PATRIOT RENEWABLES
Canton Mountain Wind, LLC

Section 1A
Alternatives Analysis

PATRIOT RENEWABLES
Canton Mountain Wind, LLC

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ATTACHMENT

Attachment 1A-1 Maine Site Selection Summary

1.0 INTRODUCTION

The Canton Mountain Wind Project (Project) is an 8-turbine, 22-megawatt (MW) wind energy generation project proposed on Canton Mountain in Canton and Dixfield, Oxford County, Maine. The proposed Project will generate wind energy for delivery to the New England electrical grid via the Ludden Lane Substation connected to the 115-kilovolt (kV) transmission line known as the 229 Line, owned and operated by Central Maine Power Company (CMP) and located south of the Project (Figure 1-1 in Section 1).

Canton Mountain Wind, LLC (CMW) seeks approval of the Project from the Maine Department of Environmental Protection (Maine DEP) in accordance with the Site Location of Development Act, the Natural Resources Protection Act (NRPA), and the water quality certification requirements of Section 401 of the federal Clean Water Act. This section describes the project purpose and need and summarizes the siting and alternatives analysis phases of the Project's development.

2.0 PROJECT PURPOSE AND NEED

The purpose of the Project is to deliver pollution-free renewable energy, produced by a commercially viable and low-impact wind energy facility, to the New England grid and ultimately to local and regional residents and businesses.

Wind-powered electric generation has several benefits as a power source. Since it is a fuel-free electricity generator, it is not subject to fuel-driven cost fluctuations like fossil-fueled energy. Wind turbines produce energy without using or polluting water resources. Wind energy also benefits air quality by producing emissions-free energy, offsetting energy production by fossil-fueled power plants that emit harmful pollutants and greenhouse gases that contribute to global climate change.

The State of Maine has made significant progress towards evaluating the need to meet the region's energy demand with renewable resources, particularly wind. An Executive Order in May 2007 established the Governor's Task Force on Wind Power Development in Maine (Task Force). The Task Force published a final summary report of their findings in February 2008 and recommended a goal of 2,000 MW of installed wind power capacity by 2015 and 3,000 MW by 2020.[1] Most of the new energy generation is expected to be produced at onshore facilities, with at least 300 MW of the 2020 goal achieved by projects built offshore. The Task Force developed the goal as part of a broader energy policy aimed at reducing dependence on fossil fuels, increasing energy security, diversifying energy resources, and reducing the impacts of energy production.

The recommendations of the Task Force led to the adoption of the Maine Wind Power Act in April 2008, which mandated the State to "take every reasonable action to encourage the attraction of appropriately sited development related to wind development" and adopted the wind power capacity goals recommended by the Task Force. Currently, there are 325.5 MW of installed wind capacity in Maine,

[1] Task Force (Governor's Task Force on Wind Power Development in Maine). 2008. Report of the Governor's Task Force on Wind Power Development: Finding Common Ground for a Common Purpose. Final Report, February 2008. Accessed online October 20, 2011 at http://www.maine.gov/doc/mfs/windpower/pubs/report/wind_power_task_force_rpt_final_021408.pdf

with another 70.6 MW under construction.[2] The Canton Mountain Wind Project would contribute up to 22 MW towards meeting Maine's wind energy goals.

The Project would also help utilities in Maine meet the state's Renewable Portfolio Standard, which calls for utilities to supply at least 30 percent of their total retail electric sales in Maine using electricity generated by renewable and energy-efficient resources. In 2006, the Maine legislature also mandated that retail power suppliers include 10 percent new renewable energy in their supply portfolio by 2017. The regional agreements that Maine has entered into as part of a collective effort to address global climate change also drive the need for zero-emissions power production in the state. Maine is one of 10 Northeast and Mid-Atlantic states that agreed to cap and reduce their carbon dioxide emissions from the power sector by 10 percent by 2018. Maine is also participating in a greenhouse gas emissions reduction effort as a member of the Conference of New England Governors and Eastern Canadian Premiers (NEG/ECP). The NEG/ECP group adopted a Climate Action Plan in 2001 that established greenhouse gas reduction goals across all sectors and included a goal of reducing total greenhouse gas emissions to 10 percent below 1990 levels by the year 2020. The NEG/ECP goals were enacted into Maine law in 2004 (38 MRSA §576).

3.0 ALTERNATIVES ANALYSIS

Patriot Renewables, LLC (Patriot), the project developer and an affiliate of CMW, has extensively evaluated, researched, and estimated the cost of practicable alternatives to the Project. The objective of this analysis was to select the Least Environmentally Damaging Practicable Alternative (LEDPA) for the Project. According to the Maine Site Location of Development Law, 38 M.R.S. § 487-A(4), the Maine DEP will review alternatives for transmission and pipelines and "shall consider whether any proposed alternatives to the proposed location and character of the transmission line or pipeline may lessen its impact on the environment or the risks it would engender to the public health or safety, without unreasonably increasing its cost." CMW adopted this approach when evaluating alternatives for all project facilities, including proposed wind turbine models and locations, access roads, the operations and maintenance (O&M) facility, the electrical collection system, and the transmission line connecting the Project to the electric grid.

