Monitoring Analytics

Analysis of the 2025/2026 RPM Base Residual Auction Part G

The Independent Market Monitor for PJM

June 3, 2025

Introduction

This report, Part G of what will be a comprehensive report, prepared by the Independent Market Monitor for PJM (IMM or MMU), presents a seventh set of sensitivity analyses of the nineteenth Reliability Pricing Model (RPM) Base Residual Auction (BRA) for the 2025/2026 Delivery Year which was held from July 17 to 23, 2024. The sensitivities in Part G are focused on the substantial recent increase in actual load and the increase in the peak load forecast for 2025/2026 BRA and 2026/2027 BRA that were almost entirely due to existing and projected data center load additions to the PJM grid. The MMU presents the results of these sensitivities in order to provide information to stakeholders that is relevant to decision making about the 2026/2027 BRA, now scheduled for July 9 to 15, 2025, and the design of future auctions. The results reported by the MMU are not forecasts or predictions of the outcome of the 2026/2027 BRA.

Conclusions

The basic conclusion of this analysis is that data center load growth is the primary reason for recent and expected capacity market conditions, including total forecast load growth, the tight supply and demand balance, and high prices. But for data center growth, both actual and forecast, the PJM Capacity Market would not have seen the tight supply demand conditions, the high prices observed in the BRA for 2025/2026 or the high prices expected for the 2026/2027 and subsequent capacity auctions. Holding aside all the other issues raised by the MMU in parts A through F of this report, data center load by itself resulted in an increase in the 2025/2026 BRA revenues of $9,332,103,858 or 174.3 percent (Scenario 88).

It is misleading to assert that the capacity market results are simply just a reflection of supply and demand. The current conditions are not the result of organic load growth. The current conditions in the capacity market are almost entirely the result of large load additions from data centers, both actual historical and forecast. The growth in data center load and the expected future growth in data center load are unique and unprecedented and uncertain and require a different approach than simply asserting that it is just supply and demand.

Specifically, the results of Part G show that the level of data center demand projected in the 2024 load forecast from new data centers and growth from existing data centers (growth above embedded) that were used for the 2025/2026 BRA, had a very significant impact on capacity market conditions, illustrated by the prices in the 2025/2026 BRA. The results of Part G also show that the expected level of data center demand included in the 2025 PJM load forecast is expected to have a very significant impact on capacity market conditions and prices in the capacity market for the 2026/2027 and subsequent BRAs.

For example, total revenues in the 2025/2026 BRA were $14,687,047,358 (Scenario 0). If the existing data center load had been included but forecast new data center load plus the forecast increase in existing data center load (above embedded), 4,654 MW (Table 4) had not been included, total revenues would have been $6,944,087,201 (Scenario 87). From another perspective, the inclusion of forecast data center load increased total revenues by $7,742,960,157 or 111.5 percent (Scenario 87). If the total of existing and forecast data center load, 7,927 MW (Table 4), had not been included (embedded and above embedded) total revenues would have been $5,354,943,499 (Scenario 88). From another perspective, the inclusion of both existing and forecast data center load increased total revenues by $9,332,103,858 or 174.3 percent (Scenario 88).

For example, if the 2025/2026 BRA had been run with the PJM parameters for the 2026/2027 BRA and an unrestricted VRR curve, total revenues would have been $24,705,110,410 (Scenario 89). If the existing data center load had been included but forecast new data center load plus the forecast increase in existing data center load, 7,892 MW (Table 4), (above embedded) had not been included, total revenues would have been $5,978,619,335 (Scenario 90). From another perspective, the inclusion of forecast data center load increased total revenues by $18,726,491,075 or 313.2 percent (Scenario 90 minus Scenario 89). If the total of existing and forecast data center load, 11,993 MW Table 4), had not been included (embedded and above embedded) total revenues would have been $4,289,602,101 (Scenario 94). From another perspective, the inclusion of both existing and forecast data center load increased total revenues by $20,415,508,309 or 475.9 percent (Scenario 94 minus Scenario 89).

The role of data center load does not mean that PJM would not have eventually reached a point where supply and demand were tight, but that trajectory was relatively slow and would have resulted in more time to permit market reactions to address the balance of supply and demand. Inefficient resources were in the process of retiring and will continue to retire. Organic load growth will likely continue, albeit relatively slowly. Prices would rise in this scenario but not jump suddenly to the maximum price. The maximum price on the VRR curve would increase to reflect current Net CONE, but supply and demand would intersect at a lower price. PJM's queue improvements would have time to have an effect. Incentives to enter would increase and the balance of higher prices and actual new entry from dispatchable resources would develop based on all those factors.

If the MMU's recommendation to require new data center load to bring their own new generation were adopted, the impact of the uncertain forecast of data center load on other customers would be limited or eliminated, although the impact of embedded data center load would remain, and the slower underlying dynamic of organic load growth and incentives would play out.[1]

Summary

Table 7 through Table 12 show the revenue impacts of the scenarios analyzed in Part G.

The results of individual scenarios are not strictly additive. The combined results of multiple scenarios are shown for scenarios that address multiple results simultaneously. The quantitative results are estimates. The report makes explicit when the quantitative results depend on assumptions. Even in those cases, the quantitative results are correct as to direction and order of magnitude. The RPM Revenue column shows the revenues that resulted from the defined scenario only. The RPM Revenue Change column shows the difference between the actual RPM total revenues and the total RPM revenues that resulted from the defined scenario. A positive number means that the existing market design elements in the defined scenario resulted in an increase in RPM revenues compared to the MMU recommendation. A negative number means that the existing market design elements in the defined scenario resulted in a decrease in RPM revenues compared to the MMU recommendation. The Percent Change columns show the percent change in RPM revenues for the defined scenario from two perspectives. The Scenario to Actual Percent column shows the difference between the revenues under the defined scenario and the actual auction results as a percent of the revenues under the defined scenario. The Actual to Scenario Percent column shows the difference between the revenues under the defined scenario and the actual auction results as a percent of the revenues under the actual auction results.

