

# New Supply and Demand Analysis in 2025

Market Monitoring Unit  
Advisory Committee  
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Monitoring Analytics

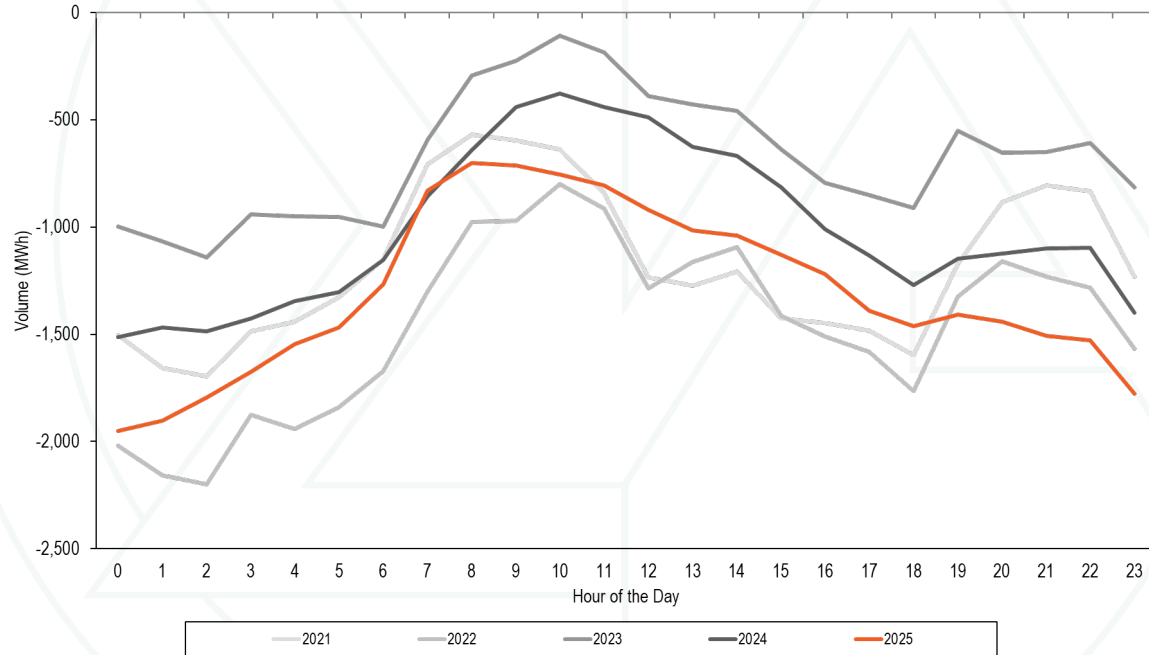
# DAY-AHEAD AND REAL-TIME PHYSICAL LOAD



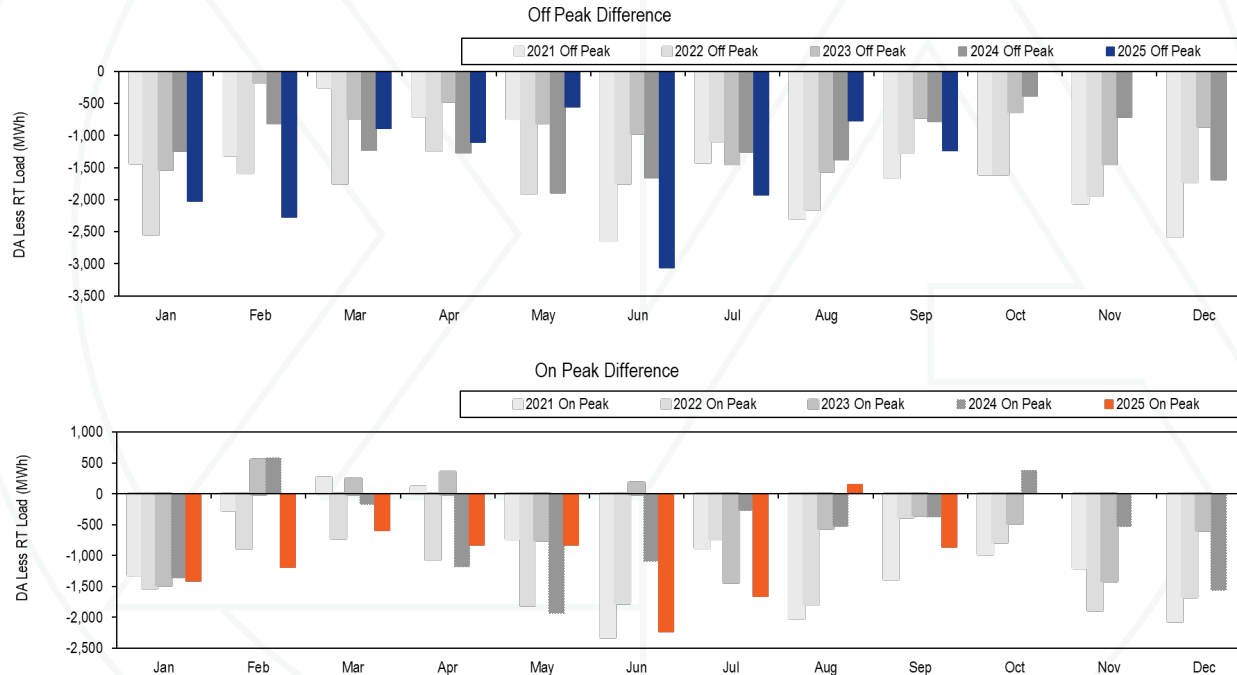
# Overview

- **The day-ahead physical load bid and real-time settlement physical load are not always equal.**
- **In general, the day-ahead physical load bid from the LSE is less than the real-time settlement physical load.**
- **The discrepancy varies throughout the day, from month to month, and from zone to zone.**
- **In 2025, we have added the analysis to SOM section 3.**

# Difference between day-ahead and real-time hourly average physical load by hour of the day January through September, 2021 through 2025



# Difference between day-ahead and real-time on peak and off peak hourly average physical load by month: 2021 through September 2025



