IBAA Training Addendum - Examples

J. Buglino, Senior Client Trainer

March 17, 2009

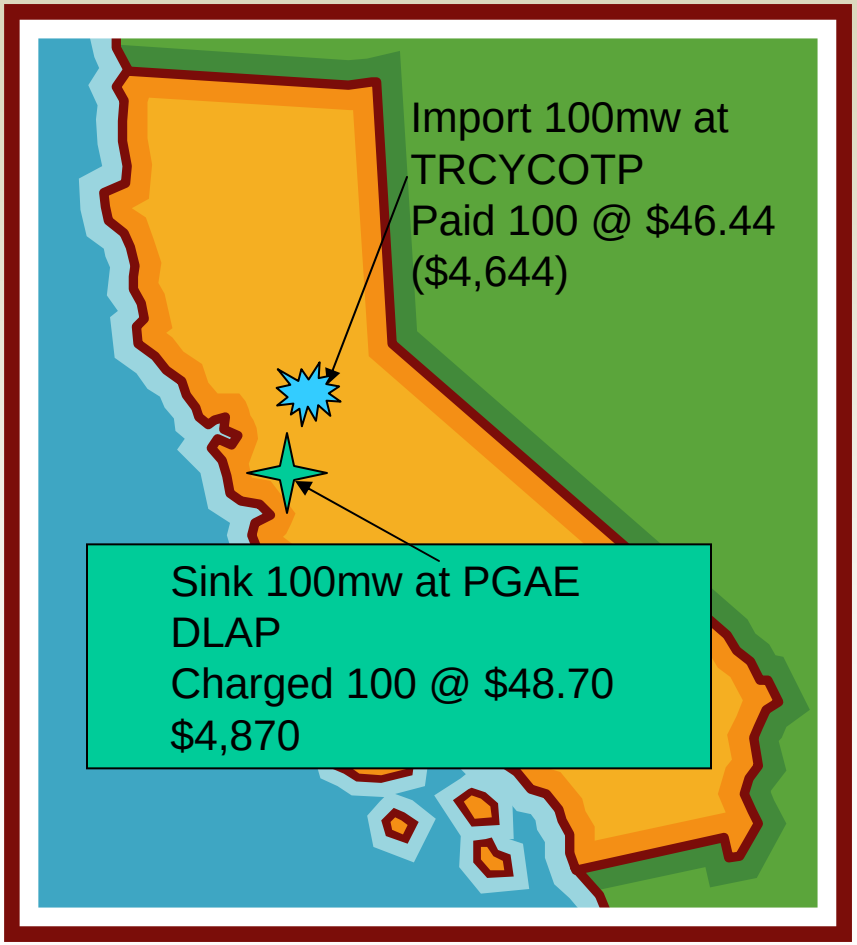
Disclaimer

- 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**

