SEARSBURG, Vt. In ecologically minded New England, it was the gusty dream of energy officials and environmentalists: Windmills were going to help the region reduce its dependence on pollution-spewing power plants.

But seven years after the region's first commercial wind farm was built, it is becoming clear that wind power faces a hard road here, partly because of environmentalists themselves. Last year was a near record year for commercial windmill installations nationwide, with enough built to power almost 500,000 residences, yet not one went on line in New England. Wind farms have gone up in Texas, California, and Wyoming, but in Massachusetts the only commercial wind farm is Searsburg's 11 turbines, which went up in 1997.

"I hoped way back when because of the stronger environmental consciousness here it would be an easier place to locate" turbines, said Tom Gray, deputy executive director of the American Wind Energy Association. "The irony I did not foresee is that it would be more difficult."

At least eight proposed windmill farms in New England are meeting sharp opposition. While much of the resistance is coming from neighbors, environmental concerns are also holding up some plans, including one that would add 20 to 30 turbines to an existing wind farm on a mountain ridge here.

For environmentalists, the conflict between green power and green land has produced a moral quandary. In the search for the open, windblown spots that make the best sites for turbines, developers are finding that much of the region's land is already spoken for as conservation land, preserved vistas, or the home of protected species.

"Two totally separate good things are in tension with each other," said Seth Kaplan of the Conservation Law Foundation, a regional environmental group that is part of a collaborative trying to forge a compromise on the Searsburg expansion.

The most contentious wind farm plan, the 130-turbine proposal in Nantucket Sound, is far enough offshore to enjoy the quiet support of several regional environmental groups, though fishermen and shoreline property owners largely oppose it. But inland, where most wind farms are proposed, the conflict among environmentalists is becoming acute, as wind farms are proposed in places or near species these groups fought so hard to protect over the years.

Earlier this month Maine Audubon filed an appeal of a state wind farm permit for 30 turbines in Mars Hill, because of the lack of comprehensive studies on how many birds or bats the blades would kill. Another project in Maine, 30 to 39 turbines proposed for Redington, has drawn objections from the Appalachian Trail Conference, which argues that the 350-foot-tall turbines will destroy pristine views along the Appalachian Trail and fragment wildlife habitat.

And in Vermont's remote Northeast Kingdom, an East Haven wind farm proposal is bumping into conservationists' visions of untouched forest tracts and mountain ridges. A
permitting decision has been delayed until more studies could be done to see if the turbines would harm wildlife.

Perhaps nowhere is the conflict more clearly drawn than in remote Searsburg, Vt., the site of New England's only commercial wind farm. Green Mountain Power and EnXco want to expand an 11-turbine wind farm into a slice of the Green Mountain National Forest, near an area where environmental groups successfully fought a timbering proposal a decade ago.

"It's been really hard, because of course we are for wind, but this is a very special area," said Dick Andrews of Forest Watch, a New England conservation group involved in the collaborative that may allow the Searsburg farm to expand. The proposed expansion would construct 20 to 30 turbines more than 300 feet tall along a ridge in the Lamb Brook region, a virtually roadless stretch of land that environmentalists say is a key habitat for black bears.

In many ways, New England seems well suited for wind power. Powerful winds have always blown through the region as air flows from one weather system into another. One of the nation's first wind-powered electricity generators was built on Grandpa's Knob in Vermont in 1941.

New England also has a strong environmental movement, which has lobbied for more green, or nonpolluting, power sources as an alternative to old coal-burning plants. Several states' laws require utilities to generate a certain percentage of their energy from new renewable sources. Massachusetts utilities must have 4 percent by 2009, and this could include, for example, wind or other means, such as biomass or solar.

But the region also presents big obstacles to wind-farm developers. Land here is relatively expensive and available only in relatively small parcels. Huge wind farms like the 108-turbine Colorado Green project in Lamar would be virtually impossible to build in New England. Instead, builders must focus on smaller and therefore less cost-effective developments.

With a dense population, New England also has a high concentration of conservation groups and permitting agencies that developers must navigate. Developers trying to build wind turbines in New England say they have noticed that permitting is stretching out longer and longer as proposals increase and opposition grows. Many turbine developers say they are subject to unreasonable calls for studies about bird mortality near turbines, while no one is calling for similar studies for existing fossil fuel or nuclear plants.

"It's very frustrating," said Harley Lee of Endless Energy, a Yarmouth, Maine, company that has been trying to build wind farms in Redington, Maine and on Equinox Mountain Vermont. "Most people are able to take that tradeoff: It has a slightly negative impact, but look at all the benefits."

Environmental groups and agencies that are calling for more site studies say they are not holding wind farms to more scrutiny than other power plants. Jack Clarke, director of advocacy for Massachusetts Audubon, says the region needs siting standards and even some sort of environmental review.

In Massachusetts, the state's development agency for renewable energy is now meeting with 40 interested communities to build municipal wind projects. But for the state to meet its 2009 goal, larger projects will have to be built.
Aside from the Searsburg wind farm, the only windmills operating in New England are a scattering of individual turbines that power homes and businesses, plus a few municipal turbines in places like Princeton, Mass. and Hull.

In some proposals under consideration, environmentalists are meeting with wind developers to work out compromises. But at the same time, a growing number of homeowners are making it clear they don't want the wind turbines near them.

In Vermont, a coalition of citizens' groups tried this year to have the Legislature pass a three-year moratorium on wind farms. The effort failed, but the state government is now considering a policy prohibiting large-scale wind farms from being built on state lands, in part because of fear that windmills would harm tourism.

In Searsburg, a coalition of environmental groups, the farm developer, and state and federal agencies is attempting to come up with a solution that will allow the wind farm to expand, but preserve more land elsewhere. For a while, the group thought that if a swap for a desired piece of forest in nearby Glastenbury could be arranged, all the parties would be happy. But the US Forest Service said it could not approve the swap because it would fragment its land too much. The groups are now trying to come up with a new way to get the land and allow the deal to go forward.

On a recent rainy day, Andrews of Forest Watch sat in his car below the 11 existing turbines, their blades almost motionless on the nearly windless day, pondering what his group should do. "There isn't an easy answer," he said.

Beth Daley can be reached at bdaley@globe.com.

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