Data Center Load Growth in PJM Forecast

Table 1 shows the date, hour and peak load excluding exports for every year between 2009 and 2024. From 2013 through 2024, the summer peak load excluding exports in PJM averaged around 144,500 MW. The summer peak load in PJM did not exceed 150,000 MW for any year since 2013. The highest summer peak load excluding exports in PJM since 2013, 148,890 MW, was reached during hour ending 18 on Tuesday, July 16, 2024.

Starting with the 2024 load forecast report, PJM began to project substantial growth in the summer peak load. Table 2 shows the forecasted summer peak load for 2022 through 2026 as reported in the recent annually published load forecast reports. In PJM's most recent

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[1] See "Pre Technical Conference Comments of the Independent Market Monitor for PJM," *Meeting the Challenge of Resource Adequacy in Regional Transmission Organization and Independent System Operator Regions*, Docket No. AD25-7.

load forecast report, the 2025 summer peak load is projected to reach 154,144 MW, two percent higher than the PJM forecasted summer peak load for 2024 and 3.7 percent higher than the actual peak load excluding exports in 2024.[2] PJM is also projecting that the summer peak load will increase by an additional 3.1 percent from 2025 to 2026, based on the most recent 2025 load forecast report. PJM's current load forecasts represent a significant increase over recent actual load growth and over load forecasts from recent years. PJM's average yearly forecasted growth rate between 2022 and 2026 was 0.64 percent based on the 2022 load forecast report and PJM's average yearly forecasted growth rate between 2023 and 2026 was 0.82 percent based on the 2023 load forecast report.[3] PJM revised the projected growth rates significantly in the 2025 load forecast report. For example, PJM projected that the summer peak load in 2026 would reach 158,937 in the 2025 load forecast report. This is a substantial upward revision (6,678 MW or 4.4 percent) from the projected 2026 summer peak load, 152,259 MW, in the 2022 load forecast report.

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[2] See PJM. 2025 PJM Long-Term Load Forecast Report <https://www.pjm.com/-/media/DotCom/library/reports-notices/load-forecast/2025-load-report.pdf> (January 24, 2025).

[3] See PJM. Previous PJM Long-Term Load Forecast Reports can be found here <https://www.pjm.com/-/media/DotCom/planning/res-adeq/load-forecast/previous-load-forecast-reports.zip> (January 24, 2025).

Table 1 PJM Peak Load between 2009 and 2024[4]

	Date	Hour Ending (EPT)	PJM Load (MWh)
2009	Mon, August 10	17	123,900
2010	Tue, July 06	17	133,297
2011	Thu, July 21	17	154,095
2012	Tue, July 17	17	150,879
2013	Thu, July 18	17	153,790
2014	Tue, June 17	18	138,448
2015	Tue, July 28	17	140,266
2016	Thu, August 11	16	148,577
2017	Wed, July 19	18	142,387
2018	Tue, August 28	17	147,042
2019	Fri, July 19	18	148,228
2020	Mon, July 20	17	141,449
2021	Tue, August 24	17	145,563
2022	Wed, July 20	18	144,356
2023	Thu, July 27	18	144,215
2024	Tue, July 16	18	148,890

Table 2 Forecasted Summer Peak Load for 2022 through 2026 as reported in the recent load forecast reports[5]

	Forecasted Summer Peak Load (MW)				
Report	2022	2023	2024	2025	2026
2022 Load Forecast	148,938	149,351	150,309	151,165	152,259
2023 Load Forecast		149,059	149,737	150,924	152,736
2024 Load Forecast			151,247	153,493	156,803
2025 Load Forecast				154,144	158,937

4 See *2024 Annual State of the Market Report for PJM*, Volume 2, Section 3 Energy Market at Demand, (May 8, 2025)

5 See 2025 PJM Long-Term Load Forecast Report <https://www.pjm.com/-/media/DotCom/library/reports-notices/load-forecast/2025-load-report.pdf> (January 24, 2025). Previous PJM Long-Term Load Forecast Reports <https://www.pjm.com/-/media/DotCom/planning/res-adeq/load-forecast/previous-load-forecast-reports.zip> (January 24, 2025).

PJM attributed almost all of the increase in the summer peak load forecast to the anticipated additions in data center demand.[6] Table 3 shows large load adjustments to the load forecast for 2022 through 2026 as reported in the recent load forecast reports. In the 2025 load forecast report, PJM projected that the sum of large load additions from new facilities and growth from existing (embedded) facilities (growth above embedded) would reach 8,453 MW in 2026. Of the 8,453 MW, data center load accounts for 7,892 MW or 93 percent. A chip processing plant in AEP, an electric vehicle battery plant in COMED, a planned expansion of a steel facility in DEOK, a port electrification project in PSEG, along with other projects account for the remainder of the large load growth.[7]

Table 4 shows the data center load included in the summer peak load forecast for 2025/2026 RPM BRA and 2026/2027 RPM BRA. PJM forecasted that the load from the planned data centers and the forecast load growth from the existing data centers (above embedded) in the 2026 summer peak load forecast would reach 7,892 MW.[8] PJM forecasted that the total load from planned and existing data centers (embedded and above embedded) in the 2026 summer peak load forecast would reach 11,993 MW.

Table 3 Large Load Adjustments for 2022 through 2026 as reported in the recent load forecast reports

	Large Load (MW)				
Report	2022	2023	2024	2025	2026
2022 Load Forecast (Adjustments)	897	1,643	2,344	3,061	3,885
2023 Load Forecast (Adjustments Above Embedded)		2,231	3,393	4,654	6,594
2024 Load Forecast (Adjustments Above Embedded)			2,664	4,673	7,557
2025 Load Forecast (Adjustments Above Embedded)				3,591	8,453

6 See 2025 Preliminary PJM Load Forecast, presented at Load Analysis Subcommittee <https://www.pjm.com/-/media/DotCom/committees-groups/subcommittees/las/2024/20241209/20241209-item-03---2025-preliminary-pjm-load-forecast.pdf> (December 9, 2024)

7 See 2025 PJM Long-Term Load Forecast Report at 5 <https://www.pjm.com/-/media/DotCom/library/reports-notices/load-forecast/2025-load-report.pdf> (January 24, 2025).

8 The total data center load is distributed across multiple LDAs. The scenario analyses in this report accounted for the locational distribution of the data center load.

