



PJM Interconnection is a regional transmission organization (RTO), an entity authorized by the federal government to manage the reliability of the electric transmission system and the operation of the wholesale electricity market in a defined control area.

PJM received full RTO status from the Federal Energy Regulatory Commission (FERC) in December 2002.

PJM serves as the RTO for a 214,000-square-mile control area that covers all or parts of Delaware, Indiana, Illinois, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia, with a population of about 60 million.

As an RTO, PJM coordinates and directs the operation of the region's transmission grid, which includes 6,145 substations and 62,591 miles of transmission lines; administers a competitive wholesale electricity market; and plans regional transmission expansion improvements to maintain grid reliability and relieve congestion.

According to the FERC, RTOs are designed to "promote efficiency in wholesale electricity markets and ensure that electricity consumers pay the lowest price possible for reliable service."

The FERC determined that PJM met the four required characteristics of an RTO and could perform the eight functions of an RTO.

The four required characteristics are:

- Independence – the RTO must be independent of any market participant.
- Scope and regional configuration – the RTO must serve an appropriate region.
- Operational authority – the RTO must have operational authority for all transmission under its control.
- Short-term reliability – the RTO must have exclusive authority for maintaining the short-term reliability of the grid it operates.

The eight functions of an RTO are:

- Tariff administration and design – the RTO must administer its own transmission tariff and employ transmission pricing that promotes efficient use and expansion of transmission and generation.
- Congestion management – the RTO must develop and operate market mechanisms to manage transmission congestion.
- Parallel path flow – the RTO must develop and implement procedures to address parallel path flows within its region and with other regions.
- Ancillary services – the RTO must serve as a provider of last resort of all ancillary services required by FERC Order 888 and subsequent orders.
- OASIS, Total Transmission Capability (TTC) and Available Transmission Capability (ATC) – the RTO must be the single OASIS site administrator for all transmission facilities under its control and independently calculate TTC and ATC.
- Market monitoring – the RTO must provide objective monitoring of the markets it operates to identify market design flaws, market power abuses and opportunities for efficiency improvements, and propose appropriate actions.
- Planning and expansion – the RTO must be responsible for planning and directing needed transmission expansions, additions and upgrades that enable it to provide efficient, reliable and non-discriminatory transmission service, coordinating its planning with appropriate state agencies.
- Interregional coordination – the RTO must ensure the integration of reliability practices within an interconnection and market interface practices among regions.