STATE OF MAINE

LAND USE REGULATION COMMISSION

IN THE MATTER OF DP 4860

In Re: TransCanada's Amended Kibby Expansion Project (KEP)	]]]]	**Friends of the Boundary Mountains'** Brief

The Commission's Responsibility

The Maine Legislature has delegated to LURC the considerable responsibility of deciding which wind projects in the expedited area should be approved and which should be denied. Unfortunately, a perception has arisen in certain circles that the Legislature has decided that LURC *must* approve wind projects in the expedited area. To correct this misperception, the Friends of the Boundary Mountains will briefly review the Maine Wind Energy Act, 35-A MRSA §3401 *et seq*, to demonstrate that the Legislature clearly provides in the statute that the Commission should only approve those wind projects that conform to *all* of the applicable regulatory requirements.

In the very first sentence of its Legislative Findings in the Maine Wind Energy Act, the Legislature plainly states that while it wants to encourage wind development, it only wants to do so "**where appropriate**" and "**in a manner that is consistent with *all* state and federal environmental standards.**" 35-A MRSA § 3402 (emphasis added). The Legislature made only three changes to "the State's regulatory process for determining the environmental acceptability of wind energy developments" in the expedited areas and left ***all*** the other existing standards in full force and effect. 35-A MRSA § 3402 (2). The three changes the Legislature made in the

Maine Wind Energy Act are:

1. **Permitted Use.** The Legislature made wind development a permitted use in the expedited wind area. Making wind development a permitted use allows a developer to apply for a wind development permit in the expedited areas but it does not guarantee that the permit will be granted. For example, if a developer applies for a commercial permit in a zone that permits commercial uses, the developer will still have to prove that the proposed commercial development conforms to all the applicable standards, such as "harmonious fit," setbacks, parking, lot coverage, etc. If the proposal fails to conform to any of the applicable standards, the permit must be denied. Similarly, when the Legislature made wind development a permitted use in the expedited areas, it only allowed developers to apply for wind development permits; each particular wind proposal must conform to all the applicable standards or the permit must be denied.

2. **Expedited Process.** The Legislature "refin[ed] certain procedures" of the DEP and LURC by setting time limits on processing applications for wind development projects in the expedited areas. This change only affects how long the agency has to make its decision; it does not affect what the decision will be. A timely denial promotes the state's goal of promoting wind development by helping a developer avoid wasting time and resources on a site that is not appropriate for wind development.

3. **New test for scenic impacts.** Recognizing that wind turbines "...are potentially a highly visible feature of the landscape..." that can "compromis[e] 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 the scenic character of that resource," 35-A MRSA § 3402 (2)(C), the Legislature adopted specific standards for LURC to follow when judging the scenic impact of a proposed wind project.[1] If a proposed wind development fails to conform to these new scenic standards, the permit must be denied.

Thus a review of the changes the Legislature made to the permitting process for wind development projects conclusively shows that the Legislature delegated to the DEP and LURC the responsibility of determining which wind development proposals should receive permits and which should be denied. Concerned that its emphasis on scenic impacts might diminish the importance of the other already-existing environmental standards, the Legislature specifically

states in the Wind Energy Act that: "Nothing in this section is meant to diminish the importance of addressing as appropriate site-specific impacts on natural values including, but not limited to, wildlife, wildlife habitats and other environmental values." 35-A M.R.S.A. § 3402 (2).

The way the Commission is supposed to determine which wind proposals should be granted a permit and which should be denied is by applying the applicable standards to the proposed project so the Commission can adjudicate whether or not the proposed project conforms to all the applicable standards. This is generally called applying the "standard of review" to the evidence submitted to the Commission during the hearings. Before proceeding to our argument on why the TransCanada proposal to expand the Kibby project should be denied, FBM would like to highlight specific parts of the "standard of review" that are particularly important to this proceeding.

Standard of Review

The burden of proof is on TransCanada. The burden of proof in this proceeding is entirely on TransCanada: "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 (4). FBM has no burden to prove anything; if the project fails to conform to even a single review criteria, the Commission must, as a matter of law, deny the application.

TransCanada must prove "harmonious fit." Amongst other statutory and regulatory criteria, TransCanada must (with the exception of scenic characteristics modified by 35-A

[1] These new standards are codified at 35-A M.R.S.A. § 3452 and discussed in more detail later in this brief at pages 4-5, *infra*.

MRSA § 3452, which is discussed below) demonstrate that:

> Adequate provision has been made for fitting the proposal harmoniously into the existing natural environment in order to ensure 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 (4)(C).

Concerned that any given wind project will be "... a highly visible feature of the landscape..." that has the potential to create "an unreasonable adverse effect on the scenic character or existing uses related to the scenic character of that resource" 35-A MRSA § 3402 (2)(C), the Legislature adopted the Expedited Permitting of Grid-Scale Wind Energy Development Act (hereafter "Expedited Wind Statute"), 35-A MRSA § 3451 *et seq*. That statute has a more precise and rigorous standard for determining undue adverse impacts on scenic characteristics than contained in the more general 12 MRSA § 685-B (4)(C) criteria. 35-A MRSA § 3452 (1) directs the Commission to determine "... 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..." id. In making this determination, the statute requires the Commission to consider:

A. The significance of the potentially affected scenic resource of state or national significance;

B. The existing character of the surrounding area;

C. The expectations of the typical viewer;

D. The expedited wind energy development's purpose and the context of the proposed activity;

E. The extent, nature and duration of potentially affected public uses of the scenic resource of state or national significance and the potential effect of the generating facilities' presence on the

public's continued use and enjoyment of the scenic resource of state or national significance; and

F. The scope and scale of the potential effect on views of the generating facilities on the scenic resource of state or national significance, including but not limited to issues related to the number and extent of turbines visible from the scenic resource of state or national significance, the distance from the scenic resource of state or national significance and the effect of prominent features of the development on the landscape.
35-A M.R.S.A. § 3452

This aspect of the Expedited Wind Statute ***only*** affects review of **scenic** impacts; the traditional "harmonious fit" criteria in 12 MRSA § 685-B (4)(C) "on existing uses, ... natural and historic resources" remains intact.

