

# Second Quarter 2008 External Transaction Changes

Web Conferences  
May 5 & 6, 2008

# Before We Begin

- Turn off your browser's pop-up blocker
- Today's presentation can be found on the ISO Web site at [Support > Training > Course Materials > External Transactions Training](#)
- Open phone lines
- After-session evaluations
- Presenter
  - Cheryl L. Mendrala
    - Principal Engineer, Operations Support Services

# Objective

- To review changes related to External Transactions effective June 2008

# Topics to Be Covered

- Changes to governing documents
- Impact of changes on:
  - External Energy Scheduling (EES) software
  - Reserve Adequacy Analysis (RAA) Process
  - Real-Time processing of External Transactions
  - Energy backing Installed Capacity (ICAP) Imports
  - Day-before checkout process
- Net Commitment Period Compensation (NCPC) changes
- Historical Bid Report for External Transactions

# Basics Understandings

- **DAM Cleared:** Real-Time Energy Market (RTM) Transactions that have cleared the DAM
- **RT Only:** RTM Transactions that have not cleared the Day-Ahead Energy Market (DAM)
- It is possible for a single transaction to have some DAM Cleared Mega-watts (MW) and some RT Only MW, but that will be handled within the software

# Overview of Changes

- Forward Capacity Market (FCM) settlement had a requirement to make ‘external transactions more comparable to internal generation’
- Changes approved by stakeholders include:
  - Priced transactions can change price in the Re-offer Period
  - Transactions that clear the DAM will have priority in RTM scheduling
  - Transactions that did not clear the DAM cannot impact reliability
  - Priced transactions will receive output from the RAA Process similar to internal generation
  - Participants with priced transactions backing ICAP Imports can link OASIS\* reservations 60 minutes before start of transaction  
[Not effective until June 2009]

\*Open Access Same-time Information System

# Governing Documents Affected

- Market Rule 1 and Open Access Transmission Tariff
  - Transactions clearing DAM have priority in RTM scheduling
  - Transactions that did not clear the DAM cannot impact reliability
  - Priced transactions can change price in the Re-offer Period
- Corresponding changes to Manual 11 (Market Operations)
  - Discusses transactions used in the RAA process
  - Discusses interaction of transactions in capacity deficiency and Minimum Generation (Min Gen) conditions (previously in OP 9\*)
- Corresponding changes made to OP 9
  - Details scheduling and curtailment in Real-Time
  - Editorial changes to remove DAM information

\* Operating Procedure 9: Scheduling & Dispatch of External Transactions

# Impact of Changes Effective June 2008

# Impact of Changes on EES Software

- Re-offering Priced Transactions
  - Customer can modify the price of previously submitted RT transaction during Re-offer Period
    - New priced transactions cannot be added
    - MW value can only be modified to zero
  - When price is modified during the Re-offer Period the customer is telling ISO to ignore any DAM cleared MW on the transaction and evaluate the transaction at the re-offer price during Real-Time
- DAM Priced and Self-Scheduled transactions can no longer have a different source and sink
  - Up-to Congestion transactions continue to have a different source and sink

# Impact of Changes on RAA Process

- Transactions considered in the RAA will now include:
  - RTM transactions that cleared the DAM
  - RTM transactions that are backing ICAP Import Contracts, even if they did not clear the DAM
- Additional report will be created with each approved case
  - Each customer that has priced transactions in the RAA will get a non-binding report of how those transactions were scheduled by more recent RAA, comparable to report currently received by internal generation

# Sample of MIS Report

## FI\_RTDISPETIMPORT

Real-Time Dispatchable External Import Transaction Forecast Report						
FI_RTDISPETIMPORT_000000001_2008030500_20080410173919.CSV						
V1U1						
Date: 03/05/2008 and Version: 04/10/2008 17:39:19 GMT						
Dispatchable Import Transaction ID	External ICAP Contract ID	External PNODE	Trading Interval	Price	Requested	Scheduled
Number ▼	Number ▼	String ▼	Hour End ▼	\$/MWh ▼	MWh ▼	MWh ▼

For details, refer to [Market Information Server \(MIS\) Report Formats](#)

