IBAA Training Addendum - Examples

J. Buglino, Senior Client Trainer
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Disclaimer

- All the LMP values and the MW values are for illustrative purposes only.
- Actual schedules and LMPs will be based on actual bids from Scheduling Coordinators and will be determined by the Market Software.
- Prices were located on OASIS using Trade Date February 11, 2009 for HE 18
- Congestion component used for Scheduling Constraint example is for illustrative purposes only.
Price Divergence

- Price divergence between the LMPs mapped back to Captain Jack at the IBAA ties for imports or for the IBAA tie locations within the SMUD Hub will occur:
  - When a net scheduling constraint is binding at a specific IBAA tie location. The import and export prices will reflect the cost of congestion resulting from the scheduling constraint.
  - When a resource is registered to receive a Marginal Losses Adjustment because the import uses the COTP and Western or TANC has charged that import for losses associated with the use of the COTP. This specific LMP will not be posted to OASIS. The calculation of the Marginal Losses Adjustment will be reflected on the Settlements Statement for certified resources.
Example 1
Import on IBAA Tie (TRCYCOTP) / Sink at PGAE DLAP

LMP at CAPTJACK_5_N015 (TRCYCOTP) = $46.44
MCE = $46.69
MCC = $0.54
MCL = $-0.79
(Example does not include marginal loss adjustment as shown in later examples.)

LMP at PGAE DLAP = $48.70
MCE = $46.69
MCC = $0.13
MCL = $1.88
Example 2 – Scheduling Constraint for (1) Import on IBAA Tie with Sink to PGAE-DLAP, and (2) Export on IBAA Tie (TRCYCOTPISO)

For the TRCYCOTPISO IBAA Tie, the net of the import and export schedules may not exceed 33mw in the import direction. Schedules will be adjusted so that the net schedule at this location will not exceed the scheduling constraint.

The LMP in the import and export directions will reflect congestion resulting from the scheduling constraint.

(Schedules (1) and (2) are unrelated transactions by different SCs.)
Example 2A
Import on IBAA Tie (TRCYCOTPISO) with Sink at PGAE-DLAP / Export at IBAA Tie TRCYCOTPISO with No Scheduling Constraint

Schedule (1):
LMP at CAPTJACK_5_N512 (TRCYCOTPISO) = $46.44
MCE = $46.69
MCC = $ 0.54
MCL = $ -0.79

Schedule (2):
LMP at SMDH_ASR (TRCYCOTPISO)
SMUD HUB = $48.45
MCE = $46.69
MCC = $ 0.54
MCL = $ 1.22

Import of 50mw and Export of 50mw result in a net schedule of Zero (0)
Example 2B – Import on IBAA Tie (TRCYCOTPISO) with Sink at PGAE-DLAP / Export on IBAA Tie (TRCYCOTPISO) **with Binding Scheduling Constraint**

**Schedule (1):**
- Import 50mw at TRCYCOTPISO
  - Schedule reduced to 38mw for a net import of 33mw
  - Paid 38 @ $35.90 ($1,364.20)

**Schedule (2):**
- Export 5mw at TRCYCOTPISO
  - Charged 5 @ $35.90
  - $179.50

Congestion will be reflected in both the import and export directions.

- **LMP at CAPTJACK_5_N015 (TRCYCOTPISO):**
  - **LMP:** $35.90
  - **MCE:** $46.69
  - **MCC:** -$10.00
  - **MCL:** $- 0.79

- **LMP at SMDH_ASR (TRCYCOTPISO):**
  - **SMUD HUB:** $35.90
  - **MCE:** $46.69
  - **MCC:** -$12.67
  - **MCL:** $ 1.88
Example 3 – Resource ID Certified for Marginal Losses Adjustment Import on IBAA Tie (TRCYCOTP)

Import 100mw at TRCYCOTP with Marginal Losses Adjustment
Paid 100 @ $47.71* ($4,771)

LMP at CAPTJACK_5_N015
(TRCYCOTP) = $46.44
MCE = $46.69
MCC = $0.54
MCL = $-0.79*

LMP at TRACY_5_N047
(TRACY 500) = $47.70
MCE = $46.69
MCC = $0.54
MCL = $0.48*

LMP Used for Marginal Losses Adjustment
(TRCYCOTP) = $47.71*
MCE = $46.69
MCC = $0.54
MCL = $0.48

For resources who are charged losses by Western or TANC for the use of the COTP and who are certified with the ISO to receive the Marginal Losses Adjustment, the loss component of the LMP mapped back to Captain Jack is replaced with the loss component of the LMP from Tracy 500.

*The LMP upon which this transaction is settled, will not be posted to OASIS.
Example 4
Import on IBAA Tie (TRCYPGAE) / Export at Malin

- **LMP at Malin**: $46.01
  - **MCE**: $46.69
  - **MCC**: $0.13
  - **MCL**: $-0.81

- **LMP at CAPTJACK_5_N505 (TRCYPGAE)**: $46.03
  - **MCE**: $46.69
  - **MCC**: $0.13
  - **MCL**: $-0.79

*Export 100mw at Malin: Charged 100 @ $46.01 $4,601*

*Import 100mw at TRCYPGAE: Paid 100 @ $46.03 ($4,603)*
Example 5
Import at Malin – Export at IBAA Tie (TRCYPGAE)

LMP at Malin = $46.01
MCE = $46.69
MCC = $0.13
MCL = $-0.81

LMP at SMDA_ASR (TRCYPGAE)
SMUD HUB = $48.04
MCE = $46.69
MCC = $0.13
MCL = $1.22
Example 6
Import at Malin – Sink at PGAE DLAP

LMP at Malin = $46.01
MCE = $46.69
MCC = $0.13
MCL = $-0.81

LMP at PGAE DLAP = $48.70
MCE = $46.69
MCC = $0.13
MCL = $1.88

Import 100mw at Malin
Paid 100 @ $46.01
($4,601)

Sink 100mw at PGAE DLAP
Charged 100 @ 48.70
$4,870
End of Presentation

Thank You!!