

Market Monitor Report

MC Webinar

September 27, 2021

IMM



Monitoring Analytics

Fast Start Pricing

- **The MMU is tracking the differences between the fast start prices and the dispatch prices.**
- **From September 1 through 17, the average increase in PJM average real-time prices as a result of fast start pricing was 4.3 percent, \$1.89 per MWh.**
- **From September 1 through 17, the average increase in PJM average day-ahead prices as a result of fast start pricing was 0.2 percent, \$.10 per MWh.**

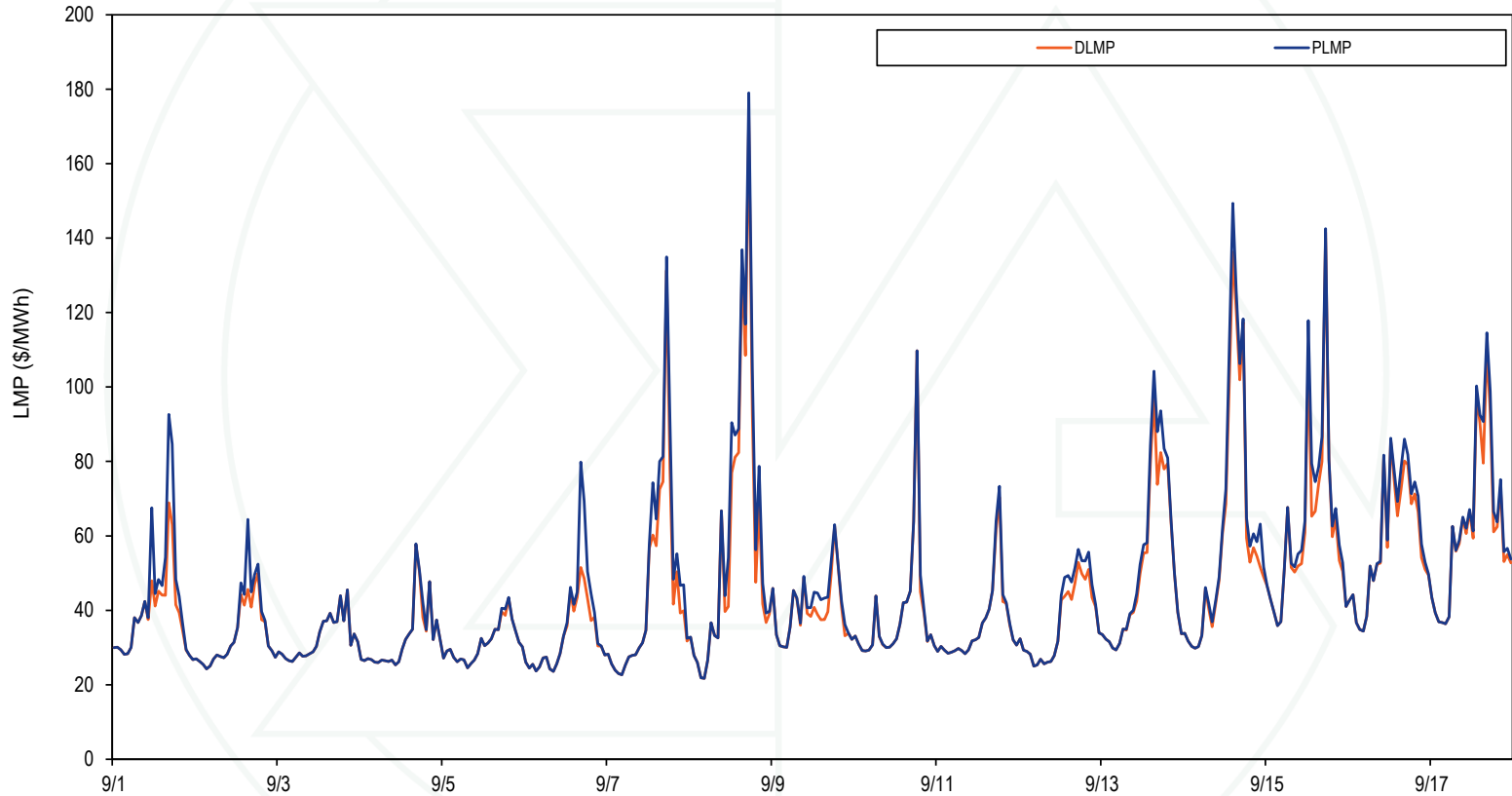
Fast Start Pricing

- **There are some zones with a greater increase due to fast start prices than others.**
- **From September 1 through 17, the average increase in BC (BGE) average real-time prices as a result of fast start pricing was 4.8 percent, \$2.32 per MWh.**
- **DLMP is the dispatch price. The dispatch price is the price that would have resulted if PJM price formation had not been modified by fast start pricing.**
- **PLMP is the fast start price. Load pays fast start prices.**