The following sections (i) describe CMW's process for evaluating alternatives during the site selection, design, and layout phases of project development, and (ii) describe the decision-making process resulting in the LEDPA. The ultimate goal of the selection process was to identify the preferred alternative that meets CMW's project objectives while also avoiding and minimizing environmental impacts.

3.1 Site Selection

Patriot and CMW consider a variety of factors when siting wind power facilities, including wind speed and direction, distance to the closest transmission and interconnection facilities, compatibility with existing land uses, potential environmental impacts, setbacks from residences, land availability, and construction and engineering feasibility. CMW selected the ridgeline of Canton Mountain for placement of turbines because this location best meets the needs of the Project based on engineering feasibility and reliability of the wind resource while also minimizing environmental impacts.

[2] NRCM (Natural Resources Council of Maine). 2011. Wind Projects in Maine. Accessed online October 10, 2011, at http://www.nrcm.org/maine_wind_projects.asp

In addition, the Governor's Task Force on Wind Power Development in Maine made a number of recommendations that were adopted by the Maine Legislature. The Task Force identified areas where commercial-scale wind projects should be expedited, which included all of the organized territories and a portion of the unorganized territories. In addition to the Project, Patriot evaluated several other sites located within the expedited areas that have met its criteria for low-impact wind projects. Patriot examined more than 51 sites in Maine (see Figure 1A-1), both onshore and offshore, and determined that Canton Mountain was the LEDPA because it meets all of the criteria described in the following sections. Because the locations of sites being considered for wind energy development projects are considered highly confidential and proprietary to wind energy developers, Patriot provided Tetra Tech a Geographic Information System (GIS) electronic file with the physical locations of 52 sites (51 onshore and 1 offshore) that were considered for development of the Canton Mountain Wind Project. This GIS file was also accompanied by a spreadsheet qualifying each site based on various parameters, including property size, wind resource analysis, distances to closest electric transmission infrastructure and habitable structures, length of ridgelines, property ownership, and environmental and regulatory constraints. These 52 sites were then categorized by CMW into three categories: (1) high potential for development; (2) has constraints but still under consideration; and (3) currently ruled out due to constraints. The 20 sites summarized in Attachment 1A-1 represent those projects categorized as having either high potential for development or those with constraints but still under consideration. Without disclosing the actual location of these sites, the 52 alternative sites evaluated are identified by the number of sites that occur within applicable Maine counties on Figure 1A-1.

3.1.1 Wind Resource

Wind projects depend on the wind for fuel. The wind resource in New England is closely related to elevation (with the exception of offshore); areas with the best wind resource in New England usually include mountains, ridgelines, and open ocean. The wind resource map for the State of Maine (Figure 1A-2) shows the areas with the best wind classes. There are also areas that exceed International Electrotechnical Commission (IEC) Class IA winds and are therefore too windy and/or too turbulent to be suitable for currently available commercial wind turbines.

Patriot erected a meteorological tower on Canton Mountain in June 2010. The instruments installed on the tower are measuring wind speed, direction, and duration. The data collected to date have shown that the wind resource on Canton Mountain has turbulence levels that are within acceptable ranges and that the wind is strong enough to economically support the Project. In addition, Canton Mountain is oriented roughly perpendicular to the prevailing winds from the northwest, which is an ideal characteristic for the siting of a commercial wind project.

3.1.2 Location of Transmission Infrastructure

The distance between a wind project site and the existing electrical transmission infrastructure is an important factor when siting a wind project, both from a cost perspective and an environmental perspective. Transmission lines exceeding 20 miles in length are common with some of the larger wind energy projects in Maine; however, longer transmission lines are not economical for smaller or mid-scale projects like the Canton Mountain Wind Project. Longer transmission lines not only increase project costs, but they also have the potential to substantively increase project-related environmental impacts, including alteration and fragmentation of wildlife habitats, impacts to wetlands and waterbodies and

visual impacts. Smaller projects can often be sited using 34.5-kV electric lines, which require less clearing and right-of-way width for safety and thus create less of an impact. Use of 34.5-kV transmission lines, instead of higher-voltage 69-kV or 115-kV lines, has a smaller environmental impact due to both smaller-sized support structures required to support transmission wires and the ability to operate these smaller structures within narrower transmission corridors that require less alteration of vegetation to both construct and maintain.

The Canton Mountain site also has the substantive advantage of being located in close proximity to the existing CMP high-voltage 115-kV transmission system located immediately south of the Project. The Project will connect to the electrical grid at the Ludden Lane Substation on the 115-kV, 229 Line. The 34.5-kV transmission line will originate along the ridgeline and traverse below ground for approximately 3,425 feet along the access road from the ridgeline and then will transition to an aboveground line mounted on power poles that will run roadside for another approximately 8,405 linear feet to the access road's intersection with the Saddleback Ridge Wind Project's transmission right-of-way. The Project's transmission line will share the utility right-of-way with the Saddleback Ridge transmission line for an additional approximately 5,800 linear feet to the Ludden Lane Substation. Originally, Patriot evaluated a transmission alternative that involved running a cross-country 34.5-kV transmission line to an existing substation on the opposite side of the Androscoggin River (see Figure 1A-3); however, Patriot and CMP jointly determined that this alternative was not viable due to the length of new line, lack of real estate at the substation, and the complexity of crossing a large river. CMW also evaluated a direct route cross country from the southern end of the ridgeline directly to the substation, but determined that such a route would have created more direct impacts to vegetation and additional impacts to wetlands and waterbodies, and would introduce an additional visual impact due to a new cleared right-of-way in a currently forested area. The proposed roadside transmission line allows for maintenance of the transmission corridor from the existing access road with no need to disturb soils, wetlands or waterbodies during maintenance activities. Ultimately, the transmission line proposed in this application, which will run roadside along new and existing access roads and then within an existing transmission right-of-way to the Ludden Lane Substation, presents the least impact alternative for the electric transmission interconnection for the Project.

