

Sham Scheduling Examples

MIC

November 7, 2012

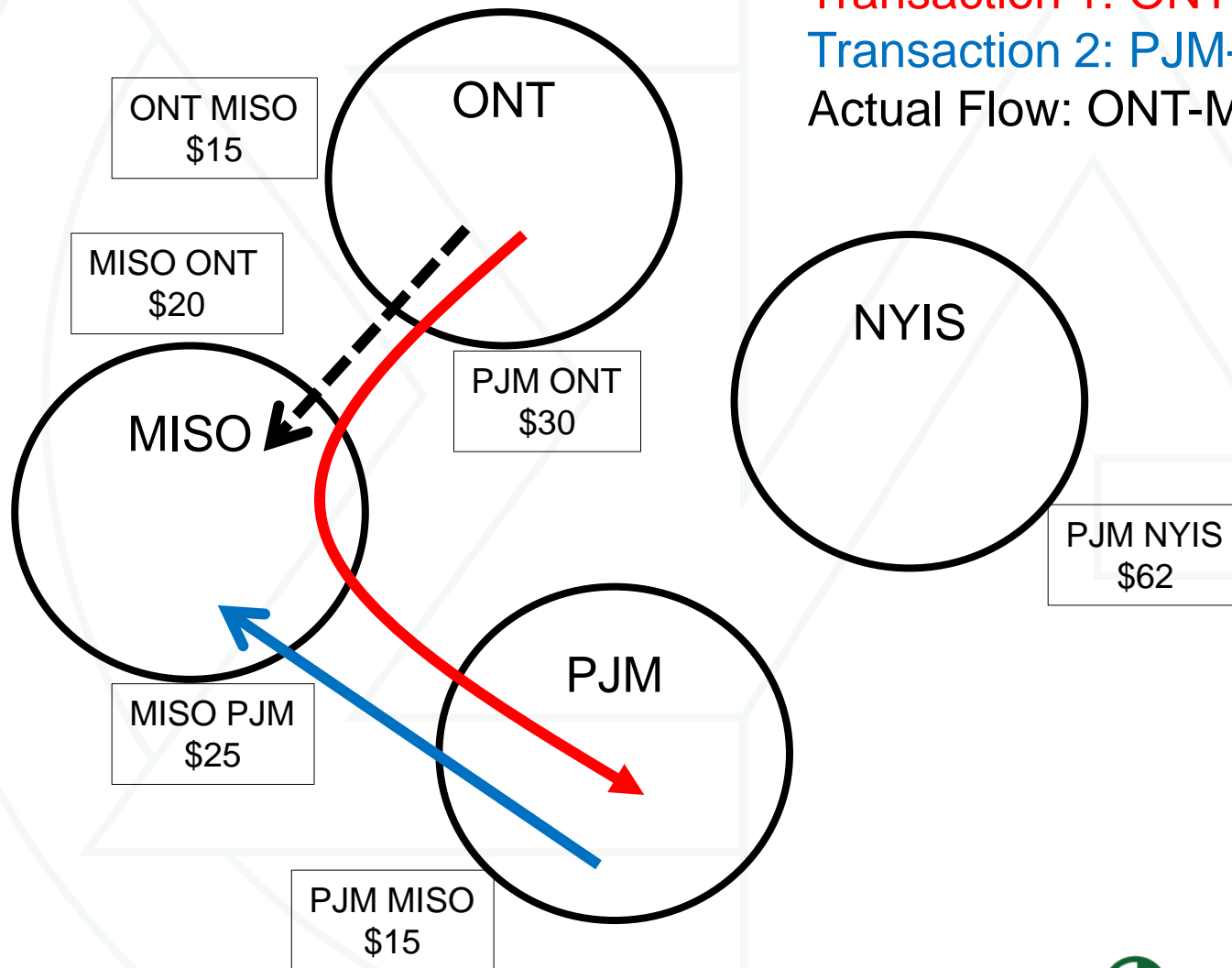
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ONT-MISO-PJM with PJM-MISO



Transaction 1: ONT-MISO-PJM
Transaction 2: PJM-MISO
Actual Flow: ONT-MISO

ONT-MISO-PJM with PJM-MISO

Transaction 1:

ONT: Pay \$15 for export to MISO

MISO: Receive \$20 for import from ONT

MISO: Pay \$25 for export to PJM

PJM: Receive \$30 for import from ONT

TOTAL: $-\$15 + \$20 - \$25 + \$30 = \$10$

Transaction 2:

PJM: Pay \$15 for export to MISO

MISO: Receive \$25 for import from PJM

TOTAL: $-\$15 + \$25 = \$10$

TOTAL for Both Transactions:

$\$10 + \$10 = \$20$

ONT-MISO-PJM with PJM-MISO

The resulting interchange is an import to MISO from ONT.
Without Sham Scheduling, the settlement would be:

