

Offshore windmills could cover 40 sq. miles

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NEWARK - If the state Board of Public Utilities agrees next month to build offshore windmills, then projects covering as much as 40 square miles of the Atlantic Ocean could be built locally over the next several years.

Plans on file in the state BPU office here show most of the proposals favor building the projects in southern New Jersey - anywhere from 3 to 20 miles offshore, visible from most of the region's beaches.

The state is seeking to get as much as 350 megawatts of power from the project. By comparison, the B.L. England power plant in Upper Township produces about 214 megawatts. The proposals are meant to take stress off the grid that gets much of its energy from out of state, while replacing energy sources that emit thousands of tons of pollutants each year.

The six-member evaluation committee includes members from the state BPU, Department of Environmental Protection, Governor's Office, U.S. Department of Energy and the recently disbanded state Commerce Commission. But state officials refused to say who would be making recommendations for the \$1 billion project.

While four of the projects would use windmills similar to those at the Atlantic County Utilities Authority site, one builder proposed a revolutionary design. Instead of spinning like a pinwheel, New York City's Environmental Technologies LLC's windmills would spin like a blender, the multiple long, flat blades rotating around a central pillar inside of an open, boxy enclosure. By placing them somewhere off Seaside Park, Ocean County, the plans say the 225 windmills would generate 337.5 megawatts of power.

Because they do not have giant spinning arms, each windmill takes up about one acre, whereas traditional windmills use about 23 acres.

Three other plans would place windmills in sprawling rectangular zones.

Planners seek similar sites off Cape May and Atlantic counties. While the ocean seems limitless, plans show builders are boxed in by constraints that include shipping lanes, flight patterns, transatlantic cables, shipwrecks, fisheries, water depths and proximity to the shore.

The plan by Cape May's Fishermen's Energy of New Jersey seeks to alleviate fishing concerns. Opposition by fishing groups undercut an unrelated proposal by the Long Island Power Authority.

Cape May's Fishermen's Energy wrote they would investigate whether special measures should be taken to conserve fish species. While the structures could overrun some habitat, the company did not expect long-term, negative effects.

The plan would put eight windmills about three miles off Absecon Island approximately between the foot of the Atlantic City Expressway and the Margate/Longport border, in hopes of rallying the region behind the project. The application noted the project would add to the Atlantic City skyline.

The second phase would put 66 windmills of twice the capacity about seven miles east from the Great Egg Harbor Inlet. They would all be operational in 2014.

The plan calls for creating a pair of nonprofit energy collectives to seek federal funds.

Garden State Offshore Energy, a joint effort by PSEG Renewable Generation and Winergy Power Holdings, would put their farm about 20 miles dead east of Avalon, generating 345.6 megawatts.

The 96 turbines would be in an area 3.5 miles by 5.5 miles, but barely visible.

The plan said it could build in water up to 110 feet deep because of groundbreaking technology the company did not share in the public proposal.

The company seeks \$4 million, with \$400,000 for development and \$3.6 million for environmental monitoring. The company was one of the few to reveal the overall cost, \$1.07 billion.

A fourth plan by Hoboken's BluewaterWind would put 116 windmills 16 miles southeast of Atlantic City, generating 348 megawatts.

The project would cover about 40 square miles, but outside of a 33-foot safety zone around the windmills, the firm said there would be no exclusionary zone around the windmills.

Like several other plans, it could be operational by the end of 2013.

The plan touts the firm's experience, saying team members helped construct windmills that generate 1,120 of the 1,193 megawatts generated worldwide. It also said it is developing a 450 megawatt windpark about 11 miles east of Rehoboth, Del., and was the financial advisor and manager of the ACUA's wind park.

The firm seeks \$19 million from the state's Clean Energy Program, paid over five years, based on the electricity delivered to the grid.

The BPU committee is expected to recommend one of the five plans at its Aug. 20 board meeting.

The BPU allows groups filing proposals to redact certain sensitive information, typically involving financing, private agreements or aspects that could compromise the company's financial standing.

Cuts have to be justified using the confidentiality claim. Only one firm, Fishermen's Energy of New Jersey, was the only company since March to justify their redactions. BPU Board secretary Kristi Izzo said she would ask the other firms to explain redactions in the coming days.

A final proposal by Bayonne's Occidental Development & Equities, LLC, said it would generate 160 megawatts after a 578-day project.

But the 22-page filing didn't say how many windmills, how tall or in what arrangement. The company plan mentions two sites, but only specified they would be "off the coast within territorial waters."

The file raised more questions about the company than it answered.

The company redacted information about the firm's expertise. Satellite photos seem to indicate the company's mailing address was in a Bayonne, Hudson County, residential neighborhood, and its state incorporation records do not exist.

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