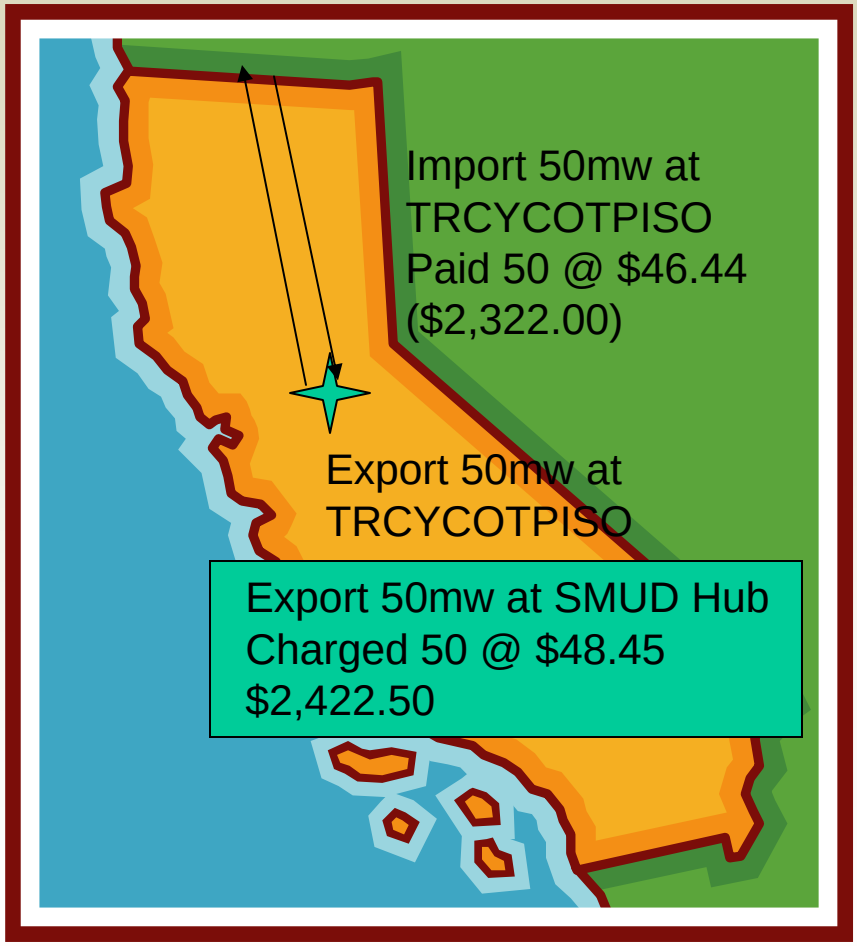
Schedule (1):
LMP at CAPTJACK_5_N512

(TRCYCOTPISO) =	$46.44
MCE =	$46.69
MCC =	$ 0.54
MCL =	$ -0.79

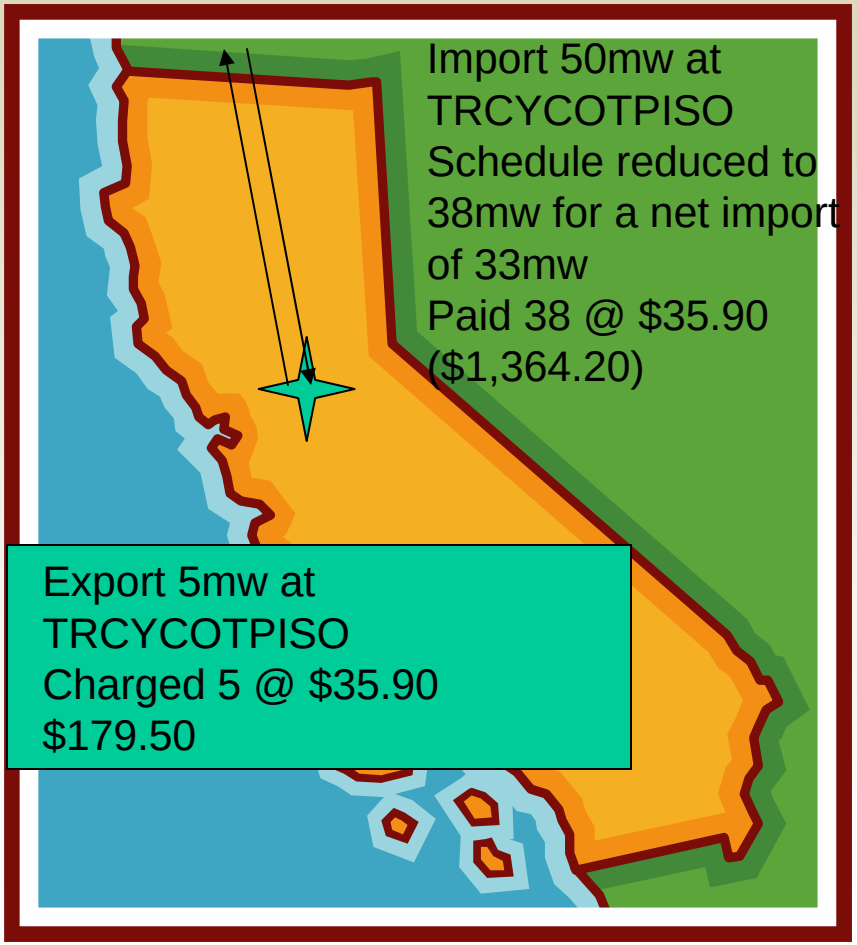
Schedule (2):
LMP at SMDH_ASR (TRCYCOTPISO)

