

Undersea cable could bring 'green' power to Hub

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Wakefield firm's plan faces tough scrutiny of environmental impact

By Peter J. Howe

GLOBE STAFF

As two companies press ahead on projects bringing natural gas to Boston through offshore terminals, a third group is also looking to the sea for a new source of energy — a 140-mile underwater electric cable from Maine to South Boston.

The project, which could bring enough electricity into the Hub to meet the needs of about 500,000 homes, has only started to run the gauntlet of state and federal approvals

and isn't expected to be in service before 2013.

Backers of the project call it "The Green Line" because, they contend, the cable would unspool current transmission-line bottlenecks and enable delivery into Greater Boston of huge quantities of so-called green power generated by Maine wind turbines, hydroelectric generators driven by ocean tides, and power plants that run on wood waste from paper and lumber mills.

Whether that new power flow merely meets growth in demand or whether it supplants electricity generated by fossil fuels at Eastern Massachusetts power plants isn't yet known.

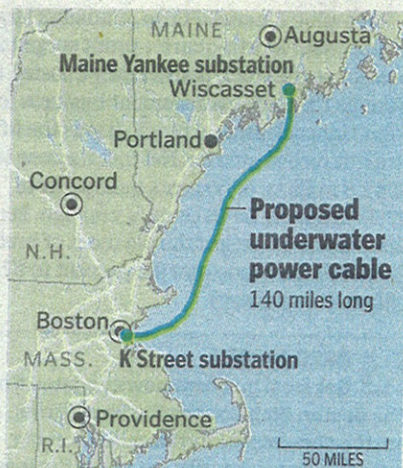
New England Independent Transmission Co. LLC, chaired by Edward N.

Krapels, managing director of Energy Security Analysis Inc., a Wakefield energy market research and consulting firm, is proposing to build the project.

Krapels was a founding member of Atlantic Energy Partners LLC, which in June 2005 began constructing an underwater high-voltage transmission line from New Jersey to Long Island, called Neptune RTS. That power line is scheduled go into use sometime this summer.

Seth Kaplan, senior attorney with the Conservation Law Foundation, a Boston environmental group, said, "Its stated purpose of bringing renewable energy from Maine and eastern Canada down to Boston is a good one. How-

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SOURCE: New England Independent Transmission Company

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Company plans undersea power line to Hub

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ever, the environmental impacts of the project itself need to be closely examined."

Green Line backers have only started evaluating what, if any, effect the ocean-floor cable could have on marine life.

In March 2005, the Maine Public Utilities Commission predicted that enough wind turbines could be developed in the state to power 750,000 to 1.5 million homes, in addition to extensive tidal power and wood "biomass" generation. But Kaplan said nothing guarantees that only "green" power — rather than electricity produced by coal- and gas-fueled power plants in Canada — would flow through the undersea line to Boston.

The cable would run from the

site of the deactivated Maine Yankee nuclear power plant in Wiscasset, Maine, to an as-yet-undetermined location in South Boston's waterfront industrial zone near a major electric switching station on K Street.

The cable would carry up to 660 megawatts of power, as much as the Pilgrim nuclear station in Plymouth generates. While long-distance underwater cable technology is proven — the Cross Sound Cable between Long Island and Connecticut went into service in 2004, and a 55-mile cable under San Francisco Bay is set to start operating next year — high-voltage transmission projects can be tricky.

NStar Electric is still struggling, eight months after its initial deadline, to activate a new 18-mile, 345,000-volt under-

ground power line from South Boston to Stoughton. Company officials hope to have it working by spring.

James W. Hunt III, energy and environmental adviser to Boston Mayor Thomas M. Menino, called the Green Line transmission line plan "intriguing."

"Any project that can help address Boston's power needs without building more dirty power plants is something certainly worth looking at and worth considering," Hunt said. He added that the cable-terminus building must also be acceptable to Southie residents.

Local power grid officials said they can't yet support or oppose the Green Line project.

"We support transmission upgrades that are identified through our regional system planning

process," said Ken McDonnell, spokesman for Independent System Operator New England, the Holyoke organization that runs the six-state power grid.

The latest system plan didn't identify a need for a project like Krapels's, McDonnell said, but the ISO would welcome his company "getting involved in the process."

Plans for the new electric line come as two gas companies, Accelerate Energy LLC and Neptune Energy LLC, a Suez North America subsidiary, are moving through environmental reviews that would lead to construction of liquefied natural gas unloading facilities about 10 miles off the coast of Gloucester.

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