

# Market Monitor Report

MC Webinar  
July 24, 2023

IMM



Monitoring Analytics

# Reserve Market ORDC Extension

- **On May 12, 2023, PJM took unilateral action to increase reserve requirements without stakeholder or FERC approval.**
  - **Stakeholders had rejected the proposed change.**
  - **Prior changes have only occurred during emergency and alert conditions.**
- **The initial change was a doubling of the synchronized reserve requirement. A revised change set the requirement to a 30 percent increase.**

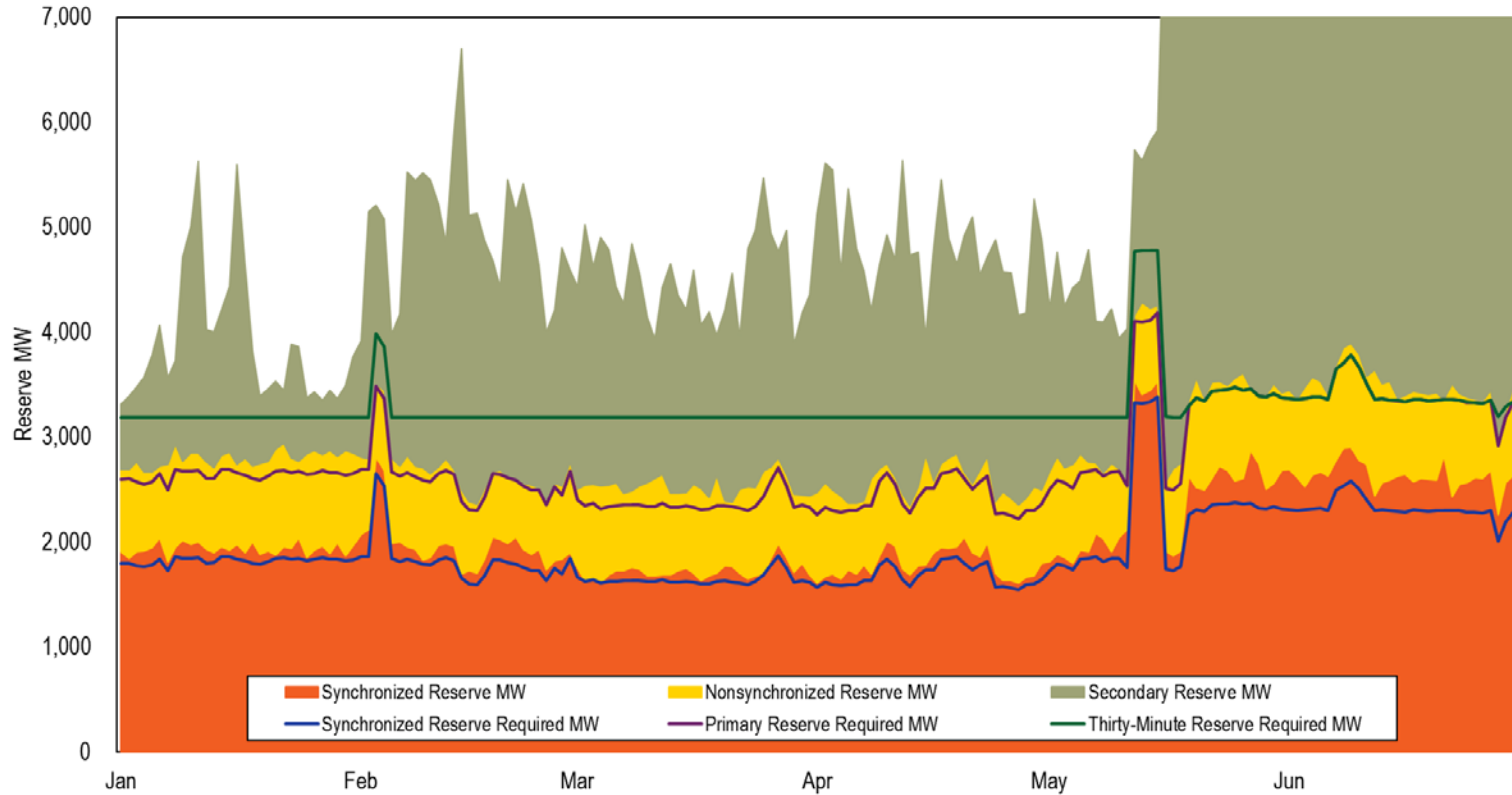
# Reserve Market ORDC Extension

- **Between synchronized reserves and primary reserves, shortage pricing occurred in 35 intervals on May 12, 15, and 26, mostly during the overnight hours.**
- **Total credits for synchronized reserves increased to \$9.0 million in May and \$4.4 million in June.**

# Offline Reserves Measurement

- **Since October 2022, PJM has undercounted offline reserves when the price is zero.**
- **In June 2023, PJM corrected the measurement of offline reserves.**
- **The result is an increased quantity of nonsynchronized reserves and secondary reserves.**

# Real-Time Reserves and Requirements



# RTO Reserve MW

- **Real-time market clearing**

| Year | Month | Synchronized Reserve MW | Nonsynchronized Reserve MW | Total Primary Reserve MW | Secondary Reserve MW | Total Thirty-Minute Reserve MW |
|------|-------|-------------------------|----------------------------|--------------------------|----------------------|--------------------------------|
| 2023 | Jan   | 1,935                   | 861                        | 2,796                    | 1,100                | 3,895                          |
| 2023 | Feb   | 1,975                   | 718                        | 2,693                    | 2,295                | 4,988                          |
| 2023 | Mar   | 1,722                   | 812                        | 2,535                    | 1,964                | 4,498                          |
| 2023 | Apr   | 1,788                   | 771                        | 2,559                    | 2,266                | 4,825                          |
| 2023 | May   | 2,425                   | 804                        | 3,229                    | 9,635                | 12,864                         |
| 2023 | Jun   | 2,628                   | 848                        | 3,476                    | 17,101               | 20,578                         |

- **Day-ahead market clearing**

| Year | Month | Synchronized Reserve MW | Nonsynchronized Reserve MW | Total Primary Reserve MW | Secondary Reserve MW | Total Thirty-Minute Reserve MW |
|------|-------|-------------------------|----------------------------|--------------------------|----------------------|--------------------------------|
| 2023 | Jan   | 1,904                   | 1,404                      | 3,309                    | 11,941               | 15,249                         |
| 2023 | Feb   | 1,889                   | 1,311                      | 3,200                    | 16,793               | 19,993                         |
| 2023 | Mar   | 1,682                   | 1,179                      | 2,861                    | 15,073               | 17,934                         |
| 2023 | Apr   | 1,766                   | 968                        | 2,734                    | 10,955               | 13,689                         |
| 2023 | May   | 2,399                   | 1,094                      | 3,493                    | 12,489               | 15,983                         |
| 2023 | Jun   | 2,848                   | 987                        | 3,835                    | 13,484               | 17,319                         |

