they are real.
  - Property values as well as tourism losses have not been factored in to the equation.
  - The only benefit is to the wind industry-who will receive non-recourse funding which is basically a multi-multi - million dollar federal grant. A large industry has steam rolled their way into our beautiful state and because we are all so desperate to find alternative power sources we have succumbed to a snake oil type solution.

Please, please do not let this be your mark on the earth-I think you'll be sorry-

Joann Moulton  
PO Box 170  
Hanover, Maine 04237  
(207) 364-3509  
[onsnow@roadrunner.com](mailto:onsnow@roadrunner.com)

**Marhamati, Joseph**

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**From:** Rufus Brown [rbrown@brownburkelaw.com]  
**Sent:** Friday, April 01, 2011 4:25 PM  
**To:** Marhamati, Joseph; Mcmillen, Matthew C  
**Cc:** fryewood@roadrunner.com  
**Subject:** Record Hill Draft EA

Mr. Marhamati and Mr. McMillen:

35A I have been the attorney for property owners near the proposed Record Hill Wind Project for the past 2 years and have represented them before the Maine DEP and the Maine Board of Environmental Protection and before the Maine Law Court. I have substantial information on the risks of excessive noise from the proposed project that is likely to cause not only high annoyance but adverse health effects. I would like the opportunity to bring this information to the attention of the DOE and therefore I support the request of Cathy Mattson for an extension of the comment period.

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