Table 4 Embedded and Above Embedded Data Center Load for 2025/2026 RPM BRA and 2026/2027 RPM BRA[9]

	Above Embedded	Embedded and Above Embedded
2025/2026 RPM BRA (Based on 2024 Load Forecast)	4,654	7,927
2026/2027 RPM BRA (Based on 2025 Load Forecast)	7,892	11,993

VRR Curves

Table 5 shows the shows the price and MW coordinates of the VRR curves for the RTO and each modeled LDA for 2026/2027 RPM Base Residual Auction without the maximum price and minimum price (unrestricted) that PJM filed and FERC accepted for the 2026/2027 and 2027/2028 BRAs.[10] [11] [12] On March 31, 2025, PJM posted the parameters for the 2026/2027 Base Residual Auction without the maximum price and minimum price. For the 2026/2027 through 2029/2030 Delivery Years, a revised VRR curve was effective following the PJM implementation of the quadrennial review in 2023.[13] For these delivery years the maximum price on the VRR curve was increased to the greater of Gross CONE or 1.75 times Net CONE for all unforced capacity MW between 0 and 99.0 percent of the reliability requirement (from zero MW to Point A). The first downward sloping segment is from 99.0 percent to 101.5 percent of the reliability requirement (from Point A to Point B). The second downward sloping segment is from 101.5 percent to 104.5 percent of the reliability requirement (from Point B to Point C). In October 2024, PJM changed the reference resource for the VRR curve from a gas fired CT with firm gas (single fuel) to a

9 In this report, embedded load means existing load at the time of the forecast. Above embedded includes forecast increases in load for both existing data center load and new data center load.

10 In this report, the restricted VRR curve and restricted PJM parameters include the identified maximum and minimum prices capacity prices on the VRR curve. The unrestricted VRR curve and unrestricted PJM parameters include the existing tariff definition of the VRR curve, without restriction.

11 191 FERC ¶ 61,066 (Apr. 21, 2025)

12 The VRR curves here differ slightly from those included in Part E of this report because PJM's parameters changed. The Gross CONE values used for deriving the parameters for the VRR curves used in Part E were based on PJM's December 9 Filing. Forward EAS revenues are provided by PJM. See Attachment D, FERC Docket No. ER25-682-000, Revisions to PJM Capacity Market (December 9, 2024).

13 182 FERC ¶ 61,073 (Feb. 14, 2023).

gas fired CT with nonfirm gas and oil backup (dual fuel), effective for the 2026/2027 BRA.[14] The VRR curves are based on the 2025 PJM Load Forecast Report adjusted for the expected FRR obligation.[15]

Table 5 Price coordinates for 2026/2027 RPM BRA Unrestricted VRR Curve

	Point A		Point B		Point C	
	$/MW-day	MW	$/MW-day	MW	$/MW-day	MW
RTO	$505.73	134,115.4	$159.11	137,502.2	$0.00	141,566.3
MAAC	$488.71	52,061.2	$200.50	53,375.9	$0.00	54,953.5
EMAAC	$565.25	30,124.3	$242.25	30,885.0	$0.00	31,797.9
SWMAAC	$498.77	13,325.3	$128.27	13,658.8	$0.00	14,058.9
PSEG	$646.26	10,689.6	$276.97	10,959.6	$0.00	11,283.5
PS-NORTH	$646.26	5,336.5	$276.97	5,471.3	$0.00	5,633.0
DPL-SOUTH	$477.70	2,607.8	$162.13	2,673.6	$0.00	2,752.6
PEPCO	$498.77	6,393.3	$195.80	6,554.8	$0.00	6,748.5
ATSI	$518.44	11,804.3	$153.02	12,102.4	$0.00	12,460.1
ATSI-CLEVELAND	$518.44	5,276.3	$153.02	5,409.5	$0.00	5,569.4
COMED	$616.44	20,462.8	$264.19	20,979.5	$0.00	21,599.6
BGE	$498.77	6,925.6	$60.73	7,100.5	$0.00	7,310.4
PPL	$555.00	9,426.6	$237.86	9,664.6	$0.00	9,950.3
DAY	$518.44	3,486.1	$122.05	3,574.1	$0.00	3,679.8
DEOK	$518.44	5,421.8	$145.66	5,558.7	$0.00	5,723.0
DOM	$518.44	25,404.1	$109.82	26,045.6	$0.00	26,815.4
JCPL	$632.40	6,122.7	271.03	6,277.3	$0.00	6,462.8

PJM reposted the parameters for the 2026/2027 Base Residual Auction after the FERC approval of PJM's proposal to implement a maximum and a minimum price on April 28,

14 See Attachment D, FERC Docket No. ER25-682-000, Revisions to PJM Capacity Market (December 9, 2024).

15 For the 2026/2027 BRA, the deadline for first time election of the FRR alternative was March 10, 2025, and the deadline for FRR termination of election was May 9, 2025. See 189 FERC ¶ 61,105 (November 8, 2024) and Letter Order in Docket No. ER23-1609-001 (September 29, 2023). In the absence of FRR obligation MW for the 2026/2027 RPM BRA at the time of conducting the analyses, the MMU assumed that the FRR obligation MW used for the 2025/2026 RPM BRA would continue for 2026/2027 RPM BRA.

2025.[16] The VRR curve based on a defined maximum and minimum price is referred to as the restricted VRR curve. The restricted scenarios were analyzed in Part F.[17]

Table 6 shows the shows the price and MW coordinates of the VRR curves for the RTO and each modeled LDA for 2026/2027 RPM Base Residual Auction with the restricted VRR curve. The maximum price is set at the $329.17, which is derived from the $325 in the Agreement.[18] PJM's approach is that the maximum price of $325/MW-day in UCAP terms equals a maximum price of $256.75/MW-day in ICAP terms, using a dual fuel CT ELCC, which was 0.79 at the time of the Agreement. PJM recalculated the maximum price using the updated dual fuel CT ELCC, 0.78, to obtain $329.17 ($256.75/0.78). The minimum price is similarly calculated as $177.24 rather than the $175 per MW-day in the Agreement.

