

Market Information:

PJM

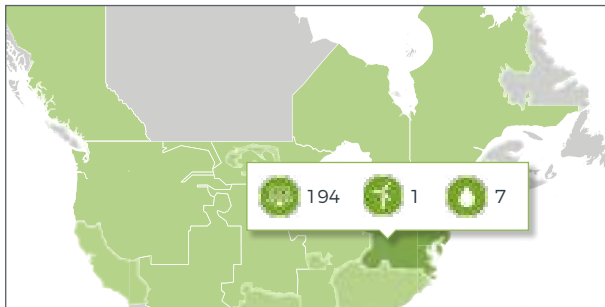


Overview

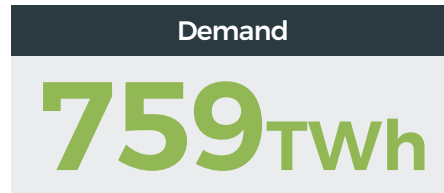
The Pennsylvania-New Jersey-Maryland Interconnection (PJM) is North America's largest power market, covering all or a portion of 13 states and Washington, D.C., and serving a population of 65 million. Demand growth varies substantially across PJM's footprint, with more rapid growth in the southeast of the market, due to data center demand.

Historically coal and nuclear have been the primary source of supply, however, low-cost gas from the Marcellus shale has enabled natural gas to displace coal in recent years. Renewable energy continues to make up a small share (6%) of generation.

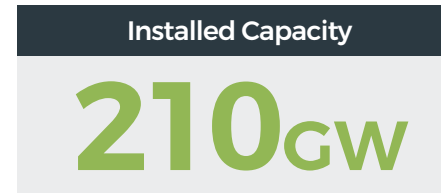
Brookfield sites



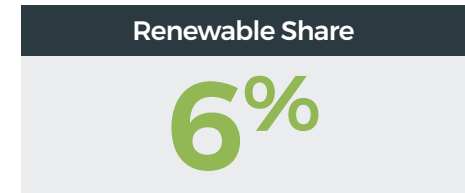
Key



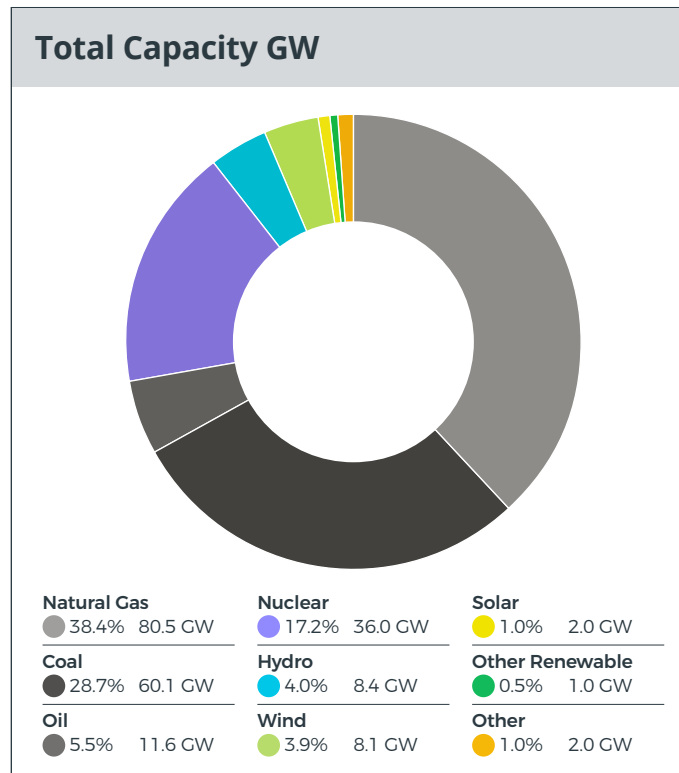
Source: Monitoring Analytics, 2017 & US Energy Information Agency, 2017