# Difference between day-ahead and real-time on peak and off peak physical load by zone

| Zone      | 2024 Jan-Sep             |                            |                          |                            | 2025 Jan-Sep             |                            |                          |                            |
|-----------|--------------------------|----------------------------|--------------------------|----------------------------|--------------------------|----------------------------|--------------------------|----------------------------|
|           | Off Peak                 |                            | On Peak                  |                            | Off Peak                 |                            | On Peak                  |                            |
|           | Average DA-RT Difference | Average Percent of RT Load | Average DA-RT Difference | Average Percent of RT Load | Average DA-RT Difference | Average Percent of RT Load | Average DA-RT Difference | Average Percent of RT Load |
| AECO      | 16.99                    | 1.8%                       | 44.29                    | 4.2%                       | (8.22)                   | (0.1%)                     | 10.16                    | 2.3%                       |
| AEP       | (109.20)                 | (0.8%)                     | (81.44)                  | (0.5%)                     | (48.63)                  | (0.2%)                     | (11.11)                  | 0.0%                       |
| APS       | (93.39)                  | (1.7%)                     | (8.72)                   | (0.1%)                     | (70.30)                  | (1.1%)                     | 1.52                     | 0.2%                       |
| ATSI      | (110.02)                 | (1.4%)                     | 42.02                    | 0.7%                       | (41.47)                  | (0.3%)                     | 50.52                    | 0.8%                       |
| BGE       | (140.25)                 | (4.2%)                     | (149.69)                 | (3.8%)                     | (135.72)                 | (3.8%)                     | (141.70)                 | (3.3%)                     |
| COMED     | 7.72                     | 0.3%                       | 17.77                    | 0.4%                       | (29.43)                  | (0.1%)                     | (56.16)                  | (0.2%)                     |
| DAY       | (13.32)                  | (0.4%)                     | (7.73)                   | (0.1%)                     | (19.40)                  | (0.8%)                     | (14.16)                  | (0.4%)                     |
| DOM       | (431.64)                 | (3.3%)                     | (447.02)                 | (3.0%)                     | (745.43)                 | (5.2%)                     | (793.17)                 | (5.0%)                     |
| DPL       | (34.17)                  | (1.7%)                     | (27.54)                  | (1.0%)                     | (41.63)                  | (2.0%)                     | (36.49)                  | (1.3%)                     |
| DUQ       | 9.48                     | 0.7%                       | 28.14                    | 1.7%                       | 6.71                     | 0.8%                       | 38.24                    | 2.8%                       |
| EKPC/DEOK | (46.52)                  | (0.9%)                     | (25.67)                  | (0.4%)                     | (32.76)                  | (0.6%)                     | 13.91                    | 0.3%                       |
| JCPL      | (40.13)                  | (1.4%)                     | 50.50                    | 3.1%                       | (44.18)                  | (1.5%)                     | 17.25                    | 1.7%                       |
| METED     | 9.96                     | 0.9%                       | 26.12                    | 1.6%                       | 15.14                    | 1.3%                       | 26.30                    | 1.7%                       |
| PECO      | (28.69)                  | (0.5%)                     | (29.31)                  | (0.3%)                     | (27.61)                  | (0.4%)                     | (6.59)                   | 0.1%                       |
| PENELEC   | (7.48)                   | (0.3%)                     | 9.79                     | 0.6%                       | (3.60)                   | 0.1%                       | 12.51                    | 0.9%                       |
| PEPCO     | (114.28)                 | (3.9%)                     | (117.52)                 | (3.3%)                     | (107.71)                 | (3.4%)                     | (94.98)                  | (2.4%)                     |
| PPL       | 33.72                    | 1.0%                       | 81.15                    | 1.8%                       | (29.14)                  | (0.5%)                     | 4.38                     | 0.4%                       |
| PSEG      | (173.35)                 | (3.6%)                     | (93.10)                  | (1.3%)                     | (142.36)                 | (2.9%)                     | (63.51)                  | (0.6%)                     |
| RECO      | (5.37)                   | (3.8%)                     | (6.05)                   | (2.9%)                     | 0.53                     | 0.5%                       | 1.41                     | 1.2%                       |

