

Metropolitan Edison Company,
Pennsylvania Electric Company
and Jersey Central Power & Light
Company Supplier
Peak Load Share Methodology
(For Capacity and Transmission
Obligation Purposes)
Commencing January 1, 2009

Overview - Supplier Unforced Capacity Obligation

The calculations and procedures set forth in this manual, implements Reliability Assurance Agreement (“RAA”) and the associated PJM Interconnection, LLC (“PJM”) operational practices as they relate to Capacity Obligations. In accordance with the RAA, PJM, on an annual basis, determines the PJM forecast pool unforced capacity requirement and on a daily basis assigns all entities serving load in the PJM Interconnection an unforced capacity obligation (“obligation”). In order for PJM to assign the daily obligations, PJM requires a prorata peak load share of each Supplier in the pool. This is accomplished by PJM allocating a peak load share to each zone in the interconnection. The allocation of the MetEd, Penelec and Jersey Central Zonal (“Operating Companies”) peak load responsibility to Suppliers is administered by FirstEnergy Service Company (“Service Company”).

The prorata allocation of peak load share to all Suppliers in the Zone is performed in accordance with this manual. The Supplier’s Obligation as well as the Operating Companies’ Unforced Capacity Obligation will change daily as the Supplier’s portfolio of customers changes (i.e., through customer switching). As further explained below, the Service Company will post information related to the calculation of each customer’s Peak Load Share (“PLS”) on the Operating Companies’ individual web pages. The Service Company will utilize the customers PLS to determine each Supplier PLS (by summing of their customers PLS). The Service Company, on a timetable specified by PJM, will transmit each Supplier’s daily PLS to PJM for their use in determining the Supplier’s obligation for performing the necessary market activities, and for capacity accounting and billing, etc.

Please see Exhibit A for a list of loss factors.

Overview - Supplier Transmission Service Obligation

The calculations and procedures set forth in this manual implement the PJM Open Access Transmission Tariff (“OATT”) as it relates to Transmission Obligations. With capacity, PJM assigns a Network Integration Transmission Service (“NITS”) obligation and an associated ancillary service obligation to each Supplier serving load in the pool. In order for PJM to assign daily transmission obligations, which change daily based upon the Supplier’s portfolio of customers, (i.e., customer switching) PJM requires a prorata share for each Supplier of the Zonal transmission peak load. This allocation is administered by the Service Company for the Meted, Penelec and Jersey Central Zones.

The prorata allocation of peak load share to all Suppliers in the Zone is performed in accordance with this manual. As further explained below, the Service Company will post information related to calculating each eligible customer’s Transmission Peak Load Share (“TPLS”). The Service Company will utilize the customer’s capacity PLS to determine each Supplier’s TPLS based on the Supplier’s daily customer portfolio. On a timetable specified by PJM, the Service Company will transmit each Supplier’s daily TPLS to PJM for their use (e.g., in determining the Supplier’s obligation, performing the necessary market activities, for accounting and billing, etc.).

Determination of Customer's Daily Peak Load Share (PLS)

The basic framework for the allocation of the Zonal PLS consists of allocating the Zonal PLS to individual customer's and then using a Supplier's portfolio of customers for any given day to determine the Supplier's PLS. This framework is implemented using the available customer data which varies by meter type. Consequently several different algorithms are required to calculate the customer PLS for the various meter types.

The calculation of the customer's PLS is a two-step process:

1. Calculation of the customer's PLS using the algorithms based on the data available for the customer (i.e., customer's meter type), and
2. Post-Processing of the customer's PLS to eliminate any error introduced by the customer PLS algorithms.

Calculation of the Customer Capacity Peak Load Share Overview

The Zonal capacity obligation is defined in the RAA as:

$$\text{Accounted-For Obligation} = [(\text{FSP} \times \text{DF}) - \text{ALM}] \times \text{FPR} / 100$$

Where:

FSP = daily summation of the weather-adjusted actual coincident summer peak for the previous summer of the end-users

DF = the Diversity Factor for the Zone

ALM = ALM load credits of the Party for the Zone.

FPR = the Forecast Pool Requirements

The FSP (as determined in accordance with the procedures set forth in the PJM Manuals) is the Zonal PLS which is being allocated as described herein.

The Zonal PLS determined by PJM is based on the various zonal loads at the time of the five PJM Pool peak hours. Furthermore, the process used by PJM results in the Zonal PLS being a weather normalized value and an unrestricted load (i.e., including applicable curtailed load(s)).

Calculation of the Customer Capacity Peak Load Share

The general algorithm for a customer PLS is:

CAP_PLS for Customer i	=	CUST_PLS for Customer i	*	PC_FACTOR i	*	WN_FACTOR
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- a. CAP_PLS is the individual customer's peak load allocation for capacity obligation purposes, it is customer specific and it is a function of the individual customer usage.
- b. CAP_PLS is the value to be used in the applicable publications (e.g., the customer eligibility file, EDI transactions, the value to be used in determining a supplier's capacity peak load contribution transmitted to PJM, etc.).
- c. CUST_PLS is the individual customers' capacity peak load, it is customer specific and the method for calculating CAP_PLS varies by "meter type".
- d. Note: CUST_PLS is not a weather-normalized value, it is unadjusted for processing error and it is unrestricted (it includes curtailed load).
- e. PC_FACTOR is the post-processing correction factor. It is originally set to one.
- f. The CAP_PLS is calculated in kW's to at least two decimal points.
- g. WN_FACTOR is the weather normalization-scaling factor. It is a constant used to scale the customer data which is based on "as-metered" customer data to the zonal peak load which is used by PJM to determine the zonal peak load and is based on "weather normalized" load. It is calculated as:

WN_FACTOR For and all Customers	=	The Zone's Share of the five PJM Weather Normalized Restricted Peaks	/	The Zone's Average restricted as-metered load at the time of the five PJM Peaks
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- h. CUST_PLS is calculated as:

CUST_PLS for Customer i	=	(CUST_LOAD for Customer i	+	CUST_ALM for Customer i)	*	LOSSES_ FACTOR by Service Level	*	CUST_ FACTOR for Customer i
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- i. CUST_LOAD and CUST_FACTOR data sets are based on the most recent summer's data. For June '06 this is the summer '05 data set, after the summer '06 it will be based on summer '06 data set, after the summer '07 it will be based on the summer '07 data set, and so forth.

