Section 17: Glossary

PJM DE DC IL IN KY MD MI NJ NC OH PA TN VA WV

The terms and concepts in this glossary are provided for the convenience of the reader and are in large part based on definitions from other sources, as indicated in the "Reference" column for each term. These references include the following:

- M-xx – PJM Manual - http://www.pjm.com/documents/manuals.aspx.
- NERC – North American Electric Reliability Council - http://www.nerc.com/.
- OA – PJM Operating Agreement - http://www.pjm.com/documents/agreements/pjm-agreements.aspx.
- OATT – PJM Open Access Transmission Tariff - http://www.pjm.com/documents/agreements/pjm-agreements.aspx.
- RAA – Reliability Assurance Agreement - http://www.pjm.com/documents/agreements/pjm-agreements.aspx.

Term	Reference	Acronym	Definition
Adequacy	NERC		Adequacy means having sufficient resources to provide customers with a continuous supply of electricity at the proper voltage and frequency, virtually all of the time. "Resources" refers to a combination of electricity generating and transmission facilities, which produce and deliver electricity, and "demand-response" programs, which reduce customer demand for electricity. Maintaining adequacy requires system operators and planners to take into account scheduled and reasonably expected unscheduled outages of equipment, while maintaining a constant balance between supply and demand.
Ancillary Service	OATT		Those services necessary to support the transmission of capacity and energy from resources to loads while, in accordance with good utility practice, maintaining reliable operation of the transmission provider's transmission system.
Attachment Facilities	OATT		The facilities necessary to physically connect a Customer Facility to the Transmission System or interconnected distribution facilities.
Auction Revenue Right	OA	ARR	A financial instrument entitling its holder to auction revenue from Financial Transmission Rights (FTRs) based on locational marginal price (LMP) differences across a specific path in the Annual FTR Auction.
Available Transfer Capability	NERC	ATC	A measure of the transfer capability remaining in the physical transmission network for further commercial activity over and above already committed uses.
Baseline Upgrades	M-14B		In developing the RTEP, PJM tests the baseline adequacy of the transmission system to deliver energy and capacity resources to each load in the PJM region. The system as planned to accommodate forecast demand, committed resources, and commitments for firm transmission service for a specified time frame is tested for compliance with NERC and the applicable regional reliability council (Reliability*First* or SERC) standards, Nuclear Plant Licensee requirements, PJM Reliability Standards and PJM design standards. Areas not in compliance with the standards are identified and enhancement plans to achieve compliance are developed. The baseline analysis and the upgrade expansion plans that result are Baseline Upgrades and serve as the base system for conducting Feasibility Studies and System Impact studies for all proposed requests for generation and merchant transmission interconnection and for long-term firm transmission service. (Baseline upgrades are a subset of network upgrades.)

Term	Reference	Acronym	Definition
Behind The Meter Generation	OATT	BTM	Behind The Meter Generation refers to a generation unit that delivers energy to load without using the Transmission System or any distribution facilities (unless the entity that owns or leases the distribution facilities has consented to such use of the distribution facilities and such consent has been demonstrated to the satisfaction of PJM); provided, however, that Behind The Meter Generation does not include (i) at any time, any portion of such generating unit's capacity that is designated as a Capacity Resource, or (ii) in an hour, any portion of the output of such generating unit[s] that is sold to another entity for consumption at another electrical location or into the PJM Interchange Energy Market.
Bilateral Transaction	OA		A contractual arrangement between two entities (one or both being PJM Members) for the sale and delivery of a service.
Bulk Electric System	NERC M-14B	BES	Reliability*First* defines the BES as all: • Individual generation resources larger than 20 MVA or a generation plant with aggregate capacity greater than 75 MVA that is connected via a step-up transformer(s) to facilities operated at voltages of 100 kV or higher, • Lines operated at voltages of 100 kV or higher, • Associated auxiliary and protection and control system equipment that could automatically trip a BES facility, independent of the protection and control equipment's voltage level (assuming correct operation of the equipment). The Reliability*First* Bulk Electric System excludes: • Radial facilities connected to load serving facilities or individual generation resources smaller than 20 MVA or a generation plant with aggregate capacity less than 75 MVA where the failure of the radial facilities will not adversely affect the reliable steady-state operation of other facilities operated at voltages of 100 kV or higher; • The balance of generating plant control and operation functions (other than protection systems that directly control the unit itself and step-up transformer); these facilities would include relays and systems that automatically trip a unit for boiler, turbine, environmental, and/or other plant restrictions; • All other facilities operated at voltages below 100 kV.
Capacity Emergency	M-13		System condition where operating capacity plus firm purchases from other systems, to the extent available or limited by transfer capability, is inadequate to meet the total of its demand, firm sales and regulating requirements.
Capacity Emergency Transfer Limit	RAA M-14B M-18	CETL	Part of Load Deliverability analysis to determine the maximum limit, expressed in megawatts, of a study area's import capability, under the conditions specified in the load deliverability criteria.
Capacity Emergency Transfer Objective	RAA M-14B M-18 M-20	CETO	The CETO is the emergency import capability, expressed in megawatts, required of a PJM sub-area to satisfy established reliability criteria.
Capacity Interconnection Rights	OATT	CIRs	The rights to input generation as a Generation Capacity Resource into the Transmission System at the Point of Interconnection where the generating facilities connect to the Transmission System.
Capacity Resource	RAA M-14A M-14B		Megawatts of net capacity from existing or planned generation capacity resources or load reduction capability provided by Demand Resources or ILR in the PJM Region.
Combined Cycle		CC	A generating unit facility generally consisting of a gas-fired turbine and a heat recovery steam generator. Electricity is produced by a gas turbine whose exhaust is recovered to heat water, yielding steam for a steam turbine that produces still more electricity.
Combustion Turbine		CT	A generating unit in which a combustion turbine engine is the prime mover.
Contingency			The unexpected failure or outage of a system component, such as a generator, transmission line, circuit breaker, switch or other electrical element.

