

**STATE OF MAINE
DEPARTMENT OF CONSERVATION
LAND USE REGULATION COMMISSION
IN THE MATTER OF**

TRANSCANADA MAINE WIND DEVELOPMENT INC.)	POST HEARING BRIEF
)	SUBMITTED BY THE
)	CONSOLIDATED PARTIES
KIBBY EXPANSION WIND POWER PROJECT, DP4860 (AMENDED))	(MAINE AUDUBON, THE
)	NATURAL RESOURCES
)	COUNCIL OF MAINE, AND
KIBBY AND CHAIN OF PONDS TWPS. FRANKLIN COUNTY)	THE APPALACHIAN
)	MOUNTAIN CLUB)

I. Introduction

If TransCanada’s application for the Amended Kibby Expansion Wind Power Project is approved as proposed, the project would cause undue adverse impacts to multiple high-priority resource values. It therefore fails to meet the criteria for approval set forth in 12 M.R.S.A. §685-B.4.C, 35-A MRSA §3452, and LURC Land Use Districts and Standards Chapter 10.24. Specifically, the construction of the turbines in the project area and their associated roads would cause undue adverse effects¹ to breeding Bicknell’s thrush (*Catharus bicknelli*), a species endemic to the northeast and one of the highest conservation priorities for the region, and to a documented and ecologically significant occurrence of a rare natural community type. It would also cause an unreasonable adverse impact² to the character of outstanding scenic resources of both state and national significance. While the number of turbines and the adverse impact has

¹ “Adequate provision has been made for fitting the proposal harmoniously into the existing natural environment in order to assure there will be no undue adverse effect on existing uses, scenic character, and natural and historic resources in the area likely to be affected by the proposal.” 12 M.R.S.A. §685-B(2)(C).

² “In making findings regarding the effect of an expedited wind energy development on scenic character and existing uses related to scenic character pursuant to Title 12, section 685-B, subsection 4 or Title 38, section 484, subsection 3 or section 480-D, the primary siting authority shall determine, in the manner provided in subsection 3, whether the development significantly compromises views from a scenic resource of state or national significance such that the development has an unreasonable adverse effect on the scenic character or existing uses related to scenic character of the scenic resource of state or national significance.” 35-A M.R.S.A. §3452(1).

been reduced from the original project, the level of adverse impact remains undue and unreasonable.

II. Smaller Project of the 8 Northern Turbines Meets the Legal Criteria

A. Northern 8 Turbines Would Not Cause Undue Adverse Effect

The project area consists of two ecologically distinct parts – the northern area (containing Turbines 1 through 8) and the southern area (containing turbines 9 through 11). Consistent with our support of other wind power development projects in Maine, we support the construction of the eight turbines and their associated roads in the northern portion of this project area.

Turbines 1 through 7 and the associated access roads lie entirely outside of the mapped extent of the rare Fir-Heartleaved Birch Subalpine Forest Natural community.³ Turbine 8 and its associated road lie within the community, but impact only a small area at the northern tip of it. The impact of Turbine 8 on the community can legitimately be described as “minimal” and is therefore not undue.

This northern part of the project area is located outside of high-quality Bicknell’s thrush habitat, is not now in use by Bicknell’s nor is it likely potential habitat in the future.⁴

Therefore, concern over both habitat loss and risk of collisions with turbines is minimal.

Scenic impacts from the northern eight turbines meet the standards⁵ and would be notably reduced in comparison to the project as proposed. The removal of turbines 9 – 11 would not eliminate the adverse impacts of the project on the Chain of Ponds, including the Public Lands Unit and the Arnold Trail, but it would reduce them below the level of undue adverse impacts.

³ Testimony of W. Donald Hudson, April 21, 2010, Exhibit B; See also Testimony of David Publicover, April 21, 2010.

⁴ See Testimony of Susan M. Gallo, April 21, 2010.

⁵ See Testimony of Catherine B. Johnson, April 21, 2010.

B. Need for Conditions to Mitigate Adverse Impact of Smaller Project

1. Scenic Impacts Would be Adverse

The northern eight turbines would have adverse impacts on scenic resources of state or national significance. However, while those adverse impacts do not rise to the level of being “undue,” they are, nonetheless, significant. Any permit granted should require conditions to mitigate for those adverse impacts. The northern eight turbines would be visible from Arnold and Crosby Ponds and Kibby Stream, as well as from Chain of Ponds, the Chain of Ponds Public Lands Unit, and the Arnold Trail. This is a large number of resources that would be impacted, and there are a similarly large number of users of these resources that would be impacted. All of the ponds that would be impacted are designated “outstanding” - the highest available rating - for scenic character. To avoid incremental degradation of these very high value scenic resources of state or national significance and related uses, the Applicant should be required to provide benefits to scenic resources to compensate for that degradation.

While we acknowledge that there is currently no accepted methodology for determining the appropriate conditions to mitigate for scenic impact, we suggest that a fund in the amount of \$100,000 be made available to the Bureau of Parks and Lands.⁶ This amount could be part of the tangible benefits package that is proposed (although not legally required) for this project. However there should be a nexus between any compensation and the impact on these scenic resources, which is not the case with the proposed payment of \$100,000 to the High Peaks Alliance.

2. Migratory Bird and Bat Impacts Would Be Adverse

If a smaller project consisting of the northern eight turbines is approved, there is a need to incorporate conditions to mitigate for adverse impacts to migratory birds and bats (in addition to conditions to mitigate for adverse scenic impacts) into the approval.

⁶ Testimony, Johnson, p. 11.

As discussed in Susan Gallo's pre-filed testimony, a relatively high number of bird and bat targets would be expected to pass through the rotor swept area during fall migration.⁷ Even though the passage rate is only moderate, the average flight height is one of the lowest recorded in the northeast for forested ridges resulting in an overall high number of targets passing through the rotor swept area each hour.⁸ Though these passage rates may not rise to the level of creating an undue adverse impact, the low altitude of flights over the project area is a concern in terms of the potential for direct mortality. As a result, rigorous post-construction studies should be required, and should be developed by the Department of Inland Fisheries and Wildlife (DIFW) in consultation with the U.S. Fish and Wildlife Service. Strong adaptive management language addressing turbine operations would also be needed in the event that the post-construction studies find high mortality for either breeding birds or migrating birds and bats.⁹

III. Project as Proposed Fails to Meet Standards Requiring No Undue Adverse Impact and No Unreasonable Impact Determination

Although the Applicant has made some modifications to the project to reduce impacts, the proposed project would cause undue adverse impacts to a rare natural community and to high quality Bicknell's thrush habitat and would cause unreasonable impacts to outstanding scenic impacts to resources of state and national significance.

A. Project Would Cause Undue Adverse Impact on Rare Natural Community With Very Limited Extent Within the State

- 1. The Fir-Heartleaved Birch Subalpine Forest is a rare natural community with very limited extent within the state.*

The Fir-Heartleaved Birch Subalpine Forest is classified as S3 (Rare) by the Maine Natural Areas Program. There are only nineteen documented occurrences in Maine covering about

⁷ Testimony, Gallo, pp. 14-15.

⁸ Testimony, Gallo, Exhibit D.

⁹ See Testimony, Gallo.

40,000 acres, or just 0.2% of the state's area.¹⁰ About 86% of the overall extent of this community is found in just five large areas.

