



SIR19 UNCERTAINTY PRODUCT

MARKET SUPPORT AND ANALYSIS

MARKET DESIGN

MARCH 18, 2020

*Helping our members work together to keep
the lights on... today and in the future.*



SouthwestPowerPool



SPPorg



southwest-power-pool

WHAT WILL YOUR INITIATIVE DO FOR SPP'S MARKET?

- Allow SPP to manage uncertainty impacts to both capacity and ramp in an economic and transparent manner
- Potentially decrease make whole payments stemming from out-of-market commitments

HOW IS SPP'S MARKET IMPROVED BY IMPLEMENTING YOUR INITIATIVE?

- Volatility is increasing each year and supply flexibility is decreasing, which can lead to increased risk in Operations
- The Uncertainty Product will allow SPP to manage reliability impacts caused by uncertainties in forecast via the market

POTENTIAL SYSTEM IMPACTS

- Market Clearing Engine (MCE)
- Markets User Interface (MUI)
- Market Database (MDB)
- Market Protocols and Tariff
- MP Bidding
- Settlements

POTENTIAL MCE PERFORMANCE IMPACT

- Analysis on historical cases with the added Uncertainty Product logic shows only a relatively minor performance impact

POTENTIAL COMPLEXITY

- MCE changes have already been delivered to SPP in the form of a prototype that has been used for analysis
- MDB, MUI, Settlements, and Protocol/Tariff changes have not yet occurred, but are not expected to be overly complex

POTENTIAL (NON-SYSTEM) IMPACTS

- Increased settlements costs
- Potentially reduced out-of-market actions

MARKET PHILOSOPHY IMPACTS

- Market logic is added to lessen or eliminate the uncertainty impacts of future intervals and add prices to transparently reflect the need
- Reduce out of market actions by incorporating the uncertainty that operators have to manage into the market commitment and dispatch

EXAMPLE/RESEARCH/ANALYSIS INFORMATION

- MWG HITTR4 Presentations
 - January, February, March 2020
- Uncertainty Product Draft Whitepaper
 - March 2020 MWG

MMU COMMENTS

- The MMU recommends the development of an uncertainty product to address the commitment of capacity beyond the anticipated intra-hour variations (Instantaneous Load Capacity). A properly designed uncertainty product would reduce over-commitment for capacity and increase market efficiency and transparency.