



SIR18 HITT R3C AND WWE FA2.1 MULTI-DAY MARKET

MARKET DESIGN

OCTOBER 18, 2021

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the lights on... today and in the future.*



SouthwestPowerPool



SPPorg



southwest-power-pool

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- **Issue Description: Purpose – What will your initiative do for SPP’s Market**
 - SPP’s fuel mix continues to move toward low or negative marginal cost intermittent resources with energy output that can vary significantly in short time frames due to the lack of available wind or sun. SPP’s current ability to only commit resources economically one day at a time creates significant operational uncertainty in procuring energy generation from resources with high start costs, long start times, long minimum run times, and multi-day fuel procurement requirements.
- **Potential Benefit: How is SPP’s market improved by implementing your initiative**
 - Implementing a longer-term, multi-day economic assessment, with appropriate safeguards to mitigate potential market manipulation opportunities, is likely to support more cost-effective market commitment decisions by market participants and reduce the levels of resource self-commitment currently experienced in the SPP market.

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- Potential System Impacts
 - API/MUI, Congestion Hedging, DAMKT, RUC, MDB, MMU Processes, MOI, Settlements, URT Processes
- Potential MCE Performance Impact
 - High
- Potential Complexity
 - Design: High
 - Implementation: High

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- Potential Risk
 - Clearing Engine Performance will be impacted
 - Settlements complexity could increase significantly
 - Data storage will increase
 - Accuracy of the study will be impacted by the accuracy of the VER and load forecasts
 - Accuracy of the study will be impacted by the accuracy Resource offer forecasts
- Market Philosophy Impacts: Price Formation, Price Convergence, Market Efficiency, Market Transparency, Market Reliability
 - Market Efficiency, Market Reliability

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- Example/Research/Analysis Information
 - The Multi-Day Market has been divided into two efforts:
 - Multi-Day Forecast – A non-binding multi-day forecast study is being developed to forecast hourly commitment and prices over a rolling 4 day period.
 - SPP plans to use the results of the forecast to help improve accuracy and help navigate the design of the binding Multi-Day Market
 - Multi-Day Market – A fully binding multi-day market which will produce commitments for real-time.
 - SPP has conducted surveys with Market Participants that have long lead time resource to help determine a design.

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- Updates

- As the first step to implementing a Multi-Day Market SPP developed a Multi-Day Forecast Study that would forecast Resource commitment, LMPs, and MCPs for four days in the future. This study is currently in testing in SPP's lower environments but is running into performance issues. SPP and its vendor continue to evaluate options to improve the performance.
- Updated to include WWE FA2.1 in this initiative. WWE FA2.1. Evaluate effectiveness of a multi-day market to understand & mitigate the disconnect between market outcomes & the need to procure fuel several days in advance.
- Updating to include WWE MKT2.11 in this initiative. WWE MKT2.11 Enhance multi-day forecast to provide better information to Market Participants. SPP is looking to improve the accuracy and efficiency of the multi-day forecast. SPP is review the constraints, data inputs, and the assumptions to see where improvements to solve time and accuracy can be made.

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- Comments submitted
 - MMU
 - The MMU recommends that SPP and its stakeholders continue to explore and develop market incentives to reduce the incidence of self-committed resources outside of the market solution. With regards to the development of multi-day forecasting of prices or schedules, or a multi-day commitment process, the MMU supports these concepts as an attempt to reduce self-commitment of generation, but will carefully weigh the market benefits and potential unintended consequences before supporting any specific proposal; especially in light of the accuracy of forecasted information and the expected changes in the future generation mix. Specifically, the MMU recommends a binding second day in the optimization for long-lead-time resources.

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- Comments submitted
 - SPC
 - Southern Power Company (SPC) appreciates the opportunity to participate in SPP's strategic roadmap process. SPC provides comments here in support of the Holistic Integrated Tariff Team's (HITT) Reliability Recommendation #3 to implement a multi-day market, which was one of SPC's recommendations on market design in its presentation to the HITT on November 6, 2018.
 - Although there has been a gradual decline in self-commitments over the past few years, self-committed generation still represented approximately 50% of the generation dispatched in the SPP Integrated Marketplace in 2019. Self-commitment causes market distortions by allowing less economic units to jump out of merit order in the supply curve, resulting in both higher costs to ratepayers related to carrying capital cost of uneconomic assets and lower energy market prices due to the high percentage of self-commitments. As discussed in the SPP Market Monitoring Unit's (MMU) self-commitment whitepaper, a multi-day market would increase market commitments as long lead time resources would become more competitive over the longer optimization period.
 - Stakeholders and SPP Staff should continue work to implement a multi-day market, which will (1) increase more cost-effective market commitments, (2) provide more accurate investment signals due to improved price formation, and (3) decrease production costs which will ultimately benefit ratepayers. SPC supports a two-day market because (1) wind and load forecasts are accurate at an acceptable level looking forward two days (but decline sharply afterwards) and (2) the additional day would provide enough time for the SPP Integrated Marketplace to commit the majority of long lead-time resources. Additionally, SPC supports increasing transparency on self-commitment decisions and the MMU developing an annual impact assessment of self-commits in the SPP Integrated Marketplace.