# MAD Reserve MW

- Real-time market clearing**

| Year | Month | Synchronized Reserve MW | Nonsynchronized Reserve MW | Total Primary Reserve MW | Secondary Reserve MW | Total Thirty-Minute Reserve MW |
|------|-------|-------------------------|----------------------------|--------------------------|----------------------|--------------------------------|
| 2023 | Jan   | 1,933                   | 792                        | 2,725                    | NA                   | NA                             |
| 2023 | Feb   | 1,955                   | 673                        | 2,628                    | NA                   | NA                             |
| 2023 | Mar   | 1,696                   | 678                        | 2,374                    | NA                   | NA                             |
| 2023 | Apr   | 1,664                   | 615                        | 2,279                    | NA                   | NA                             |
| 2023 | May   | 1,940                   | 685                        | 2,625                    | NA                   | NA                             |
| 2023 | Jun   | 1,973                   | 688                        | 2,661                    | NA                   | NA                             |

- Day-ahead market clearing**

| Year | Month | Synchronized Reserve MW | Nonsynchronized Reserve MW | Total Primary Reserve MW | Secondary Reserve MW | Total Thirty-Minute Reserve MW |
|------|-------|-------------------------|----------------------------|--------------------------|----------------------|--------------------------------|
| 2023 | Jan   | 1,891                   | 1,119                      | 3,009                    | NA                   | NA                             |
| 2023 | Feb   | 1,874                   | 992                        | 2,866                    | NA                   | NA                             |
| 2023 | Mar   | 1,671                   | 839                        | 2,510                    | NA                   | NA                             |
| 2023 | Apr   | 1,690                   | 684                        | 2,374                    | NA                   | NA                             |
| 2023 | May   | 1,937                   | 847                        | 2,784                    | NA                   | NA                             |
| 2023 | Jun   | 2,023                   | 817                        | 2,839                    | NA                   | NA                             |

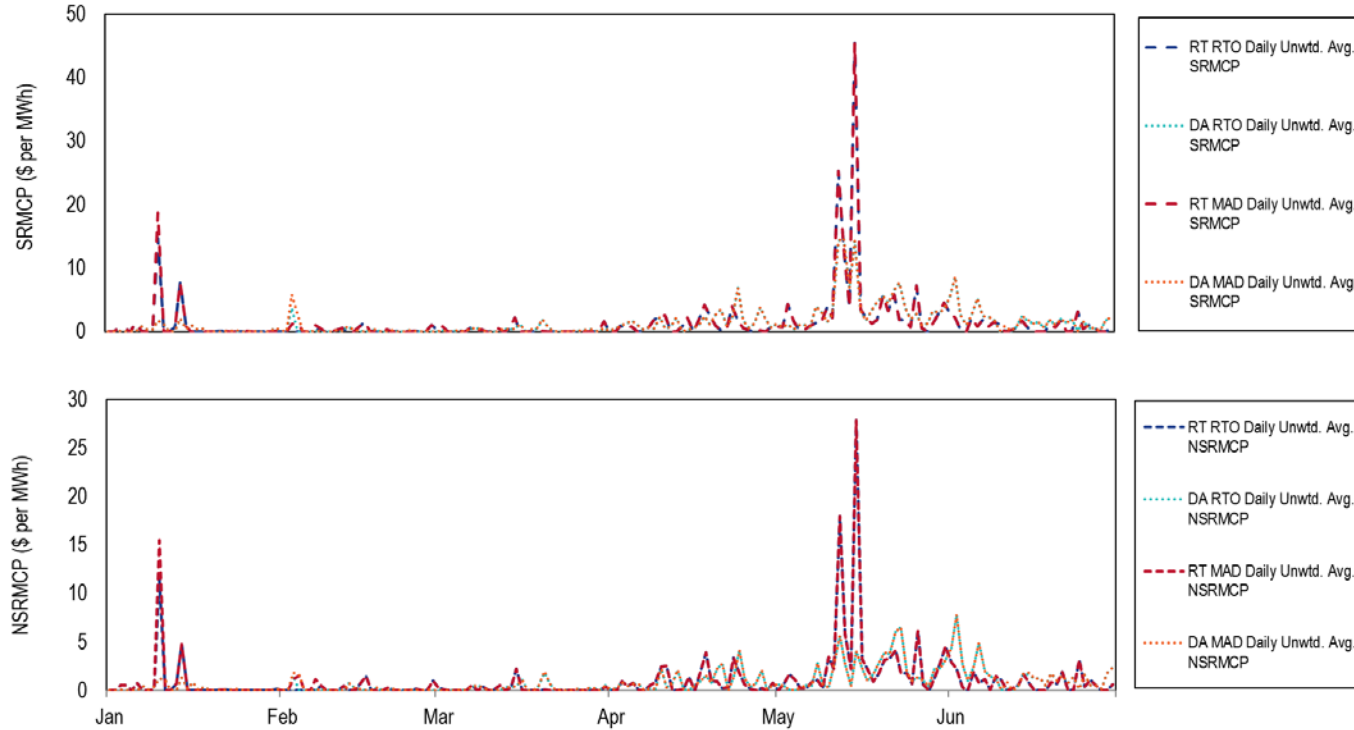
# Reserve Settlements by Month

| Product                 | Year | Month | Total Day-Ahead Credits | Total Balancing MCP Credits | Total LOC Credits | Total Shortfall Charges | Total Credits |
|-------------------------|------|-------|-------------------------|-----------------------------|-------------------|-------------------------|---------------|
| Synchronized Reserve    | 2023 | Jan   | \$505,419               | (\$114,061)                 | \$980,107         | \$336,246               | \$1,035,219   |
|                         | 2023 | Feb   | \$735,351               | \$99,577                    | \$493,827         | \$0                     | \$1,328,755   |
|                         | 2023 | Mar   | \$439,364               | (\$5,106)                   | \$744,883         | \$0                     | \$1,179,141   |
|                         | 2023 | Apr   | \$2,088,876             | \$55,121                    | \$701,874         | \$0                     | \$2,845,871   |
|                         | 2023 | May   | \$8,590,787             | (\$1,102,233)               | \$1,523,214       | \$0                     | \$9,011,767   |
|                         | 2023 | Jun   | \$4,061,466             | (\$136,555)                 | \$503,423         | \$0                     | \$4,428,335   |
| Nonsynchronized Reserve | 2023 | Jan   | \$73,610                | (\$155,466)                 | \$4,850           | NA                      | (\$77,007)    |
|                         | 2023 | Feb   | \$72,133                | (\$113,200)                 | \$31,094          | NA                      | (\$9,973)     |
|                         | 2023 | Mar   | \$72,194                | (\$37,214)                  | \$3,368           | NA                      | \$38,348      |
|                         | 2023 | Apr   | \$220,075               | (\$112,776)                 | \$59,662          | NA                      | \$166,961     |
|                         | 2023 | May   | \$764,690               | (\$597,158)                 | \$477,365         | NA                      | \$644,897     |
|                         | 2023 | Jun   | \$648,961               | (\$134,616)                 | \$48,934          | NA                      | \$563,279     |
| Secondary Reserve       | 2023 | Jan   | \$0                     | \$0                         | \$5,114           | \$0                     | \$5,114       |
|                         | 2023 | Feb   | \$0                     | \$0                         | \$34,129          | \$0                     | \$34,129      |
|                         | 2023 | Mar   | \$0                     | \$0                         | \$12,363          | \$0                     | \$12,363      |
|                         | 2023 | Apr   | \$0                     | \$0                         | \$15,125          | \$0                     | \$15,125      |
|                         | 2023 | May   | \$0                     | \$0                         | \$64,711          | \$0                     | \$64,711      |
|                         | 2023 | Jun   | \$0                     | \$0                         | \$137,270         | \$0                     | \$137,270     |

