

Transmission Congestion Contract – Proposed Improvement

Presented by Vitol Inc.

May 11, 2020 – ICAP/MIWG/PRLWG

May 14, 2020 - BPWG

Vitol's Proposed Improvement



- Improve the TCC product by changing it from a 24 hours a day, 7 days a week product into 3 smaller products:
 - 1. On-peak TCC: non-holiday weekday peak hours (HE 8 23)
 - **2.** Weekend/holiday peak TCC: weekend and holiday peak hours (HE 8 23)
 - 3. Overnight off-peak TCC: overnight hours for all days (HE 24 and 1 7)
- Improvement adds one more level of granularity to Calpine's TCC proposal which calls for creating a peak TCC and an off-peak TCC
 - Vitol agrees with Calpine's reasons for wanting to change the TCC product*
 - Vitol proposes separating daytime hours from nighttime hours

^{*} Calpine presented at the April 22 ICAP/MIWG and April 30 BPWG

Summary of Vitol's Proposal



| | Mon | Tue | Wed | Thu | Fri | Sat | Sun | |
|----|------------------------|-----|-----|-----|-----|-----------------|-----|--|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | Overnight off-peak TCC | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 11 | Weekday peak TCC | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | Weekend/holiday | | |
| 16 | | | | | | Peak TCC | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | . = | | | |
| 24 | Overnight off-peak TCC | | | | | | | |

An Important Product That Needs to Evolve



- TCCs play an important role in the NYISO's energy market
 - Forward congestion hedge market participants purchase TCCs to lock in forward congestion prices for a specific time period
 - Forward market signal prices from auctions provide a transparent, granular forward price signal, which is not readily available in bilaterally traded markets
- But the 24 hours a day, 7 days a week structure is too broad to accommodate commercial needs that are evolving
 - Holder is obligated to congestion payables/receivables for all 24 hours in a day, everyday of the time period in which they're held
- The variation of commercial needs by time of day and time of week is becoming more pronounced, particularly due to an increase in intermittent resources
 - TCCs, as hedge instruments, need to be more tailored to accommodate this variation
 - Auction prices, as forward market signals, need to reflect how expected congestion values change by time of day and time of week
- Utilizing three smaller TCC products will address these needs

Example: Solar Generation



- Consider a utility scale solar generation owner that wishes to hedge revenue risk or secure project financing by selling its expected output on a forward basis
- Expected output is sold at a liquid hub, e.g. Zone G, for a future period to lock in revenue
- Forward congestion risk exists between the generator's node and Zone G
 - To fully hedge revenue risk, the congestion risk needs to be hedged too
- But today's TCC product is ineffective in hedging congestion risk for solar
 - The owner must buy all 24 hours of the congestion hedge, but the generator only produces during daylight hours – a significant mismatch that adds cost/risk
- Under the Vitol proposal, the solar owner can tailor the hedge by purchasing a weekday peak TCC and a weekend/holiday peak TCC to cover its daytime congestion risk

Expected Benefits



- Improved commercial functionality and flexibility
 - Tailored TCC portfolios to more precisely meet commercial needs
- Better forward congestion price signals
 - Granular, locational forward price signals by time of week/day
 - More accurate valuation of expected congestion with increasing intermittent resources
- Valuable for the transition to clean energy resources
 - Locational price/revenue certainty for development and financing needs
 - Locational hedging for existing resources