



PHOTOS BY JOE EPSTEIN/THE STAR-LEDGER

The Jersey-Atlantic Wind Farm at the Atlantic County Utilities Authority has five 380-foot-high turbines. Below, seagulls make their home at the authority.

Are energy answers in the wind?

Corzine has plan for turbines off S. Jersey coast

BY TOM HESTER
STAR-LEDGER STAFF

As part of its plan to combat global warming, the Corzine administration is quietly taking the first steps toward creating an array of giant windmills off the South Jersey coast to turn ocean breezes into electricity.

Environmentalists who were briefed on the plan by an adviser to the governor say it could involve as many as 80 wind-powered turbines towering 30 stories high over the surface of the Atlantic Ocean, somewhere between southern Ocean County and Cape May.

A spokesman for Gov. Jon Corzine confirmed the administration is conducting a series of studies of the feasibility and the environmental and economic impacts "to push forward with an offshore wind project."

"Governor Corzine supports the idea of building offshore wind turbines, which he believes will serve as an important test of this potential alternative energy source," Corzine spokesman Brendan Gilfillan said. "We hope that wind will be part of the equation as we seek alternative

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WINDMILLS

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A plan for turbines off South Jersey

energy resources statewide."

Corzine's energy policy calls for 20 percent of the state's electricity to be wind- or solar-generated by 2020, and 80 percent by 2050, to reduce the use of power from fuel-burning plants that emit greenhouse gases.

The idea of building up to 80 turbines off the coast was proposed by a blue-ribbon panel of environmentalists and public officials in a May 2006 report to the governor following 15 months of study.

The state Board of Public Utilities is now seeking proposals from potential developers to determine what it would take to actually build an offshore "wind farm."

Scientists from the Department of Environmental Protection are to meet with interested parties Sept. 25 before commissioning a study of the potential impact on the water, the ocean bottom, and birds, fish and other wildlife. And the state Commerce Commission is preparing a contract for a study of the effects on the economy and tourism.

Environmentalists are divided over whether "wind farms" are an Earth-friendly source of power.

Timothy P. Dillingham, director of the New Jersey chapter of the American Littoral Society, is a member of the blue-ribbon panel that studied the issue. He and his organization oppose the idea, concerned that it will cause unforeseen environmental problems and destroy the ocean view that adds to vacationers' enjoyment of the Jersey Shore.

"We are talking about building an industrial facility out in the ocean," he said. "There is no framework, no set of regulations to ensure public protection. People think there is money to be made. People think there is some answer to global warming here. Caution is being thrown to the wind, so to speak."

The Sierra Club of New Jersey supports the plan, and director Jeff Tittel disputes Dillingham's concerns.

"Aesthetically, if you want the turbines to blend in with Seaside Heights, you'll have to put neon lights on them. If you want them to blend in with Atlantic City, you'll



JOE EPSTEIN/THE STAR-LEDGER

A wind turbine at the Jersey-Atlantic Wind Farm viewed from inside another turbine.

have to put giant roulette wheels on them," Tittel said. "Three miles off the coast they will look like a pencil. Five miles off the coast you will not see them. The biggest threat to the shore is global warming and sea-level rise. Unless we cut emissions, there will be no Jersey Shore left."

Dillingham and Tittel each said they were told at a July 24 meeting with Debbie Mans, a policy adviser to Corzine, that the administration expects to see 80 turbines capable of producing 350 megawatts per hour rise off South Jersey, where the wind is strong, the water is shallow enough for construction and the ocean bottom is flat.

Also at the meeting was Theodore J. Korth, another member of the blue-ribbon panel and counsel to the New Jersey Audubon Society, which supports the wind farm idea. He said if the wind farm plan moves forward without delays,

steps toward actual construction could begin in about 18 months.

Mans was not available for comment. Gilfillan, the governor's spokesman, said the number of wind turbines is unlikely to be as high as 80, and that it's too early to say when they might be built.

"This is an administration-wide effort, involving multiple departments and agencies," Gilfillan said. "The timing of this project will be dictated by the outcome of these studies and potential investor interest."

If the number of turbines approached 80, it would be the third largest wind farm in the world, behind only a 200-turbine farm planned 11.5 miles off the coast of Rehoboth Beach, Del., and a 130-unit farm planned for Nantucket Sound off Massachusetts. Five European countries have a total of 16 offshore wind farms and the largest, with 72 turbines, is located off England.

New Jersey has only five wind turbines in operation. They stand 262 feet high on the grounds of the Atlantic County Utilities Authority in Atlantic City and provide 70 percent of the power for the agency's wastewater treatment plant. Completed in 2005, they quickly became landmarks at the city's northern end.

The Audubon Society, in cooperation with the authority, is conducting a study to determine the potential danger to bird life, one of the environmental concerns raised about the huge windmills.

Bluewater Wind, based in Hoboken, is planning to build the wind farm off Delaware and is vying for the chance to do the same off New Jersey. James Lanard, lobbyist for the firm, said it expects to begin erecting the 200 turbines off Delaware in 2012 at a cost of \$2 billion.

He said each 120-ton turbine will have supports driven 90 feet in the ocean floor, stand in 75 feet of water and rise 256 feet above sea level. Transmission lines running under the sea bottom will connect to electrical substations on the shore. The project is expected to take two to three years to complete.

Lanard disagreed with Dillingham over whether the windmills would mar the view of Shore residents and visitors. Dillingham said a New Jersey project would have to be built within state waters, no more than three miles from the coastline and visible from the beach. Lanard said he expects the federal government to grant permission to build on the Continental Shelf, 11 miles offshore and out of sight from land.

Cost is a key issue in wind farm development. On Thursday, the Long Island Power Authority confirmed it has scrapped a plan to create a \$700 million wind farm with 40 turbines off Jones Beach, due to the expense. A plan to erect 170 turbines off the Texas coast in the Gulf of Mexico has also been called off because of the potential cost.

According to the U.S. Department of Energy, the nation's wind-power capacity increased by 27 percent in 2006, with Texas, California, Iowa and Minnesota leading the way. Still, despite wind farms now operating in 36 states, wind accounts for just 1 percent of the U.S. power supply.

Tom Hester may be reached at thester@starledger.com or (609) 292-0557.