



Independent Electricity Market Operator

DAM and Intertie Trading

Intertie Trader's SC

October 26, 2004



Disclaimer

- DAM design is not finalized
- Content is subject to change
- Presentation is high level
- Presentation simplifies concepts in some cases to ease understanding
- Detailed Design posted on web is best source for more detail

Registration for DAM Imports/Exports

- No additional registration requirements
- Must be eligible to import/export in the RTM to participate in the DAM
- No virtual transactions at the interties

DAM Bids/Offers

- Similar to RTM, participants can bid/offer to buy/sell energy or sell OR for any hour in DAM:
 - up to 20 price-quantity (P-Q) pairs for each hour of the bid/offer
- Unlike RTM, participants can also submit multi-hour block bids/offers for DAM exports/imports:
 - block can comprise as little as 2 or as much as 24 hours
 - must be contiguous hours
 - must be within that day
 - 1 P,Q pair for the block
 - same price and quantity for all hours
 - block selected (or not) in its entirety

DAM Schedules

- DAM participants can receive a schedule for energy or OR at the intertie zones
- DAM constrained schedule for an import or export is financially binding
- DAM import and export schedules are expected to flow in real time:
 - If they do not, participant is obligated to buy/sell out of the DAM position in real time at RTM price
 - occurs automatically through settlement system

Pricing in DAM

- The DAM produces a price in each hour, for Ontario (energy + 3 classes of OR) and for each intertie zone (zonal energy price + 2 classes of OR):
 - prices are financially binding
 - hourly import/exports can set the DAM price in the intertie zone, or set the DAM Ontario price (in the absence of intertie constraints)
 - block imports/exports cannot set price in DAM
- Payments to holders of FTRs in the IAM will be based upon DAM prices, rather than RTM prices
- CMSC can be paid.

DAM/RTM Integration

Translation of offer/bid data from DAM to RTM:

- for any offer or bid that receives a DAM schedule (constrained or unconstrained), the dispatch data will be translated to the RTM
 - a block offer/bid will be separated into a series of hourly offers/bids in RT
- Imports - cannot decrease offer Q in RTM below a DAM scheduled Q without IMO approval
- Imports and exports - no restrictions on changes to price of the RTM offer/bid (but may be subject to surveillance)

DAM schedules do not receive priority for RTM scheduling

- IMO is currently discussing with DAMWG whether this should be changed

Settlement Features of DAM Intertie Transactions

IOG:

- Intertie Offer Guarantee will not be paid in DAM
 - if import arranged in DAM, participant will not be paid IOG in real time
 - no decisions made yet if IOG will continue in the RTM

PCG:

- If an import is selected day ahead to meet reliability requirements (and receives a schedule), and the DAM price is lower than the offer, then the import is held whole through a Production Cost Guarantee
 - PCG is recovered if, in RTM, the import delivers less than the DAM quantity.

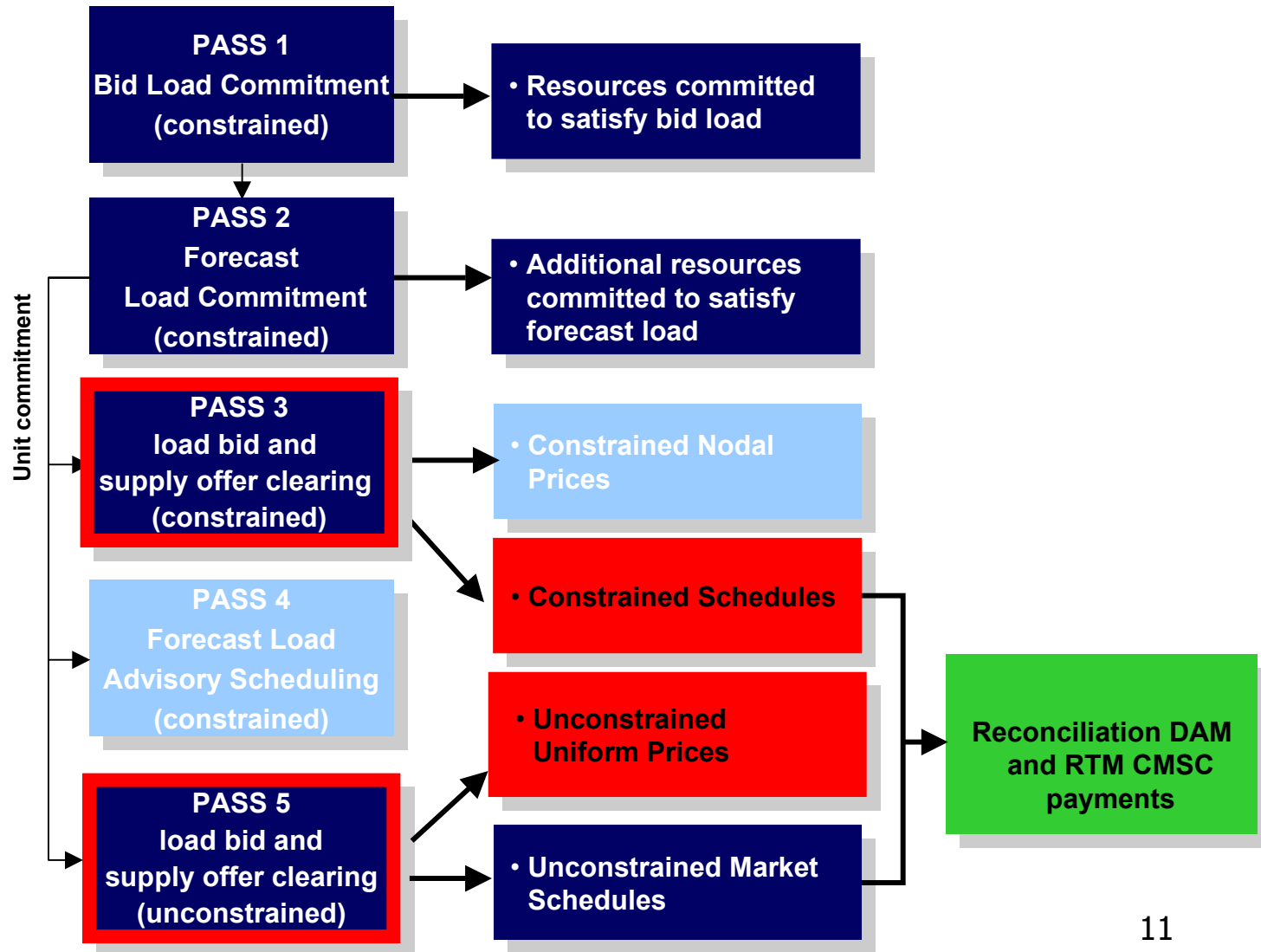
Settlement Features of DAM Intertie Transactions (cont'd)

CMSC:

- an import or export scheduled in the DAM in a manner inconsistent with price will be held whole through DAM Congestion Management Settlement Credit (CMSC)
- balancing CMSC will be determined in RTM for real-time deviations in schedule.

Brief Review: DAM Calculation Engine

- The DAM Calculation Engine performs the functions of commitment, dispatch and pricing
- The Passes include:
 - Bid load constrained commitment
 - Forecast load constrained commitment
 - Bid load constrained dispatch
 - Forecast load constrained dispatch
 - Bid load unconstrained dispatch



Legend:

- Binding Market Calculation
- Informational Only
- Binding Prices or Quantities