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16 FERC approved PJM VRR curve proposal with a maximum and minimum price. 191 FERC ¶ 61,066

17 *See*, "Analysis of the 2025/2026 RPM Base Residual Auction - Part F," <https://www.monitoringanalytics.com/reports/Reports/2025/IMM_Analysis_of_the_20252026_RPM_Base_Residual_Auction_Part_F_20250204.pdf> (Feb. 4, 2025).

18 *See* Commonwealth of Pennsylvania, "What Industry Leaders, Lawmakers, and Consumer Advocates Are Saying About Governor Shapiro's Action to Save Consumers Over $21 Billion in Utility Charges," (January 31, 2025) <https://www.pa.gov/governor/newsroom/2025-press-releases/-industry-leaders--lawmakers-consumer-adv-saying-about-shapiro-s.html> and also; Email to PJM Members "PA Governor Shapiro Complaint – PJM Notice of Consultation (January 28, 2025).

Table 6 Price coordinates for 2026/2027 RPM BRA Restricted VRR Curve

	Point A		Point B		Point C		Point D	
	$/MW-day	MW	$/MW-day	MW	$/MW-day	MW	$/MW-day	MW
RTO	$329.17	135,840.6	$177.24	137,325.1	$177.24	141,566.3		
MAAC	$329.17	52,789.0	$200.50	53,375.9	$177.24	53,558.9	$177.24	54,953.5
EMAAC	$329.17	30,680.3	$242.25	30,885.0	$177.24	31,130.0	$177.24	31,797.9
SWMAAC	$329.17	13,358.0	$177.24	13,494.7	$177.24	13,938.9		
PSEG	$329.17	10,921.4	$276.97	10,959.6	$177.24	11,076.2	$177.24	11,283.5
PS-NORTH	$329.17	5,452.2	$276.97	5,471.3	$177.24	5,529.5	$177.24	5,633.0
DPL-SOUTH	$329.17	2,638.8	$177.24	2,670.4	$177.24	2,752.6		
PEPCO	$329.17	6,483.7	$195.80	6,554.8	$177.24	6,573.2	$177.24	6,748.5
ATSI	$329.17	11,958.7	$177.24	12,082.6	$177.24	12,460.1		
ATSI-CLEVELAND	$329.17	5,345.3	$177.24	5,400.7	$177.24	5,569.4		
COMED	$329.17	20,884.2	$264.19	20,979.5	$177.24	21,183.6	$177.24	21,599.6
BGE	$329.17	6,993.3	$177.24	7,054.0	$177.24	7,310.4		
PPL	$329.17	9,596.1	$237.86	9,664.6	$177.24	9,737.4	$177.24	9,950.3
DAY	$329.17	3,528.1	$177.24	3,561.8	$177.24	3,679.8		
DEOK	$329.17	5,491.3	$177.24	5,547.1	$177.24	5,723.0		
DOM	$329.17	25,701.2	$177.24	25,939.8	$177.24	26,815.4		
JCPL	$329.17	6,252.4	$271.03	6,277.3	$177.24	6,341.5	$177.24	6,462.8

The sensitivities in Part G focus on the impact of the growth in the data center load on the clearing prices in the 2025/2026 RPM Base Residual Auction (Scenario 87 and Scenario 88) and on the revenues using the offers from the 2025/2026 BRA and the parameters for the 2026/2027 BRA. The MMU used the unrestricted VRR curves to analyze the impact of the increase in the data center load on the 2026/2027 RPM Base Residual Auction in order to show what the impact would have been and could be for the 2026/2027 BRA and the 2027/2028 BRA, without a maximum and minimum price. The clearing prices with the restricted VRR curves would be lower than with the unrestricted VRR curves, but not lower than the minimum price, not accounting for the impact of data center load growth.[19]

The restricted VRR curve would artificially inflate the clearing prices and capacity market revenues in the scenario where there is no data center load growth. Note that there would likely have been no restricted VRR curve in the absence of data center load growth. The Agreement between PJM and the Governor of Pennsylvania to implement a maximum

19 Part F of the report addressed the impacts of using a maximum price of $325/MW-day in UCAP terms and a minimum price of $175/MW-day in UCAP terms and the 5.0 percent increase load growth in all scenarios, combined with the impacts on market outcomes of the three identified MMU proposed changes. See "Analysis of the 2025/2026 RPM Base Residual Auction - Part F," <https://www.monitoringanalytics.com/reports/Reports/2025/IMM_Analysis_of_the_20252026_RPM_Base_Residual_Auction_Part_F_20250204.pdf >Feb. 4, 2025).

and a minimum clearing price in the RPM auction would likely not have happened in the absence of substantial increase in the data center load, the resultant increase in the clearing prices in the 2025/2026 RPM Base Residual Auction, and the resultant expected high clearing prices in the 2026/2027 BRA.

Figure 1 compares the unrestricted and restricted VRR curves for the RTO. Figure 2 compares the unrestricted and restricted VRR curves for the PSEG LDA.