2. *The occurrence of this community on Sisk is ecologically significant.*

At 358 acres, the occurrence on Sisk is the 11th largest in the state and more than twice as large as seven of the nineteen documented cases. Community size is ecologically relevant, as larger occurrences are more likely to persist on the landscape and support the full suite of associated species. The Maine Natural Areas Program (MNAP) assessment rated this occurrence as "Good" and noted its undisturbed and natural condition.¹¹ It is large enough to support a breeding population of Bicknell's thrush. Contrary to Applicant's assertion, it is not a minor or ecologically insignificant occurrence.

3. *Testimony presented by the Applicant does not alter the conclusion that the revised project would have an undue adverse impact on this community occurrence.*

In their rebuttal comments, TransCanada makes the following claims that are unsupported or unpersuasive:¹²

- *The impacts to the subalpine community have been significantly reduced and are not undue.*¹³ While we agree that the amended project has reduced the impact, this fact is not relevant to LURC's deliberations. LURC must base its decision on the impacts that remain. The project would still result in direct or indirect impacts to 55 acres or 15% of this community occurrence. As noted in the Consolidated Parties comments on the amended application,¹⁴ this impact would be concentrated in the most ecologically significant high-elevation core of this occurrence.

¹⁰ Letter from Don Cameron, Maine Natural Areas Program, to Marcia Spencer-Famous dated October 12, 2010; Testimony, Publicover, Attachment A.

¹¹ Cameron Letter, p. 1.

¹² TransCanada Rebuttal, October 22, 2010.

¹³ TransCanada Rebuttal, p. 1.

¹⁴ Consolidated Parties Comments, October 12, 2010, p. 5 and Figure 1.

- *Maine Natural Areas Program has characterized the reduction in impacts as “significant”.*¹⁵ Nowhere in MNAP’s comments on the amended project or in their responses to staff questions does MNAP make this characterization. Their comments on the amended application are nearly identical to their comments on the original application, and consist primarily of a description of the anticipated impacts and a recommendation that impacts to the community be minimized. Staff questions provided MNAP an additional opportunity to make such a characterization, but they did not do so, merely referring to their comments as submitted. If they made such a characterization to TransCanada it is not reflected in the record and should not be considered by LURC.
- *The Consolidated Parties’ position is at odds with LURC precedent.*¹⁶ With the exception of the original Kenetech project (which was permitted at a time when the understanding of wind power’s impacts, as well as the state’s policy regarding wind power development, was not well-developed), LURC has never permitted a wind power project within a documented occurrence of a rare natural community. The only project proposed for a rare natural community (Redington/Black Nubble) was rejected by LURC.
- *The project would impact less than 0.2% of the mapped subalpine community in the state.*¹⁷ Any impact can be made insignificant if considered at a broad enough scale. Adopting this standard for wetlands would allow massive and unprecedented wetland impacts across the state. There is no precedent or policy that would allow LURC to permit significant destruction of important natural resources because other examples of those resources exist across the state.

¹⁵ TransCanada Rebuttal, p. 1.

¹⁶ TransCanada Rebuttal, p. 2.

¹⁷ TransCanada Rebuttal, p. 2.

- *The occurrence of subalpine forest on Sisk is not exemplary.*¹⁸ Only four of the 19 documented occurrences of this community are A-ranked (Exemplary) by MNAP, while nine (including Sisk) are B-ranked (Good).¹⁹ The occurrence of Sisk does not meet the standards for an A rank because it is less than the threshold size of 750 acres, and is not surrounded by additional conserved land. To adopt a standard that only A-ranked communities are worthy of consideration by LURC would mean that many undisturbed and natural (i.e. pristine) examples of this and other rare natural communities would be open to destruction. This would clearly be inconsistent with LURC’s previous determination on this project that the community on Sisk is a significant natural resource.
- *S-3 communities do not receive special protection under LURC’s rules.*²⁰ We agree that S-3 communities (such as subalpine forest) do not have the same level of protection under LURC’s rules as the rarer S-1 and S-2 communities. However, this does not mean that they are unworthy of protection or should receive no consideration. Pristine examples of rare (S-3) natural communities are a significant natural resource and clearly should be (and have previously been) considered under the “no undue adverse impact to natural resources” standard of Section 10.24(3) of LURC’s Land Use Districts and Standards.
- *The State’s Comprehensive Wildlife Strategy does not support conservation of this community occurrence.*²¹ The CWCS lists Mountaintop Forest (forested areas above 3,000 feet in elevation) as a distinct key habitat.²² The Fir-Heartleaved Birch Subalpine Forest is a critical component of this high-elevation coniferous habitat. One of the tasks listed under this strategy is to “Initiate efforts to ‘officially’ recognize Bicknell’s Thrush

¹⁸ TransCanada Rebuttal, p.

¹⁹ Testimony, Publicover, Attachment A.

²⁰ TransCanada Rebuttal, p. 2.

²¹ TransCanada Rebuttal, p. 3.

²² See http://www.state.me.us/ifw/wildlife/groups_programs/comprehensive_strategy/table_contents.htm.

and mountaintop habitat as a high conservation priority in public agency and private land-use planning efforts.”²³ As an undisturbed and natural example of this community that is large enough to support a population of Bicknell’s thrush, the occurrence on Sisk is not just another “minor site”.

- *LURC has permitted timber harvesting within other areas of Fir-Heartleaved Birch Subalpine Forest.*²⁴ The statement that LURC has permitted harvesting “above 2,700 feet” is not equivalent to saying it has been permitted within the subalpine forest community. Only one example of harvesting within this particular community has been presented by the applicant (that on MBPL lands), and as noted previously²⁵ the area proposed for harvesting on MBPL lands had already been disturbed by previous harvesting. The temporary impact of harvesting within a previously disturbed example of this community is in no way comparable to the permanent destruction of a portion of a significant natural occurrence of this community. In addition, the fact that harvesting has taken place in other occurrences of this community only reinforces the importance of those occurrences that remain in a natural condition.

4. *The project would impact a significant portion of the mapped occurrence of this natural community.*

Exhibit 3 of the revised application indicates that the project would eliminate, fragment or indirectly impact 45 of the 358 acres of this community (nearly 13%). The estimate of indirect impact is based on a buffer around the project footprint of 50 feet. Though this width was also used by MNAP in their estimate of indirect impacts, under cross-examination Ms. Docherty agreed that this was a minimum estimate, and that the Beginning With Habitat Program (a component of Maine’s Comprehensive Wildlife Conservation Strategy)

²³ Maine’s Comprehensive Wildlife Conservation Strategy, Chapter 5, p. 87.

²⁴ TransCanada Rebuttal, p. 3.

²⁵ Post-hearing rebuttal testimony, Publicover, pg. 4.

recommends a buffer of 250' around roads and developed areas.²⁶ The project would create nearly one-half mile of edge along the high-elevation ridgeline and steep westerly slope exposed to strong prevailing winds and unprotected by any downwind vegetation. These conditions present a “worst-case scenario” for edge effect and warrant the use of a wider buffer. If a 250' buffer is used to estimate the area of indirect impact, then the total area impacted by the project would increase to about 55 acres.²⁷

The destruction, fragmentation or indirect impact of 55 acres of an ecologically significant and pristine occurrence of a rare natural community cannot in any way be considered “minimal”. This is larger than four of the 19 occurrences documented by MNAP. For LURC to determine that this level of impact is acceptable would set a very damaging precedent, as it would be a clear statement that critical parts of the state’s biological heritage are unworthy of protection. Such a position would be in clear contradiction to LURC’s legal mandate and the goals and policies of the Comprehensive Land Use Plan.²⁸

B. Project Would Cause Undue Adverse Impact to Bicknell’s Thrush – A Species Endemic to the Northeast and One of the Highest Conservation Priorities in the Region

The amended project still includes turbines located in the southern portion of the project area, which contains high value breeding Bicknell’s thrush habitat that would be unduly adversely impacted if the project is approved. The project would cause direct habitat loss, would degrade additional habitat, and would pose direct mortality risks.