- For secondary reserve, the shortfall charge is part of the balancing MCP credit. For synchronized reserve, it is separate.
- The only spin events that were 10 minutes or longer happened in January, so only January has SR shortfall charges.



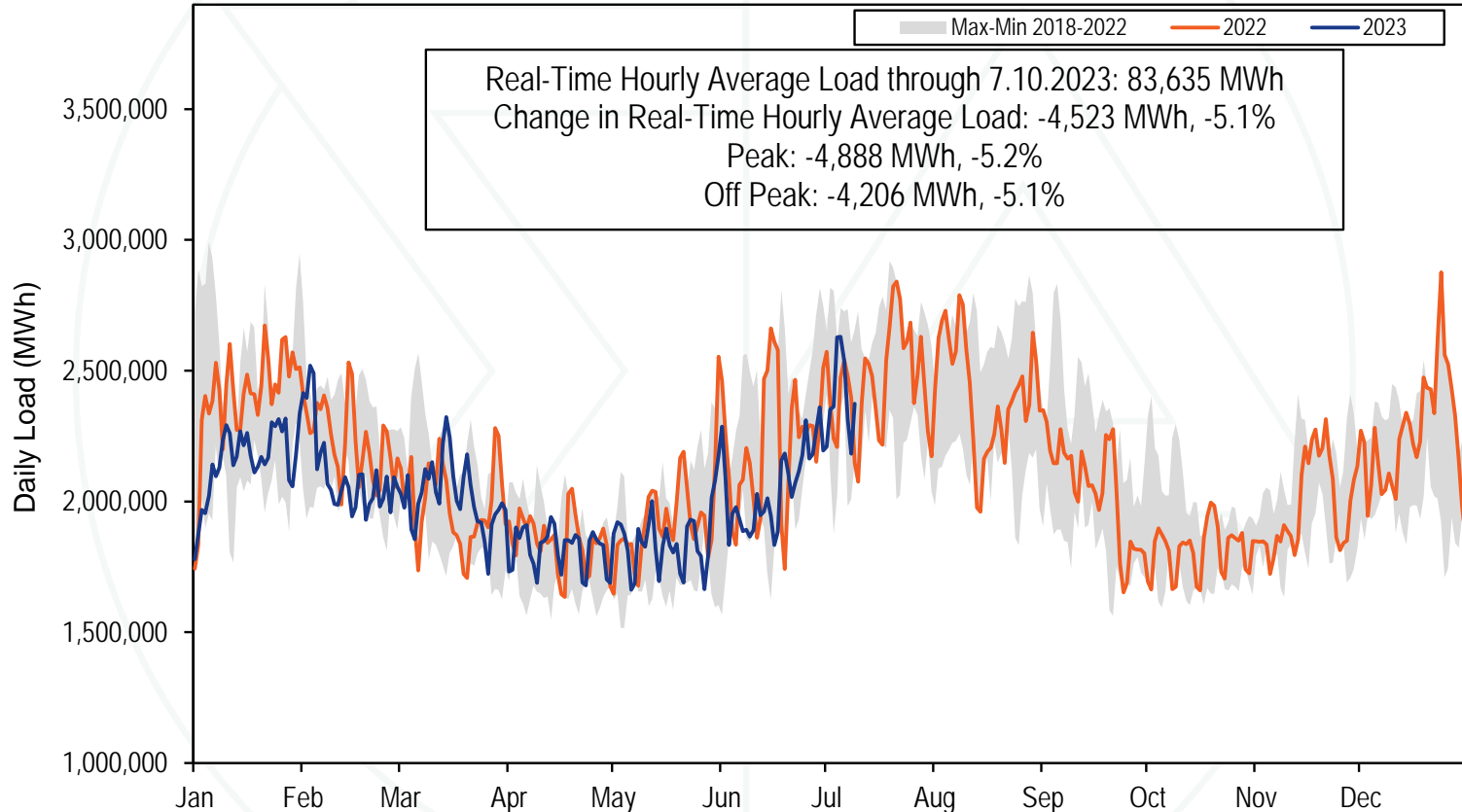
# Reserve Prices



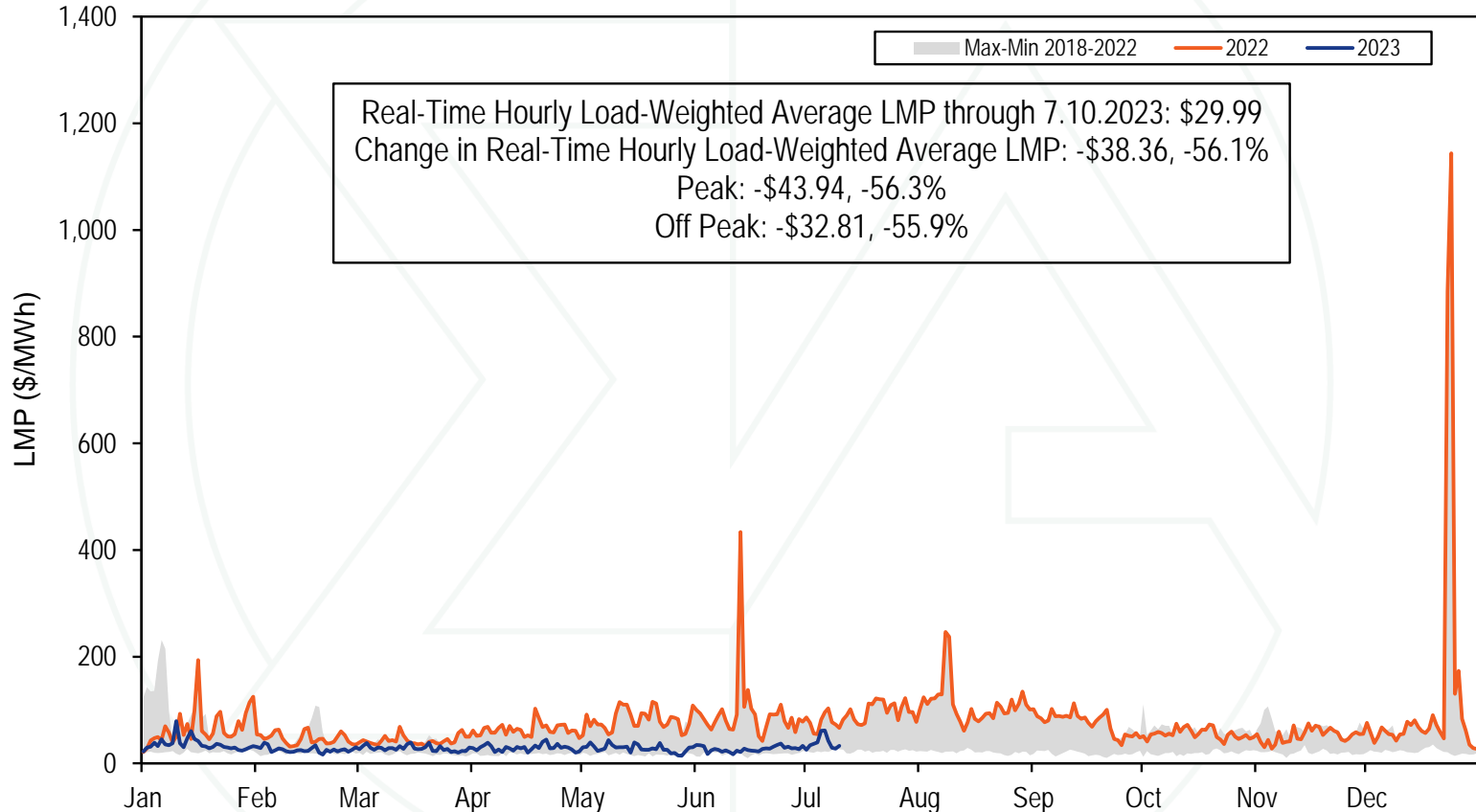
- SecRMCP always \$0 per MWh, so far in 2023.
- Spikes on May 12<sup>th</sup> & 15<sup>th</sup> due to increased requirements.

- Spikes on Jan. 10<sup>th</sup> due to shortage pricing.
- Spikes on Feb. 3<sup>rd</sup> & 4<sup>th</sup> due to conservative operations.