Figure 1 Comparison of VRR Curves for RTO

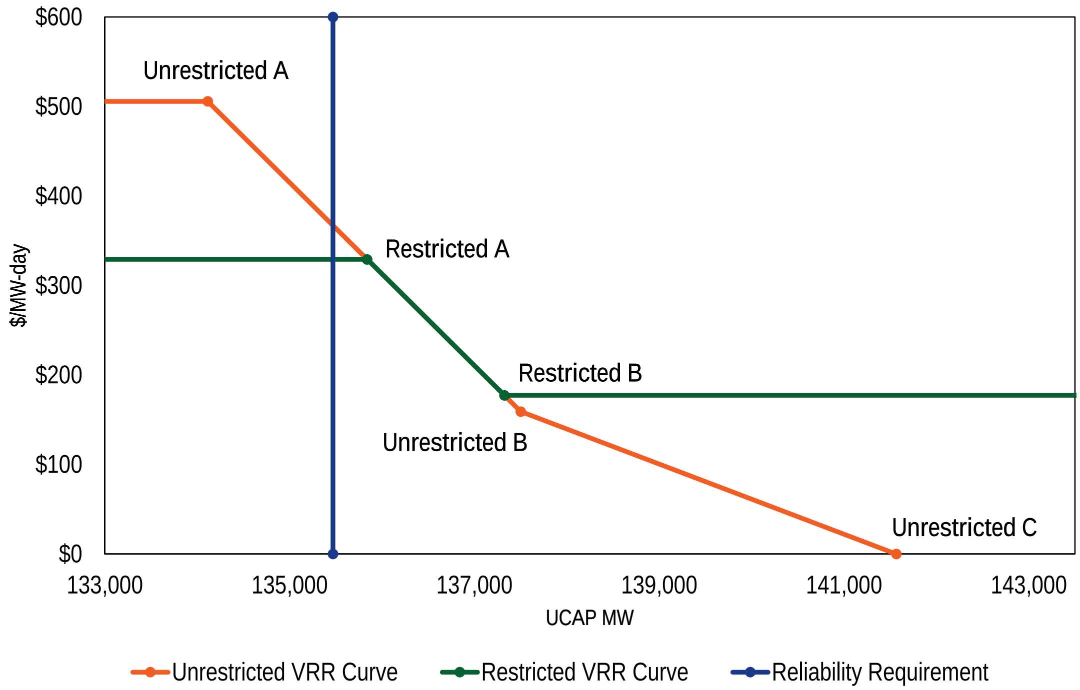
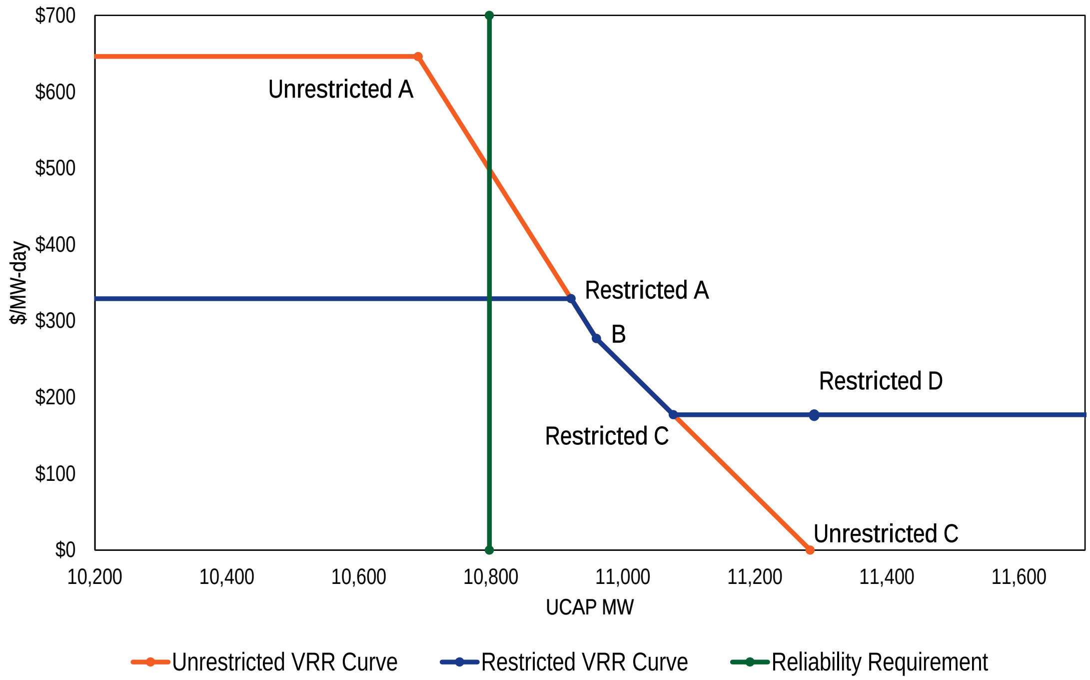


Figure 2 Comparison of VRR Curves for PSEG LDA



Results: 2025/2026 Base Residual Auction and Existing and Forecast Data Center Load

In Scenarios 87 and 88, the MMU analyzed the impact on the actual auction results for the 2025/2026 BRA of including large data center loads. Scenario 87 shows the impact of including 4,654 MW (Table 4) of load from the planned data centers and the forecast load growth from the existing data centers (above embedded) in the 2025 summer peak load forecast. Scenario 88 shows the impact of including 7,927 MW (Table 4) of total load from planned and existing data centers (embedded and above embedded) in the 2025 summer peak load forecast.

Table 7 shows the impact on RPM revenues for Scenario 87. Based on actual auction clearing prices and quantities and uplift MW, total RPM market revenues for the 2025/2026 RPM Base Residual Auction were $14,687,047,358. If the 2025/2026 RPM BRA had been cleared with a 2025 peak load forecast that did not include 4,654 MW of forecast load growth from planned data centers and forecast load growth from the existing data centers (Table 4) and everything else had remained the same, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $6,944,087,201, a decrease of $7,742,960,157, or 52.7 percent, compared to the actual auction results (Scenario 87). From another perspective, the 2025/2026 VRR curve resulted in 111.5 percent higher 2025/2026 RPM BRA revenues compared to what RPM revenues would have been had PJM cleared the auction with a peak load forecast that did not include forecast load from planned data centers and forecast load growth from existing data centers (Scenario 87).

Table 7 also shows the impact on RPM revenues for Scenario 88. Based on actual auction clearing prices and quantities and uplift MW, total RPM market revenues for the 2025/2026 RPM Base Residual Auction were $14,687,047,358. If the 2025/2026 RPM BRA had been cleared with a 2025 peak load forecast that did not include 7,927 MW (Table 4) of forecast or existing load from data centers, and everything else had remained the same, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $5,354,943,499, a decrease of $9,332,103,858, or 63.5 percent, compared to the actual auction results (Scenario 88). From another perspective, the actual 2025/2026 VRR curve resulted in 174.3 percent higher 2025/2026 RPM BRA revenues compared to what RPM revenues would have been had PJM cleared the auction with a peak load forecast that did not include forecast or existing load from new and existing data centers (Scenario 88).

