

Morgan Stanley



Congestion Revenue Rights Enhancements

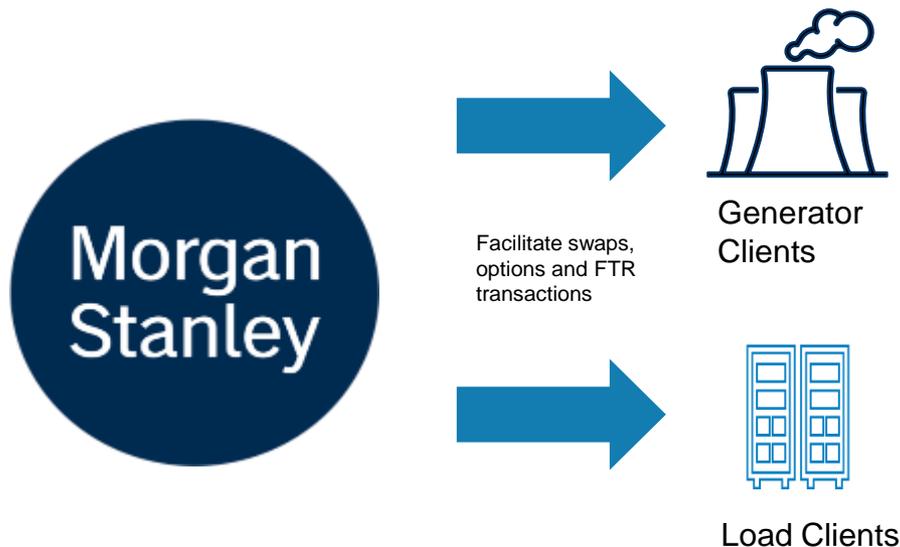
working group call

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Morgan Stanley Business Activity in Transmission Rights Markets

- Morgan Stanley has been active in FTR/CRR markets in CAISO, PJM and ERCOT for 15+ years
- In CAISO, we have utilized CRR markets to hedge forward regional spread value from importing energy into California.
- In PJM and ERCOT, we have leveraged the congestion markets to facilitate client flow with generation and load clients looking to de-risk nodal and zonal basis risk
- In all markets, we aim to facilitate transactions to allow producers and consumers of electricity to offload risk and create price certainty in a highly volatile market

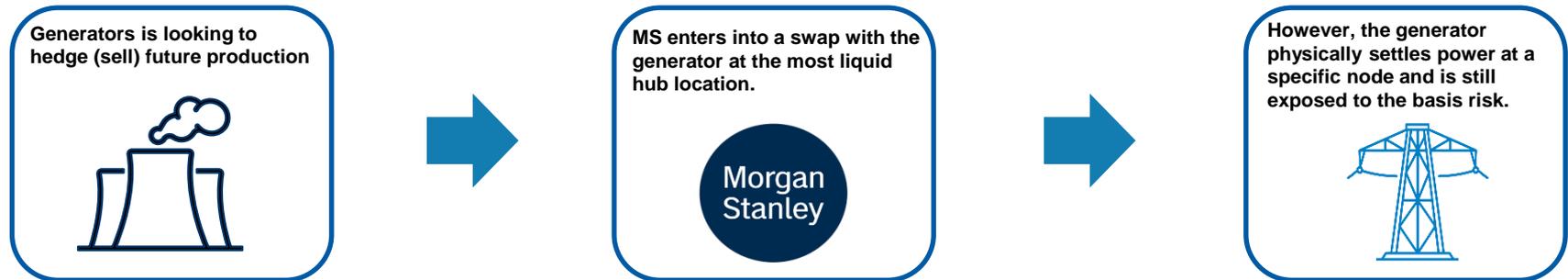


How does MS utilize FTRs to help clients in PJM?

Overview:

- In the PJM market, Morgan Stanley can provide two options for generators when it comes to hedging their power exposure, one that takes advantage of the existing FTR market and an outright swap.
- **Option 1:** In this case, with no FTR, the generator who is looking to hedge their future production is limited to entering a swap with MS priced liquid hub rather than a specific node where it delivers power. This means that even after hedging, the generator is still exposed to the basis risk between the node where it delivers and prices physical power and the hub the swap is priced.
- **Option 2:** With an FTR market, Morgan Stanley can provide a nodal swap to the generator so it can fully hedge its power without being exposed to the basis risk. MS can then enter an offsetting transaction in the PJM FTR auction (sell node-buy hub), where the final exposure for Morgan Stanley is only a long position at a liquid hub, which is easily tradeable.