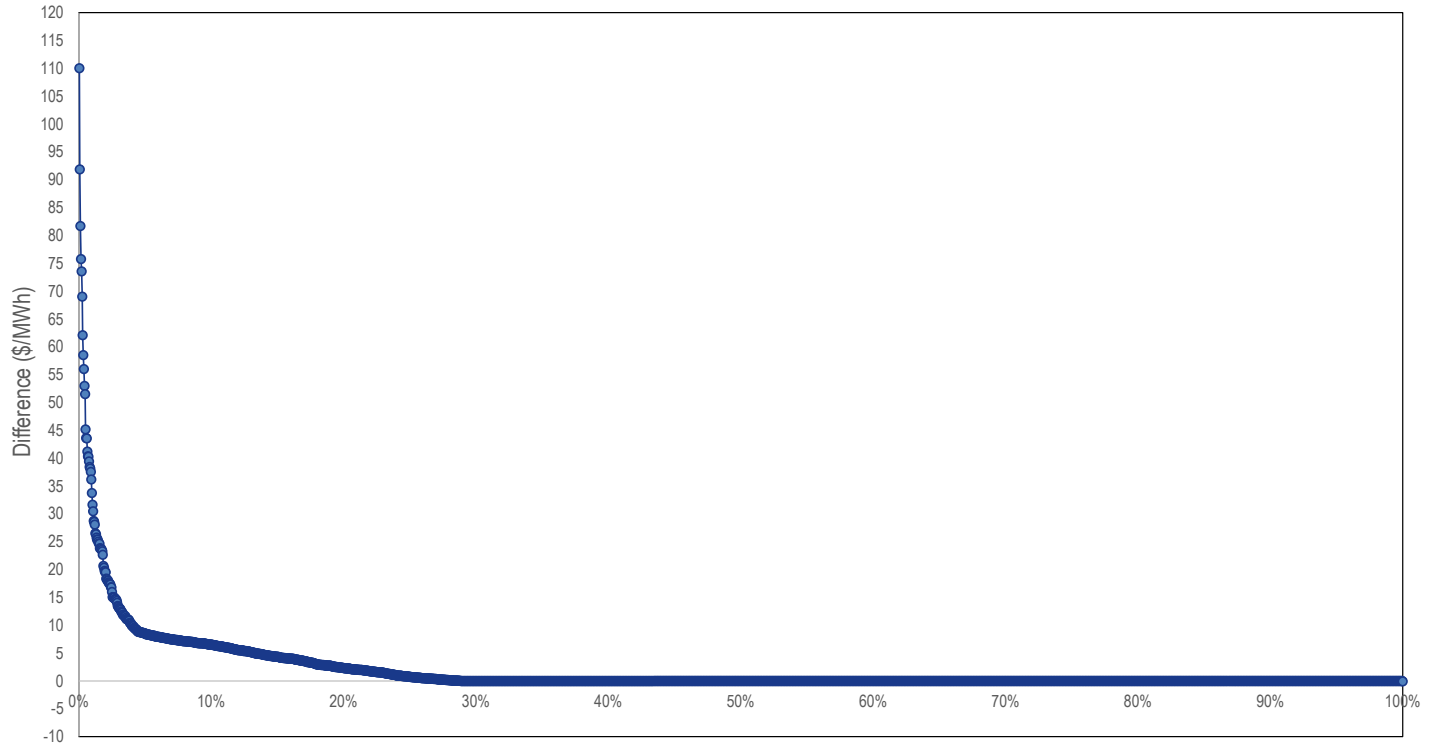
PJM Daily Average Fast Start LMP

| DATE | Real Time | | | | Day Ahead | | | |
|---------|-----------|-------|------------|---------|-----------|-------|------------|---------|
| | DLMP | PLMP | Difference | Percent | DLMP | PLMP | Difference | Percent |
| 1-Sep | 38.46 | 42.54 | 4.09 | 10.6% | 34.74 | 34.75 | 0.02 | 0.0% |
| 2-Sep | 33.06 | 34.58 | 1.51 | 4.6% | 33.69 | 33.71 | 0.01 | 0.0% |
| 3-Sep | 32.48 | 32.48 | - | 0.0% | 32.93 | 32.93 | 0.01 | 0.0% |
| 4-Sep | 32.37 | 32.58 | 0.21 | 0.7% | 31.31 | 31.32 | 0.01 | 0.0% |
| 5-Sep | 31.24 | 31.36 | 0.12 | 0.4% | 31.96 | 31.98 | 0.01 | 0.0% |
| 6-Sep | 32.74 | 35.68 | 2.94 | 9.0% | 33.44 | 33.48 | 0.03 | 0.1% |
| 7-Sep | 44.21 | 47.56 | 3.34 | 7.6% | 40.08 | 40.15 | 0.07 | 0.2% |
| 8-Sep | 57.77 | 62.03 | 4.26 | 7.4% | 39.79 | 39.77 | (0.01) | 0.0% |
| 9-Sep | 39.79 | 41.39 | 1.60 | 4.0% | 39.73 | 39.76 | 0.03 | 0.1% |
| 10-Sep | 38.85 | 39.10 | 0.25 | 0.6% | 36.03 | 36.05 | 0.01 | 0.0% |
| 11-Sep | 35.96 | 36.29 | 0.33 | 0.9% | 38.05 | 38.11 | 0.07 | 0.2% |
| 12-Sep | 36.48 | 38.16 | 1.67 | 4.6% | 45.61 | 45.86 | 0.25 | 0.5% |
| 13-Sep | 50.67 | 52.98 | 2.31 | 4.6% | 63.15 | 63.40 | 0.25 | 0.4% |
| 14-Sep | 59.72 | 62.85 | 3.13 | 5.2% | 56.46 | 56.72 | 0.26 | 0.5% |
| 15-Sep | 61.37 | 64.20 | 2.83 | 4.6% | 59.95 | 60.18 | 0.22 | 0.4% |
| 16-Sep | 58.05 | 59.73 | 1.68 | 2.9% | 57.08 | 57.39 | 0.31 | 0.6% |
| 17-Sep | 61.98 | 63.85 | 1.87 | 3.0% | 58.92 | 59.12 | 0.20 | 0.3% |
| Average | 43.83 | 45.73 | 1.89 | 4.3% | 43.11 | 43.22 | 0.10 | 0.2% |

PJM Hourly Average RT PLMP and DLMP



Five Minute PJM RT Fast Start LMP Differences



Daily Marginal Unit Intervals

| Date | Pricing Run | | | Dispatch Run | | |
|---------|----------------------|---------------------------|--------------------|----------------------|---------------------------|--------------------|