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):
LMP at CAPTJACK_5_N015

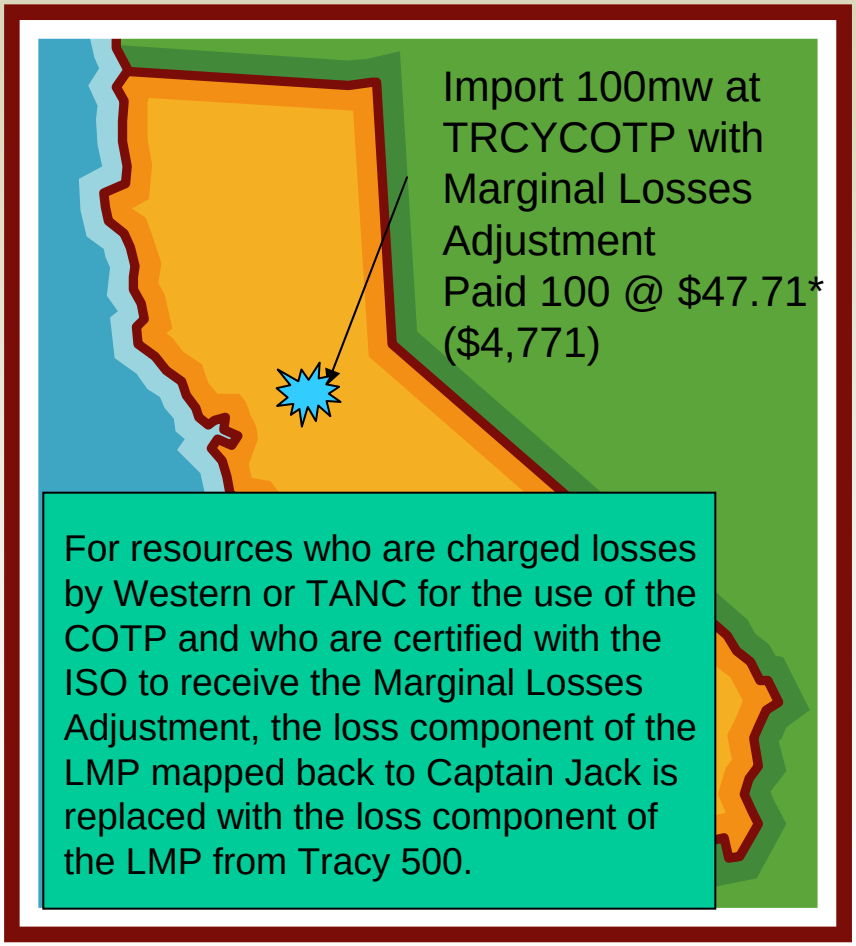
(TRCYCOTPISO) =	$35.90
MCE =	$46.69
MCC =	-$10.00
MCL =	$- 0.79

Schedule (2):
LMP at SMDH_ASR (TRCYCOTPISO)

SMUD HUB =	$35.90
MCE =	$46.69
MCC =	-$12.67
MCL =	$ 1.88

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

Example 3 – Resource ID Certified for Marginal Losses Adjustment Import on IBAA Tie (TRCYCOTP)



*The LMP upon which this transaction is settled, will not be posted to OASIS.

