

Impact of AEP/Dominion Proposal on Table B-9 Data Requirements and Interaction with EDC-Determined OPLs

Acronym	Term & Definition
BRA	Base Residual Auction
DY	Delivery Year is defined as the 12 months beginning June 1 and extending through May 31 of the following year. Delivery Year may also be referred to as Planning Year or Planning Period.
EDC	Electric Distribution Company
FRR	Fixed Resource Requirement is defined as an alternative method for an eligible load-serving entity to meet a fixed resource requirement with its own capacity resources as opposed to having PJM procure capacity resources on the load-serving entity's behalf in RPM auctions.
IA	Incremental Auction is defined as First, Second and Third Incremental Auctions allow for capacity suppliers to purchase replacement capacity and for PJM to adjust previously committed capacity levels due to reliability requirement increases or decreases.
ICAP	Installed Capacity is defined as a MW value based on the summer net dependable capability of a unit and within the capacity interconnection right limits of the bus to which it is connected.

[PJM Glossary](#)

Acronym	Term & Definition
LLA	Large Load Adjustment is defined as adjustments to load outside of normal forecast procedures
LSE	Load Serving Entity is defined as any entity (or the duly designated agent of such an entity), including a load aggregator or power marketer that (a) serves end-users within the PJM Control Area, and (b) is granted the authority or has an obligation pursuant to state or local law, regulation or franchise to sell electric energy to end-users located within the PJM Control Area.
OPL	Obligation Peak Load is defined as the summation of the peak load contributions (PLCs) of end-use customers that an LSE is responsible to serve in a zone on an operating day.
PLC	Peak Load Contribution is defined as an end-use customer's contribution to the zone's weather normalized summer peak load, as determined by the zone's Electric Distribution Company.
RPM	Reliability Pricing Model is defined as PJM's capacity market design that includes a series of auctions to satisfy the reliability requirements of the PJM region for a Delivery Year.
UCAP	Unforced Capacity is defined as the MW value of a capacity resource in the PJM Capacity Market. For generating unit, the unforced capacity value is equal to installed capacity of unit multiplied by (1- unit's EFORd). For demand resources and energy efficiency resources, the unforced capacity value is equal to demand reduction multiplied by Forecast Pool Requirement.

[PJM Glossary](#)

- The AEP/Dominion proposal defines a Large Load Adjustment (“LLA”) to be any load that is specified in Table B-9 of the PJM Load Forecast Report
- Table B-9 currently shows LLAs on a zonal basis
 - See Table B-9 from January 2024 Load Forecast Report in Appendix A
- Under the AEP/Dominion proposal, Table B-9 reporting will need to provide the LLAs on a basis consistent with zone/area definitions of Capacity Exchange:
 - LLA requests submitted to the Load Analysis Subcommittee will need to specify the zone/area in which the LLA resides, and,
 - Table B-9 will need to report the adjustments on a zone/area basis
 - Next slide provides example of the Table B-9 data required by the proposal



AEP/Dominion Proposal Changes to Table B-9 (Example)

Table B-9 Data (from January 2024 Load Forecast Report) for the Dominion Zone is Used to Provide an Example of the Table B-9 Data as Required by the AEP/DOM Proposal

Table B-9 Data for Dominion Zone (January 2024 Load Forecast Report)

<u>Zone</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>
DOM	1,801	2,666	4,482	6,241	8,417

Example of Table B-9 Data Shown as Required by AEP/DOM Proposal

<u>Zone</u>	<u>Area</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>
DOM	Dom	801	1,166	2,232	3,641	5,667
DOM	Co-Op 1	1,000	1,000	1,500	1,850	2,000
DOM	Muni 1	0	500	500	500	500
DOM	Muni 2	0	0	250	250	250
		1,801	2,666	4,482	6,241	8,417

- A zone/area is a wholesale area within a zone as established by the EDC in PJM's Capacity Exchange system:
 - A zone/area can represent the service area of a Public Power Entity or Electric Cooperative, or the service territory of an EDC (exclusive of the service areas of any Public Power Entities or Electric Cooperatives), or a separately identifiable geographic area that is bounded by wholesale metering (e.g., the service area of an operating company of a TO)
 - A list of zone/areas currently defined in Capacity Exchange is posted with the meeting material for informational purposes