# Difference between day ahead and real-time physical load by zone: January through September, 2021 through 2025

| Zone      | 2021 Jan-Sep                |                               | 2022 Jan-Sep                |                               | 2023 Jan-Sep                |                               | 2024 Jan-Sep                |                               | 2025 Jan-Sep                |                               |
|-----------|-----------------------------|-------------------------------|-----------------------------|-------------------------------|-----------------------------|-------------------------------|-----------------------------|-------------------------------|-----------------------------|-------------------------------|
|           | Average DA-RT<br>Difference | Average Percent<br>of RT Load | Average DA-RT<br>Difference | Average Percent<br>of RT Load | Average DA-RT<br>Difference | Average Percent<br>of RT Load | Average DA-RT<br>Difference | Average Percent<br>of RT Load | Average DA-RT<br>Difference | Average Percent<br>of RT Load |
| AECO      | (40.02)                     | (2.2%)                        | (41.73)                     | (2.2%)                        | 9.39                        | 1.3%                          | 29.75                       | 2.9%                          | 0.36                        | 1.0%                          |
| AEP       | (98.79)                     | (0.7%)                        | (134.42)                    | (1.0%)                        | (73.93)                     | (0.4%)                        | (96.23)                     | (0.7%)                        | (31.13)                     | (0.1%)                        |
| APS       | (54.33)                     | (0.9%)                        | (97.87)                     | (1.7%)                        | (109.05)                    | (1.9%)                        | (53.83)                     | (0.9%)                        | (36.80)                     | (0.5%)                        |
| ATSI      | (15.12)                     | 0.1%                          | (101.32)                    | (1.2%)                        | 16.05                       | 0.4%                          | (38.98)                     | (0.4%)                        | 1.44                        | 0.2%                          |
| BGE       | (147.61)                    | (3.9%)                        | (93.35)                     | (2.6%)                        | (80.01)                     | (2.3%)                        | (144.66)                    | (4.0%)                        | (138.51)                    | (3.6%)                        |
| COMED     | (20.41)                     | 0.2%                          | (53.20)                     | (0.3%)                        | 144.35                      | 1.5%                          | 12.41                       | 0.3%                          | (41.90)                     | (0.2%)                        |
| DAY       | (1.20)                      | 0.2%                          | (37.57)                     | (1.7%)                        | 20.59                       | 1.3%                          | (10.71)                     | (0.3%)                        | (16.96)                     | (0.6%)                        |
| DOM       | (506.75)                    | (4.2%)                        | (601.12)                    | (4.8%)                        | (626.85)                    | (4.9%)                        | (438.82)                    | (3.2%)                        | (767.70)                    | (5.1%)                        |
| DPL       | (49.14)                     | (2.1%)                        | (65.47)                     | (3.0%)                        | (29.24)                     | (1.3%)                        | (31.07)                     | (1.4%)                        | (39.23)                     | (1.6%)                        |
| DUQ       | 4.69                        | 0.5%                          | (90.70)                     | (5.7%)                        | 24.98                       | 1.8%                          | 18.20                       | 1.1%                          | 21.42                       | 1.7%                          |
| EKPC/DEOK | (46.49)                     | (0.8%)                        | (76.47)                     | (1.6%)                        | (42.19)                     | (0.8%)                        | (36.78)                     | (0.7%)                        | (10.99)                     | (0.2%)                        |
| JCPL      | (35.47)                     | (0.5%)                        | (39.26)                     | (0.7%)                        | 16.34                       | 1.2%                          | 2.22                        | 0.7%                          | (15.52)                     | (0.0%)                        |
| METED     | (19.17)                     | (0.7%)                        | (62.02)                     | (3.1%)                        | 17.85                       | 1.2%                          | 17.51                       | 1.2%                          | 20.34                       | 1.5%                          |
| PECO      | (39.69)                     | (0.4%)                        | 83.77                       | 2.1%                          | 50.05                       | 1.5%                          | (28.98)                     | (0.4%)                        | (17.80)                     | (0.2%)                        |
| PENELEC   | 9.41                        | 0.5%                          | 10.90                       | 0.6%                          | 33.71                       | 1.9%                          | 0.59                        | 0.1%                          | 3.92                        | 0.5%                          |
| PEPCO     | (18.32)                     | (0.2%)                        | (20.31)                     | (0.6%)                        | (38.30)                     | (1.0%)                        | (115.80)                    | (3.6%)                        | (101.77)                    | (2.9%)                        |
| PPL       | (46.75)                     | (0.8%)                        | 32.06                       | 0.9%                          | 64.64                       | 1.6%                          | 55.88                       | 1.4%                          | (13.50)                     | (0.1%)                        |
| PSEG      | (43.63)                     | (0.7%)                        | (57.58)                     | (0.8%)                        | (59.41)                     | (1.1%)                        | (135.86)                    | (2.5%)                        | (105.58)                    | (1.8%)                        |
| RECO      | 6.47                        | 4.3%                          | (1.53)                      | (0.9%)                        | (0.60)                      | 0.3%                          | (5.69)                      | (3.4%)                        | 0.94                        | 0.8%                          |

