

# 6.1 FTR Auctions Overview

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Throughout the year, PJM oversees the process of selling and buying FTRs through FTR Auctions. Market Participants purchase FTRs by participating in Long-term, Annual and Monthly FTR Auctions.

- Long-term FTR Auction – PJM conducts a Long-term FTR process of selling and buying FTRs through a multi-round process for FTRs for three consecutive Planning periods immediately subsequent to the Planning Period during which the Long-term FTR Auction is conducted. The capacity offered for sale in Long-term FTR Auctions shall be the residual system capability after the assumption that all Auction Revenue Rights allocated in the immediately prior Annual Auction Revenue Rights allocation process, including additional Auction Revenue Rights that become available through an offline annual allocation without the modeling of transmission outages, are self-scheduled into FTRs, which shall be modeled as fixed injections and withdrawals in the Long-term FTR Auction. The Long-term FTR Auction is a multi-round auction consisting of ~~three~~five rounds. In each round ~~1/3~~20 percent of the feasible FTR available capability is awarded. FTRs that are purchased in one round may be offered for sale in later rounds. Auction Revenue Rights that become available through the offline annual allocation are determined only for modeling purposes and will not be allocated to market participants. Additionally, residual Stage 1 and Stage 2 Annual Auction Revenue Rights that become available through incremental capability created by future transmission upgrades shall be modeled as fixed injections and withdrawals in the long-term Financial Transmission Rights auction. The long-term Financial Transmission Rights auction model shall include all upgrades planned to be placed into service on or before June 30th of the first Planning Period within the three year period covered by the auction. The transmission upgrades to be modeled for this purpose shall only include those upgrades that, individually, or together, have 10% or more impact on the transmission congestion on an individual constraint or constraints with congestion of \$5 million or more affecting a common congestion path. Transmission upgrades modeled for this purpose also will be modeled in the subsequent long-term Financial Transmission Rights auction. Residual Auction Revenue Rights created by an increase in transmission capability due to future transmission upgrades, as specified above, are determined only for modeling purposes and will not be allocated to market participants.
- Annual FTR Auction - The Annual FTR Auction offers for sale the entire transmission entitlement that is available on the PJM system on an annual basis. The Annual FTR Auction is a multi-round auction consisting of four rounds. In each of the four rounds, 25% of the feasible FTR capability of the entire PJM system is awarded. FTRs that are purchased in one round may be offered for sale in subsequent rounds.
- Monthly FTR Auctions - In each calendar month, Monthly FTR Auctions provide a method of auctioning the residual FTR capability that remains on the PJM Transmission System after the Long-term and Annual FTR Auction is conducted. The Monthly FTR Auctions are

single-round auctions, where the residual FTR capability is awarded. The Monthly FTR Auctions also allow Market Participants an opportunity to offer for sale any FTRs that they currently hold. An auction participant must own any FTR that is offered for sale. In the Monthly FTR Auctions, Market Participants may bid to buy or offer to sell FTRs that have the following terms:

- ~~One month for any of the next three~~ Any single calendar months remaining in the Planning Period.
- ~~Three months for any of the quarters remaining in the planning period that do not overlap three available month periods where Planning Period Quarter 1 covers June, July and August; Planning Period Quarter 2 covers September, October and November; Planning Period Quarter 3 covers December, January and February; and Planning Period Quarter 4 covers March, April and May. Planning Period Quarter 1 will not be available in the June FTR Auction, Planning Period Quarter 2 will not be available in the September FTR Auction, Planning Period Quarter 3 will not be available in the December FTR Auction, and Planning Period Quarter 4 will not be available in the March FTR Auction.~~

The clearing mechanism of the FTR Auctions will maximize the quote-based value of FTRs awarded in each auction. Auction Revenue Rights (ARRs) are the mechanism by which the proceeds from the FTR Auctions are allocated. The proceeds from the Annual FTR Auction are distributed to ARR holders. All Long-term and monthly auction revenues are first allocated among ARR holders in proportion to the holder's deficiencies from the Annual FTR Auction. Any monthly auction revenues remaining after this allocation are treated as excess congestion charges and are distributed starting with Stage Two as described in the "Market Settlements" section.

FTRs are awarded in the FTR Auctions for the following products:

- FTRs can be either options or obligations for the Annual and monthly FTR Auctions and obligations only for the Long-term FTR Auctions.
- An on-peak FTR product valid for hours ending 0800 to 2300 weekdays, except NERC holidays.
- An off-peak FTR product valid for hours ending 2400 to 0700 on weekdays and for hours ending 0100 to 2400 on weekends and NERC holidays.
- A 24-hour FTR product valid for hours ending 0100 to 2400 on all days.

FTRs that are awarded in FTR Auctions have the following characteristics:

- FTRs hedge the FTR holder against congestion payments to PJM when energy delivery is consistent with the FTR's definition.
- FTRs do not hedge the FTR owner against payment for losses.
- FTRs acquired in the Long-term FTR Auctions have a term of one year.
- FTRs acquired in the Annual FTR Auction have a term of one year.
- FTRs acquired in the Monthly FTR Auctions have a term of one month for any of ~~the next three~~ individual months remaining in the Planning Period ~~or planning period quarter for any full planning period quarter remaining in the planning period.~~

- FTRs acquired in the FTR Auctions entitle the holder to credits for transmission congestion charges for the term of the purchased FTR.
- Valid FTR sources and sinks in the Long-term and Annual FTR Auctions are limited to available hubs, zones, aggregates, generators, and interface buses (subject to simultaneous feasibility).
- Valid FTR sources and sinks in the Monthly FTR Auction are limited to available hubs, zones, aggregates, generators, and interface buses for bids that cover any month beyond the next month, ~~including bids that cover Planning Period Quarters~~. Valid FTR sources and sinks in the Monthly FTR Auctions for bids that cover the single calendar month period immediately following the month in which the monthly auction is conducted are any available single bus or combination of buses for which an LMP is calculated and posted (subject to simultaneous feasibility). The list of buses includes available hubs, zones, aggregates, interface buses and single generator and load buses. The list of available sources and sinks for each auction will be posted before the start of the bidding window.
- Only a subset of paths will be eligible for FTR Option bids in the Annual and Monthly FTR Auctions in order to prevent potential auction clearing performance issues. FTR Option bids are not available in the Long-term FTR Auctions.
- FTRs in all FTR Auctions may be designated from injection buses outside PJM and withdrawal locations outside PJM OR buses with injections and withdrawals within PJM.
- In the Annual FTR Auction, an ARR holder may self-schedule an FTR Obligation (up to the ARR MW reservation amount) into the Annual FTR auction as a “price-taker” auction buy bid. The self-scheduled FTR must have exactly the same source and sink points as the ARR. This feature can only be used in Round 1 and must be for a 24-hour FTR Obligation product. 25% of the MW amount self-scheduled in Round 1 will clear in each round.
- In all FTR Auctions, FTRs can be reconfigured, meaning that the FTR auction not only allows Market Participants to purchase the FTRs offered into the auction by sellers, but also enables buyers to purchase FTRs that are different from any of the FTRs offered into the auction by sellers.
- Quotes in the Auctions with a \$0 bid price are allowed in the auctions. However, because such bids can cause serious performance degradation to the FTR software and have no impact on the algorithm’s objective function, the following rule will be applied: \$0 bids will not be awarded on paths with a clearing price of \$0.