- In the December prior to each delivery year, each EDC calculates the Obligation Peak Load (“OPL”) for each zone/area in its zone where the OPL is determined by the EDC as the zone/area’s MW share of the Zonal W/N Peak Load
 - The sum of all zone/area OPLs must equal the Zonal W/N Peak Load
 - OPLs determined in December take effect in the upcoming delivery year
 - The OPL of a zone/area is held constant each day of the delivery year
 - The OPL of a zone/area may be further allocated on a daily basis to multiple LSEs serving load in the zone/area subject to the requirement that the daily summation of the LSE OPLs equals the zone/area OPL

The OPL of each Zone/Area Directly Determines the Capacity Obligation of each Zone/Area

- Currently, the OPL of each zone/area as calculated and uploaded into Capacity Exchange by the EDC is used directly by PJM to determine the capacity obligation of each zone/area
- Under the AEP/Dominion proposal, the EDC-provided OPL of a zone/area having a LLA MW is to be adjusted by PJM to reflect the LLA MW, and, this adjusted OPL MW is to be used by PJM to determine the capacity obligation of each zone/area

- The table of the next slide shows the equations used to determine the capacity obligation of each zone/area for the status quo, as well as, for under the proposal
 - Examples of the application of these equations is provided in Appendix B
- The table shows an equation for a zone/area served under FRR and separate equation for a zone/area served by RPM. While a zone may contain both FRR and RPM load, the load of a zone/area can only be one or the other:
 - If zone/area is FRR, the capacity obligation MW represents the MW quantity that must be satisfied by the FRR Entity's Capacity Plan.
 - If zone/area is RPM, the capacity obligation MW is multiplied by the OPLSF to determine the UCAP Obligation MW of the zone/area. The UCAP Obligation MW of a zone/area is multiplied by the Final Zonal Capacity Price to determine the daily RPM charge to the load of the zone/area.



Zone/Area Capacity Obligation Determination SQ versus AEP/DOM Proposal

	Status Quo Capacity Obligation MW Determinations	AEP/Dominion Proposal Capacity Obligation MW Determinations
FRR Zone/Area	$(OPL\ MW * ZPLSF * FPR)$	$(Adj.\ OPL\ MW * Adj.\ ZPLSF * FPR)$
RPM Zone/Area	$(OPL\ MW * ZPLSF * FPR * OPLSF)$	$(Adj.\ OPL\ MW * Adj.\ ZPLSF * FPR * OPLSF)$

OPL MW : the "Obligation Peak Load MW" of the zone/area as determined by the EDC as the zone/area's MW share of the Zonal W/N Peak Load.

ZPLSF : the Zonal Peak Load Scaling Factor is equal to the Zonal Forecast Peak Load divided by the Zonal W/N Peak Load.

FPR : the Forecast Pool Requirement of the relevant delivery year.

OPLSF : the Obligation Peak Load Scaling Factor is equal to the total UCAP MW procured across the RTO in RPM auctions for the delivery year divided by the target RTO reliability requirement of the delivery year.

Adj. OPL MW: the Adjusted OPL MW of a zone/area is equal to [the zone/area OPL MW plus (the LLA MW of the zone/area divided by the Adjusted Zonal Peak Load Scaling Factor)].

Adj. ZPLSF : the Adjusted Zonal Peak Load Scaling Factor is equal to the [(Zonal Forecast Peak Load minus the total LLA MW of the zone) divided by the Zonal W/N Peak Load].

LLA MW: the MW specified in Table B-9 by zone/area.

- In order to facilitate the proposal, the request and reporting process associated with Table B-9 load will need to be revised to require such process to be done on a zone/area basis consistent with zone/area definitions of Capacity Exchange
- The proposal is applicable to any zone for which Table B-9 reports one or more zone/areas having a non-zero MW adjustment (including those with negative adjustment MW)
 - As a point of reference, Table B-9 of the January 2024 Load Report shows that 10 zones currently having a non-zero MW adjustment
- When calculating OPLs in December for use in the upcoming delivery year, the EDC of any affected zone (or zone/area) must be fully aware of the proposal's automatic application of an OPL adjustment to any zone/area within its zone having LLA



