Five Minute Dispatch and Pricing

MIC
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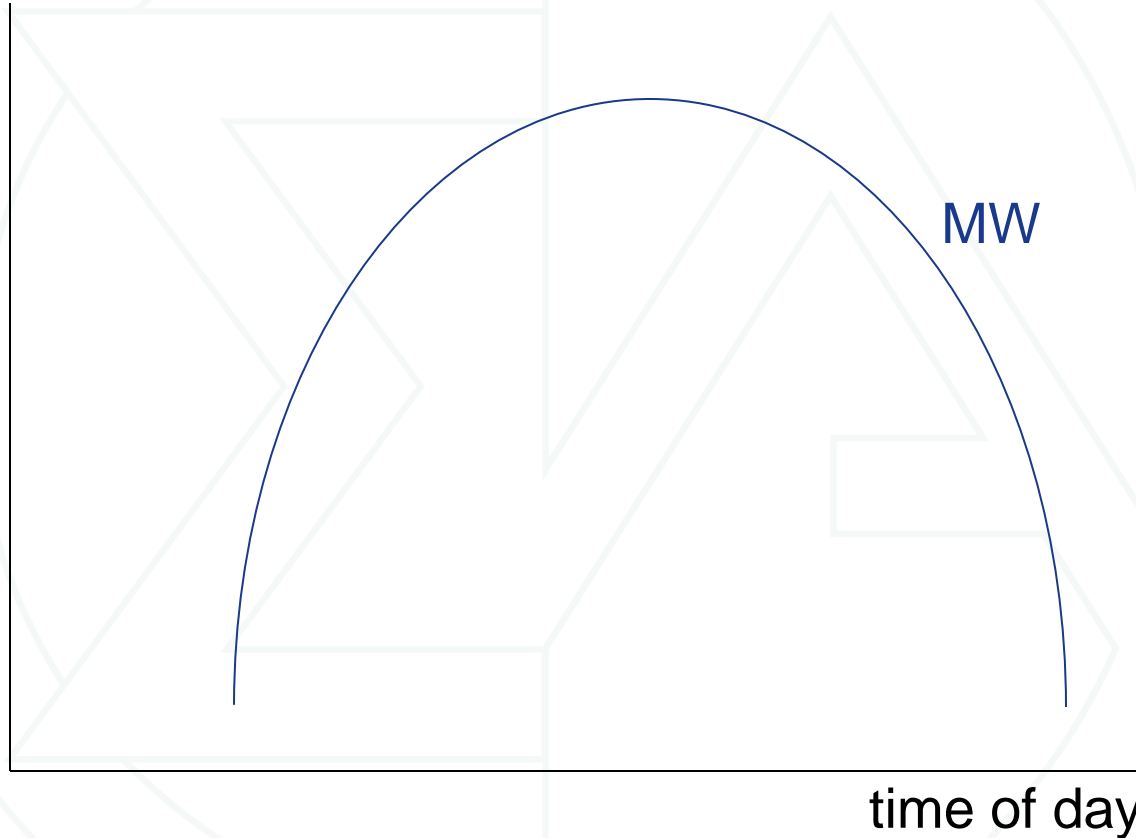
Goal of Real Time Dispatch and Pricing

- **Efficient, least cost production of energy**
  - **Requires efficient, least cost dispatch**
  - **Requires participants to follow dispatch**
    - Requires price signals consistent with efficient dispatch
    - Requires compensation consistent with efficient dispatch
- **All of these conditions need to be met for every dispatch instruction.**

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FERC Order 825 Goals

68. "…the compensation provided to resources must reflect the value of a resource providing given services to ensure appropriate economic incentives to meet system needs."