"Undue" adverse effects are not allowed. One of the Commission's most difficult tasks when reviewing a wind development application is determining if a project's adverse effects are "undue." When it first dealt in 1973 with the issue of how to judge if an adverse environmental impact is unreasonable, the Maine Supreme Court said:

> While most such developments may be expected to "affect" the environment adversely to the extent that they add to the demands already made upon it, it is the unreasonable effect upon existing uses, scenic character and natural resources which the Legislature seeks to avoid by empowering the Commission *to measure the nature and extent of the proposed use against the environment's capacity to tolerate the use. In re Spring Valley Dev.*, 300 A.2d 736 at 751 (Me 1973) (emphasis added).

Years later in 2009, the Maine Supreme Court, citing *Spring Valley* with approval, clarified that measuring the project against its adverse effects is a fact specific inquiry that cannot be done with any one simple formula because it requires examining the totality of all the circumstances:

> *In re Spring Valley Development* underscores that a reasonableness determination is a fact-specific inquiry. See also [citation] ("[W]e have treated reasonableness as

> a function of the facts of cases so various that no template is likely to produce sounder results than examining the totality of circumstances in a given case....").
> *Uliano v. Board of Environmental Protection* 977 A.2d 400, 409 -410 (Me. 2009)

In examining the "totality of the circumstances" to determine if the adverse impacts of TransCanada's project are "undue," there are two aspects of the examination that are critical.

First, the Commission needs to consider the cumulative impact of the minor alterations just as much as the more noticeable major alterations. For example, when it reviewed the DEP's evaluation of the Rollins wind project, the Maine Supreme Court noted:

> Agency rules provide that "[e]ven if the activity has no practicable alternative, and the applicant has minimized the proposed alteration as much as possible, the application will be denied if the activity will have an unreasonable impact on ... subject wildlife." 2 C.M.R. 06 096 335-2 § 3(C) (2010). An "unreasonable impact" means "that one or more of the standards of the NRPA at 38 M.R.S.A.[ ] § 480-D will not be met." Id. In making this determination, the Department "considers the area of the significant wildlife habitat affected by the activity, including areas beyond the physical boundaries of the project *and the cumulative effects of frequent minor alterations of significant wildlife habitats*." Id. *Friends of Lincoln Lakes v. Board of Environmental Protection* 989 A.2d 1128, 1136 (Me 2010) (emphasis added).

See also *Hannum v Bd of Environmental Protection* 898 A2d 392, 395-396 (Me 2006) (although proposed pier would not have an unreasonable adverse impact on marine life, the impact becomes unreasonable when combined with the increased boat traffic the pier would cause). This Commission administers the Natural Resources Protection Act ("NRPA") in the unorganized territories similarly to how the DEP administers it in the organized territories. 38 MRSA § 480-E-1. The Maine Supreme Court has recognized that NRPA's protection of natural resources "rests on the Legislature's finding that 'the *cumulative effect* of frequent *minor*

alterations and occasional major alterations of [protected natural resources] poses a substantial threat to the environment and economy of the State and its quality of life.' 38 M.R.S.A. § 480-A." *Uliano*, *supra*, at 413 (emphasis added).

In considering the cumulative effect of many minor alterations, the Commission should take advantage of the many state and federal agencies that have commented on the project. Although occasionally a project might be so egregious that an agency will oppose it outright, the proper role of the outside agencies is not to either approve or disapprove a project but, rather, to provide helpful information within its expertise to the Commission. It is emphatically the role of the Commission to make the ultimate judgment call on whether a project's cumulative impacts are "undue." By receiving input from many agencies, the Commission can aggregate all the different comments together to get a "total picture" of the project's combined effects. It is the Commission – and only the Commission – that makes the ultimate determination of whether a project's adverse impacts are "undue" because it is only the Commission that sees the "totality of circumstances" as required by the Supreme Court.

Second, measuring "*the nature and extent of the proposed use against the environment's capacity to tolerate the use*" requires an evaluation of the proposed use as well as an evaluation of its impacts. While there may be some environmental impacts that are so egregious that no project can justify them, most cases require the Commission to engage in a difficult balancing of the benefits of the project against the adverse effects of the project[2]. The more beneficial the project the more tolerable the adverse environmental impacts. For example, adverse impacts

[2] For example, LURC's Chapter 10 § 10.25 (P)(3) requires a balance between the adverse "cumulative impacts on the resource" and "the type and degree of benefit from the activity (public, commercial or personal)."

from a wind project that significantly advances the Legislature's wind energy goals are more tolerable than a wind project that can do little to advance Maine's wind energy goals.

TransCanada's application is unique in this State because it seeks to expand an existing wind development. Thus, unlike a new wind development where this Commission must rely upon projections of future performance, this Commission has available to it *hard data* on how the Kibby wind development has actually performed. In measuring the benefits of the project, the Commission should let the "data speak for themselves" about how much this project will, if approved, advance the State's wind energy goals. If the benefits of the project do not outbalance its adverse impacts the impacts are "undue."

High Mountain areas are especially fragile and need protection. In a standard that is especially important in high mountain developments, LURC's statute also requires TransCanada to show that, "The proposal will not cause unreasonable soil erosion or reduction in the capacity of the land to absorb and hold water..." 12 M.R.S.A. § 685-B (4)(D). The 2010 CLUP, in its "Mountain and Soil Resources", confirms that one of the greatest threat to the fragile environment above 2700 feet is the impact of erosion from road construction. See also 1997 CLUP Chapter 3, especially page 56.

Vernal Pools must be mapped accurately. The Commission now recognizes the importance of vernal pools to Maine's environment. As stated in the 2010 CLUP at page 301:

> Over the past decade, awareness of the extent and significance of vernal pools in Maine has grown. Vernal pools are small, temporary pools in shallow depressions in uplands, wetlands and floodplains that fill with water in spring and dry up in summer. Vernal pools are fishless, making them critically important to the successful breeding of amphibians such as salamanders and frogs.

> They also support many water dependent species and are important stepping-stones for wetland-dependent wildlife traveling across the landscape. The characteristics of vernal pools vary considerably based on factors such as landscape setting, surficial geology, soil type and surrounding vegetation. While the knowledge base about the function, value and location of vernal pools on the northern landscape continues to develop, many agree that vernal pools are among the most unique and productive wetlands in New England and vitally important to the food chain of forests.