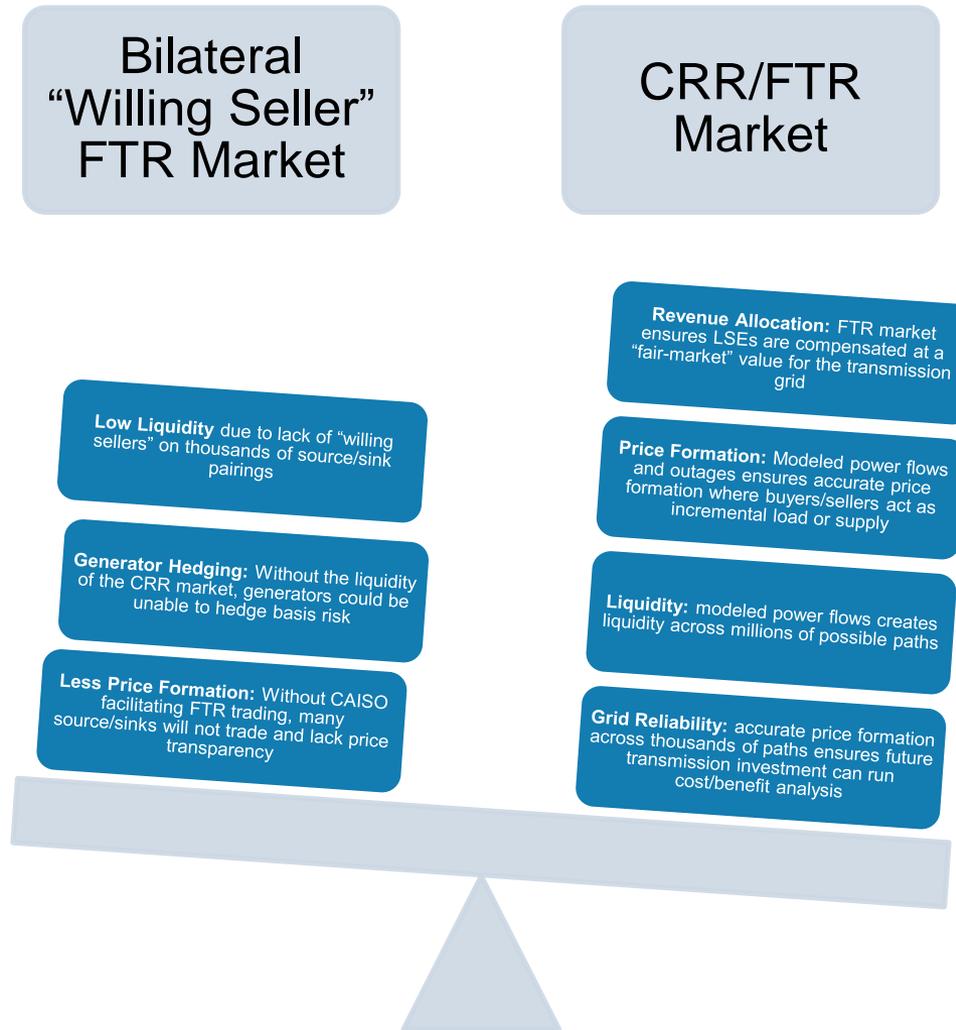
Option 1 (No FTR):



Option 2 (With FTR):



Purpose of a Functioning Transmission Rights market



Proposals

- Morgan Stanley **supports the formation of balance-of-period auctions** to help “mark-to-market” in the time between long-term auctions and monthly spot CRR auctions. Currently, CAISO has monthly and annual auctions that create a timing gap that makes it difficult for participants to “mark-to-market” their positions.
- **Fully allocate CRR entitlement shortfalls to CRR holders** could reasonably eliminate ratepayers from covering any shortfalls.
 - Additionally have a planning period to-date structure where prior period entitlement excesses, if any, are used to cover any future entitlement shortfalls
- Morgan Stanley supports **expanding the products from Peak and Off-Peak to include solar-hours and non-solar hours or an AAH product in CAISO**. Adjustments to the CAISO market structure may increase liquidity by optimizing flows during high renewable hours.
 - PJM’s transition from Off-Peak to 7x8 and 2x16 breakout has provided market participants with greater granularity
 - Include Availability Assessment Hours (AAH) to assist those importers selling import RA has merit and would increase value and participation in CRR markets.
- We agree with Financial Marketers Coalition that **the primary purpose of CRRs is not only to return congestion rent to LSEs but also to enable generator and marketer hedging**
- CAISO should consider better incentives for accurate outage forecasting. **Increasing incentives for higher data quality for submitting outage forecasts could possibly reduce underfunding substantially overtime.**
 - More conservative assumptions on transmission line capacity, as well as increasing monitored constraints in CAISO’s simultaneous feasibility test for every CRR auction

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