3.1.3 Compatibility with Existing Land Uses

The project area is mostly undeveloped forest land used for commercial timber harvesting. Logging operations and wind power projects are highly compatible land uses, as each can operate without impeding the other. Improvements to Ludden Lane and the new section of access road will be able to serve the property for future logging operations.

3.1.4 Setbacks from Residences

While the Project's wind turbines have been sited to best capture the available wind resource, they are also located far from residential areas. This minimizes close-range visual impacts and potential shadow flicker at residences, while also meeting state noise and public safety compliance requirements. When looking at potential project site alternative, Patriot looks at the setbacks from potential turbines to residences as a priority siting criteria and only considers sites that are more than 2,500 feet from residences. For the proposed Project, the closest non-participating residence is approximately 2,900 feet away from the nearest turbine. The Project will retain a large natural setback between proposed wind turbines and residential properties.

3.1.5 Environmental Impact

The Canton Mountain Wind Project site is not unique in terms of wildlife, water, or other environmental resources. Based on project-specific agency consultations, no federally or state-listed rare, threatened, or endangered species of plant or animal are known to occur in the project area. In addition, there are no documented unique natural areas, as defined by the Maine Natural Areas Program, or high-value waterfowl and wading bird habitats or deer wintering areas mapped by the Maine Department of Inland Fisheries and Wildlife (Maine DIFW) located on the project site.

In an effort to further characterize potential project impacts, CMW contracted Tetra Tech to perform spring and fall avian radar studies, raptor migration studies, avian migrant stopover field surveys, breeding bird surveys, and bat acoustic studies. Comprehensive field surveys were performed within an expanded project area identifying, classifying, and survey locating state and federal jurisdictional wetlands and waterbodies. In addition, amphibian breeding season vernal pool field surveys were performed in the springs of 2010 and 2011 to identify vernal pools with the potential to support significant wildlife habitats, and at the request of the Maine DIFW, CMW conducted evaluations and field surveys for the state-endangered Roaring Brook mayfly (*Epeorus frisoni*) and the state species of special concern, the northern spring salamander (*Gyrinophilus p. porphyriticus*).

Based on avian and bat surveys, it was determined that the site does not appear to be in a major avian migratory pathway and does not appear to have an unusual or increased potential for impacts to avian and bat species compared to other mountains in Maine.

Based on 2010 and 2011 wetland and waterbody field surveys, 75 state and federal jurisdictional wetlands and 22 waterbodies were identified within the project survey area. Of these 75 wetlands, portions of 21 wetland resources were classified as wetlands of special significance (WSS) pursuant to NRPA criteria, due to being located within 25 feet of an NRPA-regulated river, stream, or brook, and for one wetland only, adjacency to a potential significant vernal pool. Of the 22 waterbodies documented in the project area, 8 were perennial and 14 were intermittent.

Vernal pool field surveys identified six vernal pool resources that met the Maine's NRPA physical definition for vernal pools located in the vicinity of the access road and 12 in the vicinity of the ridgeline. Of these 18 resources, 10 pools were observed during amphibian breeding season with no egg masses after two, and in some cases three, field visits; and seven pools had some biological activity, but not enough to meet Maine DEP's criteria as a potential significant vernal pool (PSVP). One pool located along the ridgeline met the Maine DEP's biological criteria for classification as a PSVP. However, this resource may not be a natural feature in the landscape because it appears to be at least partially associated with historic quarrying along the ridgeline. The field data form for this resource has not been submitted to the Maine DIFW for review as of the date of this application; therefore, classification as a significant vernal pool has not been confirmed.

Northern spring salamander (NSS) field surveys were conducted on August 11, 12 and 26, 2010. A total of five NSS were observed in three of seven streams evaluated within the project survey area: Ludden Brook, Fletcher Brook, and an unnamed stream near the southern end of the ridgeline survey.

The project survey area was also assessed for streams with Roaring Brook mayfly habitat. Approved survey protocols specified that field surveys for this species could be relegated to perennial streams above

1,000 feet in elevation. The project survey area had only one perennial stream located above 1,000 feet, but this stream was determined not to provide suitable habitat for the Roaring Brook mayfly; therefore, detailed substrate sampling for this species was not warranted.

Details regarding all of these field surveys, including survey limits, methods, and results, can be found in Section 7 of this application.