²⁶ Transcript of May 12, 2010, pp. 321-322.

²⁷ Consolidated Parties Comments, pp. 4-5.

²⁸ The 1997 CLUP’s goal and both policies pertaining to mountain resources emphasize the protection of their significant values (The goals and policies of the 2010 CLUP are similar):

- Goal: “Conserve and protect the values of high-mountain areas from undue adverse impacts.”
- Policy 13: “Regulate high mountain areas to preserve the natural equilibrium of vegetation, geology, slope, soil and climate, to reduce danger to public health and safety posed by unstable mountain areas, to protect water quality, and to preserve *scenic value, vegetative communities*, and low-impact recreational opportunities.” [emphasis added].
- Policy 14: “Identify and protect high mountain resources with particularly high natural resource values or sensitivity which are not appropriate for most development.” pp. 137-138.

1. *Bicknell's thrush is listed in the state of Maine as a species of special concern and is one of the most rare, range-restricted breeding birds in the Northeast.*

Bicknell's thrush is one of the highest conservation priorities in our region,²⁹ and is listed by multiple conservation organizations and government agencies as a species of highest conservation concern.³⁰ Our region (including the northeastern U.S. and southeastern Canada) is the only place in the world where Bicknell's breed, and within our region, Bicknell's thrush are limited to high elevation, stunted spruce-fir forest. Despite a rigorous and thorough search of the extensive primary literature for documentation of successful breeding by Bicknell's thrush in lower elevation regenerating clearcuts in Maine, there is no such documentation and no such studies have been conducted. Results from studies in this habitat type in the industrial highlands of Quebec and New Brunswick simply do not apply to alpine communities in Maine. The restriction of Bicknell's thrush to high elevation "islands" makes them a top priority for conservation on many levels: state, national and international.

2. *Experts have urged caution to avoid development in high quality Bicknell's thrush habitat.*

Experts have urged caution to avoid development in high quality Bicknell's thrush habitat.³¹ In fact, even TransCanada's own expert witness agreed that Dr. Chris Rimmer, who Dr. Vickery identified as someone he highly respected who is "very knowledgeable"³² in the field, says that not just current Bicknell's breeding habitat should be avoided but also "those areas [potential suitable habitat] should be avoided". Dr. Vickery also agreed that this

²⁹ Susan Gallo testified, "Multiple conservation agencies and organizations from state, national and international groups are in agreement that the Bicknell's thrush is a species of global conservation concern, a very high priority, a species of continental concern facing multiple threats." Transcript of May 12, 2010, p. 183.

³⁰ Testimony, Gallo, pp. 6-7.

³¹ Dr. Vickery agreed under oath that Dr. Rimmer is a highly respected expert on Bicknell's thrush and was not surprised to hear that Rimmer's Bicknell's thrush conservation strategy says, "Habitat alterations should be avoided in areas where natural disturbances, either chronic or random, could maintain suitable habitat for Bicknell's thrushes, such area areas including west facing slopes, ridge lines for waves and areas adjacent to waves." Transcript of May 12, 2010, pp. 113-114.

³² Transcript of May 12, 2010, p. 113.

approach “would be preferable.”³³ The July 2010 Conservation Action Plan developed by the International Bicknell’s Thrush Conservation Group (IBTCG) not only identifies industrial development, including wind power, as a population threat³⁴ but also emphasizes the need for immediate action to protect and manage known and potential breeding habitat.³⁵

3. *The amended project would cause undue adverse impact by causing direct habitat loss.*

The amended project would cause undue adverse impact because it would result in an unacceptable amount of direct loss of habitat. The Applicant has significantly underestimated the amount of habitat loss by erroneously limiting its estimate to those areas mapped as “core” habitat.

The Applicant utilized a highly dubious “connect-the-dot” approach to identify “core” habitat which in turn led to a significant underestimate of the amount of habitat used by Bicknell’s thrush and therefore potentially impacted by the project. The IBTCG points out in its Conservation Action Plan that due to its unusual mating system the estimation of breeding densities of Bicknell’s thrush by traditional methods (like spot mapping) is difficult.³⁶ TransCanada’s search areas for their spot-mapping efforts were limited to 10 ha plots around each of six point count locations, so there is no information about Bicknell’s thrush use of habitat beyond these plots. They also made questionable assumptions about Bicknell’s thrush observations on the edges of these search areas. As illustrated by Susan Gallo’s testimony at the hearing,³⁷ if the Applicant’s assumptions are wrong and any Bicknell’s thrush observed actually uses habitat beyond the area searched (that is, the point of observation falls closer to the middle or inner edge of that birds territory), then the impact to the Bicknell’s territory would be significantly greater. As Susan Gallo testified, “Where this bird’s territory falls

³³ Transcript of May 12, 2010, p. 114.

³⁴ Consolidated Parties Comments, October 12, 2010, Appendix A, p. 7.

³⁵ Consolidated Parties Comments, October 12, 2010, Appendix A, p. 16.

³⁶ Consolidated Parties Comments, October 12, 2010, Appendix A, p. 6.

³⁷ Transcript of May 12, 2010, pp. 182-188 and Consolidated Parties Exhibit 1 (Gallo PowerPoint).

relative to the point where it was observed changes the amount of habitat impacted by this project.”³⁸

In addition, given the dynamic nature of Bicknell’s thrush habitat over time, it is highly likely that “core” habitat will shift over time, moving well beyond the current mapped habitat and increasing the area affected by this project.³⁹

Although the revised layout reduces the areas of incursion into Bicknell’s thrush habitat, the remaining area of incursion is the largest and has the highest elevation, making it the incursion with the largest impact.

4. Applicant has completely ignored habitat degradation due to edge effects.

The Applicant has completely ignored the habitat degradation that would occur due to edge effects in its amended application. Dana Valleau admitted under cross examination that the Applicant’s estimate of habitat degradation for the original application only included the direct project footprint⁴⁰ and that the Applicant failed to provide an estimate of the total habitat degradation as a result of the project.⁴¹ Dana Valleau also admitted on cross examination that the habitat directly adjacent to the clearings would change; the light levels would be higher, moisture levels would be lower.⁴² Such disturbance would be much different and much more dramatic than that caused by a logging road or by a natural disturbance.⁴³ Despite these short-comings in the original application, the amended application again omits any mention of additional indirect impact to habitat at the edge. By failing to acknowledge the well-studied and well-documented impacts from edge effects, the Applicant grossly underestimates the amount of lost and degraded habitat.

³⁸ Transcript of May 12, 2010, p. 186.

³⁹ Susan Gallo, Pre-filed Testimony, April 21, 2010, p. 9.

⁴⁰ Transcript of May 12, 2010, p. 107.

⁴¹ Transcript of May 12, 2010, p. 108.

⁴² Transcript of May 12, 2010, p. 108.

⁴³ Transcript of May 12, 2010, p. 187.

