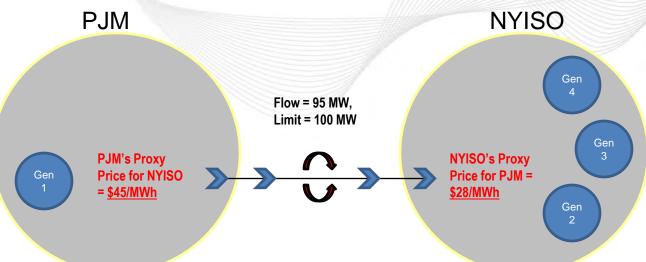


## CTS impacts to Balancing Congestion

www.pjm.com



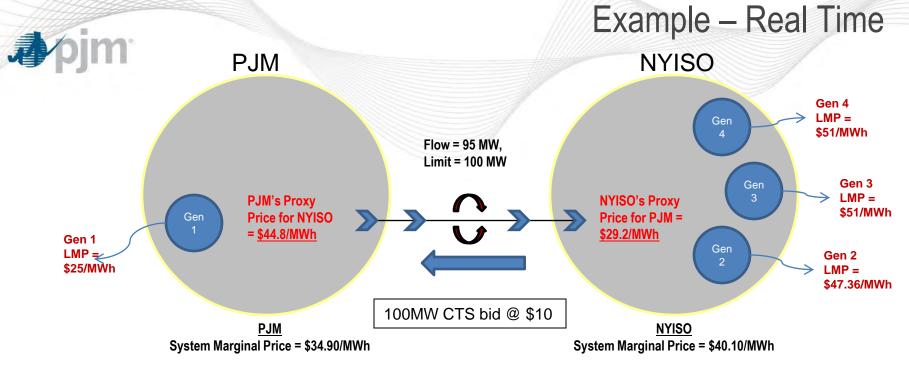
## Example – System Configuration



PJM System Marginal Price = \$35/MWh

NYISO
System Marginal Price = \$40/MWh

Generator	Offer Price	Dispatch	DFAX	LMP
1	\$25/MWh	100 MW	30%	\$25
2	\$60/MWh	0 MW	-20%	\$48
3	\$52/MWh	10 MW	-30%	\$52
4	\$51/MWh	10 MW	-30%	\$52



Assume there is a CTS transaction in the NYISO to PJM direction with a MW quantity of 100MW and a bid price of \$10. This transaction is dispatched for the next interval because its bid price is less than the difference between the NYISO and PJM interface prices. The transaction has a 3% impact on the constraint, loading the transaction reduces the flow on the constraint by 3MW. The 3MW of flow relief on the constraint allows NYISO to take Gen 3 off line because the constraint can be controlled with only Gen 4. As a result of loading the transaction, the NYISO system marginal price increases to \$40.10 and the PJM system marginal price reduces to \$34.90.



- CTS transactions are designed to only flow in the correct direction of price incentives which should lead to less congestion
- In the example, the CTS transaction serves to reduce congestion in both the PJM and NYISO systems as witnessed by the change in the LMPs
- The reduction in the system marginal price correlates to a reduction in the current negative balancing congestion dollars at the NYIS interface.