3.1.6 Cultural Resources

No documented historic properties will be directly affected by the construction or operation of the proposed project facilities. One area (comprising two connected farmsteads) recommended as eligible for listing on the National Register of Historic Places could have views of the turbines from 2.5-3.5 miles away. The Maine Historic Preservation Commission (MHPC) will evaluate listing eligibility and potential impacts to the resource. No archaeological resources were discovered within proposed project work limits during field surveys, and the MHPC is expected to issue a determination that the Project will not have an adverse effect on sensitive archaeological resources.

Overall, the site represents a favorable location from an environmental perspective compared to other mountains and ridgelines in Maine due to the lack of sensitive resources.

3.1.7 Constructability

The project site has physical characteristics and existing features that will allow CMW to economically construct a mid-scale wind project. The gradual slope up to the ridgeline will enable the access road to maintain a gradient of less than 13 percent, which will allow turbines and other equipment to be delivered to the ridgeline without specialized assistance vehicles.

All of the turbines are located on the ridge, which runs north to south, roughly perpendicular to the prevailing wind out of the northwest. The ridgeline itself slopes gradually upward, allowing the gradient of the ridgeline road to stay below 13 percent to accommodate a crane and other construction equipment. The turbines have been spaced as closely together as feasible (2.1 to 5.4 rotor diameters apart) to maximize the energy produced over the shortest linear distance, while minimizing turbulence and wake losses created by the turbine layout. The project layout also minimizes cuts and fills, environmental disturbance, and the length of new roads. Patriot and CMW have worked closely with Maine DEP to locate and design the access and ridgeline roads to ensure that appropriate measures for stormwater management (see Section 12) and erosion and sedimentation control (see Section 14) are incorporated into the design and implemented during construction.

4.0 AVOIDANCE AND MINIMIZATION

Patriot undertook significant efforts to identify the LEDPA for the Project. In addition to the other site selection criteria described in Section 3.0 above, the proposed project design, including locations of turbines and access roads, is the result of micrositing to minimize impacts to natural resources within the project area. Details of this impact avoidance and minimization process are provided in Section 7 of this application. Patriot and CMW have prioritized avoidance and minimization of impacts to protected wetlands, waterbodies, vernal pools, and amphibian breeding areas in the project area and will retain intact, adjacent terrestrial habitat for potential vernal pools and amphibian breeding areas to the greatest extent practicable.

Throughout planning and design, wetland and waterbody impacts were avoided where practicable; and unavoidable wetland and waterbody impacts were minimized to the maximum extent practicable. Of the 75 wetlands identified within project survey areas, only small portions of 12 wetlands will be subject to permanent fills totaling only 3,039 square feet of permanent wetlands impacts. An additional 4,286 square feet of wetlands will be temporarily altered by use of timber mats placed over wetlands to support construction or where temporary clearing is necessary for construction activities. An additional 2,258 square feet of palustrine forested (PFO) wetlands will be converted to palustrine scrub-shrub (PSS) wetlands for maintenance of the roadside transmission right-of-way during operations. More detailed information on these impacts and the resource avoidance and minimization process that resulted in these impacts is provided in Section 7.

In addition, although the one PSVP along the ridgeline has not been confirmed as significant by the Maine DIFW, CMW has designed the Project to avoid and minimize impacts to this resource to the greatest extent practicable. CMW will maintain a minimum 100-foot setback from the spring high water line of the PSVP pool and will retain a minimum 75 percent of the adjacent critical terrestrial habitat as undisturbed forest lands, meeting Maine DEP permit-by-rule standards for significant wildlife habitats.

In addition, CMW will be proposing compensation for mitigation of unavoidable impacts pursuant to state and federal regulations. Alternatives for mitigation being considered include purchase of conservation easements, contributions toward community resource protection associations, and contributions to the Maine DEP's in lieu fee compensation program.

4.1 Avoidance

Efforts to avoid environmental impacts in the project area were made throughout project planning and design. Existing roads were utilized as much as possible, and in fact, the majority of permanent wetlands impacts associated with the proposed Project are the result of required improvements to Ludden Lane and the existing logging roads in the project area. In many areas, poorly maintained sections of these existing roads are contributing to soil erosion and sedimentation into adjacent waterbodies due to rutting and damaged stormwater management facilities. Although some road improvements will require permanent wetland impacts, improvements to road grading and replacement of damaged and under-functioning culverts are expected to result in a net improvement to water quality in the project vicinity.

In addition, because existing roads will be used exclusively to access the transmission corridor for construction and maintenance, impacts to resources outside of the road corridor can be avoided. This design not only avoids new impacts during construction, but also avoids temporary impacts during operations when maintenance of vegetation is required to maintain the safe operation of transmission lines.

Wind turbines and associated construction workspace were sited maximizing use of favorable, relatively flat topographic conditions along the ridgeline and avoiding wetlands and waterbodies to the maximum extent practicable, while still maintaining adequate space between turbines to capture the wind resource.

Of the 11 stream crossings associated with the Project, 10 are improvements to existing stream crossings along Ludden Lane, and only one is a new crossing. The new stream crossing on the new access road will be accomplished using an open bottom box culvert.