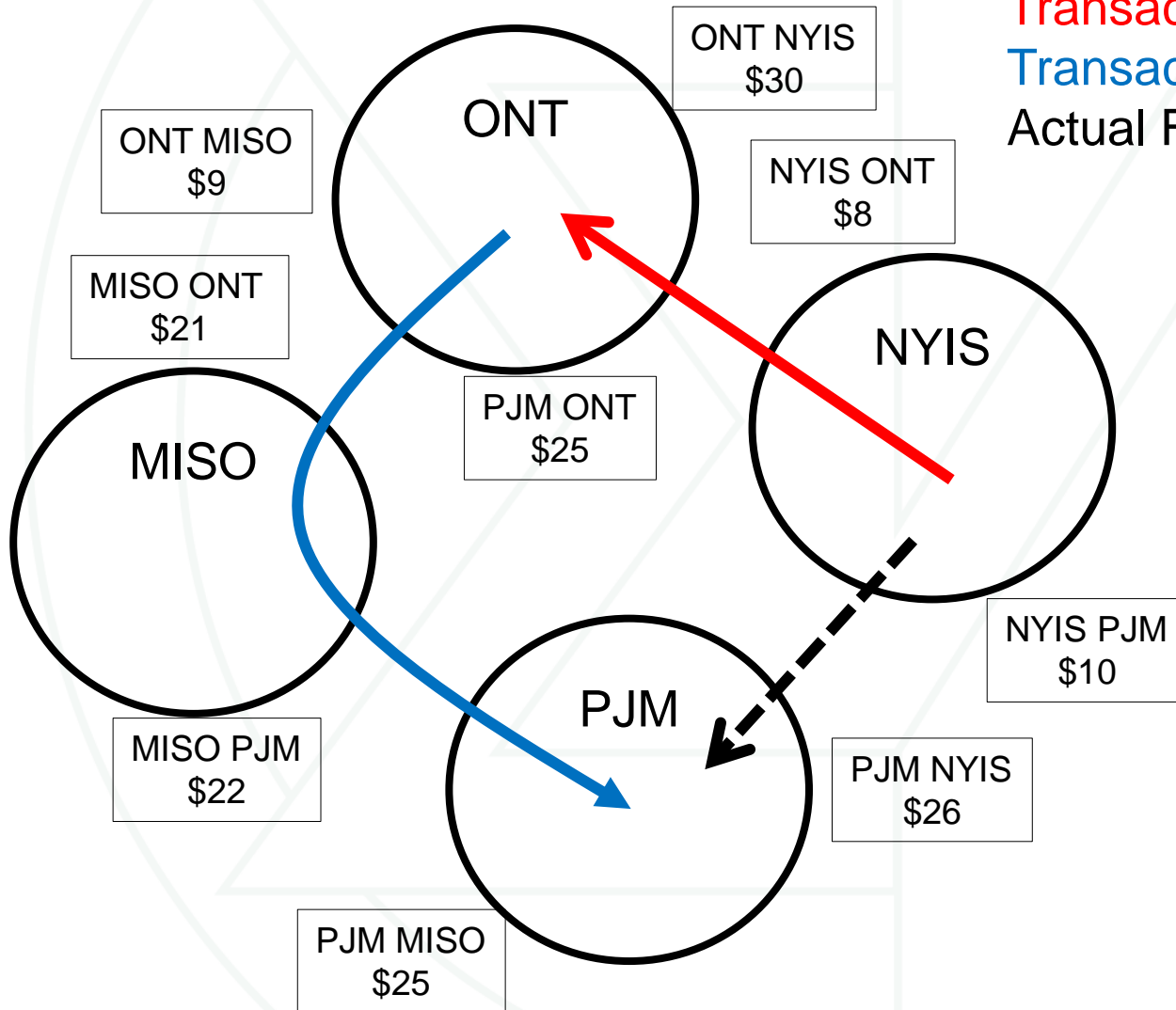
ONT: Pay \$15 for export to MISO

MISO: Receive \$20 for import from ONT

TOTAL: $-\$15 + \$20 = \$5$

- **Scheduled flows do not match actual flows**
- **No change in generation in PJM, yet settlements occur**
 - **Similar to Southeast / Southwest interface issue, where market participants took advantage of price differences at interfaces**
- **No additional transmission charges**
 - **Already pay for the ONT-MISO transmission**
 - **No MISO charge either way: SPOT_IN or RTOR**
 - **No PJM charge: RTOR**

NYIS-ONT with ONT-PJM



Transaction 1: NYIS-ONT
Transaction 2: ONT-MISO-PJM
Actual Flow: NYIS-PJM

NYIS-ONT with ONT-PJM

Transaction 1:

NYIS: Pay \$8 for export to ONT

ONT: Receive \$30 for import from NYIS

TOTAL: - \$8 + \$30 = \$22

Transaction 2:

ONT: Pay \$9 for export to MISO

MISO: Receive \$21 for import from ONT

MISO: Pay \$22 for export to PJM

PJM: receive \$25 for import from ONT

TOTAL: - \$9 + \$21 - \$22 + \$25 = \$15

TOTAL for Both Transactions:

\$22 + \$15 = \$37

NYIS-ONT with ONT-PJM

The resulting interchange is an import to PJM from NYIS.
Without Sham Scheduling, the settlement would be:

NYIS: Pay \$10 for export to PJM

PJM: Receive \$26 for import from NYIS

TOTAL: - \$10 + \$26 = \$16

- **Scheduled flows do not match actual flows**
- **Same effects on loop flows as those paths banned by the NYISO in 2008.**
- **Only additional transmission charges in ONT**
 - **Already pay for the NYIS transmission to ONT**
 - **No MISO charge: RTOR**
 - **No PJM charge: SPOT_IN**

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