Despite the growing awareness of the importance of vernal pools, they have not yet been thoroughly mapped in LURC's jurisdiction. See the 2010 CLUP at 233: "Vernal pools provide particularly valuable habitat for amphibian and invertebrate breeding and reptile and mammal foraging. Significant vernal pools have not yet been comprehensively mapped in the jurisdiction or in the state." Because they contain water only during short seasons during the year, it is difficult to identify them during most of the year: "Because of their small size and ephemeral nature, vernal pools are not easily identified year-round. Consequently, the identification and protection of vernal pools pose some unique challenges." 2010 CLUP at 305.

To be sure, MDIF&W, which is still at the beginning of the process of identifying and mapping significant vernal pools throughout the State, does not prohibit developers like TransCanada from trying to map vernal pools even during those times of the year in which the pools are completely dried-up. FBM's concern is not with whether MDIF&W allows such off-season studies or whether TransCanada is allowed to submit such studies to this Commission in an attempt to meet its burden of proof. FBM's concern is with how much probative weight the Commission should give to an out-of-season vernal pool study. While perhaps *admissible* such studies are not very *persuasive* because they cannot catch all the vernal pools that actually fill with water during the spring. In the spirit of the new awareness of the importance of vernal

pools, FBM encourages the Commission to scrutinize TransCanada's vernal pool study with an eye toward determining whether the Commission can really be confident that TransCanada has identified all the vernal pools that exist in the spring. Merely assuming, as TransCanada does, that all the vernal pools it identifies are "significant" does not compensate for the fact that TransCanada's study does not identify all the vernal pools that exist in the project area.

TransCanada must show compliance with all other Chapter 10 and CLUP requirements. In addition to the statutory criteria, TransCanada must convince the Commission that the Commission's regulatory criteria set forth in Chapter 10 and the CLUP are met. The proposed project is located in the following Subdistricts: the General Management Subdistrict (M-GN); the Mountain Area Protection Subdistrict (M-PA); the Shoreland Protection Subdistrict (P-SL2); and the Wetland Protection Subdistricts (P-WL1, P-WL2 and P-WL30). See Exhibit B.3 to TransCanada's application. In addition to meeting the applicable standards of those subdistrict, the project must also conform to the pertinent Development Standards in Chapter 10 § 10.25 and the pertinent Specific Activity Standards in Chapter 10 § 10.27.

With this standard of review in mind, FBM will now direct the Commission's attention to the evidence in the record that compels a finding that the proposed project – even as amended – does not conform to the required standards.

Argument

I. Amended Project Does Not Conform to LURC's Criteria for High Mountain Areas

Friends of the Boundary Mountains begins its argument by pointing out to the Commission that DP 4860, unlike many other wind energy proposals in Maine's expedited wind

energy areas, has certain unique aspects, one of the most prominent being that it is being proposed for location in a High Mountain Area. While the Wind Energy Act allows wind energy development in a High Mountain Area, it does not negate the applicant's burden to prove that such development is in conformity with the Commission's regulatory criteria as set forth in Chapter 10 for a Mountain Area Protection Subdistrict (P-MA) and with all relevant aspects of the applicable Comprehensive Land Use Plan (CLUP).

In its July 9. 2010 draft Finding of Facts and Decision regarding DP 4860, the Commission found that "[**t]he applicant has failed to show that the KEP is in conformance with the Commission's Comprehensive Land Use Plan (CLUP).** While this matter is governed by the Wind Energy Act, at the time the Commission accepted the applicant's application as complete for processing, the 1997 CLUP remained effective. The Commission adopted and the Governor approved the 2010 CLUP in March of 2010."

The 1997 CLUP prohibits energy developments and related land uses in areas identified as environmentally sensitive where there are overriding, conflicting environmental and other public values requiring protection (p. 136). While the 2010 CLUP expressly recognizes the statutory changes made by the Wind Energy Act with respect to wind energy development in the expedited permitting area, the CLUP is clear that "[g]iven the finite number of high mountain areas and the value of their scenic, recreational and natural resources, it is unlikely that the Commission will consider all mountain areas in the jurisdiction suitable for wind power development or comparable uses" because "wind turbines and associated infrastructure have the potential to compromise the resources the P-MA Subdistrict is designed to protect." (p. 223).

The draft Decision finds that the "KEP is not in conformance with either the 1997 CLUP as read in light of the Wind Energy Act or the 2010 CLUP. For all the reasons stated in these Conclusions and based upon the record before it, the Commission finds the KEP, with respect to scenic and historic impacts, Subalpine Fir Forest, and Bicknell's thrush would not be in conformance with the above identified goals and polices of the 1997 CLUP and 2010 CLUP."

Significantly, the draft Decision concludes by pointing out that "[w]hile a number of other issues were raised concerning conformity of the project proposal with applicable provisions of the Commission's Standards and its statute, because of the above conclusions that require it to deny the application, the Commission does not reach those additional issues."

The question now before the Commission is whether the elimination of the 4 turbines brings DP 4860 into conformity. FBM submits that when the Commission agreed on August 4, 2010 to re-open the record to enable TransCanada to submit an amendment, TransCanada had the opportunity to revise the KEP to be in conformance with the CLUP and all Chapter 10 standards, but it has failed to do so.

FBM believes that the comments submitted by the Consolidated Intervenors to LURC on Oct. 12, 2010 argue effectively that, with respect to scenic and historic impacts, Subalpine Fir Forest, and Bicknell's thrush, TransCanada's amendment has *not* brought DP 4860 into conformance with the CLUP or the Standards; the evidence presented by the Consolidated Intervenors is sufficient to reject DP 4860.

Further, we bring to your attention ***additional*** adverse impacts associated with TransCanada's plans for Sisk Mountain that are also not in conformity with the CLUP and Chapter 10 Standards. These impacts also argue against approval of DP 4860 as follows:

(A) Construction Of The Project's Roads And Turbine Pads Will Cause Unreasonable Soil Erosion And Reduction In The Capacity Of The Land To Absorb And Hold Water.