Because of the number of required improvements to existing stream crossings along Ludden Lane, associated costs, and the potential for impacts during construction, CMW evaluated three additional road alternatives to access the Canton Mountain ridgeline (See Figure 1A-3). Each of these road alternatives represent a greater travel distance between existing paved roads and the intersection with the ridgeline and, therefore, would result in a greater amount of new developed land when compared to improvements to Ludden Lane. In addition, CMW contracted wetlands biologists to perform a reconnaissance level evaluation of these routes to determine if any represented a clear LEDPA, when compared to improving Ludden Lane.

As shown in Exhibits 1A-1 and 1A-2, the three alternatives evaluated represent primarily woods roads, while Ludden Lane is a gravel road in good condition that supports transportation of fully loaded logging trucks. Each of the alternatives evaluated would cross state and federal jurisdictional streams and wetlands and would likely result in greater impacts to these resources due to the larger amounts of required grading and import of suitable road base material. In addition, CMW determined that acquisition of land rights to use these old abandoned public ways was unclear and that landowners with properties under lease by CMW had no legal right to use of these roads. Therefore, use of Ludden Lane for both construction and operations of the Project was determined to be the LEDPA.

In an effort to avoid impacts associated with the LEDPA, CMW performed micrositing of the preliminary project work limits, and was able to design the Project to avoid impacts to six additional wetlands by committing to place silt fence around these resources and prohibit construction access. These include wetlands AW16, AW27-1, AW25, portions of AW27-2, AW40, and AW 50.

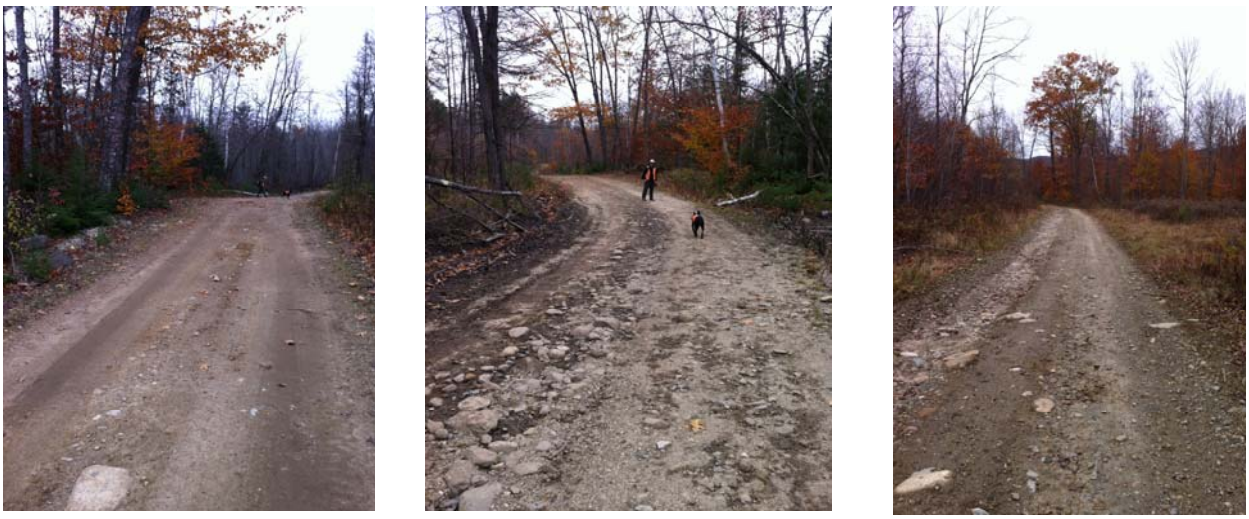


Exhibit 1A-1. Existing Conditions along Ludden Lane, Access Road Alternative 1, for the Canton Mountain Wind Project.