Table 7 Scenario summary for 2025/2026 RPM Base Residual Auction: Data Center Load

		Scenario Impact			
				Percent Change	
Scenario	Scenario Description	RPM Revenue ($ per Delivery Year)	RPM Revenue Change ($ per Delivery Year)	Scenario to Actual	Actual to Scenario
0	Actual results	$14,687,047,358	NA	NA	NA
87	Without Above Embedded Forecast for Data Center Load	$6,944,087,201	$7,742,960,157	111.5%	(52.7%)
88	Without Embedded and Above Embedded Forecast for Data Center Load	$5,354,943,499	$9,332,103,858	174.3%	(63.5%)

Results: Unrestricted 2026/2027 Parameters and Forecast Data Center Load

In Scenarios 89, 90, 91, 92 and 93, the MMU analyzed the impact on the auction results for the 2025/2026 BRA of using the unrestricted 2026/2027 Base Residual Auction parameters and including large data center loads, separately and in combination with scenarios 2, 3 and 4 from Part A of the report. Scenario 89 shows the impact of using unrestricted 2026/2027 BRA parameters. Scenario 90 shows the impact of including the load from the planned data centers and the forecast load growth from the existing data centers (above embedded) in the 2026 summer peak load forecast, in addition to Scenario 89.

Table 8 shows the impact on RPM revenues for Scenario 89. Based on actual auction clearing prices and quantities and uplift MW, total RPM market revenues for the 2025/2026 RPM Base Residual Auction were $14,687,047,358. If the 2025/2026 RPM BRA had been cleared using the 2026/2027 RPM BRA parameters and an unrestricted VRR curve, and everything else had remained the same, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $24,705,110,410, an increase of $10,018,063,052, or 68.2 percent, compared to the actual auction results (Scenario 89). From another perspective, the 2025/2026 VRR curve resulted in 40.6 percent lower 2025/2026 RPM BRA revenues compared to what RPM revenues would have been had PJM cleared the auction using the unrestricted 2026/2027 RPM BRA parameters (Scenario 89).

Table 8 shows the impact on RPM revenues for Scenario 90. If the 2025/2026 RPM BRA had been cleared using the 2026/2027 RPM BRA parameters and an unrestricted VRR curve, and everything else had remained the same, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $24,705,110,410 (Scenario 89). If, in addition to Scenario 89, the 2025/2026 RPM BRA had been cleared with the 2026 peak load forecast that did not include 7,892 MW (Table 4) of forecast load growth from planned data centers and from existing data centers (above embedded), total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $5,978,619,335, a decrease of $18,726,491,075 or 75.8 percent compared to the results if the 2025/2026 RPM BRA had been cleared using the 2026/2027 RPM BRA parameters with an unrestricted VRR curve, and everything else had remained the same (Scenario 90). From another perspective, in addition to Scenario 89, including forecast data center load in the 2026 peak load forecast resulted in a 313.2 percent increase in RPM revenues for the 2025/2026 RPM Base Residual Auction compared to what RPM revenues would have been had PJM cleared the auction using the 2026/2027 RPM BRA parameters with an unrestricted VRR curve, and with a peak load forecast that did not include load from planned data centers and the forecast load growth from existing data centers (Scenario 90).

Scenarios 91, 92 and 93 in Table 8 show the additional impact on RPM revenues of scenarios 2, 3 and 4 from Part A of the report: the inclusion of the RMR resources in supply, the inclusion of categorically exempt resources in supply, and the inclusion of ambient adjusted winter ratings for thermal resources in supply. The first two of these recommendations have been adopted by PJM for the upcoming auction for the 2026/2027 Delivery Year.

Table 8 shows the impact on RPM revenues for Scenario 91. If the 2025/2026 RPM BRA had been cleared using the 2026/2027 RPM BRA parameters and an unrestricted VRR curve, and everything else had remained the same, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $24,705,110,410. If the 2025/2026 RPM BRA had been cleared with the 2026 peak load forecast that did not include 7,892 MW (Table 4) of forecast load growth from planned data centers and from existing data centers (above embedded), and everything else had remained the same, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $5,978,619,335 (Scenario 90). If in addition, the capacity of the RMR resources in the BGE LDA had been included in the supply curve at $0 per MW-day and everything else had remained the same as in Scenario 90, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $4,809,549,155, a decrease of $1,169,070,180 or 19.6 percent compared to the Scenario 90 results. From another perspective, if in addition to Scenario 90, the fact that the RMR resources in the BGE LDA were not included in the supply curve at $0 per MW-day resulted in a 24.3 percent increase in RPM revenues for the 2025/2026 RPM Base Residual Auction compared to what RPM revenues would have been had the capacity of the RMR resources been included in the supply curve at $0 per MW-day (Scenario 91).

Table 8 shows the impact on RPM revenues for Scenario 92. In addition to Scenario 91, if the MW categorically exempt from the RPM must offer requirement that did not offer had been offered in the 2025/2026 RPM BRA and everything else had remained the same as in Scenario 91, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $3,401,985,785, a decrease of $1,407,563,370 or 29.3 percent compared to Scenario 91 results. From another perspective, if in addition to Scenario 91, the fact that the MW categorically exempt from the RPM must offer requirement did not offer resulted in a 41.4 percent increase in RPM revenues compared to what RPM revenues would have been if the MW capacity categorically exempt from the RPM must offer requirement that did not offer had been offered in the 2025/2026 RPM Base Residual Auction (Scenario 92).

Table 8 shows the impact on RPM revenues for Scenario 93. In addition to Scenario 92, if marginal ELCC based accreditation considered higher winter generation capacity ratings for CC and CT resources in the 2025/2026 RPM Base Residual Auction and everything else had remained the same as in Scenario 92, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $3,543,648,125, an increase of $141,662,340 or 4.2 percent compared to Scenario 92 results. From another perspective, if in addition to Scenario 92, the fact that marginal ELCC based accreditation did not consider higher winter generation capacity ratings for CC and CT resources, resulted in a 4.0 percent decrease in RPM revenues compared to what RPM revenues would have been if marginal ELCC based accreditation had considered higher winter generation capacity ratings for CC and CT resources in the 2025/2026 RPM Base Residual Auction (Scenario 93).