Term	Reference	Acronym	Definition
Deactivation			The retirement or mothballing of a generating unit governed by the PJM Open Access Transmission Tariff.
Deliverability	RAA M-14B		Deliverability is a test of the physical capability of the transmission network for transfer capability to deliver energy from generation facilities to wherever it is needed to ensure, only, that the transmission system is adequate for delivery of energy to load under prescribed conditions. The testing procedure includes two components: (1) Generation Deliverability; and (2) Load Deliverability.
Demand Resource	M-18	DR	See "Load Management"
Demand-Side Response	M-19	DSR	The term for all activities or programs undertaken by a Load-Serving Entity or its customers to influence the amount or timing of electricity used.
Diversity	M-18		The amount of MWs that account for the difference between a Transmission Owner zone's forecasted peak load at the time of its own peak and its coincident load at the time of the PJM peak.
Eastern MAAC	M-14B	EMAAC	A term used in PJM deliverability analysis to refer to the portion of PJM that includes AE, DPL, JCPL, PECO, PSEG and Rockland.
Effective Forced Outage Rate on Demand	M-22	EFORd	A measure of the probability that generating unit will not be available due to a forced outages or forced deratings when there is a demand on the unit to generate. See Generator Resource Performance Indices Manual (M-22) for equation.
Electrical Distribution Company		EDC	A company that owns and/or operates electrical distribution facilities for the delivery of electrical energy to end-use customers.
Energy Efficiency Programs		EE	Incentives or requirements at the state or federal level that promote energy conservation and wise use of energy resources.
Energy Resource	M-14A M-14B	OATT	A generating facility that is not a capacity resource.
Extra High voltage		EHV	Transmission equipment operating at 230kV and above
Fault			An event occurring on an electric system such as a short circuit, a broken wire, or an intermittent connection.
Federal Energy Regulatory Commission		FERC	The Federal Energy Regulatory Commission, or FERC, is an independent agency that regulates the interstate transmission of electricity, natural gas and oil.
Financial Transmission Right	M-6	FTR	A financial instrument entitling the holder to receive revenues based on transmission congestion measured as hourly energy LMP differences in the PJM Day-Ahead Energy Market across a specific path.
Firm Transmission Service	OATT		Transmission service that is intended to be available at all times to the maximum extent practicable. Service availability is subject to system emergency conditions, unanticipated facility failure or other unanticipated events, and is governed by Part II of the OATT.
Generation Deliverability	M-14B		The ability of the transmission system to export capacity resources from one electrical area to the remainder of PJM. The generator deliverability test for reliability analysis ensures that, consistent with the load deliverability single contingency testing procedure, the Transmission System is capable of delivering the aggregate system generating capacity at peak load with all firm transmission uses modeled.
Good Utility Practice	OATT		Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods or acts generally accepted in the region.
Independent System Operator		ISO	An entity that is authorized to operate an electric transmission system and is independent of any influence from the owner(s) of that electric transmission system. (See also "RTO")
Interconnection Service Agreement	M-14A	ISA	An agreement among the Transmission Provider, an Interconnection Customer and an Interconnected Transmission Owner regarding interconnection under Part IV and Part VI of the Tariff.