Access Road Alternative 2

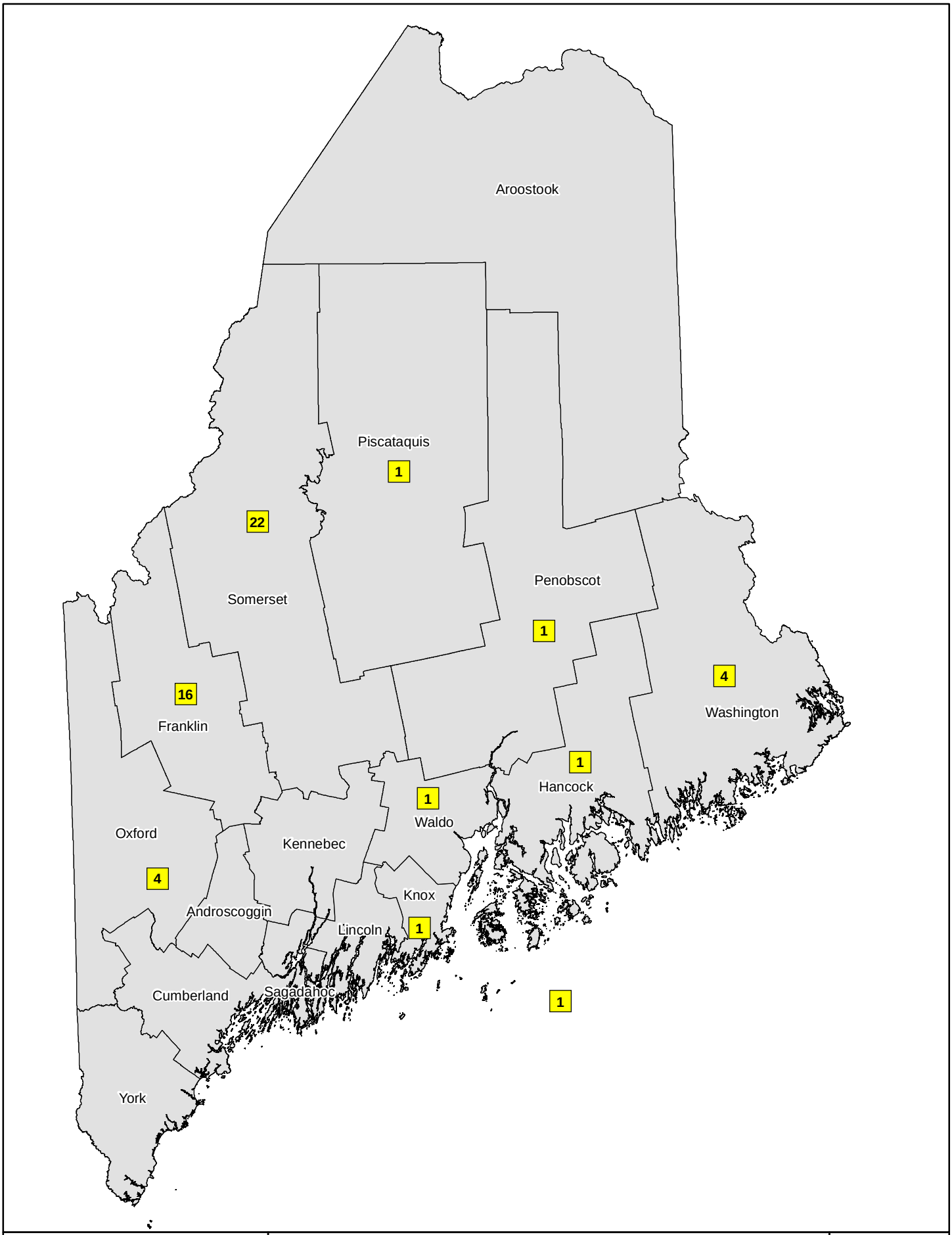
Access Road Alternative 3

Access Road Alternative 4

Exhibit 1A-2. Access Road Alternatives evaluated for Canton Mountain Wind Project.

4.2 Minimization

In areas where wetland or stream impacts could not be avoided, CMW minimized impacts to the greatest extent practicable. Minimization measures included narrowing road shoulders where possible and modifying cut and fill slopes on both roads and turbine pads to minimize the construction work limits. Where possible, buffers were maximized to allow larger riparian areas between wetland areas and roads and turbine pads. CMW is also committed to minimizing impacts to streams associated with proposed stream crossing by complying with Maine DEP's permit-by-rule impact minimization standards during construction.



Legend

County Boundary

9 Number of Sites Considered

0 5 10 20 30 40 50 Miles

Figure 1A-1
Canton Mountain Wind Project
Alternative Sites Considered for Development