The fragility of Sisk's high mountain zone is one of FBM's greatest concerns. Estimates for the cut and fills for road construction and pad placement indicate that 91,000 cubic yards per turbine, or 1.0 million cubic yards of material, will be moved from its location of origin to its final resting place. The most obvious and radical impacts will be above 2700 feet. These impacts are directly associated with the soil disturbances generating by the construction of the 11 turbines and the considerable road building in TransCanada's amended proposal.

From initial clearing and grubbing, through blasting, excavation, the placement of road and pad material, and even the construction of engineering erosion controls, the process yields more soil particles. The precipitation runoff patterns in this place of high rainfall are changed, resulting in the alteration of localized hydrology, which leads to secondary impacts to the wetlands, streams and vernal pools that house the many species of concern in the proposed footprint.[3]

(B) The Project Will Have An Undue Adverse Impacts On The Streams And The Aquatic And Other Species Inhabiting The Area.

LURC's Development Standards for Wetland Alterations provides a "No Unreasonable Impact standard. With respect to harm to habitats and fisheries the standard is:

> The activity will unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic habitat, travel corridor, freshwater or marine fisheries or other aquatic life.[4]

[3] See FBM Appendix A for detailed discussion of impacts from each turbine pad and road section.
[4] LURC Chapter 10.25, (P)(2)(f)(1)(c), p182

Kibby Stream is a class A stream due to its undeveloped character and scenic value. The combined development of the Kibby Series A and B plus the proposed KEP all sit above, and will directly impact, the headwater region of Kibby Stream. The applicant openly admits to the potential for discharge of sediments into streams in the area during construction and to a lesser degree from developed areas following construction.[5]

Review comments from IF&W's Fisheries Biologist indicates that "Chain of Ponds supports brook trout and landlocked sport fisheries that are of regional significance; the ponds' salmon population is sustained entirely by natural reproduction that occurs in the N. Branch Dead River and Horseshoe Stream. Clear Brook is tributary to Chain of Ponds and supports wild brook and slimy sculpins. Gold Brook is a tributary to the North Branch of Dead River and supports wild brook trout. Both streams provide temperature refuge for brook trout and landlocked salmon residing in the North Branch and Chain of Ponds. Kibby Stream, a major tributary to Spencer Stream, supports a robust wild brook trout population. Most of these waterbodies also provide habitat for a variety of native non-salmonid fishes that are common to the region".[6]

Boucher further states, "There are about 57 stream crossings associated with the turbine access roads and the collector line corridor. Of these, about 27 and 30 were classified by the applicant as perennial and intermittent, respectively. The potential for stream sedimentation is high because soils are moderately to highly erodible, and slopes are steep in most locations. Streams may also be negatively impacted (flow volume and timing, temperatures) if vegetated

[5] (DP 4860, B15.11, Surface Water Quality, p 81)

[6] Dave Boucher, Fisheries Biologist, IF&W, Review Comments, 2/23/2010

buffers are inadequate and if existing hydrological features are disturbed. In addition, free passage of fish and other organisms through road culverts could be compromised.

In looking at specific turbine locations, Turbine 8 will be located such that it's overburden or pad spoil will be pushed off the easterly side of the ridge. This means that sedimentation from this disturbed area will enter the uppermost reaches of the Kibby Stream drainage. Turbines 9 thru 11 are located along the crest and sedimentation will drain in a southeasterly direction and impact Kibby Stream. Run-off as a result of the construction of the road leading up to ridge can have very significant impacts. In addition, the permanent changes in how water moves down the valley walls, and how much particulate matter it gathers, loosened by blasting and general material movement, may well result in very dramatic changes in the water quality of the streams in question.

The proposed change in the width of culverts designed to assure passage of fish and other aquatic life may not prevent the blockage of culverts.[7] Larger diameter culverts result in shallower water, given a specific gallon per minute flow. Smaller debris can now lodge at the entrance, blocking passage of migrating fish. During times of lower water depth, larger culverts result in shallower water, and thus higher water temperature. This elevation of temperature will stress Brook Trout, Atlantic Salmon and other species of concern in the proposed waterways. Regardless of culvert size, maintenance is the only sure way of preventing blockage and prevention of fish migration. There has been no related maintenance schedule submitted.

[7] see TransCanada's revised drawing C-20

(C) TransCanada Has Understated The Overall Hydrological Impacts From Construction

TransCanada's estimate of hydrological impacts resulting from the proposed project understates the initial, secondary and collective impacts from this expansion. Impacts from culvert placement, bridge crossings, ditch turnouts, plunge pools and miles of swales to divert, channel or disperse run-off from seeps, springs and rainfall are significant and will alter the hydrology and change the natural flow of water in the area. There will be 39 poles placed within the 100-foot buffer zone of the watercourses, a direct impact to the streams themselves. The access road and its 34 kV collector line runs into and along the upper reaches of the Kibby Stream Valley. TransCanada has not addressed the ***collective and compounded*** impacts to fish and aquatic life of over 100 stream crossings, structural changes and endless secondary impacts.

(D) TransCanada's Construction Techniques Jeopardize High Mountain Areas

Construction in a high mountain area above 2700', particularly in an area of severe weather events as is the Boundary Mountains, presents unreasonable risks to the natural resource base as well as in the valleys and streams below. Flaws in TransCanada's building techniques have emerged, and will continue to emerge, thereby presenting never-ending destruction of the resource and further eroding, literally and figuratively, of the values of the CLUP. Examples:

(1) As documented below, Kibby I has vastly underachieved its capacity factor since it began operations. Part of this problem lies in how the transmission lines were constructed, which led to freeze-ups and shutdowns of the turbines last winter. Each turbine had to re-started using diesel fuel generators in the middle of winter and could not produce electricity for long periods.

(2) The applicant's basis for claiming that much of its disturbance of forest and ridgeline is only temporary stems from TransCanada's expectation that these areas would re-vegetate with native

species reasonably rapidly. However, conditions above 2,700 feet are very fragile and not conducive to rapid recovery, and in many cases, allow little or no recovery at all. The Third-party Inspector's Summary Report on Kibby 1 bears out this concern. The inspector reports that "gaining native vegetative plants (fir-birch-hobble bush) to grow in this material is questionable. The soil was supposed to be supplemented with additional woody material, but did not contain sufficient woody debris to breakup the soil cover or keep it from compacting. The intent was to provide a material that would resemble the native organic duff layer in the surrounding areas. It was Rocque's (State Soil Scientist) opinion that pad site B13 is the only site on the B series that may have a chance for vegetative growth."[8].