# 2023 YTD PJM Real-Time Daily Load



# 2023 YTD PJM Real-Time Daily LMP

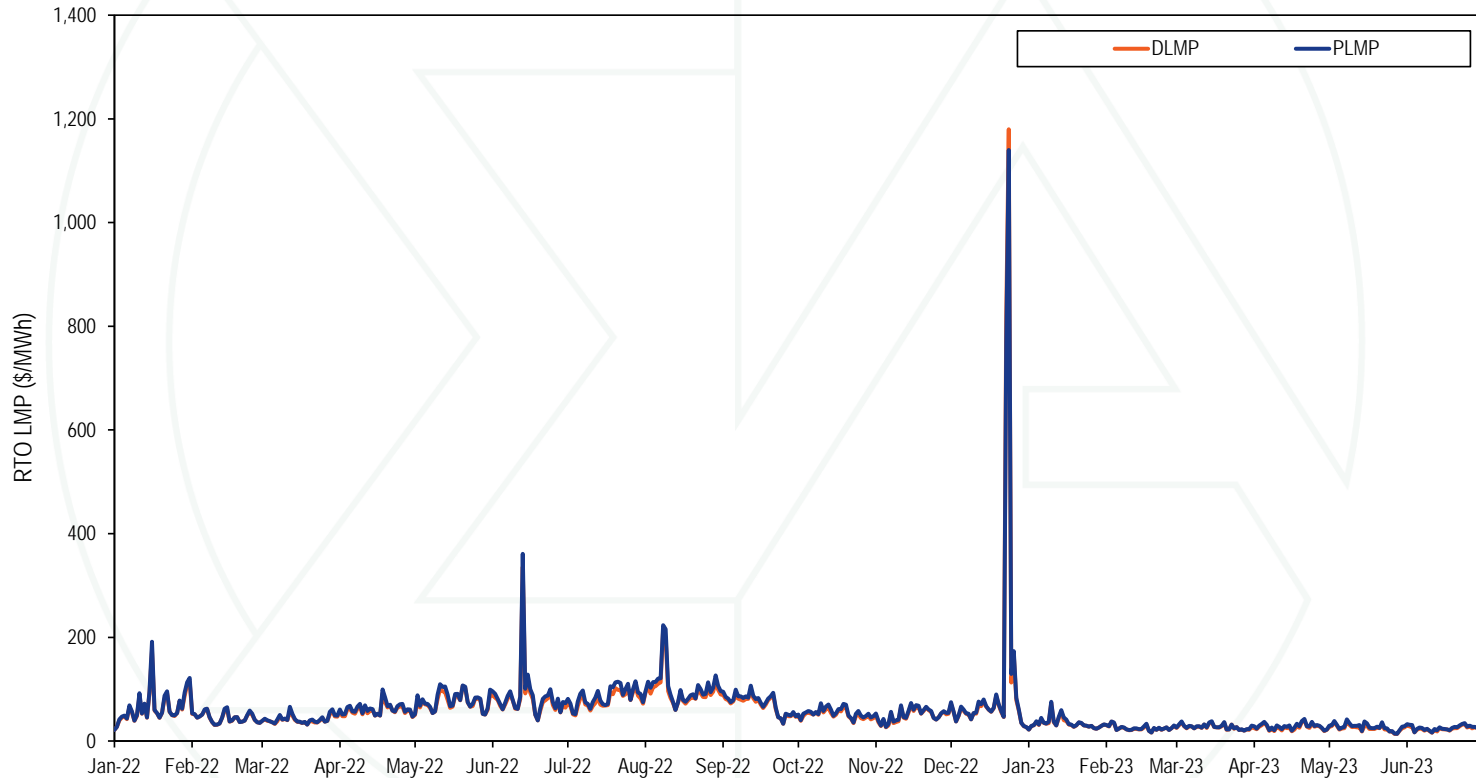


# Monthly Average Load-Weighted DLMP and PLMP

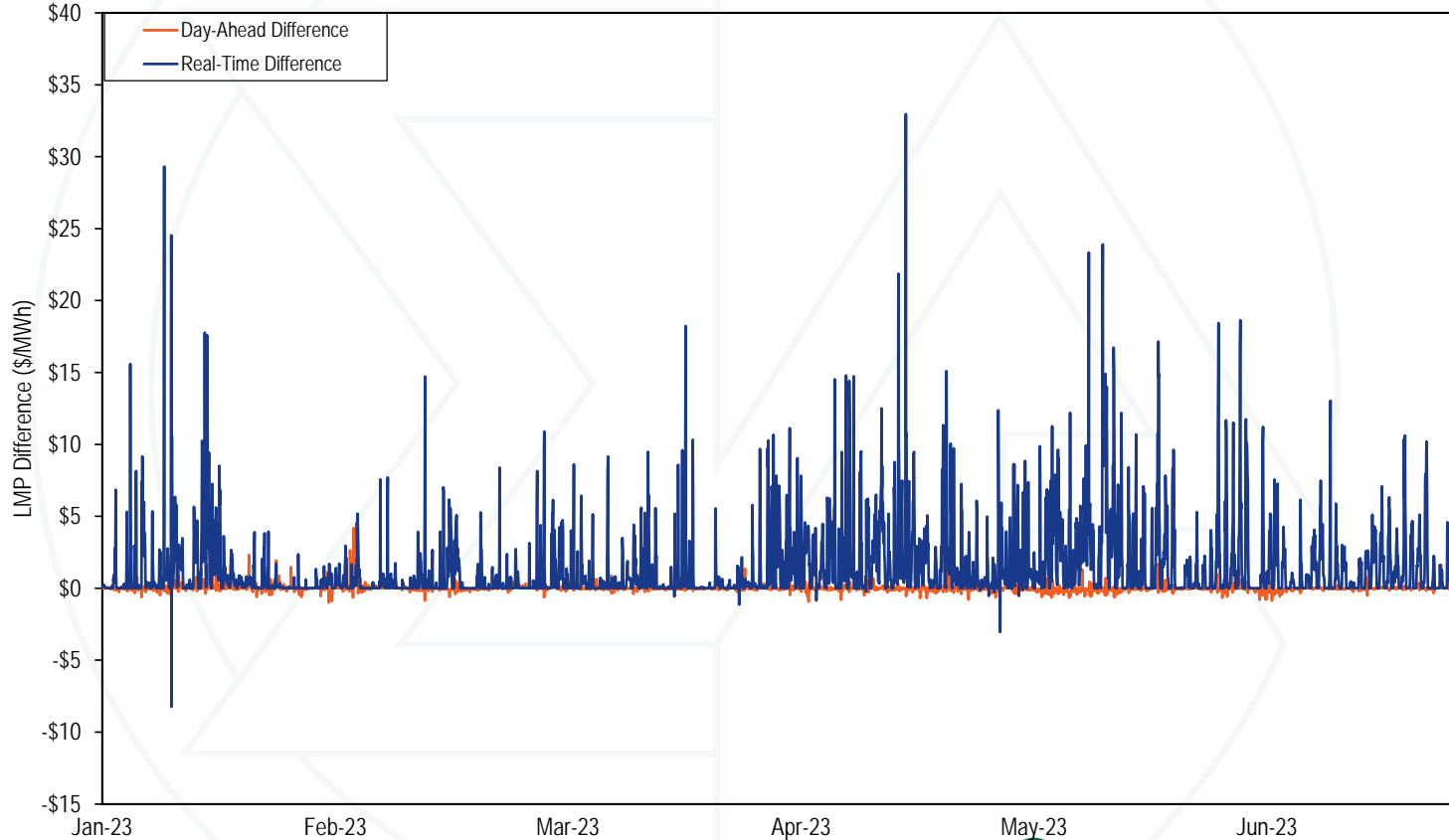
| Year | Month     | Day-Ahead Load-Weighted Average |          |            |                    | Real-Time Load-Weighted Average |          |            |                    |
|------|-----------|---------------------------------|----------|------------|--------------------|---------------------------------|----------|------------|--------------------|
|      |           | DLMP                            | PLMP     | Difference | Percent Difference | DLMP                            | PLMP     | Difference | Percent Difference |
| 2022 | Jan       | \$64.57                         | \$64.80  | \$0.22     | 0.3%               | \$66.43                         | \$69.06  | \$2.64     | 4.0%               |
| 2022 | Feb       | \$49.96                         | \$50.35  | \$0.39     | 0.8%               | \$45.93                         | \$46.76  | \$0.83     | 1.8%               |
| 2022 | Mar       | \$45.25                         | \$45.50  | \$0.25     | 0.6%               | \$41.83                         | \$43.56  | \$1.73     | 4.1%               |
| 2022 | Apr       | \$64.10                         | \$64.18  | \$0.08     | 0.1%               | \$60.38                         | \$63.91  | \$3.52     | 5.8%               |
| 2022 | May       | \$83.17                         | \$83.24  | \$0.06     | 0.1%               | \$79.04                         | \$83.16  | \$4.12     | 5.2%               |
| 2022 | Jun       | \$90.24                         | \$90.54  | \$0.29     | 0.3%               | \$91.44                         | \$97.89  | \$6.46     | 7.1%               |
| 2022 | Jul       | \$96.07                         | \$96.38  | \$0.32     | 0.3%               | \$84.03                         | \$92.48  | \$8.45     | 10.1%              |
| 2022 | Aug       | \$106.18                        | \$106.07 | (\$0.10)   | (0.1%)             | \$105.68                        | \$113.74 | \$8.06     | 7.6%               |