# SOLAR AND WIND



# Overview

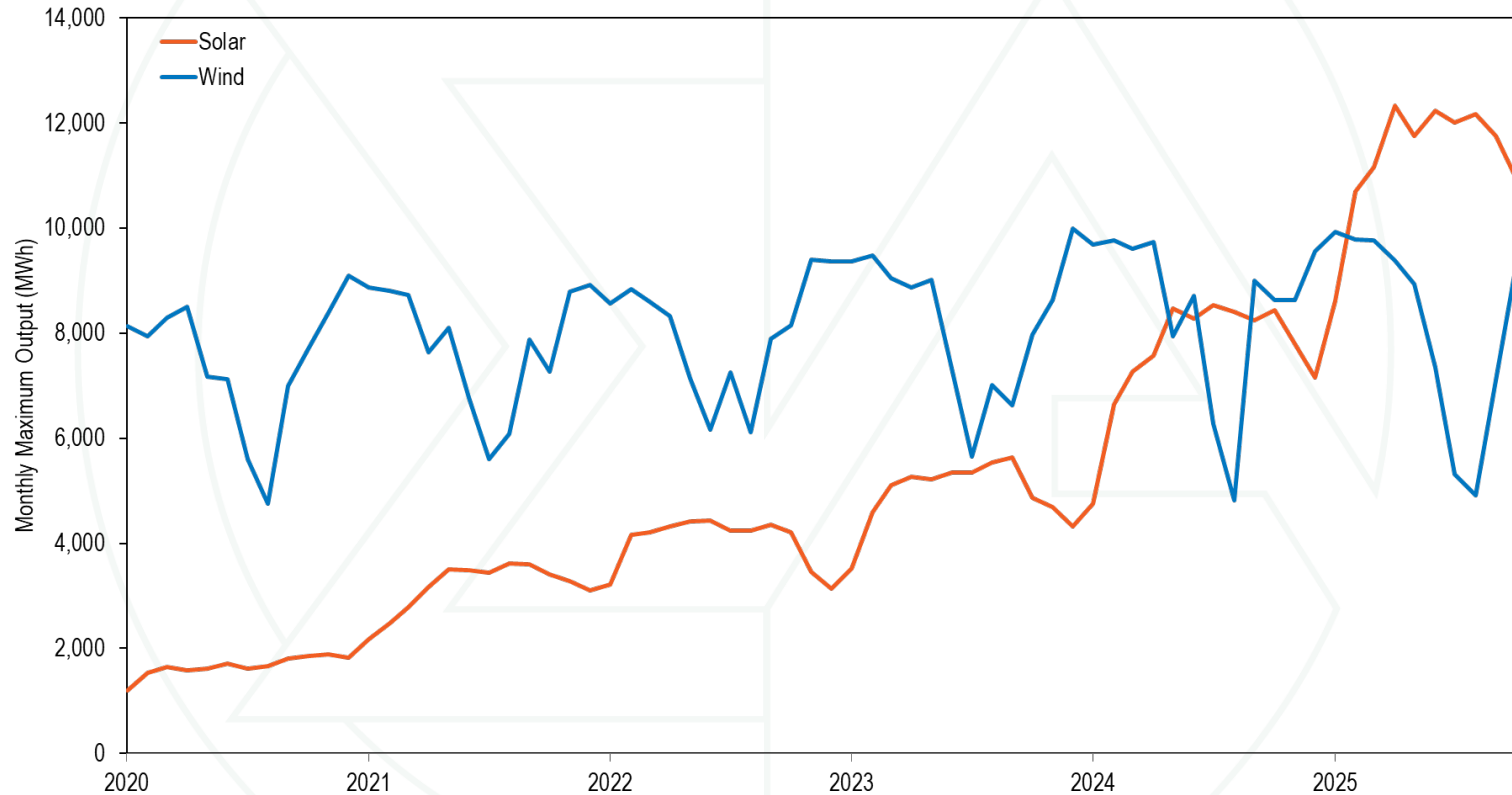
- **Solar generation has increased dramatically since 2020.**
- **Solar output's share of total generation in PJM increased from 0.4% to 3.1% in less than six years.**
- **The rapidly growing output of wind and solar generation is changing the shape of the PJM net load.**
- **In 2025, we have added the analysis to MC webinar and expanding our analysis of net load.**

