Underfunding due to Stage 1A ARR Over Allocations

The chart shows underfunding in millions for the years 12/13, 13/14, and 14/15. The underfunding is compared to estimated and actual figures. In 13/14, there was a significant underfunding compared to other years.
UTC Analysis: Impact on unit commitment

• PJM and the IMM agree that the data from the May and December studies indicated that UTCs affect unit commitment and dispatch in the day ahead market.
• PJM and the IMM agree that the data from the December study indicated that INCs and DECs affect unit commitment and dispatch in the day ahead market.
• PJM and the IMM agree that the magnitude of the impact on unit commitment status and unit output varies by day.
May UTC Analysis: Impact on congestion

• Study results show that UTCs significantly increased day ahead congestion.
  • UTCs increased the number of constraints that bind in the day ahead market.
  • UTCs affected the hours that the constraints bind.
  • UTCs affected the shadow prices of the constraints in the day ahead market.
May UTC Analysis: Impact on congestion

- Study results show that UTCs increase negative balancing congestion.
  - Removing UTCs reduced the number of day ahead constraints and day ahead congestion.
  - Removing UTCs made day ahead results more consistent with real time constraints and real time congestion.
  - Removing UTCs reduced negative balancing congestion.
UTC analysis: Contributions to congestion in 2013

- Analysis shows that UTCs pay day ahead congestion, in net.
- Analysis shows that UTCs are paid balancing congestion, in net.
- Analysis shows that UTCs contribute significantly to negative balancing congestion, in net.
2013 Day Ahead and Balancing Congestion: UTC Relative Contributions

- **Total Day Ahead Congestion**
- **UTC contribution to Day Ahead Congestion**
- **Total Balancing Congestion**
- **UTC Contribution to Balancing congestion**

The graph illustrates the relative contributions of UTC to both day ahead and balancing congestion for each month in 2013. The vertical axis represents the congestion cost in millions of dollars, with a range from -$150 million to $150 million. The horizontal axis represents the months of the year.
May UTC Analysis: FTR Funding

• Study results show that UTCs contributed significantly to FTR underfunding relative to target allocations.

• For the five days studied, the removal of UTCs changed FTR funding relative to target allocations from a deficit of -$4.1 million to a net surplus of $537 thousand, a gain in funding relative to target allocations of $4.7 million.

• For the five days studied, removing UTCs reduced target allocations from $16,241,505 to $7,780,223. The reduction was $8,461,282, or 52 percent.