5. *Applicant has significantly overestimated the amount of available potential habitat.*

In both the original and the amended application, the Applicant grossly overestimates the amount of potential Bicknell's thrush habitat available on the landscape. Dr. Vickery asserted that there may be as much as 98,000 acres of additional available habitat in Maine.⁴⁴ However, he failed to mention either in his pre-filed testimony or in his direct summary that the study he based this assertion on specifically advises using caution in the application of the model in areas north of 45 degrees latitude.⁴⁵ Dr. Vickery failed to determine whether the project area is north of 45 degrees latitude.⁴⁶ Also, Dr. Vickery based his assertion on studies conducted in Canada where Bicknell's thrush are known to breed at lower elevations.⁴⁷ Dr. Vickery admitted under cross examination that there has been no documentation of Bicknell's thrush breeding successfully in Maine in regenerating clearcuts.⁴⁸ Despite this fantastic discovery that tens upon tens of thousands of potential habitat could be available for this bird of highest conservation value, Dr. Vickery admitted that experts such as the Vermont Center for EcoStudies have not initiated studies in these areas.⁴⁹ In fact, as Dr. Vickery admitted under oath, only a portion of the 98,000 acres could be available as potential under his scenario.⁵⁰

Last, Dr. Vickery and Dana Valleau (in his post hearing comments) based much of their claim about potential habitat on one observation of a Bicknell's thrush in a clearcut in the western mountains. We do not disagree that three Bicknell's thrush, including a female with a brood patch indicative of nesting, were documented in a regenerating clearcut. However, there was no verification that the bird had nested successfully, or that it was actually nesting

⁴⁴ Testimony, Vickery, p. 4.

⁴⁵ Lambert et. al, 2005, p. 9.

⁴⁶ Transcript of May 12, 2010, p. 112.

⁴⁷ Transcript of May 12, 2010, p. 113.

⁴⁸ Transcript of May 12, 2010, p. 111.

⁴⁹ Transcript of May 12, 2010, p. 114.

⁵⁰ Transcript of May 12, 2010, p. 113.

in the clearcut itself rather than in neighboring intact forest. To use only one observation to justify classifying 90,000+ acres as potential habitat is ecologically unsound and misleading. Even if some of the area described by Dr. Vickery is potential habitat, it is likely that regenerating clearcuts would provide lower quality habitat compared to naturally disturbed forests.⁵¹ Lower quality habitat often attracts singing males with little or no chance of successful breeding.⁵²

6. *Applicant is grossly misleading in regard to the risk of collision of Bicknell's thrush with the remaining turbine blades.*

The amended application still places three turbines in or near documented Bicknell's thrush habitat, posing an immediate and undue adverse impact. The Applicant continues to deny the likelihood of collision risks to Bicknell's thrush with the turbine blades. At the public hearing, Dr. Vickery asserted that "it is *unlikely* the males will interact with the turbine blades because the flight displays are *usually* beneath the heights of the blade."⁵³ Dr. Vickery provided no documentation to support his conclusion. As discussed and confirmed by Dr. Vickery at the public hearing, the species account in Birds of North America, Rimmer et al., 2002,⁵⁴ indicates flight songs typically consist of 10 to 15 second flights, 25 to 75 meters (82 to 246 feet) above the ground often in large circles.⁵⁵ If the turbine blades are 119 feet and higher off the ground, it is far from unlikely that the displaying males would fly into the rotor swept area. Even if we rely on Dr. Vickery's account of a personal conversation with Rimmer that the birds don't fly higher than 150 feet above the ground, there is still considerable opportunity for collision with the turbine blades. During their breeding display, the males circle around within the rotor swept area (in circles as large as 100 meters)⁵⁶ and

⁵¹ Rebuttal Testimony of Susan M. Gallo, June 1, 2010, p. 1.

⁵² Rebuttal Testimony, Gallo, p. 1.

⁵³ Testimony, Vickery, p. 10, emphasis added.

⁵⁴ Testimony, Gallo, p. 4.

⁵⁵ Transcript of May 12, 2010, p. 115.

⁵⁶ Transcript of May 12, 2010, p. 116.

would have more than an “unlikely” opportunity to be hit or killed by the rotating turbine blades. In fact, we aver that there would be an undue adverse impact on the Bicknell’s thrush due to risk of direct mortality from the three southern turbines.

C. Southern Turbines Would Have an Unreasonable Adverse Impact on Scenic Resources and Related Uses of State or National Significance

- 1. Outstanding scenic resources in a region recognized for its outstanding scenic beauty would be unduly adversely affected.⁵⁷*

Seven lakes and ponds rated “outstanding” for their scenic beauty by the Wildlands Lake Assessment would be impacted by the proposed turbines. Although not all of those impacts are undue in themselves (i.e. not impacts from turbines 1-8, e.g. on Crosby Pond), they still adversely affect the character of the region’s scenic resources of statewide significance.

Turbines 9 – 11 in particular would be prominently visible from Chain of Ponds and the Arnold Trail. The Chain of Ponds are outstanding in their own right; they also constitute the heart of the Chain of Ponds Public Reserved Land Unit.

The Bureau of Parks and Lands Management Plan for the Chain of Ponds was developed in 2007 by Kathy Eickenberg, Chief of Planning for the Bureau.⁵⁸ While John Titus, Transcanada’s witness, suggested that he was responsible for the development of the plan, Eickenberg’s comments are clear that Titus did nothing more, prior to being transferred to other work in the Bureau, than prepare a Preliminary Plan which included no vision, no analysis of issues, and no management recommendations. The assertions by Titus that the

⁵⁷ 12 M.R.S.A. §685-B.4.C. lists the standard for evaluating scenic impacts as no “undue” adverse effect. The same section further states that “the commission shall consider the development’s effects on scenic character and existing uses related to scenic character in accordance with Title 35-A, section 3452.” Title 35-A M.R.S.A. §3452 lists the standard for evaluation of scenic impacts as no “unreasonable” adverse effect. For purposes of this proceeding, we do not believe there is any significant difference between “undue” adverse effect and “unreasonable” adverse effect. In this proceeding, we use the terms interchangeably.

⁵⁸ Comments by Maine Bureau of Parks and Lands (BPL), Kathy Eickenberg, Chief of Planning, BP&L, May 12, 2010, p. 1.

Chain of Ponds Unit was to be managed for intensive, motorized uses⁵⁹ are simply not accurate and are not supported by the clear language of the plan.

Eickenberg completed the plan in 2007. She notes that the plan describes the area as a “highly scenic 1,041-acre parcel.”⁶⁰ She quotes the plan, stating that the draw of the area for most recreationists is its “wild and scenic” character.⁶¹ She notes that the “Vision and Management Policies for the Flagstaff Region [BPL Plan] (p. 113) begins: ‘The Bureau lands are signature landscapes that draw visitors to the Region in search of a remote recreation experience’ ...and speaks specifically of camping on the sandy beaches of Chain of Ponds; and ends ‘A regional network of ATV trails is enriched by opportunities for touring and camping in remote settings.’”⁶²

The Chain of Ponds region is central to the Arnold Trail experience. Alan Stearns, Deputy Director of the Bureau of Parks and Lands (BPL) stated: “the historic significance of the trail, especially in the study area, is precisely the vast wilderness military march with no structures....”⁶³

All of these scenic resources of state and national significance are located in the area traversed by the scenic byway, also noted for its “outstanding” scenery, and one of only 12 scenic byways in the state.⁶⁴ Therefore, not only are there multiple individual scenic resources of state and national significance, but each of these individually outstanding scenic resources is collectively located in a region that is, itself, noted for its outstanding scenery – that is, outstanding scenic places located in an outstandingly scenic region.