# Annual Maximum Hourly Solar and Wind Output

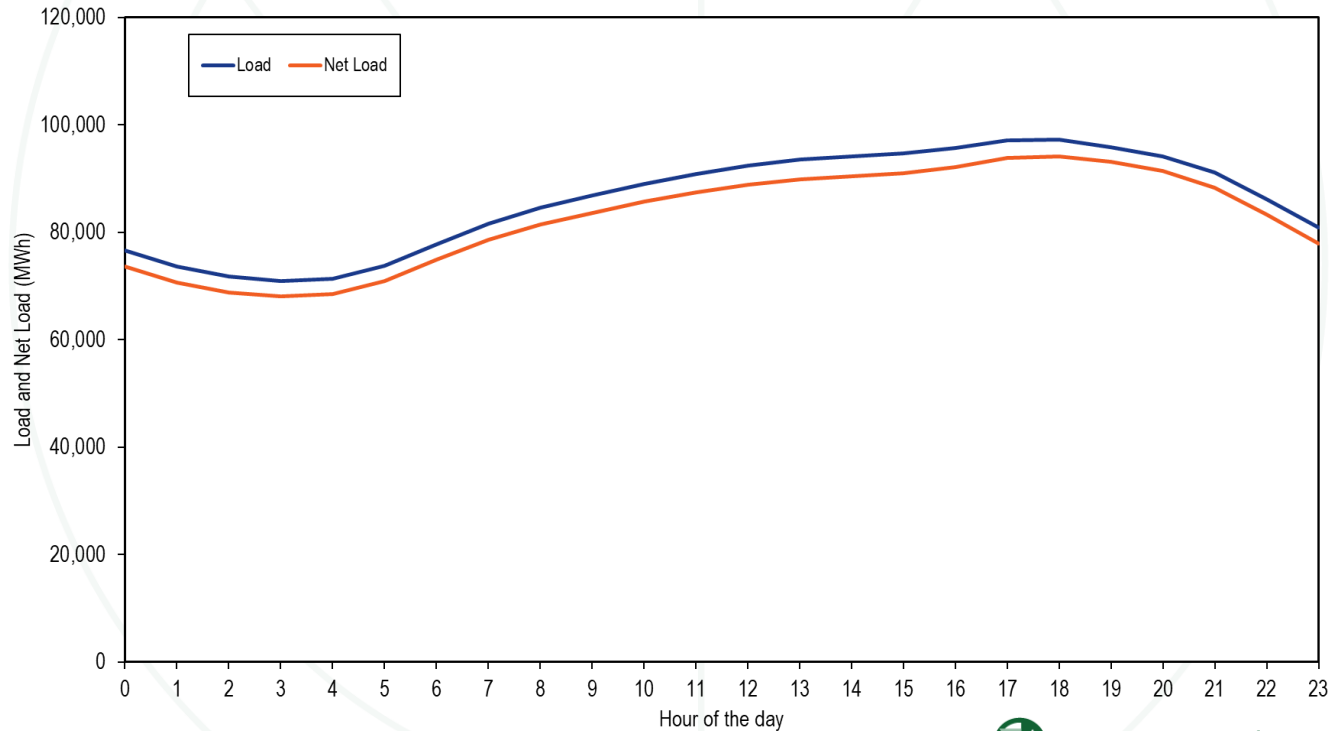
| Year | Solar Maximum Hourly Output |        |                | Solar Percent of All Generation For The Year | Wind Maximum Hourly Output |        |                | Wind Percent of All Generation For The Year |
|------|-----------------------------|--------|----------------|----------------------------------------------|----------------------------|--------|----------------|---------------------------------------------|
|      | Maximum Hourly MWh          | Change | Percent Change |                                              | Maximum Hourly MWh         | Change | Percent Change |                                             |
| 2020 | 1,879                       |        |                | 0.4%                                         | 9,095                      |        |                | 3.3%                                        |
| 2021 | 3,617                       | 1,739  | 92.5%          | 0.9%                                         | 8,911                      | (184)  | (2.0%)         | 3.3%                                        |
| 2022 | 4,429                       | 812    | 22.4%          | 1.1%                                         | 9,402                      | 491    | 5.5%           | 3.8%                                        |
| 2023 | 5,630                       | 1,201  | 27.1%          | 1.4%                                         | 9,993                      | 592    | 6.3%           | 3.5%                                        |
| 2024 | 8,532                       | 2,901  | 51.5%          | 2.1%                                         | 9,768                      | (226)  | (2.3%)         | 3.7%                                        |
| 2025 | 12,325                      | 3,794  | 44.5%          | 3.1%                                         | 9,929                      | 161    | 1.7%           | 3.5%                                        |