| 2022 | Sep       | \$82.86                         | \$82.80  | (\$0.06)   | (0.1%)             | \$74.08                         | \$78.29  | \$4.22     | 5.7%               |
| 2022 | Oct       | \$58.30                         | \$58.37  | \$0.07     | 0.1%               | \$52.27                         | \$55.90  | \$3.63     | 6.9%               |
| 2022 | Nov       | \$56.29                         | \$55.24  | (\$1.05)   | (1.9%)             | \$50.86                         | \$52.93  | \$2.07     | 4.1%               |
| 2022 | Dec       | \$93.02                         | \$93.39  | \$0.37     | 0.4%               | \$143.65                        | \$142.22 | (\$1.42)   | (1.0%)             |
| 2022 | Jan - Dec | \$75.35                         | \$75.44  | \$0.08     | 0.1%               | \$76.34                         | \$80.14  | \$3.80     | 5.0%               |
| 2023 | Jan       | \$36.53                         | \$36.58  | \$0.05     | 0.1%               | \$34.66                         | \$35.75  | \$1.09     | 3.1%               |
| 2023 | Feb       | \$31.16                         | \$31.22  | \$0.06     | 0.2%               | \$25.47                         | \$26.04  | \$0.57     | 2.2%               |
| 2023 | Mar       | \$28.39                         | \$28.41  | \$0.02     | 0.1%               | \$27.58                         | \$28.42  | \$0.85     | 3.1%               |
| 2023 | Apr       | \$29.81                         | \$29.81  | (\$0.00)   | (0.0%)             | \$27.09                         | \$29.32  | \$2.22     | 8.2%               |
| 2023 | May       | \$28.86                         | \$28.80  | (\$0.05)   | (0.2%)             | \$25.91                         | \$28.44  | \$2.53     | 9.7%               |
| 2023 | Jun       | \$27.82                         | \$27.82  | (\$0.00)   | (0.0%)             | \$25.69                         | \$27.29  | \$1.60     | 6.2%               |
| 2023 | Jan - Jun | \$30.52                         | \$30.53  | \$0.01     | 0.0%               | \$27.89                         | \$29.34  | \$1.45     | 5.2%               |