⁵⁹ Testimony of John Titus, April 20, 2010, pp 6, 7, 11.

⁶⁰ BPL Plan, p. 92.

⁶¹ BPL Plan, p. 31.

⁶² Comments by BPL, Eickenberg, p. 1.

⁶³ Comments by Bureau of Parks and Lands, Alan Stearns, Deputy Director, February 26, 2010, p.3-4.

⁶⁴ During the hearing, Palmer suggested that only the scenic pullouts on the scenic byway should be considered. While it is accurate that the law specifies only the pull outs on a scenic bylaw as “resources of state or national significance,” it is also true that the law (35-A M.R.S.A. §3452(3) includes as one of the evaluation criteria: “The existing character of the surrounding area.” The scenic byway and its adjacent, natural, undeveloped forested landscapes is part of the “existing character of the surrounding area” LURC is charged to consider.

2. *The proposed southern turbines would significantly compromise the expectations of users and visitors in the region, who expect to see undeveloped natural beauty.*

Users of the scenic resources of state or national significance and visitors to the region include paddlers, anglers and campers on the Chain of Ponds, ATV riders looking for opportunities for touring and camping in remote settings, history lovers following the Arnold Trail, and tourists exploring the scenic byway.⁶⁵ All of these users expect a beautiful, natural undeveloped area, including lakes and ponds, mountains, and forested landscapes.

Users of Long and Bag Ponds, in particular, would expect a remote-feeling area. From these two ponds, the public road is not visible. On these two ponds, BPL maintains multiple primitive campsites. Transcanada's witness John Titus, noted that these primitive campsites "receive significant use during the spring and fall fishing seasons."⁶⁶ The Bureau of Parks and Lands notes, as one of only four management issues related to recreation and visual resources for the Chain of Ponds Unit, that additional primitive campsites may be appropriate.⁶⁷ Clearly this is a popular and well used area for primitive camping, paddling and angling.

A second recreation and visual management issue to be addressed by BPL on the Chain of Ponds Unit is to work with the existing commercial campground lessee to ensure that the campground "is in character with the scenic and primitive nature of the surroundings..."⁶⁸

3. *The proposed southern turbines would unreasonably adversely affect the scenic resources and related uses.*

In principle, it can be difficult to find a bright dividing line between the last turbine in a string which does not present an undue adverse impact and the first one that does. However, as in the original proposal, the grouping of southernmost turbines loom larger and advance

⁶⁵ See Bureau of Parks and Lands Flagstaff Region Management Plan, p. 31, 92, 95-100, 113, Letter from Maine Historic Preservation Commission, May 6, 2010, Testimony, Johnson, p. 8.

⁶⁶ Testimony of John Titus, April 20, 2010, p. 10.

⁶⁷ BPL Management Plan, p. 100.

⁶⁸ BPL Management Plan, p. 100.

closer to viewers on Chain of Ponds; the “scope and scale” of their impact is greater.⁶⁹ If anything, the effect of these three turbines is greater with the adjustment in location of Turbine 11, which brought the turbine considerably down the slope toward viewers on Chain of Ponds. Some of the turbines are within approximately 3.5 miles of the Chain of Ponds and the Arnold Trail.

During the hearing, Palmer suggested that the Kibby Expansion project might be an example of “concentrating” wind power projects in certain areas in order to limit their adverse impacts on scenic resources. However, he also acknowledged that this region had never been identified as an area where wind should be concentrated, and that simply identifying an area by virtue of multiple incremental decisions was not the best way. In fact, the impacts on ecological and scenic resources resulting from the southernmost three turbines of the amended Sisk Mountain project are greater than those from the existing Kibby project, and lead to the conclusion that the southern end of Sisk Mountain is not an appropriate area for wind development, notwithstanding the fact that it is relatively near the Kibby project.

IV. Conclusion – Project Fails to Meet Legal Criteria

The Applicant has failed to meet its burden⁷⁰ of establishing no undue adverse effect on existing natural resources and no unreasonable or undue adverse effect on scenic character and related uses in its amended application.

The rare natural community, the Fir-Heartleaved Birch Subalpine Forest, found in the southern portion of the project area is very limited in the state and would suffer undue adverse impact if the project is approved. The Sisk community is ecologically significant. The subalpine forest on Sisk Mountain is a good quality example of a rare natural community that has retained an undisturbed and natural condition and provides valuable habitat to one of the state’s rarest

⁶⁹ 35-A M.R.S.A. §3452, sub-§3 (F)

⁷⁰ “The burden is upon the Applicant to demonstrate by substantial evidence that the criteria for approval are satisfied, and that the public’s health, safety and general welfare will be adequately protected.” 12 M.R.S.A. §685-B(2)(4).

wildlife species. For LURC to determine that this occurrence is not sufficiently significant to be worthy of protection under the legal standard would render large parts of the state's biological heritage essentially invisible to the regulatory process.

Despite the lack of adequate information provided in the application, it is clear that the southern portion of the project area comprises breeding Bicknell's thrush habitat. Such habitat is severely limited and Bicknell's thrush is one of the most rare, range-restricted breeding birds in the Northeast and ranks high on the region's conservation priority list. Experts recommend avoiding development in areas such as this with high quality Bicknell's habitat. Locating turbines and their accompanying roads within and adjacent to this habitat would cause direct loss of this habitat, degrade additional habitat, and result in direct mortality to singing males, therefore comprising a significant undue adverse impact.

The amended project as proposed would still have an unreasonable adverse impact on the scenic resources and related uses of state or national significance. This region is recognized for its outstanding scenic beauty and possesses multiple individual scenic resources of state and national significance. The southern most three turbines would most compromise the expectations of users and visitors in the region.

Each of these impacts considered individually would provide sufficient basis to deny the application. In combination, they clearly indicate that the southern portion of the Sisk ridgeline is a "high-mountain resource with particularly high natural resource values or sensitivity which is not appropriate for most development."⁷¹

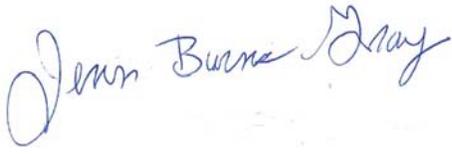
However, the legal standards are met if the project is limited to the eight turbines in the ecologically different northern part of the project area. There are no large blocks of identified unique community type or high quality Bicknell's thrush habitat. The scenic impacts are notably

⁷¹ 1997 CLUP p. 138.

reduced. Conditions to mitigate for adverse scenic impacts and potential adverse migratory birds and bats impacts would be necessary but achievable.

The Applicant has failed to meet its burden of proof and has failed to meet the legal criteria. The southern turbines and associated roads in the amended application would cause undue adverse impact to a large block of rare natural community and to breeding Bicknell's thrush, a species of special concern, and would cause an unreasonable adverse impact to the character of scenic resources of state and national significance and related uses.

Dated: November 17, 2010

A handwritten signature in blue ink that reads "Jennifer Burns Gray". The signature is written in a cursive style with a large initial "J".