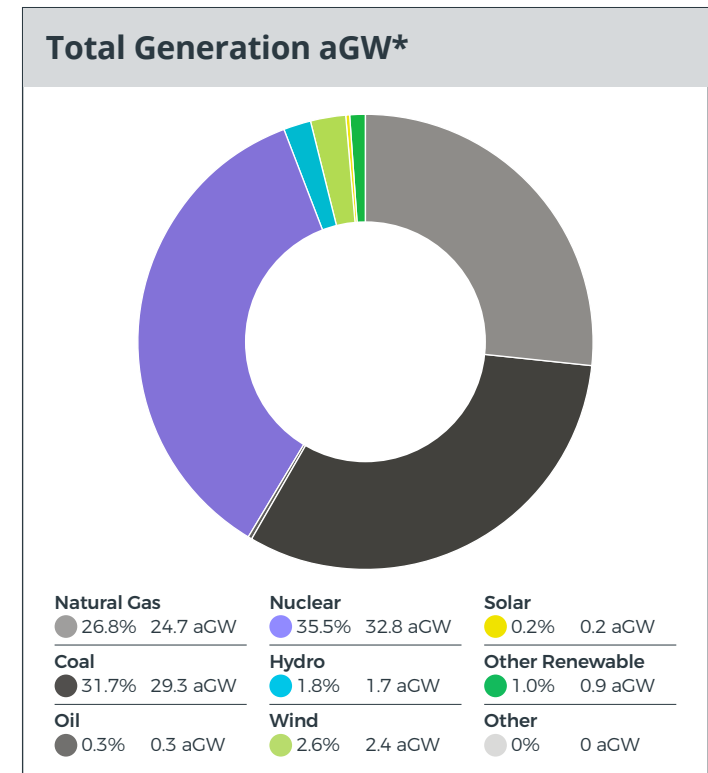
Source: PJM & US Energy Information Agency, 2017



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Source: Monitoring Analytics, 2017



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*aGW is the average hourly electricity demand over the year

Market Design

How is the market structured?

PJM is structured as a competitive wholesale market with energy transacted on a day-ahead and real-time (5-minute) basis. Capacity is sold in annual auctions, three years ahead of the commitment period. PJM also operates several markets for ancillary services.

What are the geographic boundaries of the market?

PJM covers all or part of 13 states (Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia and West Virginia) as well as the District of Columbia. PJM is interconnected with New York to the north, the Midcontinent Independent System Operator (MISO) to the West and TVA / Duke to the south.

What are the relevant price and delivery zones?

The main pricing hub in PJM is West Hub, represented by a collection of nodes stretching from Pennsylvania to Washington, D.C. Nodal pricing exists throughout PJM, with pricing varying with local supply demand conditions, as well as transmission considerations more generally. Nodal pricing

is aggregated to calculate energy prices for 22 separate energy zones, as well as the energy price at interconnection points with neighboring regions.

Can I buy long-term power in the traded markets?

Buyers and sellers can hedge their exposure in the forward market within a ~5-year window via over-the-counter (OTC) trading platforms.

Who do I need to contract with to buy power?

Many consumers receive power from their local utility (the utility covering the geographic area in which the load – consumer energy requirement – is located). Consumers can also opt to buy power directly from a generator, or through a retailer (in states where competitive retail markets exist), but the utility will continue to charge certain fees (i.e. transmission, distribution and other system fees).

Currently, the following PJM states offer retail choice: Delaware, Illinois, Maryland, Michigan, New Jersey, Ohio, Pennsylvania and Virginia.

How are system costs and other social charges levied?

In general, a bill can be broken into three components: generation, transmission and distribution. Generation costs are broadly correlated with wholesale energy prices. Transmission costs are socialized across all consumers, and distribution costs vary based on the local cost of each utility. Other system and social charges (such as to support energy efficiency programs) are generally socialized across consumers and are also reflected on the bill from the local utility.

How do I prove I've bought renewable power?

In the U.S., renewable generation is certified and tracked using RECs (Renewable Energy Certificates). One REC is issued for every MWh of eligible renewable energy that is delivered to the electric grid. A REC contains unique identifying details of the energy generated, including: the renewable fuel type, project name and location; the vintage of the project and the generation; and serial number.

Within PJM, the Generation Attribute Tracking System (GATS) is used to track generation ownership and attributes, including RECs.

How are RECs (Renewable Energy Certificates) procured? Through market transactions or long-term contracts.

Are renewable Power Purchase Agreements (PPAs) available? Yes

Are Green Tariffs available? Yes, Green Tariffs are available in Kentucky, North Carolina and Virginia.

What are the key institutions?

Regulators

- The Federal Energy Regulatory Commission (FERC) is the federal agency that regulates the transmission and wholesale of electricity in interstate commerce
- The North American Electric Reliability Corporation (NERC) is a not-for-profit international regulatory authority whose mission is to assure the reliability and security of the bulk power system in North America

Key Government Departments

- State energy departments which oversee policy related to power markets within their state
- Public Service/Utility Commissions which regulate and oversee the electricity industry in their state

System Operator

- PJM