| | Total Marginal Units | Fast Start Marginal Units | Fast Start Percent | Total Marginal Units | Fast Start Marginal Units | Fast Start Percent |
| Sep 01 | 484 | 95 | 20% | 465 | 12 | 3% |
| Sep 02 | 333 | 27 | 8% | 333 | 10 | 3% |
| Sep 04 | 355 | 5 | 1% | 355 | 1 | 0% |
| Sep 05 | 395 | 2 | 1% | 397 | 1 | 0% |
| Sep 06 | 446 | 40 | 9% | 439 | 15 | 3% |
| Sep 07 | 576 | 74 | 13% | 556 | 28 | 5% |
| Sep 08 | 615 | 80 | 13% | 605 | 34 | 6% |
| Sep 09 | 307 | 23 | 7% | 307 | 12 | 4% |
| Sep 10 | 316 | 3 | 1% | 315 | 2 | 1% |
| Sep 11 | 398 | 4 | 1% | 396 | 3 | 1% |
| Sep 12 | 475 | 65 | 14% | 480 | 21 | 4% |
| Sep 13 | 681 | 142 | 21% | 670 | 64 | 10% |
| Sep 14 | 647 | 130 | 20% | 643 | 57 | 9% |
| Sep 15 | 783 | 123 | 16% | 773 | 29 | 4% |
| Sep 16 | 494 | 57 | 12% | 489 | 13 | 3% |
| Sep 17 | 671 | 91 | 14% | 662 | 27 | 4% |
| Average | 499 | 60 | 12% | 493 | 21 | 4% |

Number of Fast Start Eligible Units

- Jan 1 – Sep 7, 2021

| Month | Fast Start Units * | Offered with | | |
|-------|--------------------|------------------|------------------------|-----------------|
| | | Three Part Offer | Incremental Offer Only | Offered at Zero |
| Jan | 576 | 205 | 40 | 331 |
| Feb | 576 | 205 | 42 | 329 |
| Mar | 576 | 205 | 42 | 329 |
| Apr | 580 | 204 | 43 | 333 |
| May | 580 | 204 | 42 | 334 |
| Jun | 581 | 203 | 41 | 337 |
| Jul | 584 | 204 | 40 | 340 |
| Aug | 586 | 206 | 41 | 339 |
| Sep | 586 | 206 | 42 | 338 |

Fast Start Units Definition

- **Fast start capable units are based on unit type: fuel cell, CT, diesel, hydro, battery, solar landfill and wind.**
 - **Units of other types can become fast start capable if requested and demonstrated.**
- **Fast start capable units can be fast start eligible when:**
 - **Offered with a notification plus start time of one hour or less and a min run time of one hour or less; and**
 - **Offered pool scheduled.**
- **Pseudo tied units and dynamically scheduled units are not eligible.**

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