A Power Infusion Comes to Long Island by Land and by Sea

By JOHN RATHER

LIKE a giant extension cord, an electric transmission cable named for Neptune and stretching 50 miles underwater from Sayreville, N.J., is about to be plugged into Long Island, bringing the equivalent of a large power plant to a power-hungry region.

Within days, divers and crews working 1,500 feet off Jones Beach State Park will begin to feed the end of the cable into two conduits going underwater and underground to an excavation pit at the pitch-and-putt golf course at Jones Beach.

Once the cable’s three strands are threaded through the conduits and spliced to a part of the cable that is already in the ground along Wantagh State Parkway, Long Island’s electric grid will be connected to New Jersey and the extensive PJM regional grid. PJM, one of a handful of regional transmission operators in the country, serves New Jersey and all or parts of 12 other states and the District of Columbia. It is supplied by coal, hydroelectric and nuclear generators, none of which exist on Long Island.

The cable is scheduled to begin operating by July, in time for peak electricity demand.

The connection will realize a longtime goal of the Long Island Power Authority to expand its capacity to import electricity to Nassau and Suffolk, preferably for a lower cost than power generated on Long Island.

The Neptune cable is about 10 inches in diameter, not much stouter than a small tree trunk, and protected from corrosive saltwater by a black polyethylene sheath. It will carry 660 megawatts of electricity — larger than any other import source for the Island.

LIPA imports power from New England on the 330-megawatt Cross Sound Cable, which runs underwater from Connecticut. Two older cables, the 600-megawatt Y49 cable and the 599-megawatt Y50 cable, also run under the Sound to the Island.

The Neptune cable is part of LIPA’s push to add to the amount of available electricity. The authority is backing construction of the 350-megawatt Caithness Energy generating plant in North Bellport and a 140-megawatt, 40-turbine wind complex off the South Shore.

The Neptune Regional Transmission System of Fairfield, Conn., which owns the cable, began construction on the $600 million project in fall 2005. A specially rigged ship reeled spools of cable to the ocean floor, where a water-pressure device called a hydroplow dug a trench four to six feet under the seabed. The trench filled in as sediment resettled, the company said.
Christopher Hocker, the company’s vice president for planning, said the route was surveyed for obstructions before any cable was laid. “The contractor wanted to avoid ugly surprises,” he said. The company said it avoided fishing grounds along the route.

The Cross Sound Cable drew opposition from politicians, shellfishing groups and environmentalists in Connecticut who said it posed a threat to clams and oysters at the bottom of the Sound. But the Neptune cable, which runs 65 miles including the underground sections, generated little opposition.

Bert J. Cunningham, LIPA’s vice president of communications, said the authority was looking for a power supply agreement with a single supplier on the PJM grid. “We are anticipating we will get lower-cost power from the PJM power market than we would be able to generate on Long Island,” he said. He said the Neptune cable would increase the supply of electricity available to LIPA to 6,830 megawatts. Demand hit a record 5,792 megawatts last Aug. 3.

The cable’s underground portion runs along the east side of Wantagh State Parkway, where excavation closed a 4.5-mile bicycle path used by more than 100,000 people a year. George Gorman, the Long Island regional director for the State Office of Parks, Recreation and Historic Preservation, said the path would reopen by Memorial Day weekend.