TETRA TECH FC, INC

December 2011

PATRIOT RENEWABLES
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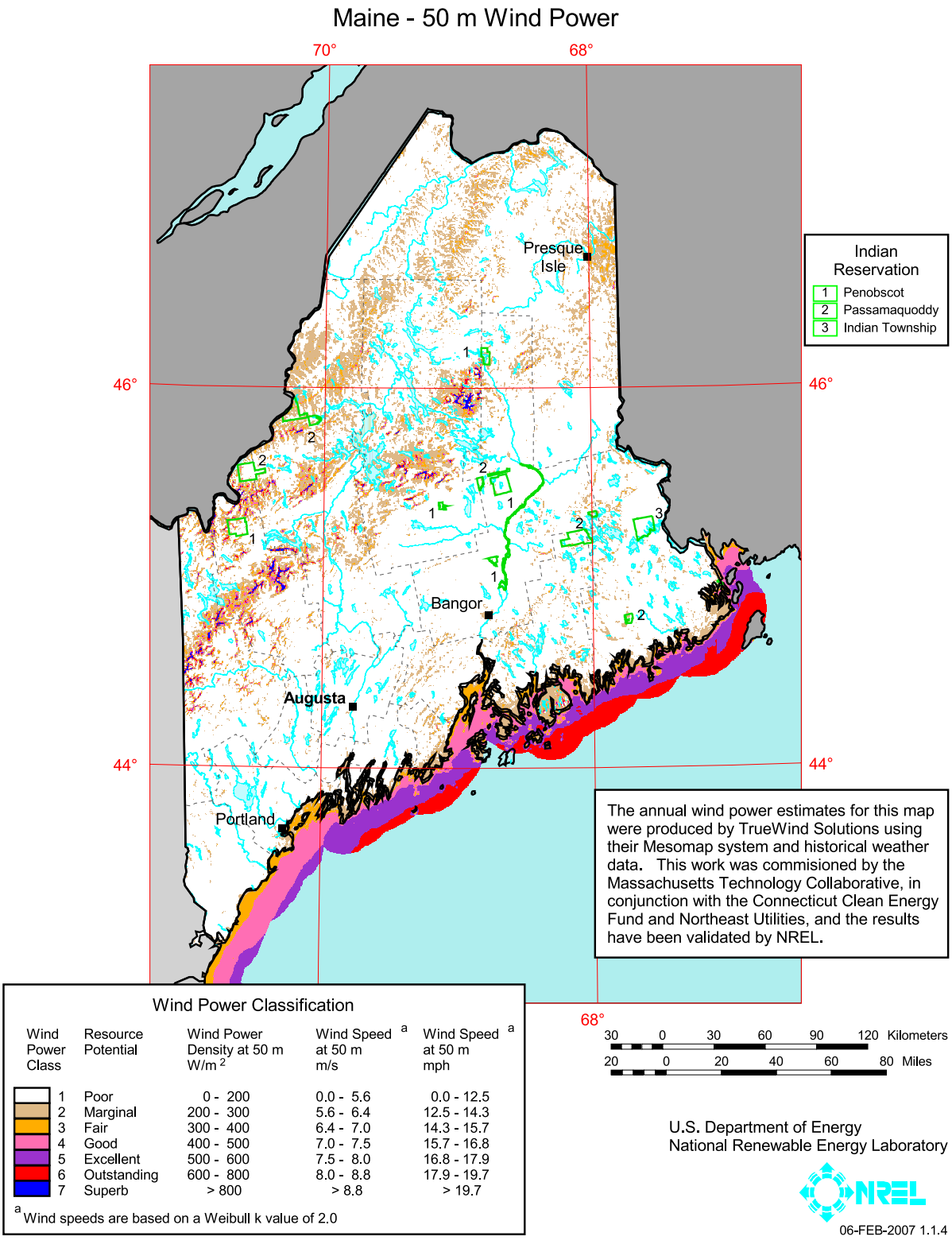
Comparison of Potential Wind Energy Sites in Maine



Wind Power Classification

Wind Power Class	Resource Potential	Wind Power Density at 50 m W/m 2	Wind Speed at 50 m m/s [a]	Wind Speed at 50 m mph [a]
1	Poor	0 - 200	0.0 - 5.6	0.0 - 12.5
2	Marginal	200 - 300	5.6 - 6.4	12.5 - 14.3
3	Fair	300 - 400	6.4 - 7.0	14.3 - 15.7
4	Good	400 - 500	7.0 - 7.5	15.7 - 16.8
5	Excellent	500 - 600	7.5 - 8.0	16.8 - 17.9
6	Outstanding	600 - 800	8.0 - 8.8	17.9 - 19.7
7	Superb	> 800	> 8.8	> 19.7

[a] Wind speeds are based on a Weibull k value of 2.0

U.S. Department of Energy
National Renewable Energy Laboratory

06-FEB-2007 1.1.4

Figure 1A-2

Canton Mountain Wind Project

Wind Resource Map

December 2011

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TETRA TECH EC, INC.

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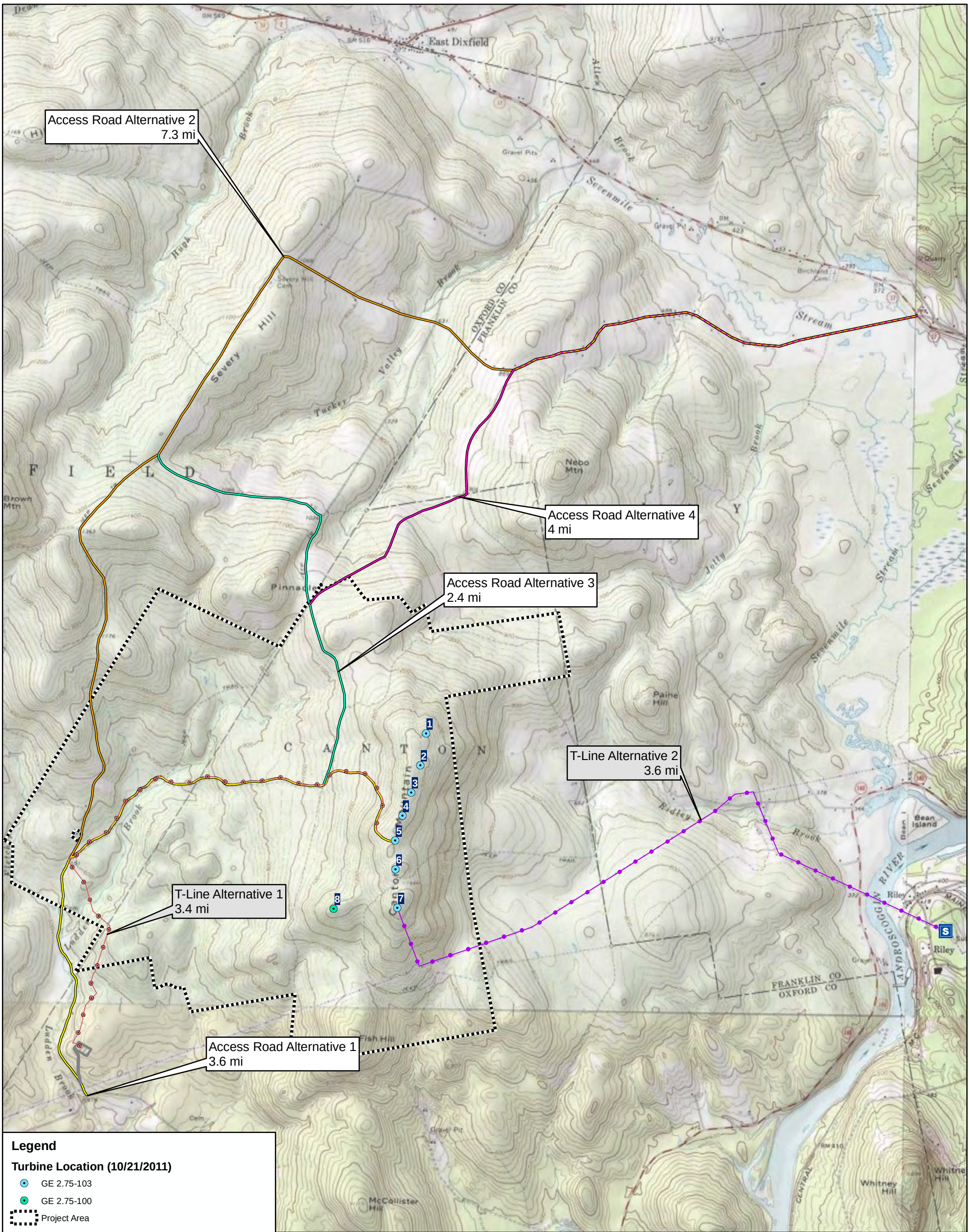

