

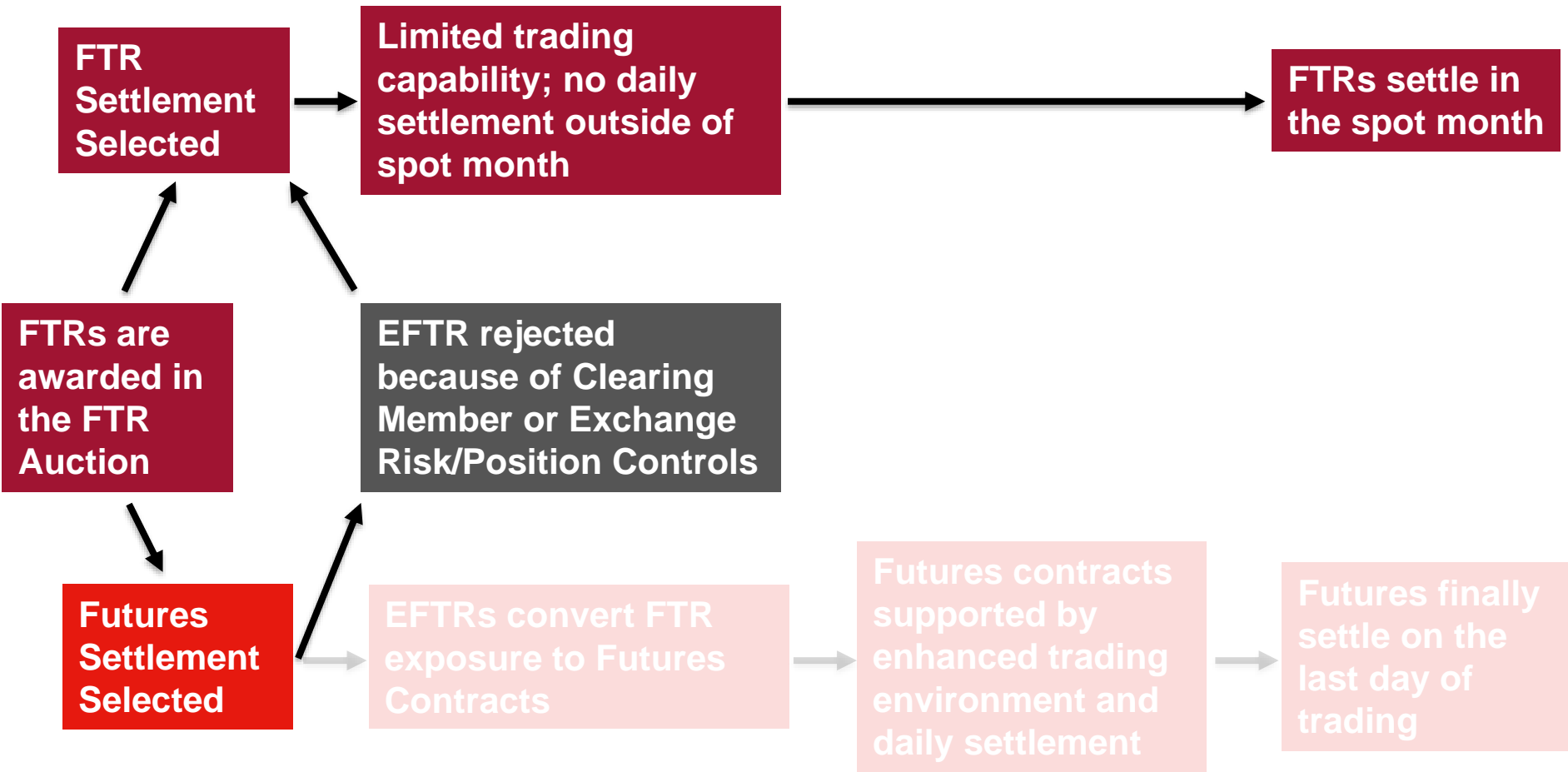
Nodal Data Services Offering

September 24, 2019

Nodal can provide risk solutions for FTR participants with positions on the exchange or at the ISO/RTO

- Participants would have the option to move their FTR portfolio to Nodal Exchange via Exchange for Related Position (EFRP), also referred to as Exchange for FTR (EFTR)
 - The portfolio would then be composed of exchange-cleared futures contracts that would be margined by the exchange and eligible for daily position management via exchange trading
- Participants who do not convert their FTR portfolios to exchange-cleared positions would keep their portfolios with the ISO/RTO
 - Nodal Data Services would provide guidance for the ISO/RTO with respect to risk considerations of these remaining participants
 - This service offering is meant to complement clearing of FTRs and as such would be offered below normal profitability thresholds as long as FTR clearing has been enabled

Nodal Data Services provides analysis and support for portfolios that remain at PJM



Proposed services to be provided by Nodal Data

Services include:

- A. Risk information provided to the ISO:
 - 1. Price marks on all forward positions, including load nodes
 - 2. Variation margin calculations sent daily for each FTR participant (based on daily price marks proposed by Nodal)
 - 3. Initial margin calculations sent daily for each FTR participant
 - 4. Position and concentration limits (accountability levels) with degree of usage per FTR participant sent daily
 - 5. Guaranty fund calculations sent for each FTR participant on a periodic basis (e.g., daily), with level monitored daily
- B. Implementation of membership requirements (onboarding) for all members including FTR traders
 - 1. Assessment of financial condition and other requirements
 - 2. Due diligence
 - 3. Credit/financial surveillance (ongoing reviews)