Appendix A

Table B-9 from January 2024 Load Report

Appendix A

Table B-9 from January 2024 Load Report

Table B-9

**ADJUSTMENTS ABOVE EMBEDDED TO SUMMER PEAK LOAD (MW) FOR
EACH PJM ZONE AND RTO
2024 - 2039**

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
AE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BGE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DPL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JCPL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
METED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PECO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PENLC	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
PEPCO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PL	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
PS	16	49	83	142	197	252	295	298	312	329	347	364	383	401	420	439
RECO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UGI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AEP	767	1,738	2,419	2,871	3,218	3,432	3,544	3,638	3,626	3,627	3,634	3,621	3,641	3,647	3,638	3,624
APS	73	213	566	803	803	803	803	803	803	803	803	803	803	803	803	803
ATSI	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
COMED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAYTON	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
DEOK	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
DLCO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EKPC	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5
OVEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DOM	1,801	2,666	4,482	6,241	8,417	10,263	11,831	13,118	14,319	15,491	16,605	17,610	18,521	19,514	20,533	21,563
PJM RTO	2,664	4,673	7,557	10,064	12,643	14,757	16,480	17,864	19,067	20,258	21,397	22,406	23,355	24,372	25,403	26,436

Appendix B

Examples of Zone/Area Capacity Obligation MW Calculations of SQ versus Proposal for RPM

Appendix B

Examples of Zone/Area Capacity Obligation MW Calculations of SQ versus Proposal



Zone/Area Capacity Obligations Example – Status Quo

Zonal W/N Peak Load	21,000	(A)
Zonal Forecast Peak Load	23,500	(B)
Forecast Pool Requirement ("FPR")	1.1	(C)
Zonal Capacity Obligation	25,850	(B x C)
Zonal Peak Load Scaling Factor ("ZPLSF")	1.119	(B / A)

Zone/Area	W/N Peak Load MW	Forecast Peak Load MW	Capacity Obligation MW
	OPL MW	OPL*ZPLSF	Forecast Peak Load MW*FPR
Zone A / Area A	16,000	17,905	19,695
Zone A / Area X	2,000	2,238	2,462
Zone A / Area Y	2,000	2,238	2,462
Zone A / Area Z	1,000	1,119	1,231
	21,000	23,500	25,850

Note: The capacity obligation MW of each zone/area is equal to (OPL MW * ZPLSF * FPR).

- (1) If the zone/area is FRR, then the FRR Entity's Capacity Plan must satisfy this capacity obligation MW quantity.
- (2) If the zone/area is RPM, the UCAP Obligation MW of the zone/area is determined by multiplying this capacity obligation MW quantity times the Obligation Peak Load Scaling Factor ("OPLSF") where the OPLSF is equal to the total RTO UCAP MW procured across all auctions conducted for the delivery year divided by the RTO Reliability Requirement of the delivery year. **The UCAP Obligation MW of an RPM zone/area is therefore equal to (OPL MW * ZPLSF * FPR * OPLSF).**



Zone/Area Capacity Obligations Example – AEP/Dominion Proposal

Zonal W/N Peak Load	21,000	(A)
Zonal Forecast Peak Load	23,500	(B)
Forecast Pool Requirement ("FPR")	1.1	(C)
Zonal Capacity Obligation	25,850	(B x C)
Zonal Peak Load Scaling Factor ("ZPLSF")	1.119	(B / A)
LLA MW	2,000	(D)
Adjusted Zonal Peak Load Scaling Factor	1.024	(B - D) / A

Zone/Area	LLA MW	OPL Adder (LLA / Adj. ZPLSC)
Zone A / Area Y	1,000	976.7
Zone A / Area Z	1,000	976.7
	2,000	

Zone/Area	W/N Peak Load MW	OPL Adder	Adjusted OPL MW	Forecast Peak Load MW	Capacity Obligation MW
	OPL MW	LLA MW/Adj. ZPLSF	OPL MW+OPL Adder	Adj. OPL MW*Adj. ZPLSF	Forecast Peak Load MW*FPR
Zone A / Area A	16,000	0	16,000	16,381	18,019
Zone A / Area X	2,000	0	2,000	2,048	2,252
Zone A / Area Y	2,000	977	2,977	3,048	3,352
Zone A / Area Z	1,000	977	1,977	2,024	2,226
	21,000			23,500	25,850

Note: The capacity obligation MW of each zone/area is equal to (Adj. OPL MW * Adj. ZPLSF * FPR).

(1) If the zone/area is FRR, then the FRR Entity's Capacity Plan must satisfy this capacity obligation MW quantity.

(2) If the zone/area is RPM, the UCAP Obligation MW of the zone/area is determined by multiplying this capacity obligation MW quantity times the Obligation Peak Load Scaling Factor ("OPLSF") where the OPLSF is equal to the total RTO UCAP MW procured across all auctions conducted for the delivery year divided by the RTO Reliability Requirement of the delivery year. **The UCAP Obligation MW of an RPM zone/area is therefore equal to (Adj. OPL MW * Adj. ZPLSF * FPR * OPLSF).**