(3) Comments by Rocque[9], in regard to TransCanada's Acid Rock Testing and Mitigation Plan, raises concern over inadequate tools to deal with the subject if an occurrence of acid rock is encountered. TransCanada's Revised Mitigation Plan of May 10, 2010 is to utilize the turbine and road fill areas below 2,700 and at least 10 feet above the water table for burial and or encapsulation of any potential acid rock drainage producing bedrock, which is in direct opposition to Rocque's concerns or suggestions.

II. Amended Project Combined With Existing Kibby Project Tips The Scale Into More Development Than Can Fit Harmoniously In The Natural Environment

The amended 11-turbine KEP – even if viewed in isolation rather than in conjunction with the industrial development already existing in Kibby I – cannot meet the statutory and

[8] Kibby Inspection Report #79, Sept. 15, 2010

[9] Comments of David P. Rocque, State Soil Scientist to LURC January 29 and April 16, 2010

regulatory standards this Commission must apply. Even when viewed as a single entity, the KEP cannot fit harmoniously into the natural environment because it will create undue adverse effects on the existing uses, the natural resources, and the historic resources in the area.

However, the project should not be viewed in such myopic isolation. This Commission has always been sensitive to the problems caused by the ***cumulative*** impacts of incremental development. For example, goal #2 in the new 2010 CLUP vows to, "Prevent the degradation of natural and cultural values resulting from cumulative impacts of incremental development." 2010 CLUP page 8. The identical goal can be found in the 1997 CLUP at page 142. This Commission should not let TransCanada achieve *incrementally* what it could not achieve initially. In other words, the Commission must review the expanded project *as a whole* and ask whether the expanded development can fit harmoniously into the natural environment.

As the Commission must surely remember, the decision in Kibby I was a difficult one because it strained the limits of what the natural environment could accommodate. It is the position of FBM that the industrial development of Sisk Mt., to expand the Kibby project by eleven more turbines, will "tip the balance" too far by creating an industrial cluster whose **cumulative** undue adverse impacts cannot meet the applicable standards.

TransCanada argues as though the existence of Kibby I makes the expansion project more acceptable because it is a mere expansion of an existing industrial development that can provide some of the infrastructure for the new turbines. The statutory mandate to the Commission, however, is not whether the expansion can fit harmoniously into the existing industrial development but whether it can fit harmoniously ***with the natural environment.***

Even if – solely for the purpose of argument – eleven wind turbines, when viewed in

isolation as if they were sole development in the area, were innocuous, when added to the existing Kibby I industrial development, they become the "straw that breaks the camel's back." Kibby I and the natural environment are already in a tenuous balance and the incremental expansion of that development tips the scale beyond what the statute and regulations allow.

III. The Actual Performance of Kibby I Argues Against its Expansion At This Time

In its original DP 4860 application to LURC, TransCanada asserted that the proposed Kibby Expansion Project is an excellent example of how the Commission can advance its energy and climate change policies while retaining the jurisdiction's principal values.[10]

In its amendment to DP 4860, TransCanada asserts "The high value wind resource at this site enables a high energy capture per turbine of 8,400 MWh/turbine as compared to more typical wind sites in Maine such as the Stetson project, which is significantly less at 4,400 MWh/turbine. This results in a much tighter and more efficient project from a land use perspective." TransCanada states "this is based on an anticipated average annual net capacity factor of 31.8%.[11]

The actual facts demonstrate otherwise. For the first six months of 2010 the actual capacity factor for KIBBY Phase I (TransCanada Maine Wind Development Inc.) was **18.99%** as compared to **31.54%** for STETSON I (Evergreen Wind Power V, LLC) and **39.63%** for MARS HILL (Evergreen Wind Power, LLC) for the same time period.[12] As indicated in Exhibit

[10] DP 4860, (draft) Findings of Fact and Decision, pg. 5 of 39.
[11] TransCanada's amendment to DP 4860, pgs. 1-2
[12] See Exhibits B and C, FBM Comments submitted to LURC on DP 4860 as amended, Oct. 12, 2010. Original Source: http://ferc.gov/docs-filing/eqr/data.asp

B of FBM's comments, during its first 8 months of operation Kibby Phase I capacity factor never reached 31.8% and averaged under 20% for the eight months.[13]

The performance of TransCanada's turbines is very relevant to this development permit proceeding. The actual performance data from Kibby must be taken into account by LURC in weighing TransCanada's speculative and unsubstantiated claims concerning the efficiency of the proposed project in relationship to the substantiated adverse impacts generated by the proposed project, as documented in the (draft) Findings of Fact and Decision. The actual data of how Kibby has performed to date should certainly be given greater weight than TransCanada predictions and beliefs about Kibby's performance.

By TransCanada's own admission, the project area impacts the following Wetland Protection Subdistricts (P-WL1, P-WL2 and P-WL30).[14] Chapter 10 § 10.25 (P)(2)(f)(3) requires the Commission to consider the following factors in determining whether an impact on a wetland is "reasonable:"

> When considering whether a single activity is reasonable in relation to the direct and cumulative impacts on the resource, the Commission shall consider factors such as the degree of harm or benefit to the resource; the frequency of similar impacts; the duration of the activity and ability of the resource to recover; the proximity of the activity to protected or highly developed areas; traditional uses; ***the ability of the activity to perform as intended***; public health or safety concerns addressed by the activity; and the type and degree of benefit from the activity (public, commercial or personal). (emphasis added).

In addition to this very specific criterion that "the ability of the activity to perform" is not only relevant but must be considered in determining if an impact to a P-WL1 subdistrict wetland is "reasonable," the Commission is constantly required to determine during the permit

[13] Ibid

[14] See Exhibit B.3 to TransCanada's application

proceeding whether any given adverse impact is "undue" or "unreasonable." See for example 12 M.R.S.A. § 685-B (4)(C) "... there will be no undue adverse effect on existing uses, ... and natural and historic resources in the area likely to be affected by the proposal."