70. "…requiring settlement intervals of operating reserves transactions to match the intervals upon which those reserves are priced will reduce the need for payments made through uplift, make resource compensation more transparent and help ensure that there are adequate operating reserves to maintain reliability."
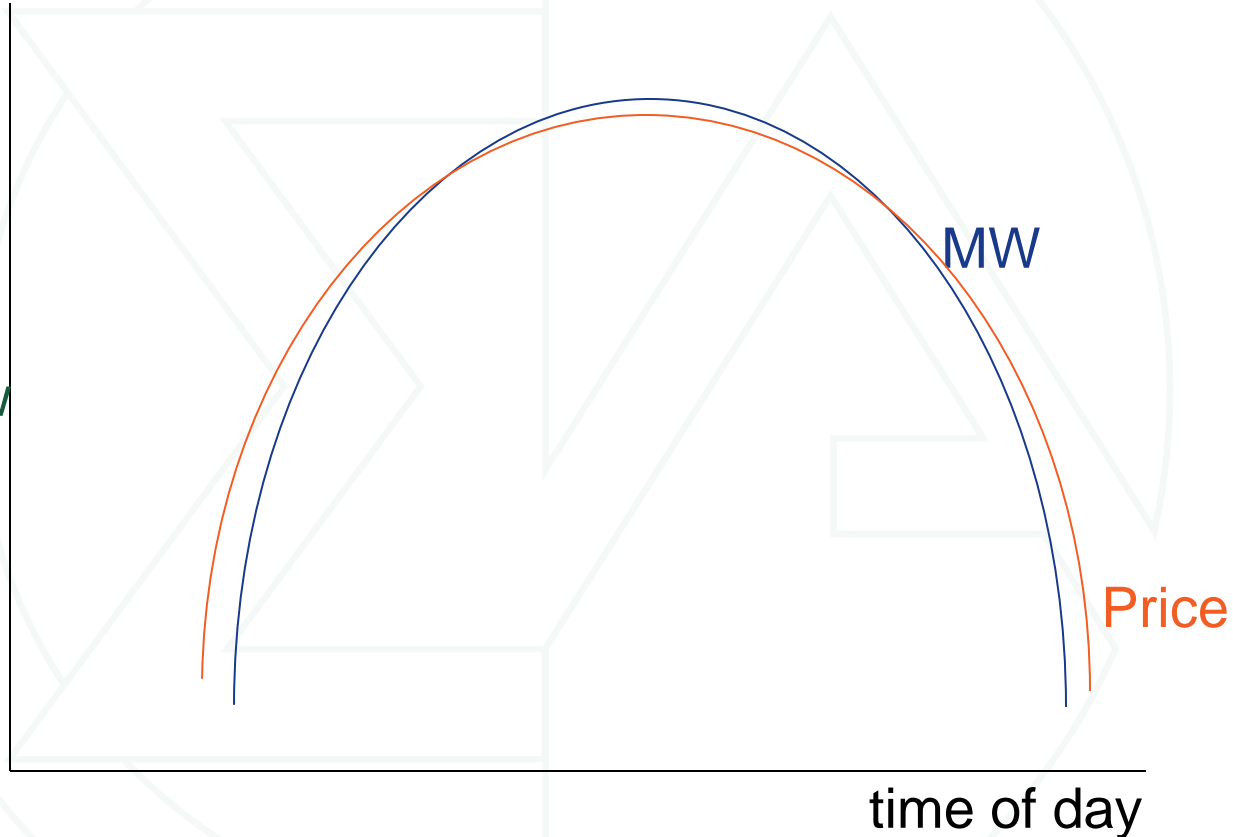
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PJM Settlement Interval Mismatch

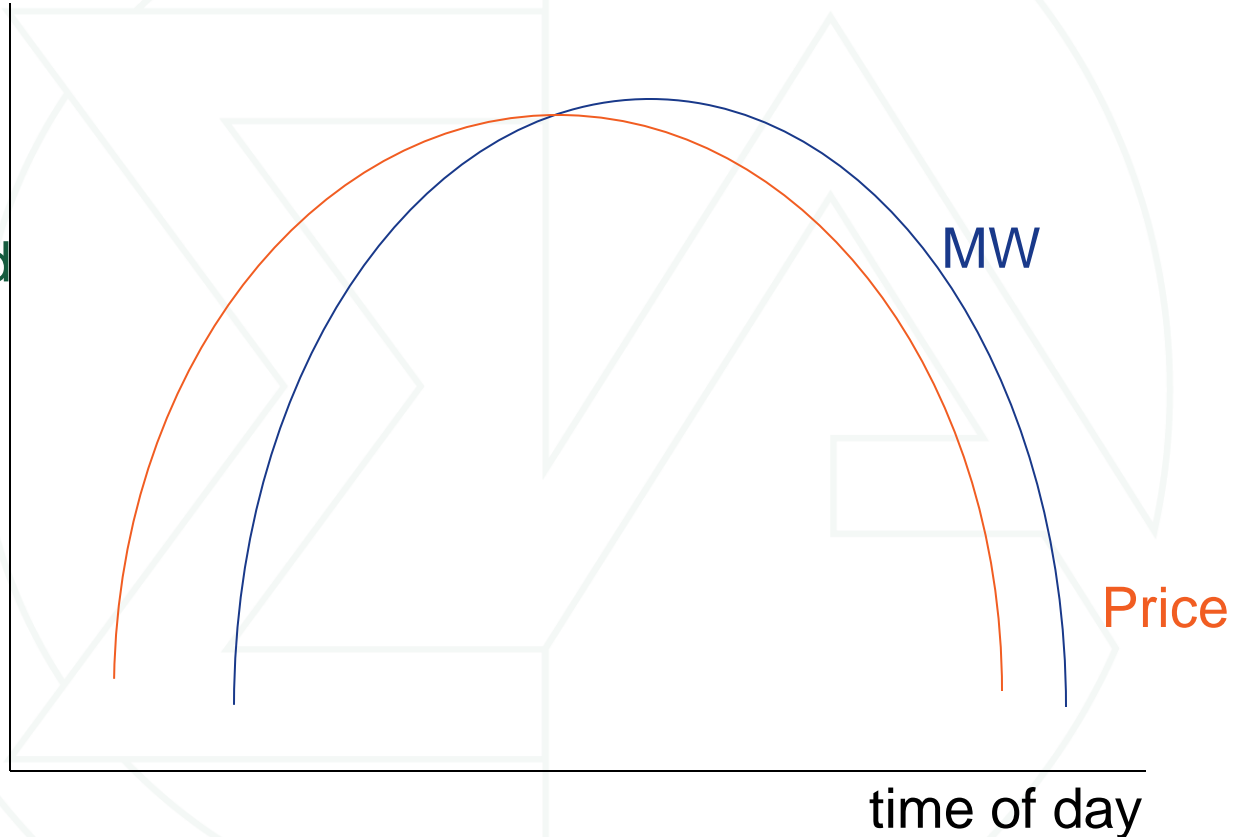Load rises and falls during the operating day.