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

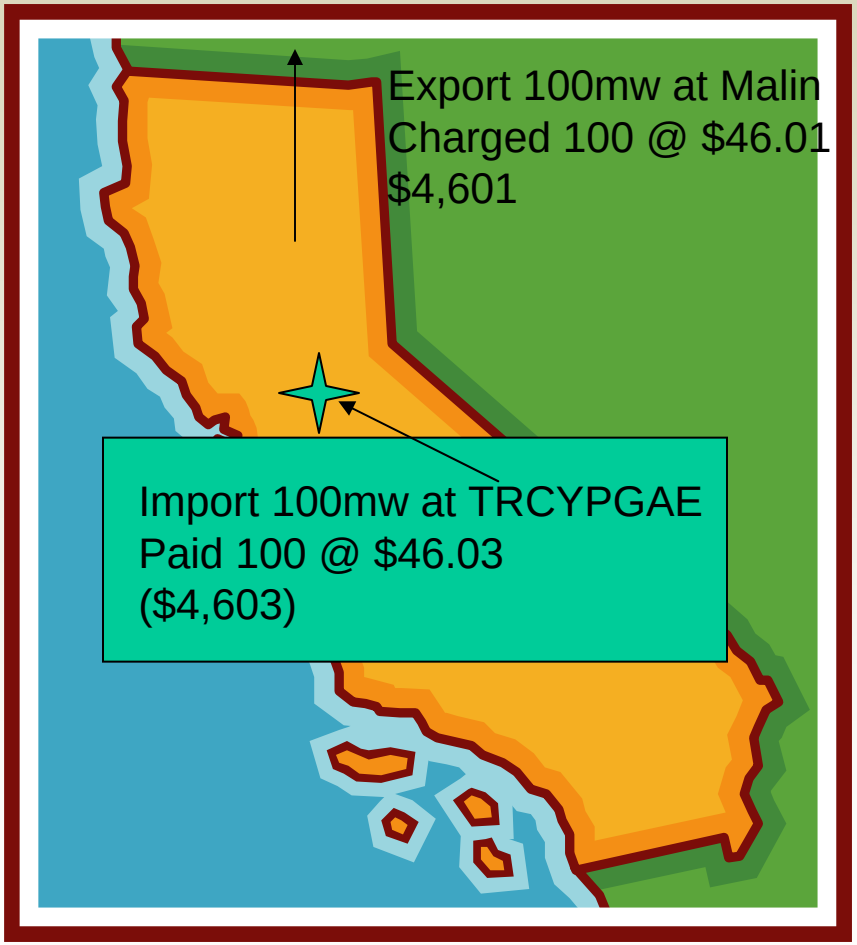
Original loss component mapped back to Capt Jack

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

Tracy 500 loss component

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

Example 4
Import on IBAA Tie (TRCYPGAE) / Export at Malin



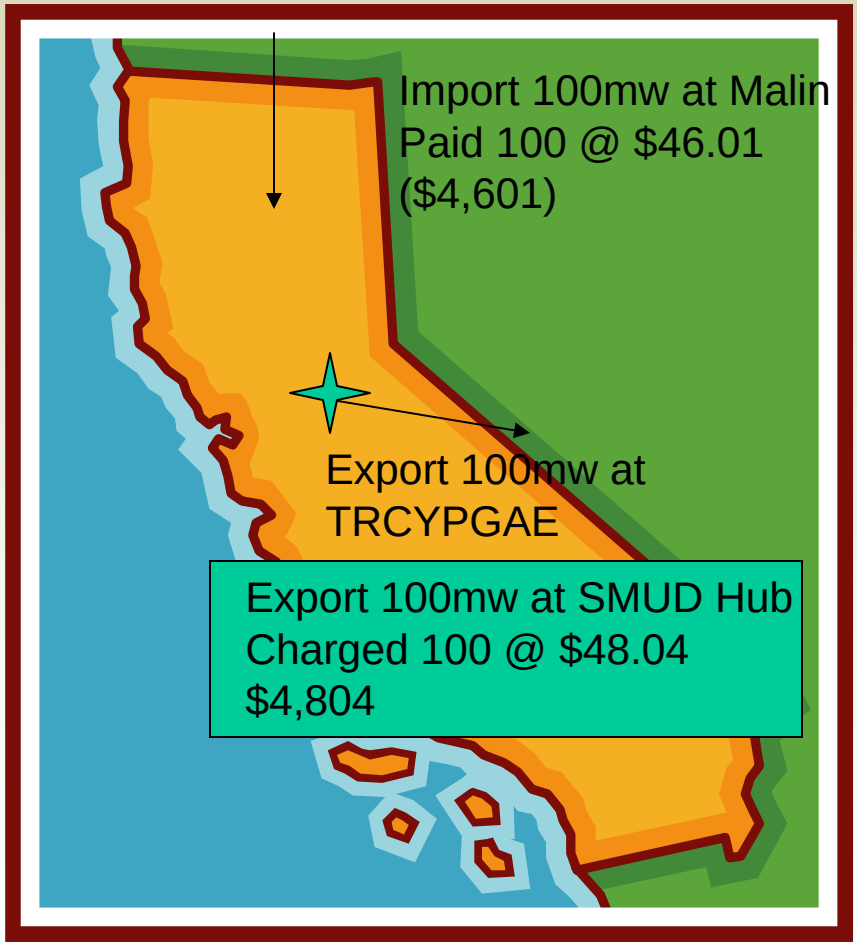
LMP at Malin =	$46.01
MCE =	$46.69
MCC =	$ 0.13
MCL =	$ -0.81

