

PJM capacity prices illustrate need for grid project: Pepco

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High capacity prices along the Mid-Atlantic seaboard in the PJM Interconnection illustrate the need for the Mid-Atlantic Power Pathway, William Gausman, Pepco Holdings' senior vice president for asset management and planning, said Friday.

Pepco has proposed the 150-mile high voltage project to meet reliability needs along the Delmarva Peninsula. It would run from Possum Point in Virginia to the Calvert Cliffs nuclear plant in Maryland, across the Chesapeake Bay to Indian River in Delaware.

PJM reaffirmed earlier this month that the line is needed in 2014 to avoid load shedding and voltage collapse, Ray Dotter, a spokesman for the regional transmission organization, said. But the PJM capacity prices also indicate there is not enough transmission available to move power into the region, Gausman said in an interview.

The ceiling price for the majority of PJM was \$16.46/MW-day, compared with a New Jersey price of \$139.73/MW-day and a southern Delmarva Peninsula price of \$222.30/MW-day, Dotter said.

The price is an economic argument for the project, alongside the reliability argument that PJM makes, but the price does signal that it is a transmission-limited area, Dotter said. "Prices are low west of the eastern corridor," he said.

Some will argue that the prices should stay high to encourage the construction of new generation in the region, but that is unlikely to happen on the Delmarva Peninsula, Gausman said. "New coal plants are not likely, there is limited gas supply on the Peninsula and the proposed offshore wind is years away," he said.

Reliability issues are the driving force behind the need for the 500-kV project, Gausman said. The system is operating at a very high capacity factor, which means it will take a very small increase in load to cause the transmission system to collapse, he said.

Pepco has made local upgrades to solve individual problems, but the system is at a point where it needs a new backbone project to solve the core problem, Gausman said. "We need the ability to move power over long distances," he said.

A more robust transmission system also would accommodate the rapidly changing power industry, Gausman said. "The existing system was built more than 20 years ago when local generation was built near the load," he said. Now plants near the load are being retired, he said, noting Exelon's decision to retire by 2011 about 930 MW in the center of Peco Energy's territory. "That generation was not dependent on a major transmission system. We couldn't build new transmission to offset that retirement in less than two years," Gausman said.

New wind generation needed to meet the high renewable energy portfolio standards established by the Eastern states also requires a robust transmission system, Gausman said. Wind farms can be built quickly, but it is hard to predict which projects will be approved and which ones will be funded, he said.

"All these things are changing so quickly that it's hard to factor them into a plan. Transmission can't be built quickly," Gausman said. Increasing the strength of the transmission system has to be done now to be able to accommodate the rapid changes, he said.

The MAPP system has been proposed primarily on existing rights of way. All but 30 miles of the project would be built at the site of existing transmission towers. About 55 miles already has one 500-kV line and room on the towers to add an additional line. The certificate of need was granted for two lines years ago, but the second line was never built. Another 45 miles would need replacement towers to accommodate an additional 500-kV line. That portion of the project already has an existing certificate of need as well.

Pepco has proposed building two direct current lines using voltage source converter technology under the Chesapeake Bay. Each would be a 1,000-MW 640-kV line, which Gausman said would be the largest in the US. One of the advantages of a DC line would be the ability to transmit offshore wind power to the west, Gausman said. The lines also would be connected to four existing 230-kV lines on each side of the bay to transmit power to the north.

The Maryland Public Service Commission has agreed to determine the overall need for the project and the request to modify the existing certificates of need before the company submits a final route for the 30 miles that need a certificate of need, Gausman said. None of the 150-mile line will be built if the 30-mile new route is not approved or if the PSC determines there is no need for the project, he said.

The PSC will hold hearings on the project in early March. The company hopes to have permission to build the project by early August. "We're confident it will be approved," Gausman said. — *Mary Powers*