Jennifer Burns Gray

Attorney for the Consolidated Parties (Appalachian Mountain Club, the Natural Resources Council of Maine and
Maine Audubon)

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APPENDIX A

CONSOLIDATED PARTY'S PROPOSED KEY FINDINGS OF FACT

1. Subalpine Forest Natural Community

Finding. The Fir-Heartleaved Birch Subalpine Forest natural community is ranked S3 (Rare) by the Maine Natural Areas Program, with only 19 documented occurrences in the state encompassing 40,000 acres in total, or just 0.2% of the state's land area. Eighty-six percent of this total is found in just five areas (Mount Katahdin, the Mahoosuc Range, Bigelow Mountain, Redington/Crocker and Baker/Lily Bay). The Maine Natural Area Program (MNAP) states that this community "should not be considered common anywhere in Maine." (Letter from Don Cameron, Maine Natural Areas Program, to Marcia Spencer Famous dated October 12, 2010, p. 1; Testimony of David Publicover, April 21, 2010, Attachment A)

Finding. The southern portion of the proposed project lies predominantly within an occurrence of this rare natural community documented by the Maine Natural Areas Program. (Kibby Expansion Wind Power Project Amended Application, Exhibit 3)

Finding. The occurrence of the Fir-Heartleaved Subalpine natural community on Sisk Mountain encompasses 358 acres, making it the eleventh largest of the nineteen documented occurrences in the state. It falls within the middle of the size range of documented occurrences outside of the state's largest mountain ranges. The Sisk occurrence is larger than eight of the nineteen documented occurrences and more than twice as large as seven of them. (Letter from Don Cameron, Maine Natural Areas Program, to Marcia Spencer Famous dated October 12, 2010, p. 1; Testimony, Publicover, Attachment A)

Finding. Dr. Hudson for the Applicant opined that there are fifteen additional potential but undocumented areas where this community may occur and estimated that they encompass an additional 8,000 acres. (Testimony of W. Donald Hudson, April 21, 2010, p. 4; Transcript of May 12, 2010, pp. 119-120)

Finding. Inclusion of these additional potential but undocumented areas would bring the total extent of this community to 0.24% of the state – a minor increase that does not diminish the rarity of this community. (Transcript of May 12, 2010, p. 120; Rebuttal Testimony of David Publicover, June 1, 2010, Attachment A)

Finding. Inclusion of these potential areas would increase the number of occurrences to 34, which is at the low end of the range of 20-100 occurrences that are part of the standard for an S3 classification. (Rebuttal Testimony, Publicover, Attachment A)

Finding. Eight of the fifteen potential but undocumented occurrences are smaller than the one on Sisk, which does not change the position of Sisk relative to other occurrences. (Transcript of May 12, 2010, p. 120; Rebuttal Testimony, Publicover, Attachment A)

Finding. The occurrence on Sisk Mountain was assigned an Element Occurrence Rank of "B", or "Good", by MNAP. Of the three elements that go into this ranking (condition, size and

landscape context), the occurrence on Sisk was given the highest ranking for condition, with MNAP noting its undisturbed and natural condition. (Kibby Expansion Wind Power Project Application Vol. II, p. B.15-21; Letter from Don Cameron, Maine Natural Areas Program, to Marcia Spencer Famous dated October 12, 2010, p. 1)

Finding. Other examples of this community in Maine have been impacted by timber harvesting, which reinforces the value of the occurrence on Sisk Mountain as an undisturbed and natural example. (Testimony of Peter Vickery, April 21, 2010, Figure 4; Testimony of Dana Valteau, May 24, 2010, p. 5; Rebuttal Testimony, Publicover, p. 4)

Finding. The size and natural condition of the occurrence of this rare natural community on Sisk Mountain are such that it should be considered an ecologically significant occurrence. (Testimony, Publicover, p. 4)

Finding. The fact that this community may occur outside of Maine is irrelevant in this proceeding. Many rare species and communities are more common outside the borders of Maine (including Canada lynx and alpine habitat). LURC's responsibility is to the resources within its jurisdiction. No legal basis exists for LURC to minimize its responsibility to protect rare or significant natural resource values because of the presence of these resources outside of the state. (Rebuttal Testimony, Publicover, p. 2)

Finding. As documented by the Applicant, the project would eliminate, fragment or indirectly impact 45 of the 358 acres of this rare community occurrence, or nearly 13% of its extent. (Testimony, Cinnamon/Valteau, Exhibit D)

Finding. The Applicant's estimate of project impacts assumes an indirect impact ("edge effect") zone of only 50 feet around the actual project footprint. This estimate is conservative. (Testimony, Cinnamon/Valteau, Exhibit D; Transcript of May 12, 2010, p. 321; Testimony, Publicover, p. 9; Rebuttal Testimony, Publicover, p. 3)

Finding. Maine's Beginning with Habitat Program uses a buffer of 250' around developed areas and roads of similar scale to those in the project. Using this state-published and approved methodology would result in an estimate of total direct and indirect impact of 55 acres, or over 15% of the mapped extent of the community. (Transcript of May 12, 2010, pp. 321-322; Rebuttal Testimony, Publicover, pp. 3-4)

Finding. The National Academy of Sciences, in a study of the ecological effects of wind-energy projects, concluded (page 91): "it is likely that wind energy facilities will adversely alter ecosystems indirectly, especially through the following cumulative impacts:

1. Forest clearing resulting from road construction, transmission lines leading to the grid, and turbine placements represents perhaps the most significant potential change through habitat loss and fragmentation for forest-dependent species. This impact is particularly important in the Mid-Atlantic Highlands, because wind-energy projects there all have been constructed or proposed in forested areas.
2. Changes in forest structure and the creation of openings may alter microclimate and increase the amount of forest edge.
3. Plants and animals throughout the ecosystem respond differently to these changes, and particular attention should be paid to species listed under the ESA and species of concern

that are known to have narrow habitat requirements and whose niches are disproportionately altered.”
(Testimony, Publicover, p. 10)

Finding. Significant adverse impacts to this rare natural community are limited to the southernmost three turbines and the associated access roads. The northern seven turbines would lie outside the mapped extent of the community, and Turbine 8 and its associated access road impact only a small area at the northern tip of the mapped occurrence. (Kibby Expansion Wind Power Project Amended Application, Exhibit 3)

Finding. The original Kibby project was purposefully and successfully designed to avoid impact to the documented occurrence of this community on Kibby Mountain (614 acres), which also had an Element Occurrence Rank of “B” (Good). TransCanada has applied a less stringent standard to protection of this community in this project as compared to the original Kibby project. (Kibby Wind Power Project Application, April 2007, p. 7-1; Kibby Expansion Wind Power Project Application Vol. I, p. B.6-6 and Vol. II, p. B 15-1; Transcript of May 12, 2010, pp. 100-101; Testimony, Publicover, pp. 11-12)

Finding. Peer-reviewed paleoecological research has documented that the elevational distribution of subalpine forest in the White Mountains (NH) has remained relatively stable for 9,000 years despite significant changes in regional climate and lower-elevation vegetation. Spruce-fir forest was eliminated from low elevations during a previous major warming period between 9,000 and 4,000 years before present following the retreat of the last glacier. Dr. Hudson confirmed that the subalpine forest of Maine has persisted for thousands of years in the areas in which it is found. (Testimony, Publicover, pp. 7-8; Transcript of May 12, 2010, p. 120)

Finding. Peer-reviewed climate/vegetation modeling indicates that areas capable of supporting spruce-fir forests will likely contract again to just the mountainous regions of northwestern Maine and northern New Hampshire as the climate warms over the coming century, even under relatively conservative assumptions about the projected increase in atmospheric CO₂. (Testimony, Publicover, p. 7 and Attachment B)

Finding. Protecting important ecosystems of sufficient size and geographic distribution is an important and well-documented adaptation strategy for climate change. In a presentation made by Alec Giffen to LURC on the “Great Maine Forest Initiative/Keeping Maine’s Forests” on April 7, 2010 he included as one aspect of the vision of this effort “Facilitat[ing] the adaptation of forest ecosystems to a changing climate.” (Testimony, Publicover, p. 7)