Term	Reference	Acronym	Definition
Load			Demand for electricity at a given time, expressed in megawatts (MW).
Load Deliverability	M-14B		The ability of the transmission system to deliver energy from the aggregate of available capacity resources in one PJM electrical area and adjacent non-PJM areas to another PJM electrical area that is experiencing a capacity deficiency.
Load Management	M-18	LM	Retail customer load that can be interrupted at the request of PJM. Such a PJM request is considered an emergency action and is implemented prior to a voltage reduction. LM derives a Demand Resource or Interruptible-Load-for-Reliability credit in RPM.
Load Serving Entity	RAA OATT	LSE	Load-serving entities provide electricity to retail customers. LSEs include traditional distribution utilities.
Locational Deliverability Area		LDA	
Loss-of-Load Expectation	M-14B	LOLE	Loss-of-load expectation (LOLE) defines the adequacy of capacity for the entire PJM footprint based on load exceeding available capacity, on average, during only one day in ten years (1/10).
Market Participant			A PJM market participant can be a market supplier, a market buyer or both. Market buyers and market sellers are members that have met creditworthiness standards as established by PJM. Market buyers are otherwise able to make purchases and market sellers are otherwise able to make sales in PJM Energy and Capacity Markets.
Mid-Atlantic Power Path		MAPP	A 500 kV backbone transmission line approved by the PJM Board in 2007 which will connect the Possum Point substation in northern Virginia with the Indian River substation in Delaware via Burches Hill, Chalk Point, Calvert Cliffs and Vienna.
Mid-Atlantic Sub Region	M-14B		The PJM Mid-Atlantic Sub-Region encompasses 12 transmission owner zones: Atlantic City Electric Company (AE), Baltimore Gas and Electric (BGE), Delmarva Power and Light (DPL), Jersey Central Power and Light (JCPL), Metropolitan Edison Company (METED), Neptune, PECO Energy (PECO), Pennsylvania Electric Company (PENELEC), PEPCo Holdings (PEPCo), PPL Electric Utilities Corporation (PPL), Public Service Electric and Gas (PSEG), Rockland Electric (Rockland) and UGI Corporation (UGI). The Neptune Regional Transmission System interconnects with the Mid-Atlantic PJM transmission system at Sayreville substation in Northern New Jersey.
Merchant Transmission Facility	OATT		A.C. or D.C. transmission facilities that are interconnected with or added to the Transmission System in accordance with the PJM Open Access Transmission Tariff. These facilities are not: • existing facilities of the transmission system; • transmission facilities included in the rate base of a public utility on which a regulated return is earned; • included in previous RTEPs; or, • customer interconnection facilities.
MVAR	OA		See "Reactive Power"
Network Upgrades	OATT		Modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider's overall Transmission System for the general benefit of all users of such Transmission System.
North American Electric Reliability Corporation	NERC	NERC	NERC is an international, independent, self-regulatory, not-for-profit organization, whose mission is to ensure the reliability of the bulk power system in North America.
Open Access Transmission Tariff	OATT	OATT	A FERC filed tariff specifying the terms of conditions under which PJM provides transmission service and carries out its generation and merchant transmission interconnection process.
PJM Manuals			The instructions, rules, procedures and guidelines established by PJM for the operation, planning and accounting requirements of the PJM Region and the PJM Interchange Energy Market.
PJM Member	OA M-33		Any entity that has completed an application and satisfies the requirements of PJM to conduct business with PJM, including transmission owners, generating entities, load-serving entities and marketers.
Planning Cycle	M-14B		The annual RTEP Process series of studies, analysis, assessments and related supporting functions.