Figure 1A-3
Access Road & Transmission Line Alternatives

Canton Mountain Wind Project
Canton and Dixfield, Maine

TETRA TECH EC, INC.

December 2011

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TODD.GYS(ECIBOSDGYST) P:\GIS\Patriot_Renewables\canton\GIS\Spatial\MXD\Permit_Figures\Canton_Fig1A-3_AccessRoadAlts.mxd 12/8/2011

PATRIOT RENEWABLES
Canton Mountain Wind, LLC

Attachment 1A-1
Maine Site Selection Summary

PATRIOT RENEWABLES
Canton Mountain Wind, LLC

Maine Site Selection Summary

Transmission Infrastructure	Existing Land Use	Setbacks	Environmental Impact	Constructability	LEDPA Status
good	All active timber lots	good - over 2000 ft to residences	low	good	LEDPA
very good	Cell towers, existing conflict with conservation easement	very good - over 2000 ft to residences	low	moderate	Not LEDPA - conflicting land use
fair	Difficult to secure lease with state	very good	moderate to high	low - more than twice the installed cost of onshore	Not LEDPA - high cost of construction
poor	Difficult to secure federal lease with Minerals Management Service	Excellent	moderate	very low - more expensive that shallow water	Not LEDPA - high cost of construction
poor	Difficult to secure federal lease with Minerals Management Service	Excellent	low	very low - no commercially available technology	Not LEDPA - high cost of construction
good	agriculture	residences within 2000 ft	low	good	Not LEDPA - insufficient setbacks from residences
good	ski resort	residences within 2000 ft	moderate	moderate costs	Not LEDPA - insufficient setbacks from residences and ski area
poor	residential	good - setbacks 2000 ft +	moderate	good	Not LEDPA - no transmission infrastructure
excellent	residential	residences within 2000 ft	low	good	Not LEDPA - insufficient setbacks from residences
good	residential	residences within 2000 ft	moderate	good	Not LEDPA - insufficient setbacks from residences
poor	1 landowner	good - setbacks 2000 ft +	high - high elevation habitat	low - project too small to justify high road costs	Not LEDPA - high relative construction cost and high environmental impact
poor	timber lot (compatible)	good - setbacks 2000 ft +	high - high elevation habitat	good	Not LEDPA - exceeds wind turbine certifications
very good	timber lot, very close to Appalachian Trail (AT)	some residences within 2000 ft	high - high elevation habitat	good	Not LEDPA - too close to AT and insufficient setbacks from some residences
moderate	multiple landowners	good - setbacks 2000 ft +	moderate	low	Not LEDPA scale too small to justify road cost and high t-line cost
moderate	multiple landowners	good - setbacks 2000 ft +	moderate	very poor - too steep	Not LEDPA - not buildable
moderate - long transmission line right-of-way	Appalachian Trail (AT)	excellent	high - high elevation habitat	good	Not LEDPA - too close to AT and high environmental impact
very good	multiple landowners, not all are interested	good - setbacks 2000 ft +	moderate	good	Not LEDPA - can't secure land
moderate	multiple landowners	good - setbacks 2000 ft +	high - high elevation habitat	high	Not LEDPA - high environmental impact
very poor	multiple landowners	good - setbacks 2000 ft +	low to moderate	excellent	Not LEDPA - no transmission capacity
poor	multiple landowners	some residences within 2000 ft	moderate to high	good	Not LEDPA - no transmission capacity and insufficient setbacks from some residences