Maine Mountain Power LLC

MMP Responses to questions from LURC's second set of questions dated May 5, 2006

Staff Comments

1. Please summarize the alternatives to the current proposal you considered during the development of the project, including location, turbine size and number, and alternatives to accessing the sites by constructing new roads. The summary should justify why the activity proposed is the least damaging alternative that would still allow the project to be viable. For example, does the project have to include both turbine strings, or would just the string on Black Nubble Mountain be a possibility? Could the turbines be smaller? Is there any alternative method to get the turbines and equipment the tops of the mountains, other than roads? Were other locations considered, and if so, why was this site chosen?

   Endless Energy Corporation (EEC) spent considerable time, money and resources screening and evaluating alternative sites, turbines, transmission routes and transportation options. Once the best site was selected, EEC spent considerably more time and resources selecting a turbine and designing access roads, transmission lines and other project elements to minimize impacts and ensure that there would be no undue adverse impact on the environment.

   As shown in our application, the best wind resources in Maine are located well offshore and in high mountainous terrain. At sites with lower winds, many more turbines would be required to produce a comparable amount of electricity and the cost to the consumer would generally be higher.

   EEC began screening potential sites throughout Maine in the late 1980s. EEC screened dozens of locations and ranked them based on the wind resource, location adjacent to existing development, access to existing transmission lines and roads, topography, and the visual and environmental impacts. This extensive screening process resulted in EEC identifying a few sites for more detailed evaluation, described below.

   The first site selected for wind measurements was Sugarloaf Mountain, where EEC installed a met tower at the summit in 1989. Subsequently, EEC began measuring winds lower on Sugarloaf and on West Kennebago Mountain and an unnamed peak just north of West Kennebago.

By 1991, EEC had identified Redington and Black Nubble Mountains as potential wind farm sites. Throughout this period, numerous combinations of turbines and sites were considered.

In addition to mountain sites, EEC measured winds in Stonington, Orland, and Madison, Maine and found that the winds were far less energetic than the winds at mountain sites. EEC also won a U.S. Department of Energy contract under which it installed a 50 kW research wind turbine in Orland. The weak wind resource at this well-exposed coastal site severely limits the output of this turbine. Outside Maine, EEC has measured winds at coastal sites in Massachusetts and Rhode Island and a mountain site in Vermont. The same relationship holds—the winds are far more energetic at the mountain sites.

By 1993, the Redington/Black Nubble site emerged as the most attractive as it is located adjacent to existing power lines and an extensive road network and two major ski areas; is part of the working forest; and is unusually well-oriented to harness the available wind power. Ten meteorological towers were installed on the two mountains and a strong wind resource was documented. The West Kennebago sites were not selected because they would have required a much longer power line to connect to the grid and were not adjacent to significant existing developments.

EEC also spent considerable time evaluating alternative turbines based on environmental, technical, and financial considerations. At the end of this review, EEC selected larger turbines to reduce the number of turbines and ensure the maximum amount of clean energy would be produced. The Vestas V90 is a "Class I" wind turbine, which means it is designed for sites with high wind speeds. Vestas is the world's largest wind turbine manufacturer with over 30,000 turbines operating in 50 countries. Vestas has considerable experience with cold climates and mountainous terrain. Smaller turbines such as the Vestas V80 and the GE 1.5 MW turbines were considered, but the project would have used more turbines, produced less power, would have had to charge more for the power produced, and would not have resulted in less visual or environmental impact.

After selecting a site and turbines, EEC investigated options for transport of the turbines to the site. EEC investigated helicopter transport, but learned that these turbines, or any other viable turbines, are much too heavy for helicopter delivery.

Once it was determined that road transport is the only reasonable delivery method for the wind turbines, EEC undertook additional engineering and environmental studies to evaluate alternative methods of accessing the site and equipment delivery while insuring there would be no undue adverse impact on the environment and that impacts to wetlands and environmentally sensitive areas were minimal.

For example:

- *Road locations and power lines were changed many times to avoid wetlands. Over the past several years, numerous project redesigns have reduced direct*

wetland impacts from approximately 20 acres to 0.3 acres. Biological consultants were sent back into the field repeatedly to delineate wetlands for changed routes.