Term	Reference	Acronym	Definition
Planning Horizon	M-14B		The future time period over which system transmission expansion plans are developed based on forecasted conditions.
Potomac Appalachian Transmission Highline		PATH	A 765 kV backbone transmission line approved by the PJM Board in 2007 which would connect the Amos substation in West Virginia with the Kemptown substation in Maryland.
Probabilistic Risk Assessment	M-14B	PRA	PJM assesses risk exposure using a PRA risk management tool. Initially, this tool is used to assess the risk of PJM's aging 500/230kV transformer fleet. The goal of the PRA model is to minimize asset service cost. PJM's PRA method integrates the economics of transformation loss with the likelihood of incurring the precipitating event. Using the PRA, PJM can determine: • the amount of risk each transformer poses to the system; • the best way to mitigate each transformer's risk; • the optimum number of spare transformers; • where to locate them on the system; • the value of moving a low-risk spare transformer to a higher risk location; the value of a common transformer design; and, • the point at which the risk associated with continued operation of an older transformer unit exceeds the value of a new unit.
Programmable Logic Controller		PLC	An electronic device that is capable of being programmed with instructions to provide specific operating control over electrical equipment.
Reactive Power (expressed in MVAR)	M-14A		The portion of electricity that establishes and sustains the electric and magnetic fields of alternating-current equipment. Reactive power must be supplied to most types of magnetic equipment, such as motors and transformers. It also must supply the reactive losses on transmission facilities. Reactive power is provided by generators, synchronous condensers, or electrostatic equipment such as capacitors and directly influences electric system voltage. Reactive power is usually expressed in megavars (MVAR).
Regional RTEP Project	M-14B OA		A transmission expansion or enhancement at a voltage level of 100 kV or higher.
Regional Transmission Expansion Plan	M-14B	RTEP	The plan prepared by PJM pursuant to Schedule 6 of the PJM Operating Agreement for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.
Regional Transmission Organization	FERC	RTO	An independent, FERC-approved organization of sufficient regional scope, which coordinates the interstate movement of electricity under FERC-approved Tariffs by operating the transmission system and competitive wholesale electricity markets and ensuring reliability and efficiency through expansion planning and interregional coordination.
Reliability	NERC		A reliable bulk power system is one that is able to meet the electricity needs of end-use customers even when unexpected equipment failures or other factors reduce the amount of available electricity. NERC divides reliability into "Adequacy" and "Security."
Reliability Assurance Agreement	RAA	RAA	The Reliability Assurance Agreement among load-serving entities in the PJM Region. This Agreement is intended to ensure that adequate Capacity Resources will be planned and made available to provide reliable service to loads within PJM, to assist other Parties during Emergencies and to coordinate planning of Capacity Resources consistent with the Reliability Principles and Standards.
Reliability Pricing Model		RPM	PJM's resource adequacy construct. The purpose of RPM is to develop a long term pricing signal for capacity resources and load serving entity (LSE) obligations that is consistent with the PJM Regional Transmission Expansion Planning (RTEP) process. RPM adds stability and a locational nature to the pricing signal for capacity.
Reliability Must Run		RMR	A generation resource subject to the dispatch of PJM that, as a result of transmission constraints, PJM determines, in the exercise of Good Utility Practice, must be run in order to maintain reliability.

Term	Reference	Acronym	Definition
Reliability*First* Corporation		RFC	Reliability*First* is a not-for-profit company incorporated in the State of Delaware whose goal is to preserve and enhance electric service reliability and security for the interconnected electric systems within its territory. Reliability*First* was approved by the North American Electric Reliability Council (NERC) to become one of eight Regional Reliability Councils in North America and began operations on January 1, 2006. Reliability*First* is the successor organization to three former NERC Regional Reliability Councils: the Mid-Atlantic Area Council (MAAC), the East Central Area Coordination Agreement (ECAR) and the Mid-American Interconnected Network organizations (MAIN).
Renewable Portfolio Standard		RPS	Guidelines or requirements at the state or federal level requiring energy suppliers to provide specified amounts of electric energy from eligible renewable energy resources.
Right of Way		ROW	A corridor of land on which electric lines may be located. The Transmission Owner may own the land in fee, own an easement, or have certain franchise, prescription, or license rights to construct and maintain lines.
Security	NERC		The ability of the bulk power system to withstand sudden, unexpected disturbances such as short circuits, or unanticipated loss of system elements due to natural causes. In today's world, the security focus of NERC and the industry has expanded to include withstanding disturbances caused by man-made physical or cyber attacks. The bulk power system must be planned, designed, built and operated in a manner that takes into account these modern threats, as well as more traditional risks to security.
Southern Sub-Region	M-14B		The PJM Southern Sub-Region area comprises one transmission owner zone – Dominion Virginia Power (Dominion).
Special Protection System	M-03	SPS	A Special Protection System (SPS) - also known as a remedial action scheme -includes an assembly of protection devices designed to detect and initiate automatic action in response to abnormal or pre-defined system conditions. The intent of these schemes is generally to protect equipment from thermal overload or to protect against system instability following subsequent contingencies on the electric system. Redundant assemblies may be applied for the above functions on an individual facility—in such cases, each assembly is considered as a separate protection system. An SPS consists of protection devices such as relays, current transformers, potential transformers, communication interface equipment, communication links, breaker trip and close coils, switchgear auxiliary switches, and all associated connections.
Static Var Compensator		SVC	A rapidly operating device that can continuously provide the reactive power required to control dynamic voltage swings under various system conditions and thereby improve the power system transmission and distribution performance.
Subregional RTEP Committee	M-14B OA		A PJM committee that facilitates the development and review of the Subregional RTEP Projects. The Subregional RTEP Committee will be responsible for the initial review of the Subregional RTEP Projects, and to provide recommendations to the Transmission Expansion Advisory Committee concerning the Subregional RTEP Projects.
Subregional RTEP Project	M-14B OA		Defined in the PJM Operating Agreement as a transmission expansion or enhancement rated below 100 kV.
Supplemental Project	M-14B OA		Replaces the term "Transmission Owner Initiated or TOI Project." A Regional RTEP Project(s) or a Subregional RTEP Project(s), which is not required for compliance with the following PJM criteria: System reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection.
Temperature-Humidity Index	M-19	THI	Temperature-humidity index gives a single, numerical value in the general range of 70 to 80, reflecting the outdoor atmospheric conditions of temperature and humidity as a measure of comfort (or discomfort) during warm weather. The temperature-humidity index, THI, is defined as follows: THI = Td – (0.55 – 0.55RH) * (Td - 58) where Td is the dry-bulb temperature and RH is the percentage of relative humidity.
Topology	M-14B		A geographically based or other diagrammatic representation of the physical features of an electrical system or portion of an electrical system - including transmission lines, transformers, substations, capacitors and other power system elements – that in aggregate constitute a transmission system model for power flow and economic analysis.

