



Project Impacts

NSRC-FUNDED RESEARCH FINAL REPORT

Evaluating Potential Conflicts between Wind Power Siting and Natural Resource Values

PROJECT AWARD YEAR AND TITLE:

2004

Modeling and Evaluating Potential Constraints between Siting of Commercial Wind Power and Ecological and Social Values in the Mountains of the Northern Forest

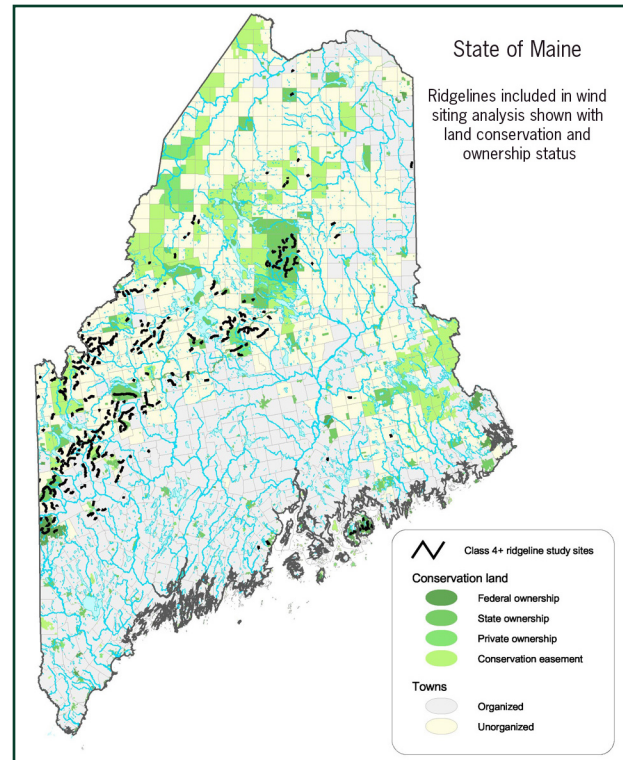
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Wind power has emerged as an important source of renewable energy in New England. The strongest inland wind resource is located on higher elevation ridgelines within the Northern Forest, and several commercial wind power projects have been proposed for these areas. These projects can make an important contribution to the region's renewable energy supply, but if inappropriately sited, they will have a significant adverse impact on natural and cultural values of the Northern Forest landscape. This project provides the public and policymakers with analytical information on potential conflicts between wind power development and significant natural resource values at ridgeline sites in Maine and New Hampshire.

Using publicly-available wind resource data, NSRC researchers delineated 267 sites in Maine that possess a commercially viable wind power resource. Using GIS (geographic information systems) technology, these sites were overlaid with existing conservation lands and significant natural resource values (occurrences of rare plants, animals, and natural communities; critical summit ecosystems; hiking trails; visibility from the Appalachian Trail; and steep slopes). Results show that sites vary widely in degree of overlap with these resources. This information provides a starting point for determining which sites may potentially be suitable (or unsuitable) for development. A similar analysis for New Hampshire is on-going.

Researchers have presented this approach at public workshops and conferences and are involved in major policy initiatives including the New Hampshire Energy Policy Commission and the Governor's Task Force on Wind Power Development in Maine. Their findings are being used to promote state-based wind power policies that guide development to sites of lower natural resource value.