Patriot Renewables, LLC, headquartered in Quincy, Massachusetts, is proud to respond to the national call for increased renewable energy and the need for energy independence. We are designing a wind project on Saddleback Mountain in Carthage, Maine that would consist of 12-13 turbines on privately-owned land. Additionally, we are exploring the possibility of an agreement with the Town of Carthage that would allow us to construct up to 6 additional turbines on the Carthage Town Lots. The project could provide up to 106 million kilowatt-hours of electricity of year – enough to power about 16,700 Maine homes annually (based on a 34.5 megawatt project at a 35% capacity factor and an average annual electricity usage of 6,335 kWh per year per Maine household).

Below is a preliminary map of the wind project. You can see the privately-owned land that is participating in the project and the adjacent Carthage Town Lots. The location of the meteorological tower that is currently erected on the mountain is marked. The map also shows preliminary locations of wind turbines on private land and potentially on the Town Lots. It also shows the existing road that would be improved and extended to access the project. The transmission line is not shown on the map but the electricity generated by the wind turbines would go out on a 34.5 kilovolt (kV), distribution-level electrical line that would run south down to Route 2.
We’re sure you have lots of questions about the proposed wind project in Carthage. Keep reading for answers to many of the most common questions that people ask about the project.

How Would the Wind Project Benefit Carthage?
The project would generate annual tax revenue for the town. It would also provide a clean, renewable source of electricity without emitting harmful compounds that pollute the air we breathe and contribute to global warming. During the construction phase of the project, purchasing of food, lodging, fuel, and other construction-related services would benefit local and neighboring communities. Local subcontractors would be used for construction of the project as much as possible and several full-time jobs would be created for operations and maintenance of the wind farm.

Why Would We Want the Town of Carthage to Participate in the Project?
Installing wind turbines on the Town Lots could generate approximately $10,000-$15,000 per turbine for Carthage each year. We estimate the potential for 4 - 6 wind turbines to be placed on the Town Lots, depending on the type and size of turbine used and the results of wind measurements and environmental studies currently underway. Revenues from these turbines would go directly to the Town of Carthage, and the additional turbines would raise the assessment value of the project, providing increased annual tax revenues for the town.

What’s the Wind Like on Saddleback Mountain?
We will need at least a full year of wind data to evaluate the wind potential, but the outlook is good so far. A meteorological tower has been collecting data since November 2008 and has confirmed that the wind speeds are strong and sufficient to support a project. The strongest wind measured to-date was a gust of 83 mph on December 25, 2008. The coldest temperature recorded was -13° F on January 16, 2009 and the hottest temperature recorded was 86° F on May 21, 2009.

How Do You Minimize the Environmental Impact?
Extensive surveys on resident birds (including raptors) and bats were just completed for the spring and will be done again this fall. There is also a radar unit installed on site that monitors the passage of any migrating birds. Data collected this spring indicate that the mountain is not in a migration path. Our preliminary road design is being modified to account for wetlands and vernal pools which have been located and tagged near the project area. Additional studies are underway to help us evaluate and avoid or minimize any impact to endangered or threatened flora and fauna species.

The meteorological tower on Saddleback Mountain was laid on its side and tilted upright when it was first installed.

A radar unit on top of the mountain monitors migrating birds 24 hours a day for 30 days in the spring and 30 days in the fall.
What Will the Wind Project Look Like?

Following are visual simulations of what the wind farm would look like from Goodwin Road. One simulation includes wind turbines on the Carthage Town Lots and the other does not. The turbines shown in these simulations are GE model 1.5sle wind turbines. These same 389-foot tall units are installed at the Beaver Ridge Wind farm in Freedom, Maine, which we constructed and now operate.

A simulated view of the Saddleback Ridge Wind project from Goodwin Road, 3.4 miles away from the closest turbine. The turbines shown on the peak at the left of the picture are on the Carthage Town Lots, which could be included in the project.

A simulated view of the Saddleback Ridge Wind project from Goodwin Road, 3.4 miles away from the closest turbine. This simulation does not include wind turbines on the Carthage Town Lots.

How Loud Are the Wind Turbines?

The best way to answer this question is to see a wind farm in person and judge for yourself. Wind turbines do make noise, but this project is being designed to exceed Maine Department of Environmental Protection sound requirements. The southernmost wind turbine would be more than 2,500 feet from the closest landowner involved in the project and more than 3,000 feet from the closest non-involved landowner.
How Big Are the Wind Turbines?
The size of the wind turbines used in this project will depend on the wind turbine manufacturer and model that we choose. Commercial-sized wind turbines are large, with rotor blades over 100 feet long, mounted on towers over 250 feet tall. The best way to understand how big commercial wind turbines are is to see them in person. Our 3-turbine Beaver Ridge Wind project in Freedom uses GE model 1.5sls wind turbines that reach 389 feet tall at the highest point, with 122-foot blades mounted on 262-foot towers. We held an open house at the Beaver Ridge Wind site in April that a number of Carthage residents attended. We will schedule another open house this fall to give more people a chance to see these wind turbines up close.

What’s Next?
Archeological, cultural, sound, and visual studies will be completed this summer, and we are on schedule to file a permitting application with the Maine Department of Environmental Protection (DEP) at the end of this year. We hope to begin construction in the summer next year.

LEARN MORE
We are committed to building strong relationships with the communities in which our projects are located. Through discussions with landowners and in public meetings we share project information and seek participation and feedback from the community. We are also proud to contribute to worthy civic endeavors and local community groups. We held a public meeting in March and we will hold at least two more public meetings this year that you can attend. You can also contact us directly by calling Project Manager Andy Novey at (617) 503-5516 or emailing us at info@patriotrenewables.com. Please visit us on the web at www.patriotrenewables.com.