Finding. Subalpine forests in northwestern Maine will have an important adaptive role in a future warmer climate. Areas such as Sisk Mountain are likely to maintain spruce-fir habitat on the landscape at a time when this habitat has been greatly reduced or eliminated at lower elevations, and will serve as refugia for species dependent on this habitat. (Testimony, Publicover, p. 8)

Finding. The Commission did not approve the proposed Black Nubble wind project, which would have impacted an occurrence of this rare community of 316 acres with an Element Occurrence Rank of “B” (Good), finding that “the project as proposed would alter and cause an undue adverse impact on a particularly sensitive area.” (LURC Decision, ZP 702, p. 67)

Finding. The AMC did not “support” the Granite Reliable Power project in New Hampshire, as falsely claimed by TransCanada. In cooperation with NH Fish and Game Department, AMC withdrew its opposition after the Applicant agreed to a \$2.3 million mitigation package that directly compensated for the Project’s serious habitat impacts. In contrast, this project only proposed \$100,000 to be used in the Caribbean and that proposed mitigation has now been withdrawn (Transcript of May 12, 2010, pp. 225-227; Kibby Expansion Wind Power Project Amended Application, p. 2).

2. Bicknell’s Thrush

Finding. Bicknell’s thrush is one of the highest conservation priorities in our region and is listed by multiple conservation organizations and government agencies as a species of highest conservation concern. (Transcript of May 12, 2010, p. 183; Susan M. Gallo Testimony, April 21, 2010, pp. 6-7)

Finding. TransCanada’s breeding bird survey report states that Bicknell’s thrush is among North America’s most rare, range-restricted breeding passerines, at greatest risk of extinction and therefore of highest continental conservation concern. (BRI Breeding Bird Survey Report for the Sisk Mountain Wind Power Project, Appendix F at 99)

Finding. Our region (including northeastern United States and southeastern Canada) is the only place in the world where Bicknell’s thrush breeds. (Testimony, Gallo, p. 6)

Finding. Bicknell’s thrush is a species of global conservation concern and is at substantial risk of being listed under the Endangered Species Act, if appropriate measures are not taken. (Testimony, Gallo p.6)

Finding. The Department of Inland Fisheries and Wildlife’s Comprehensive Wildlife Conservation Strategy identified Bicknell’s thrush as one of the only 12 bird species of very high priority on the list of Species of Greatest Conservation Needs, which indicates high potential for state extirpation without management intervention and/or protection. (Testimony, Gallo, p. 6)

Finding. High-elevation songbird monitoring programs have indicated declining populations of Bicknell’s thrush, especially in the core parts of their breeding range where this project is located. (Consolidated Parties Comments, p. 8)

Finding. The International Bicknell’s Thrush Conservation Group’s (IBTCG) “Conservation Action Plan for Bicknell’s Thrush” released in July of 2010 recognizes that industrial development, including the construction and operation of wind power and telecommunications facilities and recreational skiing “threaten to remove, fragment or alter habitat.” (Consolidated Parties Comments, p. 8)

Finding. Within our region, Bicknell’s thrush is limited to high elevation, stunted spruce-fir forest. (Testimony, Gallo p. 4)

Finding. Despite a few isolated observations of Bicknell’s thrush in regenerating clearcuts at lower elevations, there is no peer-reviewed scientific evidence that Bicknell’s thrush breed successfully in Maine in this habitat type. (Transcript of May 12, 2010, p. 111)

Finding. Experts have urged caution to avoid development in high quality Bicknell's thrush breeding habitat. Chris Rimmer of the Vermont Center for Ecostudies, has recommended that "Habitat alterations should be avoided in areas where natural disturbance, either chronic or random, could maintain suitable habitat for Bicknell's Thrushes. Such areas include west-facing slopes, ridgelines, fir waves, and areas adjacent to fir waves." (Transcript of May 12, 2010, pp. 113-114)

Finding. TransCanada's own expert witness agreed that it would be preferable to avoid under all possible circumstances habitat alterations in areas where natural disturbances, either chronic or random, could maintain suitable breeding habitat for Bicknell's thrush. (Transcript of May 12, 2010, p.114)

Finding. The IBTCG Conservation Action Plan states that estimation of breeding densities of Bicknell's thrush by traditional methods (like spot mapping) is difficult due to its unusual mating system. (Consolidated Parties Comments on Amended Proposal, p. 9)

Finding. The Applicant's spot mapping efforts were limited to 10 ha plots around each of six point count locations, providing no information about Bicknell's thrush use of habitat beyond these plots. (Transcript of May 12, 2010, pp. 182-188; Consolidated Parties Exhibit 1 (Gallo Powerpoint))

Finding. Where the Bicknell's thrush's territory falls relative to the point it was observed changes the amount of habitat impacted by the project. If the Applicant's assumptions are wrong and any observed Bicknell's thrush actually uses habitat beyond the search area, then the impact to the Bicknell's territory would be significantly greater than the Applicant asserts. (Consolidated Party Comments, pp. 11-12)

Finding. Five acres of habitat loss is a gross underestimate of the amount of lost and degraded habitat as a result of the amended project. The Applicant has failed to acknowledge the well-studied and well-documented impacts from edge effects. (Consolidated Party Comments on Amended Application, pp. 9-12)

Finding. Disturbance caused by edge effects would be much different and much more dramatic than that caused by a typical small-scale logging road or by a natural disturbance. (Testimony, Gallo p. 11)

Finding. Applicant's expert admitted that the habitat directly adjacent to the clearings would change and that the Applicant's estimate of habitat degradation failed to include habitat degradation due to edge effects. (Transcript of May 12, 2010, p.187, pp.107-108)

Finding. Applicant grossly overestimated the amount of potential Bicknell's thrush habitat available on the landscape. (Rebuttal Testimony, Gallo pp. 1-4)

Finding. Dr. Vickery's assertion that there are 98,000 acres of additional available habitat in Maine is based on a study that advises using caution when applying the habitat model in areas north of 45 degrees latitude. (Lambert et. al, 2005, p. 9; Transcript of May 12, 2010, p. 112)

Finding. Sisk Mountain is north of 45 degrees latitude. (Official notice, Delorme Atlas of Maine)

Finding. Dr. Vickery admitted that only a portion of the 98,000 acres would be available as potential habitat. (Transcript of May 12, 2010, pp. 111-114)

Finding. Studies Dr. Vickery references to support claims that Bicknell's thrush use regenerating clearcuts were conducted in Canada where Bicknell's thrush is known to breed at lower elevations than in Maine. (Transcript of May 12, 2010, p. 112)

Finding. Dr. Vickery admitted that there is no documentation of Bicknell's thrush breeding successfully in Maine in regenerating clearcuts. (Transcript of May 12, 2010, p. 111)

Finding. Dr. Vickery admitted that the Vermont Center for EcoStudies, that houses the leading experts in the field, has not initiated research into regenerating clearcuts in Maine. (Transcript of May 12, 2010, p. 114)

Finding. Even if some of the "available" habitat is truly available potential habitat, it is very likely that it would provide lower quality habitat compared to naturally disturbed forests. Lower quality bird habitat often attracts singing males with little or no chance of successful breeding. (Rebuttal Testimony of Susan M. Gallo, June 1, 2010, p. 1)

Finding. There would be considerable opportunity for male Bicknell's thrush to collide with blades from the three southernmost turbines, causing direct mortality. (Consolidated Party Comments on Amended Proposal, p. 13)