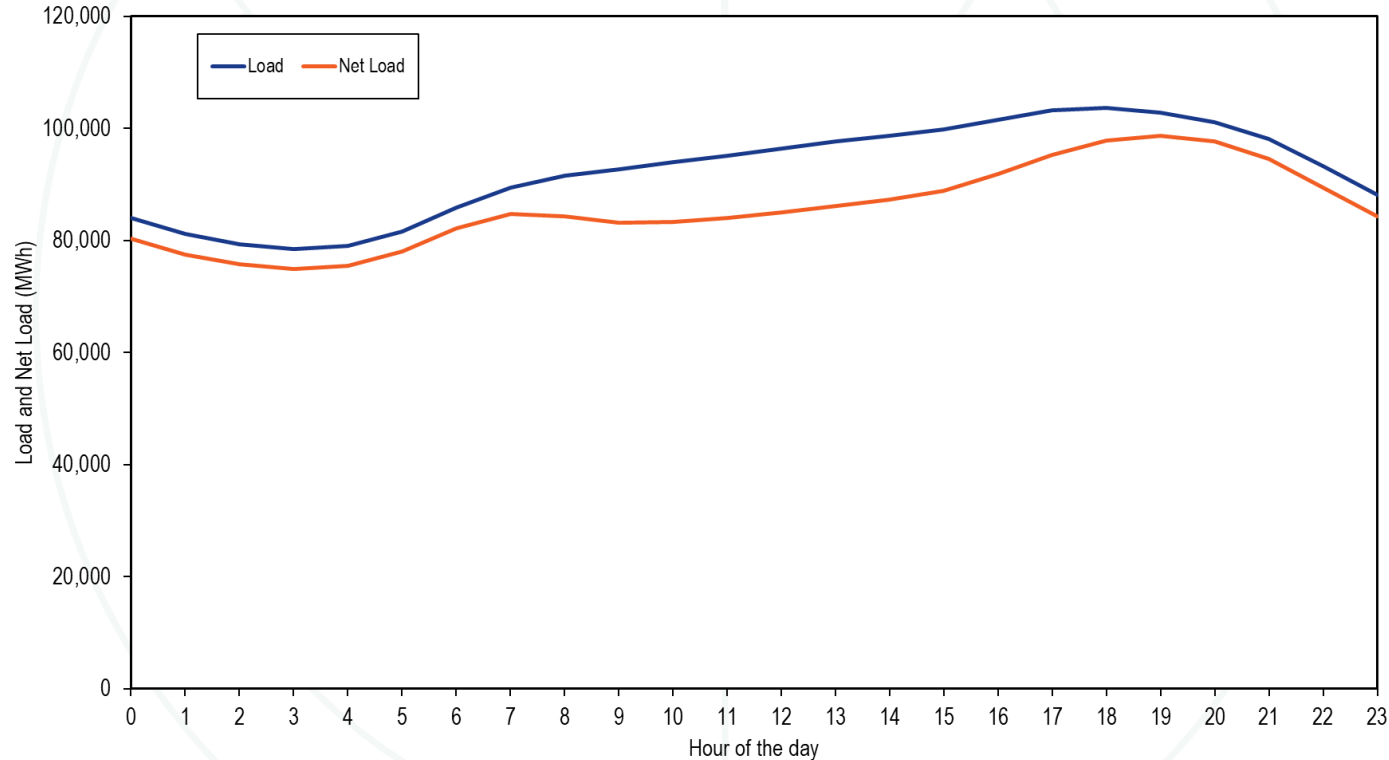
# Maximum Solar and Wind Hourly Output by Month



# Load and Net Load by hour of the day January through September, 2020



# Load and Net Load by hour of the day January through September, 2025



# Additional Analysis

- **IMM is open to suggestions for additional analysis**



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