- *Road widths were narrowed by utilizing specialized transport equipment. This reduced clearing and visual impacts.*
- *The Electric Harvest substation was moved to avoid wetlands.*
- *The northern access road to Redington (RE6a on the map) was discarded in favor of a more western road (RE6b) to avoid wetlands and to minimize visual impact. The new route also eliminated construction of a bridge.*
- *A buffer was designed to protect the bog lemming on Redington Mountain. As a result, a turbine was relocated from the buffer zone and another was eliminated from the plan.*
- *Power lines on the mountaintop are buried to minimize visual impact.*
- *Power lines will also be buried under and along the route 27 right-of-way to the Bigelow substation, minimizing intrusion on the Appalachian Trail.*
- *Turbine pads, crane assembly areas, and portions of the access road will be revegetated after construction.*

MMP evaluated a Black Nubble only scenario. As discussed in Attachment 1 to this memo, this option is not economically viable. Additionally, this option would not have a significant reduction in the areas from which the turbines would be visible.

2. Please state the source that provided you with the estimated yearly state tax ($500,000) that would be paid by the proposed wind farm facility. Would any taxes be paid to Franklin County?

   The State Tax Assessor and Maine Revenue Services will assign a taxable valuation for property tax purposes. The current tax rate for Franklin County is about 1.02%. If the valuation on this project were, for example, $100 million, then the property tax would be approximately $1 million per year. We expect that approximately half of this would stay in Franklin County and half would go to the state. The portion of the power line located in Carrabassett Valley would be taxed at the local municipal rate. MMP has not done any analysis of the recently passed changes to the state property tax law to determine if it would affect these values.

3. Please provide all original petitions and original signatures referred to in the application as supporting material for the demonstration of need.

   Original petitions and signatures will be provided for review at the LURC hearing.

4. Please re-state and summarize what is referred to in the application as the "lasting and sustainable" benefits to the local area residents and to the state.

   "*Sustainability" is defined as the ability to provide for current generations without taking from future generations. As described in the permit application, wind energy is expected to be a source of sustainable energy as it comes from a renewable resource.*

Winds are caused by uneven heating of the earth by the sun and will continue on a sustainable basis. Our region's current over-reliance on fossil fuels is not sustainable. Not only are limited supplies causing very large price increases but the burning of these fossil fuels pollutes our environment and is implicated in causing climate change. New England's over reliance on natural gas is even threatening the reliability of the electricity network.

The sustainability of wind is described on page 61 of the Development Description.

The lasting and sustainable benefits of the wind farm will be:

- *Cheaper electricity*
- *Reduced air pollution and CO2 emissions*
- *Reduced dependence on imported fossil fuels, especially natural gas*
- *Up to 100 well paying jobs during construction.*
- *5-10 long-term well-paying jobs.*
- *Incremental property taxes.*
- *Ripple effect of local purchases of goods and services during construction and operations.*

5. Would the ownership and funding of the wind farm be essentially different from any other electricity generator in the state, for example a hydroelectric facility? If so, in what way?

   MMP's financing structure is typical of those used by all types of independent power producers.

6. Please provide additional detail to document the power marketing deal with Constellation Energy. How will this benefit Maine?

   This contract is described in the following press release.

FOR IMMEDIATE RELEASE:
April 5, 2006

REDINGTON WIND FARM SIGNS CONTRACT
FOR ITS CLEAN, RENEWABLE POWER

Constellation NewEnergy to offer "green power" to Maine customers

YARMOUTH, ME – Maine Mountain Power announced today that Constellation NewEnergy, a leading retail supplier of electrical power in Maine and New England, has agreed to buy all of the output from its proposed 90-megawatt Redington Wind Farm near Sugarloaf Mountain, a major milestone in the development of the renewable energy project.

Under the contract, Constellation NewEnergy will buy all of the electricity and renewable

energy credits produced by the wind farm for 10 years. Constellation NewEnergy will then sell the power to medium and large-sized business customers, giving first priority to customers in the local area. Schools, hospitals and colleges are likely customers for the wind-generated power.

"This is a milestone contract for wind energy in New England," said Harley Lee of Maine-based Endless Energy, which is developing the project with California-based Edison Mission Group. "Our region has lagged behind other parts of the country in the use of wind energy. A major reason has been the lack of a power marketer willing to sign long-term contracts. Constellation NewEnergy has really stepped up to the plate here and provided a key ingredient for wider use of wind energy in the region."

Under the agreement, Constellation NewEnergy will first offer the power to Maine customers in the immediate area. "We wanted to offer this power first to customers who live near the wind farm and then to other Maine customers," said Lee. "Constellation NewEnergy agreed with this concept."