# Daily Average Real-Time DLMP and PLMP



# Hourly Difference: PLMP – DLMP



# Fast Start Units as a Percent of Marginal Units

| Year | Month     | Dispatch Run |        |      |                      | Pricing Run |        |      |                      |
|------|-----------|--------------|--------|------|----------------------|-------------|--------|------|----------------------|
|      |           | CT           | Diesel | Wind | All Fast Start Units | CT          | Diesel | Wind | All Fast Start Units |
| 2022 | Jan       | 1.3%         | 0.3%   | 0.2% | 1.8%                 | 4.9%        | 0.9%   | 0.2% | 6.2%                 |
| 2022 | Feb       | 0.6%         | 0.2%   | 0.3% | 1.1%                 | 3.2%        | 0.5%   | 0.3% | 4.0%                 |
| 2022 | Mar       | 0.5%         | 0.2%   | 0.4% | 1.1%                 | 3.4%        | 0.5%   | 0.4% | 4.4%                 |
| 2022 | Apr       | 0.8%         | 0.1%   | 0.1% | 1.2%                 | 4.4%        | 0.3%   | 0.1% | 5.0%                 |
| 2022 | May       | 1.4%         | 0.7%   | 0.1% | 2.4%                 | 6.6%        | 1.2%   | 0.1% | 8.1%                 |
| 2022 | Jun       | 2.3%         | 0.3%   | 0.1% | 2.6%                 | 9.3%        | 0.8%   | 0.1% | 10.2%                |
| 2022 | Jul       | 2.7%         | 0.6%   | 0.1% | 3.3%                 | 16.3%       | 1.4%   | 0.0% | 17.7%                |
| 2022 | Aug       | 2.0%         | 0.4%   | 0.0% | 2.4%                 | 12.0%       | 1.3%   | 0.0% | 13.3%                |
| 2022 | Sep       | 0.8%         | 0.3%   | 0.1% | 1.2%                 | 5.6%        | 1.0%   | 0.1% | 6.7%                 |
| 2022 | Oct       | 2.2%         | 0.2%   | 0.3% | 2.6%                 | 6.6%        | 0.9%   | 0.2% | 7.7%                 |
| 2022 | Nov       | 1.3%         | 0.2%   | 0.2% | 1.7%                 | 5.1%        | 0.9%   | 0.2% | 6.1%                 |
| 2022 | Dec       | 1.3%         | 0.7%   | 0.2% | 2.2%                 | 6.3%        | 1.5%   | 0.2% | 8.0%                 |
| 2022 | Jan - Dec | 1.4%         | 0.3%   | 0.2% | 2.0%                 | 7.0%        | 0.9%   | 0.1% | 8.1%                 |
| 2023 | Jan       | 1.6%         | 0.5%   | 0.1% | 2.1%                 | 6.2%        | 2.8%   | 0.0% | 9.0%                 |
| 2023 | Feb       | 0.9%         | 0.2%   | 0.0% | 1.1%                 | 3.1%        | 0.6%   | 0.0% | 3.7%                 |
| 2023 | Mar       | 0.8%         | 0.4%   | 0.1% | 1.2%                 | 3.0%        | 0.7%   | 0.1% | 3.8%                 |
| 2023 | Apr       | 2.5%         | 0.4%   | 0.2% | 3.2%                 | 8.1%        | 0.8%   | 0.2% | 9.1%                 |
| 2023 | May       | 1.0%         | 0.3%   | 0.1% | 1.3%                 | 4.8%        | 0.7%   | 0.1% | 5.6%                 |
| 2023 | Jun       | 0.5%         | 0.2%   | 0.0% | 0.7%                 | 2.5%        | 0.5%   | 0.0% | 3.0%                 |
| 2023 | Jan - Jun | 1.2%         | 0.3%   | 0.1% | 1.6%                 | 4.6%        | 1.0%   | 0.1% | 5.7%                 |



# Fast Start Impacts: Zonal Average Differences

| 2023 Jan - Jun |              |              |            |                    |              |              |            |                    |
|----------------|--------------|--------------|------------|--------------------|--------------|--------------|------------|--------------------|
| Zone           | Day-Ahead    |              |            |                    | Real-Time    |              |            |                    |
|                | Average DLMP | Average PLMP | Difference | Percent Difference | Average DLMP | Average PLMP | Difference | Percent Difference |
| ACEC           | \$50.02      | \$50.13      | \$0.11     | 0.2%               | \$49.57      | \$51.65      | \$2.08     | 4.2%               |
| AEP            | \$56.81      | \$56.91      | \$0.10     | 0.2%               | \$55.14      | \$57.80      | \$2.67     | 4.8%               |
| APS            | \$57.74      | \$57.89      | \$0.15     | 0.3%               | \$55.76      | \$58.54      | \$2.79     | 5.0%               |
| ATSI           | \$56.30      | \$56.42      | \$0.12     | 0.2%               | \$54.05      | \$56.68      | \$2.63     | 4.9%               |
| BGE            | \$66.41      | \$66.53      | \$0.12     | 0.2%               | \$64.12      | \$67.43      | \$3.31     | 5.2%               |
| COMED          | \$48.48      | \$48.57      | \$0.09     | 0.2%               | \$46.27      | \$48.66      | \$2.39     | 5.2%               |
| DAY            | \$59.02      | \$59.12      | \$0.11     | 0.2%               | \$57.02      | \$59.80      | \$2.78     | 4.9%               |
| DUKE           | \$57.96      | \$58.06      | \$0.11     | 0.2%               | \$55.84      | \$58.57      | \$2.73     | 4.9%               |
| DOM            | \$67.67      | \$67.30      | (\$0.37)   | (0.6%)             | \$68.16      | \$71.08      | \$2.92     | 4.3%               |
| DPL            | \$53.01      | \$53.14      | \$0.13     | 0.2%               | \$52.86      | \$55.66      | \$2.80     | 5.3%               |
| DUQ            | \$55.34      | \$55.46      | \$0.12     | 0.2%               | \$53.37      | \$55.97      | \$2.61     | 4.9%               |
| EKPC           | \$57.11      | \$57.21      | \$0.10     | 0.2%               | \$55.88      | \$58.57      | \$2.68     | 4.8%               |
| JCPLC          | \$51.08      | \$51.19      | \$0.11     | 0.2%               | \$50.71      | \$52.92      | \$2.21     | 4.4%               |
| MEC            | \$58.08      | \$58.18      | \$0.10     | 0.2%               | \$56.41      | \$59.01      | \$2.61     | 4.6%               |
| OVEC           | \$55.74      | \$55.84      | \$0.10     | 0.2%               | \$53.88      | \$56.49      | \$2.61     | 4.8%               |
| PECO           | \$48.90      | \$49.01      | \$0.10     | 0.2%               | \$48.48      | \$50.46      | \$1.98     | 4.1%               |
| PE             | \$55.47      | \$55.59      | \$0.12     | 0.2%               | \$53.23      | \$55.73      | \$2.50     | 4.7%               |
| PEPCO          | \$64.16      | \$64.27      | \$0.12     | 0.2%               | \$61.98      | \$65.12      | \$3.14     | 5.1%               |
| PPL            | \$53.62      | \$53.73      | \$0.11     | 0.2%               | \$52.41      | \$54.76      | \$2.35     | 4.5%               |
| PSEG           | \$51.71      | \$51.83      | \$0.11     | 0.2%               | \$51.38      | \$53.61      | \$2.23     | 4.3%               |
| REC            | \$53.74      | \$53.86      | \$0.11     | 0.2%               | \$52.94      | \$55.30      | \$2.36     | 4.5%               |



