

Transmission (Tx) Inc/Dec - Congestion and Loss only Virtual Transaction
Energy Inc/Dec - Energy Only Virtual Transaction

Current Products:

The Increment offer and Decrement bid is submitted and cleared based on the expected value of the total LMP at an individual node. This total LMP includes the Energy Component, Loss Component, and Congestion Component.

The UTC product is submitted and cleared based on the expected value of the spread or difference between the Sink Node LMP and Source Node LMP. The spread represents the congestion and losses between two nodes. The energy component, which is uniform across all nodes, cancels out.

Proposed Products:

TxInc/TxDec

The TxInc/TxDec is a hybrid of the UTC transaction and the current Increment Offer and Decrement Bid. Like Incs and Decs, which are placed at an individual node, the TxInc/TxDec would be placed at an individual node and would be submitted and cleared based on the expected value of congestion and losses at the node.

The product will create transmission flows across the grid, however it will not impact the energy power balance constraint (i.e. Supply = Demand). Since the transaction does not contribute to energy power balance, it is not subject to the energy power balance shadow price in its clearing price. By removing the power balance constraint shadow price, you are left with a congestion and loss only clearing price.

Product Benefits:

Participants can transact on the value of transmission alone and help converge congestion and losses.

Removes unintended impacts on unit commitment and power balance that can occur when a paired inc/dec does not clear together.

Opens up all the available points incs and decs are allowed without the suggested increase in DA solve time. Combinations limited to 2 times the available nodes.

Energy Only Inc/Dec

The Energy Only Inc/Dec would be submitted and cleared at a new RTO aggregate representing the load weighted price in DA and RT. Since the Energy Price is also equal to a load weighted price based on the distribution of load in DA and RT, the transaction would be congestion and loss neutral.

Product Benefits:

Participants can transact on the expected value of the energy price and uniformly increase or decrease total system load in order to improve commitments for energy.

Product will not increase or decrease flows on transmission lines thus will not impact commitments for transmission constraints.