Maryland Piedmont Reliability Project:

A Needed Project That Benefits Marylanders

The Need for the Project: Service Interruptions, Brownouts and Blackouts

As the regional transmission organization responsible for maintaining reliable electricity service for 13 states and the District of Columbia, PJM determined that new transmission lines are needed in Maryland and the surrounding region to prevent extensive overloads on the electrical system. These overloads would occur due to the increasing demand for power driven primarily by data center growth along with the retirement of existing generators in Maryland. If left unaddressed, these developing conditions could compromise overall electric reliability for Marylanders and could lead to widespread service interruptions, brownouts and even blackouts.

In December 2023, upon completing an open and competitive solicitation, PJM selected PSEG Renewable Transmission LLC (PSEG) to construct an approximately 67-mile high-voltage transmission line (500 kV AC) from a substation in Frederick County to a point near a substation in Baltimore County. It is called the Maryland Piedmont Reliability Project (MPRP). PSEG's proposal was one of multiple projects selected to meet the region's electrical needs. PJM operates as a not-for-profit and has no financial interest in project selection. We pick the project that will fulfill the needs we've identified as cost-effectively and efficiently as possible. To note, there were no projects utilizing existing right of way that were submitted to PJM that could fulfill the needs that MPRP is fulfilling.

The Benefits of the Project: Keeping the Lights on for Marylanders and Ancillary Benefits

With a multi-state interconnected grid, the need for new infrastructure can be caused by activity both within the state and outside of the state. But make no mistake, Marylanders benefit from this line because it is needed to keep their lights on. The demand for power is growing in Maryland, and generating plants are shutting down in Maryland without replacements. Here are specific reliability benefits for Maryland that PJM has articulated:

Avoiding the potential for overheating of transmission lines and widespread voltage collapse in Maryland. More than 11,000 MW of generation has or will retire, including the Brandon Shores and Wagner generating units in Anne Arundel County.

Providing congestion relief in the historically constrained Peach Bottom (PA) to Conastone (MD) 500-kV transmission corridor and addressing the load deliverability needs into the Baltimore Gas & Electric (BGE) system.

Providing needed transmission capacity across the BGE system. Maryland's need to import electricity will increase when the Brandon Shores and Wagner units deactivate, causing a dip in supply while electricity demand increases in the state.

There are ancillary benefits as well, which while not studied by PJM, can be logically inferred:

- The more high-voltage transmission built in the state, the greater possibility of new renewable generation locating in the state. These smaller generating plants seek locations where fewer transmission upgrades are required to plug into the power grid.
- Congestion relief generally results in lower pricing. The greater the congestion, the higher the pricing for the location of the congestion.

Jan. 13, 2025