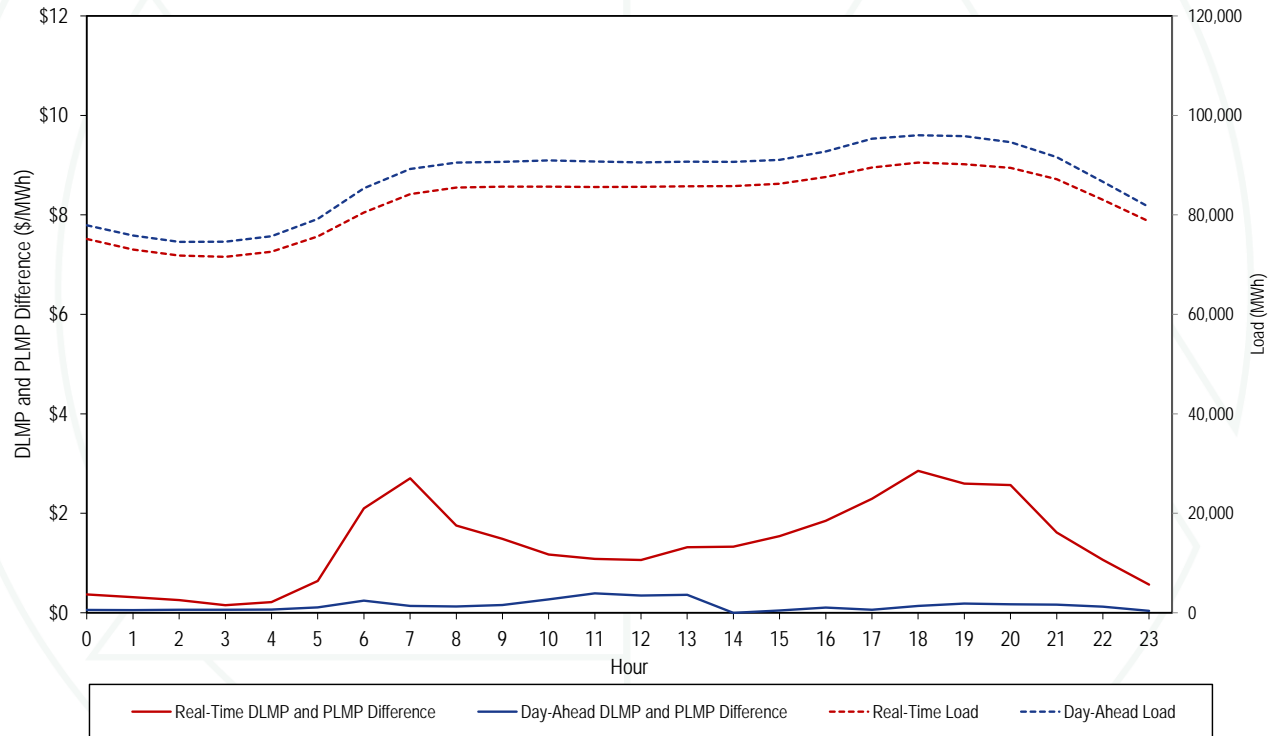
# Fast Start Impacts: Hub Average Differences

| 2023 Jan - Jun  |              |              |            |                    |              |              |            |                    |
|-----------------|--------------|--------------|------------|--------------------|--------------|--------------|------------|--------------------|
| Hub             | Day-Ahead    |              |            |                    | Real-Time    |              |            |                    |
|                 | Average DLMP | Average PLMP | Difference | Percent Difference | Average DLMP | Average PLMP | Difference | Percent Difference |
| AEP GEN HUB     | \$55.22      | \$55.33      | \$0.11     | 0.2%               | \$53.19      | \$55.75      | \$2.56     | 4.8%               |
| AEP-DAYTON HUB  | \$56.26      | \$56.36      | \$0.11     | 0.2%               | \$54.21      | \$56.84      | \$2.63     | 4.9%               |
| ATSI GEN HUB    | \$55.17      | \$55.29      | \$0.12     | 0.2%               | \$52.77      | \$55.33      | \$2.57     | 4.9%               |
| CHICAGO GEN HUB | \$47.74      | \$47.83      | \$0.09     | 0.2%               | \$45.45      | \$47.81      | \$2.36     | 5.2%               |
| CHICAGO HUB     | \$48.69      | \$48.78      | \$0.09     | 0.2%               | \$46.45      | \$48.85      | \$2.40     | 5.2%               |
| DOMINION HUB    | \$61.90      | \$61.92      | \$0.02     | 0.0%               | \$60.61      | \$63.46      | \$2.85     | 4.7%               |
| EASTERN HUB     | \$53.23      | \$53.36      | \$0.13     | 0.2%               | \$52.55      | \$55.28      | \$2.73     | 5.2%               |
| N ILLINOIS HUB  | \$48.31      | \$48.40      | \$0.09     | 0.2%               | \$46.14      | \$48.51      | \$2.38     | 5.2%               |
| NEW JERSEY HUB  | \$51.16      | \$51.27      | \$0.11     | 0.2%               | \$50.78      | \$52.97      | \$2.19     | 4.3%               |
| OHIO HUB        | \$56.15      | \$56.25      | \$0.11     | 0.2%               | \$54.06      | \$56.69      | \$2.63     | 4.9%               |
| WEST INT HUB    | \$57.70      | \$57.76      | \$0.07     | 0.1%               | \$55.65      | \$58.33      | \$2.68     | 4.8%               |
| WESTERN HUB     | \$59.11      | \$59.23      | \$0.12     | 0.2%               | \$56.57      | \$59.35      | \$2.77     | 4.9%               |