Table 8 Scenario summary for 2025/2026 RPM Base Residual Auction: Unrestricted 2026/2027 BRA Parameters; Forecast Data Center Load

		Scenario Impact			
				Percent Change	
Scenario	Scenario Description	RPM Revenue ($ per Delivery Year)	RPM Revenue Change ($ per Delivery Year)	Scenario to Actual	Actual to Scenario
0	Actual results	$14,687,047,358	NA	NA	NA
89	Unrestricted BRA 26/27 Parameters	$24,705,110,410	($10,018,063,052)	(40.6%)	68.2%
90	Scenario 89 and Peak Load Forecast Without Above Embedded Data Center Load	$5,978,619,335	$8,708,428,023	145.7%	(59.3%)
91	Scenario 90 and RMR resources	$4,809,549,155	$9,877,498,203	205.4%	(67.3%)
92	Scenario 90 and all categorically exempt offers and RMR resources	$3,401,985,785	$11,285,061,573	331.7%	(76.8%)
93	Scenario 90 and all categorically exempt offers, winter ratings and RMR resources	$3,543,648,125	$11,143,399,233	314.5%	(75.9%)

Results: Unrestricted 2026/2027 Parameters and Existing and Forecast Data Center Load

In Scenarios 89, 94, 95, 96 and 97, the MMU analyzed the impact on the auction results for the 2025/2026 BRA of using unrestricted 2026/2027 Base Residual Auction parameters and including large data center load, in combination with scenarios 2, 3 and 4 from Part A. Scenario 89 shows the impact of using unrestricted 2026/2027 BRA parameters. Scenario 94 shows the impact of including the total load from planned and existing data centers (embedded and above embedded) in the 2026 summer peak load forecast, in addition to Scenario 89. The scenarios in Table 8 show the impact of forecast data center load and the scenarios in Table 9 show the impact of both existing (embedded) and forecast data center load.

If the 2025/2026 RPM BRA had been cleared using the 2026/2027 RPM BRA parameters and an unrestricted VRR curve, and everything else had remained the same, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $24,705,110,410 (Scenario 89).

Table 9 shows the impact on RPM revenues for Scenario 94. If the 2025/2026 RPM BRA had been cleared with the 2026 peak load forecast that did not include 11,993 MW (Table 4) of load from existing data centers, forecast load from planned data centers and forecast load growth from existing data centers (embedded and above embedded), and everything else had remained the same, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $4,289,602,101 (Scenario 94), a decrease of $20,415,508,309 or 82.6 percent compared to the results if the 2025/2026 RPM BRA had been cleared using the 2026/2027 RPM BRA parameters with an unrestricted VRR curve, including the data center load and everything else had remained the same (Scenario 94). From another perspective, in addition to Scenario 89, including existing and forecast data center load in the 2026 peak load forecast resulted in a 475.9 percent increase in RPM revenues for the 2025/2026 RPM Base Residual Auction compared to what RPM revenues would have been had PJM cleared the auction with a peak load forecast that did not include load from existing data centers, forecast load from planned data centers and forecast load growth from existing data centers (Scenario 94).

Scenarios 95, 96 and 97 in Table 8 show the impact on RPM revenues of scenarios 2, 3 and 4 from Part A of the report: the inclusion of the RMR resources in supply, the inclusion of categorically exempt resources in supply, and the inclusion of ambient adjusted winter ratings for thermal resources in supply. The first two of these recommendations have been adopted by PJM for the upcoming auction for the 2026/2027 Delivery Year.

Table 9 shows the impact on RPM revenues for Scenario 95. If the 2025/2026 RPM BRA had been cleared using the 2026/2027 RPM BRA parameters and an unrestricted VRR curve, and everything else had remained the same, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $24,705,110,410. If the 2025/2026 RPM BRA had been cleared with the 2026 peak load forecast that did not include 11,993 MW (Table 4) of load from existing data centers, forecast load from planned data centers and from existing data centers (embedded and above embedded), and everything else had remained the same, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $4,289,602,101 (Scenario 94). If, in addition the capacity of the RMR resources in the BGE LDA had been included in the supply curve at $0 per MW-day and everything else had remained the same as in Scenario 94, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $2,711,077,146, a decrease of $1,578,524,955 or 36.8 percent compared to the Scenario 94 results. From another perspective, if in addition to Scenario 94, the fact that the RMR resources in the BGE LDA were not included in the supply curve at $0 per MW-day resulted in a 58.2 percent increase in RPM revenues compared to what RPM revenues would have been had the capacity of the RMR resources been included in the supply curve at $0 per MW-day (Scenario 95).

Table 9 shows the impact on RPM revenues for Scenario 96. In addition to Scenario 95, if the MW categorically exempt from the RPM must offer requirement that did not offer had been offered in the 2025/2026 RPM BRA and everything else had remained the same as in Scenario 95, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $2,495,379,454, a decrease of $215,697,692 or 8.0 percent compared to Scenario 95 results. From another perspective, if in addition to Scenario 95, the fact that the MW categorically exempt from the RPM must offer requirement did not offer resulted in a 8.6 percent increase in RPM revenues compared to what RPM revenues would have been if the MW capacity categorically exempt from the RPM must offer requirement that did not offer had been offered in the 2025/2026 RPM Base Residual Auction (Scenario 96).

Table 9 shows the impact on RPM revenues for Scenario 97. In addition to Scenario 96, if marginal ELCC based accreditation considered higher winter generation capacity ratings for CC and CT resources in the 2025/2026 RPM Base Residual Auction and everything else had remained the same as in Scenario 96, total RPM market revenues for the 2025/2026 RPM Base Residual Auction would have been $2,335,920,248, a decrease of $159,459,206 or 6.4 percent compared to Scenario 96 results. From another perspective, if in addition to Scenario 96, the fact that marginal ELCC based accreditation did not consider higher winter generation capacity ratings for CC and CT resources, resulted in a 6.8 percent increase in RPM revenues compared to what RPM revenues would have been if marginal ELCC based accreditation had considered higher winter generation capacity ratings for CC and CT resources in the 2025/2026 RPM Base Residual Auction (Scenario 97).