Finding. The northern part of the project area, consisting of turbines 1 through 8, does not contain high-quality Bicknell's thrush habitat, is not now in use by Bicknell's thrush, and it not likely potential future habitat. Concern over habitat loss and risk of collisions with turbines during the breeding season is minimal. (Testimony, Gallo, p. 3)

Finding. Even though the migration passage rate for birds and bats over the project area is only moderate, the average flight height is one of the lowest recorded in the northeast for forested ridges, resulting in an overall high number of targets passing through the rotor swept area per hour. (Testimony, Gallo, Exhibit D)

Finding. A northern eight turbine only project would need to incorporate conditions to mitigate for adverse impacts to migratory birds and bats as a relatively high number of bird and bat targets would be expected to pass through the rotor swept area during fall migration. (Testimony, Gallo, pp. 14-15)

Finding. Though the migration passage rates do not rise to the level of creating an undue adverse impact, the low altitude of flights over the project area is a concern in terms of the potential for direct mortality. As a result, rigorous post-construction studies should be required and should be developed by the Department of Inland Fisheries and Wildlife in consultation with the U.S. Fish and Wildlife Service. (Testimony, Gallo, pp. 14-15)

Finding. Strong adaptive management language addressing turbine operations is needed in the event that the post-construction studies find high mortality for either breeding birds or migrating birds and bats. (Testimony, Gallo p. 15)

3. Scenic Character and Uses Related to Scenic Character

Finding. Seven ponds (Round, Natanis, Long, Bag, Lower, Crosby, and Arnold) rated Class 1A indicating that they have two or more “outstanding” values of statewide significance are within 8 miles of the proposed project. (Testimony of Catherine Johnson, April 21, 2010, pp. 3, 4)

Finding. Seven ponds (Round, Natanis, Long, Bag, Lower, Crosby, and Arnold) are rated “outstanding” for their scenic value by the Wildlands Lakes Assessment. (Testimony, Johnson, pp. 3, 4)

Finding. The five ponds comprising the Chain of Ponds have “outstanding” scenic value, physical features, fisheries, wildlife, significant shoreline character and cultural features. (Testimony, Johnson, pp. 3, 4)

Finding. Chain of Ponds are used by the public for camping, fishing and paddling. (BPL Management Plan, p. 92, 95 - 100; Testimony, Johnson, p. 4)

Finding. Chain of Ponds is known for its “highly scenic character” including its “rugged landscape” and “mountain summits and ridges surround[ing] the narrow ribbon of water.” (BPL Management Plan, p. 92; Comments, Kathy Eickenberg, May 12, 2010, p. 1)

Finding. The Chain of Ponds Public Lands Unit located on the northern and eastern shores of Chain of Ponds is noted for its “highly scenic” character. (BPL Management Plan, p. 92; Comments, Eickenberg, p. 1)

Finding. The Chain of Ponds Public Lands Unit is managed for its “wild and scenic” character, its primitive nature, and for its remote-feeling recreation experiences, valued by all types of recreationists, including ATV users. (BPL Management Plan, p. 31, 100, 113; Comments, Eickenberg, p. 1; Testimony, Johnson, p. 8)

Finding. Users of Chain of Ponds expect to see undeveloped mountains and forests and completely dark night skies. (Testimony, Johnson, p. 6)

Finding. The Benedict Arnold Trail to Quebec Historic District is listed on the National Register of Historic Places. (Letter, Kirk Mahoney, May 6, 1012, p.1)

Finding. The undeveloped wilderness character and the mountains, bodies of water, and forested landscapes of the Chain of Ponds region through which the Arnold Trail passes are important aspects in determining the “integrity” of the historic trail. (Letter, Mahoney, p. 2; Comments by BPL, Alan Stearns, Feb. 26, 2010, pp. 3-4)

Finding. The seven “outstanding” scenic ponds and the Arnold Trail are located in an area traversed by a scenic byway, also noted for its “outstanding” scenery, and one of only 12 scenic byways in the state. (BPL Plan, p. 92; Testimony, Johnson, p. 5)

Finding. Route 27 is not visible from Long and Bag Ponds. (Transcript of May 12, 2010, p. 128)

Finding. The proposed turbines would be most certainly prominent by any definition from the southern end of Long Pond. (Review of the Kibby expansion Wind Project Aesthetic Impact Assessment, James F. Palmer, April 16, 2010, p. 8; Testimony, Johnson, pp. 7-8)

Finding. The proposed turbines are prominent from the southern end of Natanis Pond, all of Long Pond and the western half of Bag Pond. (Summary Review of the Kibby Expansion Project Aesthetic Impact Assessment, James F. Palmer, Sept. 24, 2010, p. 4; Comments of the Consolidated Parties, Oct. 12, 2010, p. 16 – 17; Testimony, Johnson, pp. 7-8)

Finding. The southern three turbines would be within three and a half miles of the Chain of Ponds, the Arnold Trail, and the Public Lands Unit. (Comments, Consolidated Parties, p. 16 – 17)

Finding. The northern eight turbines would be further from the Chain of Ponds than the southern three turbines. (Testimony, Johnson, p. 7 and Attachment C-2)

Finding. Adverse scenic effects from the northern eight turbines would be notably less than from the southern three turbines. (Comments, Consolidated Parties, p. 17 – p. 19)

4. Summary

Finding. LURC's 1997 Comprehensive Land Use Plan contains numerous references to the values and sensitivity of high mountain areas:

- “Mountain areas” are specifically listed among the “unique, high-value natural resources” included in the principal values of the jurisdiction. Throughout the document mountains are consistently listed as one of the specific resources that give the jurisdiction its special character.
- The goal and both policies pertaining to mountain resources emphasize the protection of their significant values:
 - Goal: “Conserve and protect the values of high-mountain areas from undue adverse impacts.”
 - Policy 13: “Regulate high-mountain areas to preserve the natural equilibrium of vegetation, geology, slope, soil and climate, to reduce danger to public health and safety posed by unstable mountain areas, to protect water quality, and to preserve *scenic value, vegetative communities, unique wildlife communities* and low-impact recreational opportunities.” [italics added]
 - Policy 14: “Protect high-mountain resources with particularly high natural resource values or sensitivity which are not appropriate for most development.”(Testimony, Publicover, p. 5)

Finding. The third criteria for approval of permit applications set forth in 12 MRSA §685-B.4.C and LURC Land Use Districts and Standards Chapter 10.24, states that LURC cannot approve a Project unless “*Adequate provision has been made for fitting the proposal harmoniously into the existing natural environment in order to assure there will be no undue adverse effect on existing uses, scenic character, and natural and historic resources in the area likely to be affected by the proposal.*” (12 MRSA §685-B.4.C; LURC Land Use Districts and Standards Chapter 10.24)

Finding. The record shows the project area encompassing Turbines 9 through 11 has significant value in the areas of scenic quality, rare vegetation communities and unique wildlife

communities, and meets the terms of “high-mountain resources with particularly high natural resource values or sensitivity.”

Finding. The construction of Turbines 9 through 11 would have an undue adverse impact on an ecologically significant occurrence of the rare Fir-Heartleaved Birch Subalpine Forest natural community, on significant breeding habitat for Bicknell’s thrush, and on outstanding scenic resource values. (Testimony, Publicover, p. 12; Testimony, Gallo, p. 16; Testimony, Johnson, p. 11; Consolidated Party Comments on Amended Proposal)