Determining whether an impact is "undue" or "unreasonable" requires the Commission to measure the benefits of the project against its adverse environmental impacts. The adverse impacts of a wind project that significantly advances the energy goals set by the Legislature are more tolerable than the same impacts from a wind project that cannot significantly advance the state's energy goals. Kibby's ability – or inability – to perform as intended is directly relevant to the issue of whether the adverse environmental impacts it is going to create are "undue" or "unreasonable" and therefore whether Kibby should be expanded onto Sisk Mountain.

IV. Proposed Expansion Will Create Undue Adverse effects On Natural Resources

A review of the cumulative impacts of the existing Kibby A and B series combined with the revised KEP for Sisk Mt. demonstrates extensive adverse impacts. The evidence is uncontroverted that even the reduced 11-turbine project will still be extensively viewed from the Chain of Ponds. Data from visual consultant Palmer's most recent evaluation (Table 1) and from FBM own observations support this contention. Because the adverse visual impact of the proposed project is significant from the Chain of Ponds, and the public purposefully travels to the region specifically to boat on Chain of Ponds, there would be both significant undue adverse scenic impacts to those utilizing the surface waters and to all the traditional uses of the area. As the Wildlands Lakes Assessment gave CoP an outstanding scenic designation and BPL's Flagstaff Region Management Plan highlights the "highly scenic" and "wild and scenic" character of the CoP, the conclusion is inescapable that the KEP presents major undue adverse

scenic impacts.

In addition, from the Bigelow Preserve, from campsites newly built along Flagstaff Lake, and from the Appalachian Trail, there currently are multiple turbines visible on Kibby, day and night. There will be even more visible if KEP is approved. While outside the 8-mile evaluation criteria of the Wind Energy Act, these views are more than just scenic views of statewide significance. They represent some the most outstanding viewpoints of Maine's "jewel" in its inventory of public lands and are now at risk.

The potential of bird collision for all eleven turbines is moderate but 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.[15]

In the amended application construction will result in the complete removal of approximately 20 acres of Subalpine Forest and indirect impact to another 35 acres. This is a significant impact to a rare forest type by the combination of turbine placement, roads, collector lines, fragmentation of habitat and edge effect. Turbines #8 through #11 will cause significant edge effect on the Subalpine Forest on the Sisk Mt. Range.[16] In the decision-making process for this permit, the Commission needs to take into account the ***cumulative*** amount of current and future acreage adversely impacted due to Edge Effect by both Kibby Series A & B and by the proposed expansion on Sisk.

V. TransCanada Fails to Demonstrate That The Project Will Result In "Tangible Benefits" Because TransCanada Misunderstands The Tangible Benefits Test.

[15] draft Denial, DP 4860, p. 30

12 MRSA § 685-B (4-B)(D) requires TransCanada to demonstrate that its project, "[w]ill provide significant tangible benefits, as defined in Title 35-A, section 3451, subsection 10, within the State, as provided in Title 35-A, section 3454 ..." 35-A MRSA § 3451 (10) defines "tangible benefits" as:

> "Tangible benefits" means environmental or economic improvements attributable to the construction, operation and maintenance of an expedited wind energy development, including but not limited to: construction-related employment; local purchase of materials; employment in operations and maintenance; reduced property taxes; reduced electrical rates; natural resource conservation; performance of construction, operations and maintenance activities by trained, qualified and licensed workers in accordance with Title 32, chapter 17 [FN2] and other applicable laws; or other comparable benefits, with particular attention to assurance of such benefits to the host community to the extent practicable and affected neighboring communities.

TransCanada's attempts to show that its proposal will bring "tangible benefits" to the community reveal that it does not understand the tangible benefits test.

First, TransCanada mistakenly acts as though the tangible benefits may come from it. The statute's plain language, however, requires that the tangible benefits be "attributable to the construction, operation and maintenance" of the expedited wind project. The benefits must come *from the wind project not the applicant*. The Legislature has imposed this requirement because it wants to insure that wind projects that benefit from the expedited statute actually benefit the community. To put it bluntly, the tangible benefits requirement cannot be satisfied by a rich applicant making cash payments to stakeholders in the hope of lessening opposition to the project. For example, the $100,000 payment by TransCanada to the Arnold Expedition

[16] Review comments on DP 4860 as amended from Consolidated Intervenors, p.4

Historical Society on the eve of the May 2010 hearings DP 4860, and all such similar cash buy-offs, do not qualify as "tangible benefits" because they are not "attributable to the construction, operation and maintenance" of the wind project. Requiring the tangible benefits to result from the wind project both insures the integrity of the process so support is not "bought" by rich applicants and it helps insure that the benefits continue over the long term. In contrast to having the tangible benefits be the result of the wind project, a rich applicant's incentive to make cash gifts dissipates rapidly once the permit is granted.

Second, calculating whether the project provides a net benefit requires the Commission to consider the public costs of the project as well as its benefits. TransCanada is going to receive public subsidies from taxpayers at the federal, state and, probably, the county level. If these public costs exceed the public benefits provided by the project, the public receives a net loss *not* a net benefit from the project. For a simple example, if the public gives an applicant $100 to entice it to build something and the public eventually receives $20 back in benefits from the project, the public has suffered a net loss of $80. TransCanada's approach to the tangible benefits requirement, however, is to ignore all public costs and only look at public benefits. Thus, in the above hypothetical, TransCanada would conclude that the project resulted in net tangible benefits of $20. The Legislative goal, however, is for expedited wind projects to benefit the public. The Commission should respect this legislative intent by requiring TransCanada to submit a full accounting of all the public costs of the project, including the stimulus and tax breaks it will receive, as well as the projected benefits "attributable to the construction, operation and maintenance" of the project. Only then can the Commission determine whether the public will receive net tangible benefits if the permit is granted.

Third, TransCanada seems unwilling to discount its tangible benefits analysis by the impacts the project is going to have on Canada. Consider the testimony and comments of Jim Palmer[17] and André Blais[18] on the need to inventory the impacts of the project on Canada. TransCanada can cite nothing in the statute or regulations that allows it to ignore the impact on adjacent Canadian land.

