

Mid-Atlantic Resiliency Link:

Modern Infrastructure to Accommodate the Future Growth of the Mountain State

As the power grid operator responsible for maintaining reliable electricity service in West Virginia and 12 other states in the mid-Atlantic region, PJM Interconnection determined that new transmission lines are needed in West Virginia and the surrounding states to prevent extensive overloads on the electrical system and to improve grid reliability.

Demand for electricity is projected **to increase substantially** in the coming years across the mid-Atlantic region for a number of reasons. If left unaddressed, these conditions could compromise overall electric reliability and lead to widespread service interruptions, brownouts and even blackouts.

This infrastructure project aims to **improve grid reliability, resilience and capacity** to support serving load and the deliverability of new generation, which also will reduce congestion in some areas.

The Mid-Atlantic Resiliency Link

In December 2023, upon completing a competitive public solicitation, PJM selected NextEra Energy Transmission, LLC as the developer to construct the Mid-Atlantic Resiliency Link (MARL) to address the emerging needs of the power grid. This high-voltage transmission project will involve constructing a 105-mile 500 kV transmission line stretching from Pennsylvania to Virginia, including segments in western Maryland and West Virginia's eastern panhandle. The need to construct new infrastructure can be caused by activity both within the state and outside of the state.

While it is widely recognized that the demand for electricity is growing across the region, it is important to note that West Virginia's electricity demand in the summer during peak periods is projected to increase between 8%–12% over the next ten years, while the winter forecast projects increases between 10%–11%.

The Benefits of the Project: Now and Into the Future

MARL's bidirectional capability means that these new transmission lines can facilitate electricity flows not only in both directions but can also provide enhanced access to all forms of generation in West Virginia and elsewhere.

- Additionally, once constructed, the line can be configured in the future to accommodate the future needs of West Virginia's residents, businesses and growing industries.
- This development provides direct support to the underlying 138kV system serving the West Virginia and neighboring state loads, which enhances reliability of service.
- New manufacturing and other electric demands in West Virginia can request to connect to this line.
- There are other associated benefits of building new transmission lines as well that can be logically inferred. This includes the reduction of congestion and overloads on the existing transmission lines, which in turn provides congestion relief and thereby results in lower prices for delivered electricity.

In terms of PJM's role as a transmission planner, PJM operates as a not-for-profit entity and has no financial interest in project selection. PJM selects the transmission project that will fulfill the identified regional needs as cost-effectively and efficiently as possible. In this instance, MARL was selected as the best project to modernize and strengthen the power grid serving West Virginia and its neighboring states.