# Zonal PLMP-DLMP Difference Frequency

| Zone    | 2023 Jan - Jun |                  |               |       |             |              |              |               |                |          |  |
|---------|----------------|------------------|---------------|-------|-------------|--------------|--------------|---------------|----------------|----------|--|
|         | < (\$50)       | (\$50) to (\$10) | (\$10) to \$0 | \$0   | \$0 to \$10 | \$10 to \$20 | \$20 to \$50 | \$50 to \$100 | \$100 to \$200 | >= \$200 |  |
| PJM-RTO | 0.0%           | 0.0%             | 0.4%          | 46.1% | 50.8%       | 2.2%         | 0.4%         | 0.0%          | 0.0%           | 0.0%     |  |
| ACEC    | 0.0%           | 0.0%             | 7.2%          | 46.7% | 44.2%       | 1.6%         | 0.3%         | 0.0%          | 0.0%           | 0.0%     |  |
| AEP     | 0.0%           | 0.0%             | 0.6%          | 46.5% | 50.0%       | 2.4%         | 0.5%         | 0.0%          | 0.0%           | 0.0%     |  |
| APS     | 0.0%           | 0.0%             | 0.6%          | 46.4% | 50.1%       | 2.4%         | 0.5%         | 0.0%          | 0.0%           | 0.0%     |  |
| ATSI    | 0.0%           | 0.0%             | 0.5%          | 46.3% | 50.4%       | 2.3%         | 0.4%         | 0.0%          | 0.0%           | 0.0%     |  |
| BGE     | 0.0%           | 0.0%             | 3.6%          | 46.0% | 46.4%       | 2.9%         | 1.0%         | 0.1%          | 0.0%           | 0.0%     |  |
| COMED   | 0.0%           | 0.0%             | 2.7%          | 47.0% | 47.7%       | 2.1%         | 0.4%         | 0.0%          | 0.0%           | 0.0%     |  |
| DAY     | 0.0%           | 0.0%             | 0.6%          | 46.4% | 49.7%       | 2.6%         | 0.6%         | 0.0%          | 0.0%           | 0.0%     |  |
| DUKE    | 0.0%           | 0.0%             | 0.7%          | 46.5% | 49.7%       | 2.5%         | 0.5%         | 0.0%          | 0.0%           | 0.0%     |  |
| DOM     | 0.0%           | 0.1%             | 2.1%          | 46.3% | 47.9%       | 2.7%         | 0.8%         | 0.1%          | 0.0%           | 0.0%     |  |
| DPL     | 0.0%           | 0.0%             | 11.9%         | 46.6% | 39.3%       | 1.6%         | 0.4%         | 0.1%          | 0.1%           | 0.0%     |  |
| DUQ     | 0.0%           | 0.0%             | 0.5%          | 46.3% | 50.5%       | 2.3%         | 0.4%         | 0.0%          | 0.0%           | 0.0%     |  |
| EKPC    | 0.0%           | 0.0%             | 0.8%          | 46.5% | 49.8%       | 2.5%         | 0.5%         | 0.0%          | 0.0%           | 0.0%     |  |
| JCPLC   | 0.0%           | 0.0%             | 3.0%          | 46.5% | 48.6%       | 1.5%         | 0.3%         | 0.0%          | 0.0%           | 0.0%     |  |
| MEC     | 0.0%           | 0.0%             | 2.3%          | 46.1% | 49.0%       | 2.1%         | 0.4%         | 0.1%          | 0.0%           | 0.0%     |  |
| OVEC    | 0.0%           | 0.0%             | 0.8%          | 46.5% | 49.8%       | 2.3%         | 0.5%         | 0.0%          | 0.0%           | 0.0%     |  |
| PECO    | 0.0%           | 0.0%             | 10.6%         | 46.7% | 40.8%       | 1.6%         | 0.3%         | 0.0%          | 0.0%           | 0.0%     |  |
| PE      | 0.0%           | 0.0%             | 0.6%          | 46.0% | 50.9%       | 2.1%         | 0.4%         | 0.0%          | 0.0%           | 0.0%     |  |
| PEPCO   | 0.0%           | 0.0%             | 2.4%          | 46.3% | 47.6%       | 2.7%         | 0.8%         | 0.1%          | 0.0%           | 0.0%     |  |
| PPL     | 0.0%           | 0.0%             | 2.8%          | 46.2% | 49.0%       | 1.7%         | 0.4%         | 0.0%          | 0.0%           | 0.0%     |  |
| PSEG    | 0.0%           | 0.0%             | 2.8%          | 46.5% | 48.8%       | 1.5%         | 0.3%         | 0.0%          | 0.0%           | 0.0%     |  |
| REC     | 0.0%           | 0.0%             | 2.0%          | 46.3% | 49.8%       | 1.6%         | 0.3%         | 0.0%          | 0.0%           | 0.0%     |  |

# Hourly Average Load and LMP Difference: Jan through Jun 2023



# Real-Time Load-Weighted Average LMP

|     | 2022     |          |            |                    | 2023     |         |            |                    |
|-----|----------|----------|------------|--------------------|----------|---------|------------|--------------------|
|     | Off Peak | On Peak  | Difference | Percent Difference | Off Peak | On Peak | Difference | Percent Difference |
| Jan | \$74.99  | \$62.54  | (\$12.46)  | (16.6%)            | \$33.20  | \$38.53 | \$5.32     | 16.0%              |
| Feb | \$45.70  | \$47.86  | \$2.16     | 4.7%               | \$23.45  | \$28.67 | \$5.22     | 22.3%              |
| Mar | \$41.58  | \$45.41  | \$3.83     | 9.2%               | \$26.96  | \$29.78 | \$2.82     | 10.5%              |
| Apr | \$55.93  | \$71.89  | \$15.96    | 28.5%              | \$24.08  | \$35.00 | \$10.92    | 45.4%              |
| May | \$66.12  | \$100.85 | \$34.73    | 52.5%              | \$22.65  | \$33.84 | \$11.19    | 49.4%              |
| Jun | \$61.63  | \$126.83 | \$65.20    | 105.8%             | \$21.64  | \$32.16 | \$10.52    | 48.6%              |
| Jul | \$71.83  | \$114.14 | \$42.31    | 58.9%              |          |         |            |                    |
| Aug | \$85.89  | \$136.31 | \$50.42    | 58.7%              |          |         |            |                    |
| Sep | \$66.36  | \$89.76  | \$23.40    | 35.3%              |          |         |            |                    |
| Oct | \$47.61  | \$64.50  | \$16.90    | 35.5%              |          |         |            |                    |
| Nov | \$45.48  | \$60.50  | \$15.01    | 33.0%              |          |         |            |                    |
| Dec | \$153.54 | \$129.51 | (\$24.03)  | (15.7%)            |          |         |            |                    |

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