Fourth, the problems raised by Boralex, the operators of the biomass energy plant in Stratton-Eustis, need to be taken seriously when calculating whether this project will provide real tangible benefits to the community. Boralex's concern is that the expanded Kibby project will create congestion on the transmission lines it shares with Kibby. Boralex concludes that if DP 4860 is approved, there will be a 20% reduction in the ability of the biomass plant to generate electricity necessitating the plant to close down. This would create a net reduction in renewable energy for Maine and a significant job loss for the region.

The burden is on TransCanada to convince the Commission that its proposal will result in tangible benefits to the community. Since TransCanada: 1) mistakenly considers cash payments it makes that are not attributable to the construction, operation and maintenance of the project as tangible benefits; 2) fails to include in its calculations any accounting for the public costs of the project; 3) ignores its Canadian neighbors; and 4) does not consider the economic impact its project will have on Boralex, TransCanada has failed to present this Commission with the

[17] James F. Palmer, Scenic Quality Consultants, Review of the Kibby Expansion Wind Project Aesthetic Impact Assessment, April 16, 2010, p.25

[18] Founder of www.sentiersfrontaliers.qc.ca (hiking club), working with The Arnold Expedition Historical Society (ME) and the Cohos Trail (NH) in creating the first International Loop Trail in North America, Comments

information necessary to determine if the project really will create net tangible benefits for the community. Since the information submitted by TransCanada is inadequate, it is impossible for the Commission to conclude that TransCanada has met its burden of showing that the project will create tangible benefits to the community. Therefore, in FBM's view, the Commission has no choice but to deny the application due to lack of evidence of sufficient tangible benefits.

This view is supported by Michael LeVert, State Economist, Maine State Planning Office, who finds it weak in generating tangible benefits. He concludes his comments by stating, "We believe that the magnitude of tangible benefits resulting from a project should be proportionate to the scale of the proposed development. We also believe that tangible benefits were meant to be perpetual in nature, and not subject to changes in ownership, operation, or market conditions.

The Kibby Wind Project application would be stronger if it ensured additional tangible benefits, to a broader population of Maine residents, with stronger guarantees, and for a longer period of time."[19]

VI. The General Public, including Users and Visitors to the Area, Remain Strongly Opposed to the Project even as Amended

On September 8, 2010 LURC issued the 8th Procedural Order in DP 4860 providing a 30-day period for the public to comment on TransCanada's revised proposal. This was in lieu of a public hearing, which FBM had requested. LURC received 53 comments in opposition to the KEP and 3 comments in favor of the KEP and/or TransCanada. (see LURC's electronic

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to LURC, May 20, 2010

compilation of public comments and attached letters). All three of the supporting parties were organizations that have received, or will receive, monetary payoffs from TransCanada if DP 4860 is approved.

The 53 comments against DP 4860 were from a wide and diversified population, both in Maine and users from out-of-state, who expressed many, many detailed concerns about the adverse impacts of the proposed KEP. To cite just a few:

- I recently flew up to the Boundary Mountains area and was shocked to take in the sprawling development of the Kibby wind project. As is typical of summer days in Maine, all the turbines were still. Instead of a sky line of wild ridges I saw a string of wind mills that dominated the landscape even from the vantage point of Flagstaff Lake. Is this what we want Maine to look like? – Steve Bien, Jay ME

- The section between the Carry Ponds and the Canadian Border is the ruggedest and most wildly beautiful section of the entire trail. It is certainly the closest thing we have left of the true wilderness feeling that Arnold's men experienced during that fateful autumn of 1775.

One of the biggest disappointments as we hiked and paddled over the trail in 2009, was the intrusion and destruction that we encountered as we ascended the North Branch of Dead River and headed toward Chain Of Ponds. Imagine my embarrassment and frustration as I had to explain to my client that the noise he was hearing was the tops of our mountains being blown up to make way for Industrial Wind Turbines. Imagine our shock as we came around a bend of the River and saw the huge gash that is the new transmission corridor, slicing its way through the woods and across this beautiful stretch of river ---- Our horror as we saw the dirt eroding into the once pristine trout waters, and smelled the freshly cut trees that had only recently shaded its banks.

Now I understand that the current project proposes to put Turbines even closer to the Arnold Trail, and I have to ask, WHY? – David P. Corrigan, Registered Maine Master Guide, Concord Township, ME

- I'm the former chairman of the National Park System Advisory Board and in that role I saw and understood the natural political pressure and various proposals which might look good in the short term, but which we knew were not in the best long term interests of the balance of the natural ecology. I strongly feel that the proposal as offered by TransCanada is one of those which is not in the best long term interests of our State and Nation. It is certainly not in the best interest of the wildlife in the area. Once a decision is made to allow TransCanada to move forward, it cannot be reversed and would cause permanent damage, transforming one of Maine's last wild areas into a semi-industrial zone. – William Baker, PhD, Riverside CT

- I ask that you deny Trans-Canada a permit to expand the Kibby project. The State of Maine harbors one of the only wilderness areas in the eastern United States, which is surely worth preserving. This precious

[19] Email comments from State Economist to Marcia Spencer-Famous, LURC Feb. 24, 2010

resource is fast disappearing under the pressure of government stimulus funds and mistaken ideas that the industrial development of wind will actually decrease the use of fossil fuels in the US. Research has shown this to be untrue. - Patrice Drummond, Highland Plantation, ME

- My wife and I discovered a magical place called Chain of Ponds in the spring of 2005 when we came across a real estate listing for a turn of the century log lodge in Down East magazine. After researching the area and it's rich history, feeling very comfortable that the area was surrounded by Maine State Preserve Land which we thought (mistakenly) would remain unchanged, we proceeded to purchase the property…

Imagine our complete shock when we heard that Kibby Mountain was being proposed as the largest windfarm in New England, just as the last hand-hewn log railing was put into place. How ironic, that Nick Didomenico, project manager for TransCanada's first foray into green energy would be talking to the Chain of Ponds camp owners about the benefits of this project in my very living room – this had to be a dream. But no it wasn't – in fact it is the nightmare that we are all living up at Chain of Ponds. Despite the offer of electricity, better internet service or even improving our dock/launch facility, we have opposed this project from the start. Unlike other organizations that have negotiated deals with Trans Canada, we have been steadfast, along with Friends of the Boundary Mountains, to our oppostion to this project.