- j. CUST_ALM is the customer's actual curtailed load at the time of the PJM peaks.
- k. LOSSES_FACTOR are the system losses, which are determined by service level of the customer, e.g., primary, secondary & transmission. The applicable loss factors are defined in Exhibit A
- l. The CUST_PLS for each of the PJM peaks (five in total) are averaged to produce the final CUST_PLS.
- m. The CUST_LOAD is calculated in kW's.
- n. The CUST_LOAD and CUST_FACTOR are calculated to at least two decimal points.
- o. CUST_LOAD and CUST_FACTOR are determined as follows:

Meter Type	CUST_LOAD For Customer i	CUST_FACTOR for Customer i
Hourly Metered Customer	Customer's Hourly Meter Readings at the time of the five PJM Peaks	= 1.0
Monthly Metered Customer	The Load Profile Hourly Meter Readings at the time of the five PJM Peaks	Customers Usage taken from monthly Meter Readings during the Summer Season Divided by the Load Profile monthly summation of usage for the Summer Season for the same period.

- p. Summer Season is defined as June 1 through September 30.
- q. For monthly-metered customers, the customer's summer season usage (CUST_FACTOR) is derived from the customer's billing records which occurred during the summer season.

Post-Processing of Customers Capacity Peak Load Share

In order to ensure that the various algorithms do not introduce a bias into the allocation of the Zonal PLS, a post-processing value is calculated and applied to determine the final customer PLS (CAP_PLS). The post-processing factor (PC_FACTOR) is calculated as:

PC_FACTOR	=	Unrestricted Peak Load of The Zonal Peak Load Share	/	SUM of CAP_PLS
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Special Considerations

- a. If a customer has gaps in the data - the averaging of hourly-metered will be based upon the existing readings. For monthly-metered customers the usage data will be filled in from the applicable load profile. If a customer has no data available they will be assigned to the average CAP_PLS for the applicable load profile class. If a specific forecast of the customer peak load share is established for the customer, the forecast will be used if agreed to by the Operating Company and the Supplier.
- b. Customer peak load share (CAP_PLS) will be revised annually as summer season data becomes available in accordance with PJM requirements and implementation schedule.
- c. New customers to the Zone will be added to the customer list. They will be assigned the average CAP_PLS for the applicable profile class. If a specific forecast of the customer peak load share is established for the customer, the forecast will be used if agreed to by the Operating Company and the Supplier.
- d. Customers exiting from the Zone shall be removed from the customer list and not assigned to any load serving entity.
- e. Within the Zone there can and do exist “load zones” (i.e., municipalities, cooperatives, etc.) which participate in retail choice. These zones will have their PLS determined consistent with the methodology described herein, unless an alternate methodology is agreed to by the Operating Company, the Supplier and PJM. (For practical purposes, these customers are hourly-metered customers.)
- f. The PLS for a Curtailable Load or Active Load Management (“ALM”) customer is based upon the “unrestricted” load of the customer. This requires adding back any applicable load reductions, such as load reduction for PJM registered ALM Resources.
- g. The various factors associated with determination of customer PLS (e.g., WN_FACTOR and PC_FACTOR) are computed annually with the roll over to the current data set (e.g., the annual update once the previous summers data is available).

Allocation of Customer's Transmission Peak Load Share

Under the OATT, a transmission customer's daily NITS requirement is based on its load at the time of its unrestricted Zonal peak in the twelve months ended October 31 of the prior calendar year. To fairly allocate the daily Zonal NITS requirement to and among Suppliers, a customer transmission peak load share ("TPLS") is calculated for each eligible customer as follows.

TRANS_PLS for Customer l	=	CAP_PLS for Customer i	*	TRANS_ FACTOR for all Customers
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- a. TRANS_PLS is the individual customer's peak load allocation for transmission obligation purposes.
- b. TRANS_PLS is the value to be used in the applicable publications (e.g., EDI transactions, the value to be used in determining suppliers transmission peak load share transmitted to PJM, etc.).
- c. CAP_PLS is the individual customer's peak load contribution developed for allocation of capacity obligation allocation - this value is customer specific.
- d. TRANS_FACTOR is a scaling factor. It is a constant used to scale the CAP_PLS (which is based on the five PJM Pool peaks) to The Zonal transmission peak load (which is based on the single Zonal Peak Load for the transmission planning period). The scaling factor is simply the as-metered Zonal peak load divided by the assigned Zonal PLS for capacity.
- e. The transmission planning period is defined by the OATT.
- f. The TRANS_FACTOR associated with determination of customer transmission PLS (e.g., TRANS_FACTOR) is computed annually with the roll over to the current data set (e.g., the annual update once the previous transmission planning period data is available).

PJM will bill the Supplier for NITS and ancillary services based on their daily TPLS submitted by the Service Company and other information available to PJM.

Loss Factors

	MET-ED	PENELEC	JCP&L
Rate Schedule LP, TP & GT	1.0210	1.0407	1.039
Rate Schedule GP	1.0374	1.0606	1.061
All other Rate Schedules	1.0718	1.0945	1.118