Bruce McLeish, director of origination for Constellation NewEnergy's New England region, said customers who sign up for this power will pay a fixed price for a decade and won't experience the price volatility that is often seen with power generated by fossil fuel plants.

"That's one of the key advantages of wind-generated power, and we're pleased to pass on those benefits to our customers," McLeish said. "Customers will have the opportunity to buy flexible renewable power products that have varying percentages of wind power from the Redington Wind Farm."

Redington is currently seeking a permit from the Maine Land Use Regulation Commission, with construction expected to begin next year. Once completed, the project will generate enough electricity to serve approximately 44,000 households, and will reduce air emissions in the region by 860,000 pounds (430 tons) every day.

Last December, Endless Energy entered into an agreement to develop the Redington project with Edison Mission Group, which has a current wind energy portfolio of 477 megawatts at 10 projects in four states.

The primary benefits to Maine from this contract are fixed price, competitively priced power, greater reliability, and flexibility given to customers to choose the percentage of their power coming from the wind farm and trade that off with the price they want to pay. Constellation is already a leading supplier of power in Maine and has numerous existing relationships which will help in providing information about this power to customers. Constellation has a strong focus in renewable energy.

Because Redington and Black Nubble have strong winds and are located adjacent to existing infrastructure, we are able to produce power at competitive prices.

7. Please provide any additional detail and documentation you plan to submit for the sections on title-right-interest and financial capacity, per your conversations with Jeff Pidot.

   This information has been provided in response to questions 1A (RTI) and 2A (Financial Capacity) in the March 29, 2006 questions from LURC.

8. Please provide an update on the progress of the talks regarding a possible Settlement Agreement you have been having with various stakeholders.

   To date there is no information to report on a possible settlement agreement with various stakeholders.

9. Please provide copies of any recent correspondence (include both letters sent to and received from) with the Federal Aeronautics Administration, the U.S. Navy, and any of the other reviewers.

   Our response to the March 29, 2006 LURC questions include:

   - *Approval letters from the FAA (Attachment 7).*
   - *Email correspondence with Donna O'Neil, FAA Specialist (Attachment 9).*
   - *A copy of a presentation to the Navy, dated December 22, 2004 (Attachment 6).*

   Other than those forwarded to us by the LURC office, there is no other written correspondence with reviewers .

10. Please provide any results of the geotechnical borings being done [reference Advisory Ruling AR 05-41, issued September, 2005; and telephone conversation with Jeff Thaler and Eva Polisner, March 23, 2006]. Also, please provide an update, if any, as to the types of turbine foundations that are expected to be needed.

    The results of the geotechnical borings are available in Attachment 2.

    The turbine foundation design will be available in the final development plan as discussed in question 21F in the March 29, 2006 LURC response letter.

11. Please provide any additional information you have accumulated on the temporary concrete batch plant and possible water sources, including the size and location of the structures, timing, amounts of water needed, possible sources, and monitoring of the lake or stream level if needed.

    Location

Several locations have been identified; no specific site has been finalized yet. Sites are being evaluated on cost, water availability, and levelness / clearing / preparation required.

Size

The total size of the footprint necessary for the batch plant is estimated to be approximately six acres.

- *Size of plant: 1.5 acres needed for plant, office trailer, two storage trailers (one 28 ft to house a 300 kW diesel generator, one 48 ft for supplies), three 1500 gallon chemical tanks (concrete adders), two 10,000 gallon water tankers, 2000 gallon fuel tank.*
- *Size of aggregate storage area: 4.5 acres for stock piles of sand, stone, and parking of equipment.*

Less acreage would be needed if the batch plant can be set-up where aggregate is manufactured (then large stockpiles would not be necessary).

Timing

The concrete batch plant will be producing concrete for foundations in June and July of 2007, although actual timing will depend upon many different factors and could change. Preparation of site, crushing of materials, and equipment delivery / preparation will begin many months in advance. Site clean-up and teardown will also likely take an additional month once concrete production has finished.

Water Source

Our investigation into water use has concluded that our water needs are modest enough not to create significant concerns for the local water bodies. This conclusion was reached after reviewing our water needs with Dan Locke, Hydrogeologist, Maine Geological Survey. Dan's email dated April 4, 2006 on the project's water use is available in Attachment 12 in our April 12 LURC response section.

The water source will be determined by the location of the batch plant. If we utilize a lake or stream as a water source, an appropriate monitoring plan will be developed.

The water needs estimate spreadsheet can be found in Attachment 13 in our April 12 LURC response section.