LURC did the right thing when you indicated by straw vote on July 7, 2010 that you would deny the expansion on to Sisk Mountain, the very focal point of Chain of Ponds – it appeared that you felt 44 turbines was enough in such an environmentally sensitive area.– Scott Cunningham, Eliot, ME

- I write you today hoping I am not too late to communicate to you how important LURC's upcoming decision is regarding Trans Canada's Sisk Mtn. application. You don't need my whole background, of course, but you do need to know that I grew up in Stratton, have many friends and family members living there now, and am myself there about half the year. – Anne Curren, Stratton, ME

- LURC should deny the amended proposal for various reasons including the following:
1) It is quite clear that the social and environmental impacts were not sufficiently studied. That is the impacts on the ecosystems and the people that are involved are not fully understood, have not been sufficiently studied.
2) It is the critical task of LURC to be sure that complete social and biological impacts of an area have to be done before destroying an environment, and the ecosystems involved. Without this we cannot can weight what is lost against what is gained.
3) Don't destroy before you know what is being destroyed.
4) The impact on the threatened and endangered bat population has not be sufficiently considered.
5) The area involved is a high mountain resource with particularly high values and sensitivity and is therefore not appropriate for development.
6) The impacts on the tourist economy of Maine has not been fully considered.
7) Real estate values in the region involved will be eroded. Experience it can be up to 50%. This has not been sufficiently considered. – George N. Appell, M. B.A., Ph.D. Phillips, ME

- I am compelled to write to Lurc which appears to be nearing a tragic decision regarding the ruining of Chain of Ponds and turning it into a windmill ridden development, now seemingly more acceptable because the number of windmills have been reduced by 4 for Sisk Mountain. If Lurc permits this travesty

it will appear that something is not quite right with Lurc and that the tiny reduction in number now makes windmills on Chain of Ponds acceptable. – Melba Chodosh, Oquossoc, ME

- I'm writing in regards to TransCanada's application to industrialize Sisk Mountain. Some of my earliest childhood memories are of fly fishing with my dad at Chain of Ponds. It's hard to believe I'm even having to write a letter begging LURC officials to protect the heart, soul and spirit of what makes this state so incredibly special. – Penny Gray, Freeport, ME

I am opposed to the project and feel the permit should be denied. The Chain of Ponds area is of great historical and environmental significance and the impacts far outweigh the benefits in my opinion. I also feel the amended application differs so little from the original application that your denial should be permanent and unwavering. Transcanada is very capable when it comes to political lobbying but I feel when it comes down to environmental impacts, science, and historical significance they don't see the forest through the trees. – Philip Kiend, President of the Chain of Ponds Campowners Assoc.

- I am writing to you in my capacity as the President of the Friends of Maine's Mountians regarding Trans Canada's amended proposal for the construction of industrial wind turbines on Sisk Mountain. Friends is asking that LURC deny Trans Canada's Sisk mountain application. Rand N. Stowell, Weld, ME

- The proposed amendments by TransCanada of removing four turbines from the application does not change the application sufficiently to warrant approval under the criteria that were not previously met by the application. In fact, rather than significantly change the application to meet the required criteria, the amendment submitted by TransCanada appears to be, in large part, a rebuttal of the LURC's draft denial of DP 4860, arguing that the draft conclusions of the Commission represent a misunderstanding of the facts and misinterpretation of the law. – Ken Spalding, Wayne, ME

These and similar voices need be kept in mind as the Commission moves through its deliberations and voting.

Conclusion

For all the above reasons, the Commission should **DENY** TransCanada's application to expand the Kibby Wind Power Project.

November, 17, 2010

Signed:

Bob Weingarten, FBM Spokesperson
29 Davis Road
Vienna, ME 04360

APPENDIX A
Amended DP 4860 Legal Brief
FRIENDS OF THE BOUNDARY MOUNTAINS

The new construction drawings in amended DP 4860 show cuts or fills up to 45 feet deep. Engineering controls will include a staggering 43 plunge pools, 24 ditch turnouts and 12 rock sandwiches to attempt to reconnect fragile wetlands and hydrology.

TransCanada's new plans also show the design upgrade for the Wahl Road to the substation. Fills of ten feet or more will impact the hydrology and the quality of drainage into Kibby stream, parallel to the Wahl Road.

Around Tower 11 cuts of up to 40 deep feet are necessary to maintain grade and placement of turbine pad. The road to this Tower has cuts up to 25 feet to maintain grade. Side slopes measuring 120 feet will be buried under more crushed rock. At Tower 6 road fill ranges from 20 to 50 feet. From Tower 2 to Tower 3 fills are estimated at 40 feet.

Tower 1's approach calls for a 14% grade for a short distance, which exceeds recommendations by DEP standards of Best Management Practices for road construction. Tower 1 has up to 50 feet of fill and the first 300 feet of road will see as much as 360 feet downslope burial. The rest of the tower placement follows this pattern of cut or fill with significant side slope burial covering large areas and will have a huge impact.

TransCanada's upgrades to the Mile 5 road, where numerous wetlands need to be reconnected after widening and ditching the road, will result in serious impacts. This part of the road is downslope of everything altered above and significant engineering controls are proposed along this route.

The new design for rock sandwich placement to reconnect hydrology is new technology. The new design describes the upslope side of the rock sandwich geotextile fabric as being folded to prevent silt and fines from flowing through the sandwich and eventually plugging it, preventing water flow. Once the folded edge is filled with silt and the adjacent ditch no longer functions as designed, water will not get through the rock sandwich. It is doubtful the rock sandwiches will meet the demands of the 100-ton carrying capacity. It is questionable whether this design will protect the integrity of the sandwich when its placement is below 50 feet of fill, or a mere few feet below the surface.

As described in the construction drawing details, C-16, 16 inches of aggregate base course gravel above the rock and fabric must be compacted to 95% of maximum density. It is questionable whether this is sufficient to hold up the weight and not squash out or crush the actual rock sandwich. The rock sandwich design will require constant maintenance to function. The design is still new and untested for long use and function.

TransCanada has not met the burden of proof to demonstrate this design will function properly over the long term in a fragile High Mountain Area.