Term	Reference	Acronym	Definition
Transmission Customer	M-14A M-14B M-2 OATT		Any Eligible Customer (or its Designated Agent) that (i) executes a Service Agreement, or (ii) requests in writing that PJM file with the FERC, a proposed unexecuted Service Agreement to receive transmission service under Part II of the PJM OATT.
Trans-Allegheny Interstate Line		TrAIL	A 500 kV backbone transmission line approved by the PJM Board in 2006 which will connect the 502 Junction substation in southwestern Pennsylvania with the Loudoun substation in northern Virginia.
Transmission Expansion Advisory Committee	M-14B	TEAC	A committee established by PJM to provide advice and recommendations to aid in the development of the Regional Transmission Expansion Plan. The Transmission Expansion Advisory Committee shall review and provide advice and recommendations on the Regional RTEP Projects and the Subregional RTEP Projects when in the judgment of PJM these projects are determined to substantially impact power flow(s) on the regional transmission facilities.
Transmission System	OATT		The transmission facilities operated by PJM used to provide transmission services. These facilities that transmit electricity: (i) are within the PJM Region; (ii) meet the definition of transmission facilities pursuant to FERC's Uniform System of Accounts or have been classified as transmission facilities in a ruling by FERC addressing such facilities; and (iii) have been demonstrated to the satisfaction of PJM to be integrated with the transmission system of PJM and integrated into the planning and operation of such to serve all of the power and transmission customers within such region.
Transmission Loading Relief	M-03	TLR	A NERC procedure developed for the Eastern Interconnection to mitigate overloads on the transmission system by allowing reliability coordinators to request the curtailment of transactions that are causing parallel flows through their system.
Transmission Owner	M-14B OATT	TO	A PJM Member that owns Transmission Facilities or leases with rights equivalent to ownership in Transmission Facilities. Taking transmission service is not sufficient to qualify a Member as a Transmission Owner.
Transmission Provider	M-14B OATT		The Transmission Provider is PJM for all purposes in accordance with the PJM OATT.
Transmission Service Request	M-02	TSR	A request submitted by a PJM market participant for transmission service over PJM designated facilities. Typically the request is for either short term or long term service, over a specific path for a specific megawatt amount. PJM evaluates each request and determines if it can be accommodated, and, if the requestor so chooses, pursues needed upgrades to accommodate the request.
Unforced Capacity	RAA	UCAP	An entitlement to a specified number of summer rated MW of capacity from a specific resource, on average, not experiencing a forced outage or derating, for the purpose of satisfying capacity obligations imposed under the RAA.
Violation	M-14B		A PJM planning study result that shows a specific system condition that is not in compliance with established NERC, Reliability*First*, SERC or PJM reliability criteria.
Weather Normalized Peak	M-19		An estimate of the seasonal peak load at normal peak day weather conditions.
Western Sub-Region	M-14B OA		The PJM Western Sub-Region comprises five transmission owner zones: Allegheny Power (AP), American Electric Power (AEP), American Transmission Systems Incoporated (ATSI), Commonwealth Edison (ComED), Dayton Power and Light (Dayton) and Duquesne Light Company (DLCO).
Zone / Control Zone	M-14B		An area within the PJM Control Area, as set forth in the PJM Open Access Tariff and the Reliability Assurance Agreement (RAA). Schedule 16 of the RAA defines the distinct zones that comprise the PJM Control Area.