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

Example 5
Import at Malin – Export at IBAA Tie (TRCYPGAE)

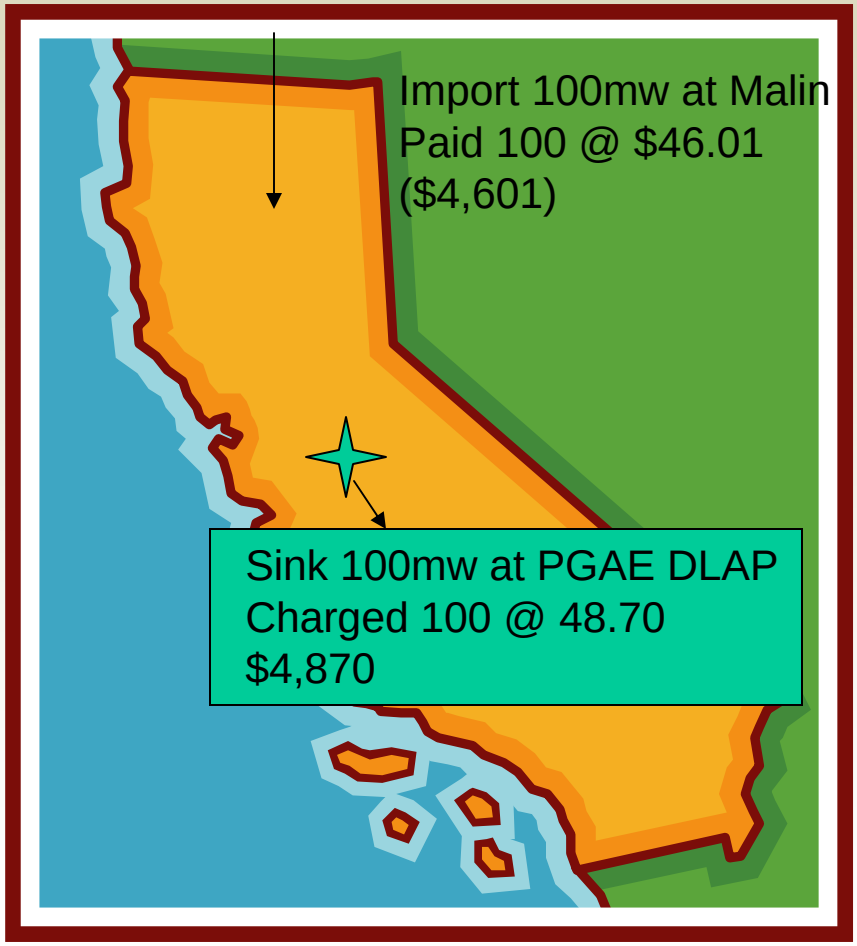
LMP at Malin =	$46.01
MCE =	$46.69
MCC =	$ 0.13
MCL =	$ -0.81

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



End of Presentation

Thank You!!