Table 9 Scenario summary for 2025/2026 RPM Base Residual Auction: Unrestricted 2026/2027 BRA Parameters; Existing Data Center Load; Forecast Data Center Load

		Scenario Impact			
				Percent Change	
Scenario	Scenario Description	RPM Revenue ($ per Delivery Year)	RPM Revenue Change ($ per Delivery Year)	Scenario to Actual	Actual to Scenario
0	Actual results	$14,687,047,358	NA	NA	NA
89	Unrestricted BRA 26/27 Parameters	$24,705,110,410	($10,018,063,052)	(40.6%)	68.2%
94	Scenario 89 and Peak Load Forecast Without Embedded and Above Embedded Data Center Load	$4,289,602,101	$10,397,445,256	242.4%	(70.8%)
95	Scenario 94 and RMR resources	$2,711,077,146	$11,975,970,212	441.7%	(81.5%)
96	Scenario 94 and all categorically exempt offers and RMR resources	$2,495,379,454	$12,191,667,904	488.6%	(83.0%)
97	Scenario 94 and all categorically exempt offers, winter ratings and RMR resources	$2,335,920,248	$12,351,127,110	528.7%	(84.1%)

Results: Cleared UCAP MW

Table 10 through Table 12 show the cleared UCAP MW impact of all the scenarios analyzed. The Cleared UCAP column shows the cleared MW that resulted from the specific scenario only. The Cleared UCAP Change column shows the difference between the actual RPM cleared UCAP MW and the total RPM cleared UCAP MW that resulted from the specific scenario. A positive number means that the specific scenario resulted in a reduction in cleared MW. A negative number means that the specific scenario resulted in an increase in cleared MW. The percent columns show the percent change in RPM cleared MW for the specific scenario from two perspectives. The Scenario to Actual Percent column shows the difference between the MW under the defined scenario and the defined baseline as a percent of the MW under the defined scenario. The Actual to Scenario Percent column shows the difference between the MW under the defined scenario and the defined baseline as a percent of the MW under the defined baseline.

Table 10 shows the impact on the cleared UCAP MW for the auction for Scenarios 87 and 88. In Scenario 87, the MMU analyzed the impact of including the load from the planned data centers and the forecast load growth from the existing data centers (above embedded) in the 2025 summer peak load forecast. In Scenario 88, the MMU analyzed the impact of including the total load from planned and existing data centers (embedded and above embedded) in the 2025 summer peak load forecast.

Table 11 shows the impact on the cleared UCAP MW for the auction for Scenarios 89 through 93. In Scenario 89, the MMU analyzed the impact of using unrestricted 2026/2027 BRA parameters. In Scenarios 90, 91, 92 and 93, the MMU analyzed the impact on the auction results for the 2025/2026 BRA of using unrestricted 2026/2027 Base Residual Auction parameters, and including forecast load from the planned data centers and forecast load growth from the existing data centers (above embedded) in the 2026 summer peak load forecast, in combination with scenarios 2, 3 and 4 from Part A.

Table 12 shows the impact on the cleared UCAP MW for the auction for Scenarios 89 and Scenarios 94 through 97. In Scenario 89, the MMU analyzed the impact of using unrestricted 2026/2027 BRA parameters. In Scenarios 94, 95, 96 and 97, the MMU analyzed the impact on the auction results for the 2025/2026 BRA of using unrestricted 2026/2027 Base Residual Auction parameters, and including load from existing data centers, forecast load from planned data centers and forecast load growth from existing data centers (embedded and above embedded) in the 2026 summer peak load forecast, in combination with scenarios 2, 3 and 4 from Part A.

Table 10 Scenario summary for 2025/2026 RPM Base Residual Auction: VRR Curve Capped at $250 per MW-day; 5.0 Percent Higher Forecasted Peak Load

		Scenario Impact			
				Percent Change	
Scenario	Scenario Description	Cleared UCAP (MW)	Cleared UCAP Change (MW)	Scenario to Actual	Actual to Scenario
0	Actual results	135,684.0	NA	NA	NA
87	Without Above Embedded Forecast for Data Center Load	135,089.3	594.7	0.4%	(0.4%)
88	Without Embedded and Above Embedded Forecast for Data Center Load	133,363.7	2,320.3	1.7%	(1.7%)

Table 11 Scenario summary for 2025/2026 RPM Base Residual Auction: VRR Curve Capped at $300 per MW-day; 5.0 Percent Higher Forecasted Peak Load

		Scenario Impact			
				Percent Change	
Scenario	Scenario Description	Cleared UCAP (MW)	Cleared UCAP Change (MW)	Scenario to Actual	Actual to Scenario
0	Actual results	135,684.0	NA	NA	NA
89	Unrestricted BRA 26/27 Parameters	135,704.3	(20.3)	(0.0%)	0.0%
90	Scenario 89 and Peak Load Forecast Without Above Embedded Data Center Load	133,172.7	2,511.3	1.9%	(1.9%)
91	Scenario 90 and RMR resources	133,717.0	1,967.0	1.5%	(1.4%)
92	Scenario 90 and all categorically exempt offers and RMR resources	133,953.8	1,730.2	1.3%	(1.3%)
93	Scenario 90 and all categorically exempt offers, winter ratings and RMR resources	138,507.9	(2,823.9)	(2.0%)	2.1%

Table 12 Scenario summary for 2025/2026 RPM Base Residual Auction: VRR Curve Capped at $325 per MW-day; 5.0 Percent Higher Forecasted Peak Load

		Scenario Impact			
				Percent Change	
Scenario	Scenario Description	Cleared UCAP (MW)	Cleared UCAP Change (MW)	Scenario to Actual	Actual to Scenario
0	Actual results	135,684.0	NA	NA	NA
89	Unrestricted BRA 26/27 Parameters	135,704.3	(20.3)	(0.0%)	0.0%
94	Scenario 89 and Peak Load Forecast Without Embedded and Above Embedded Data Center Load	130,493.0	5,191.0	4.0%	(3.8%)
95	Scenario 94 and RMR resources	130,692.4	4,991.6	3.8%	(3.7%)
96	Scenario 94 and all categorically exempt offers and RMR resources	130,763.0	4,921.0	3.8%	(3.6%)
97	Scenario 94 and all categorically exempt offers, winter ratings and RMR resources	135,387.7	296.3	0.2%	(0.2%)

Revision History

June 3, 2025: Original document posted.

June 5, 2025: Conclusions section was updated.

Holding aside all the other issues raised by the MMU in parts A through F of this report, data center load by itself resulted in an increase in the 2025/2026 BRA revenues of ~~$9,431,041,496~~$9,332,103,858 or ~~179.4~~174.3 percent (Scenario 88).