MW

time of day

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PJM Settlement Interval Mismatch

Suppose the prices supporting the efficient dispatch follow the same pattern.

MW

Price

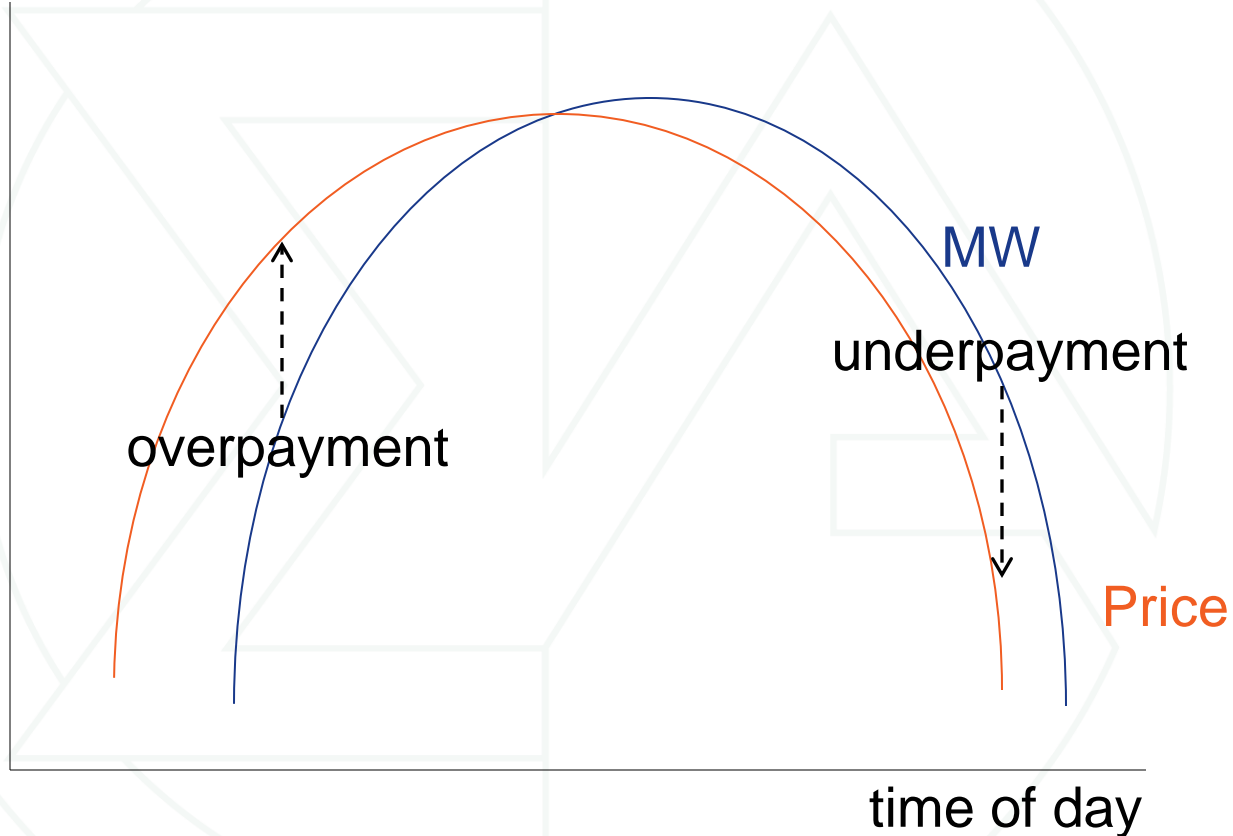time of day

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PJM Settlement Interval Mismatch

PJM sets prices ten minutes ahead of the system dispatch.

MW

Price

time of day

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PJM Settlement Interval Mismatch

Settled prices do not equal the prices that support the efficient dispatch of the settled interval.

MW

Price

overpayment

underpayment

time of day

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Other RTOs/ISOs

- **No pricing and dispatch interval mismatch in other RTO/ISOs**

- **The dispatch solution solved for a particular interval produces the settled prices for the same interval.**

- **The dispatch interval length matches the settled interval length.**

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Suggested Direction

- **All compensation for a five minute interval should use inputs from the same market dispatch solution.**
  - **Inputs include prices, offers, dispatch MW, metered MW, reserve assignments, etc.**
- **Any incentive for uneconomic "price chasing" can be resolved with adjustments to the timing of price calculations and postings.**

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