# Impact on RT Processing of Transactions

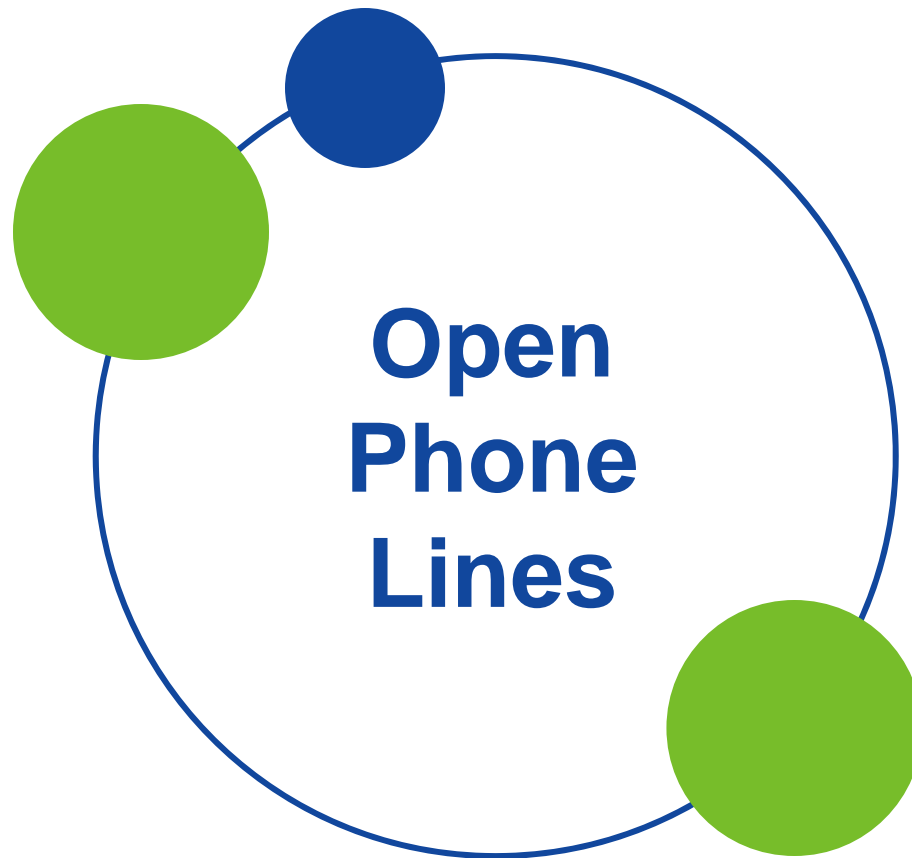
- DA Cleared status of transactions will be considered when there is a tie in transaction priority during normal next-hour scheduling and in-hour reductions on individual interfaces
- DA Cleared status will be the primary consideration during next-hour scheduling and in-hour reductions due to Min Gen Emergency and capacity deficient conditions
- There are no changes to the Ramp Algorithm

# Normal Scheduling of Transactions

- The new concept that transactions clearing the DAM have priority in the RTM can impact the normal scheduling of transactions
- If interface limits are reached during scheduling, the following general rules are applied:
  - **Price** of the transaction is considered first
    - If price equal, **transaction priority** is considered
      - If transaction priority equal, transactions with **DA Cleared** MW will be scheduled before those without **DA Cleared** MW
      - If all of the DA Cleared MW or RT Only MW cannot be scheduled, ties are resolved within each category on either timestamp or pro-rata (same as done today)

# Normal Scheduling of Transactions (cont.)

- If an in-hour reduction is required on a single interface due to a change in transfer capability, the insertion of the DA Cleared MW into the current process is comparable to the scheduling process described in the previous slide, in general:
  - Within a tie of transaction priority, the RT-Only MW will be reduced prior to DA Cleared MW



# Transactions and Minimum Generation Conditions

- As described in Manual 11:
  - Once ISO New England has issued a Minimum Generation Warning, RT Only transactions are subject to reduction in-hour and during next-hour scheduling
  - If the reduction of RT Only transactions is not enough to prevent a Min Gen Emergency, all RT Only transactions will be reduced and current Min Gen procedures will be applied

# Transactions and Capacity Deficiency Conditions

- As described in Manual 11:
  - Once ISO has declared M/LCC 2 ([Master/Local Control Center Procedure No. 2](#)), RT Only transactions are subject to reduction in-hour and during next-hour scheduling
  - If the reduction of RT Only transactions cannot resolve the potential capacity deficiency, [OP 4 \(Actions During a Capacity Deficiency\)](#) will be implemented and current procedures will be used to manage the capacity deficiency

# Transactions and Capacity Deficiency Conditions (cont.)

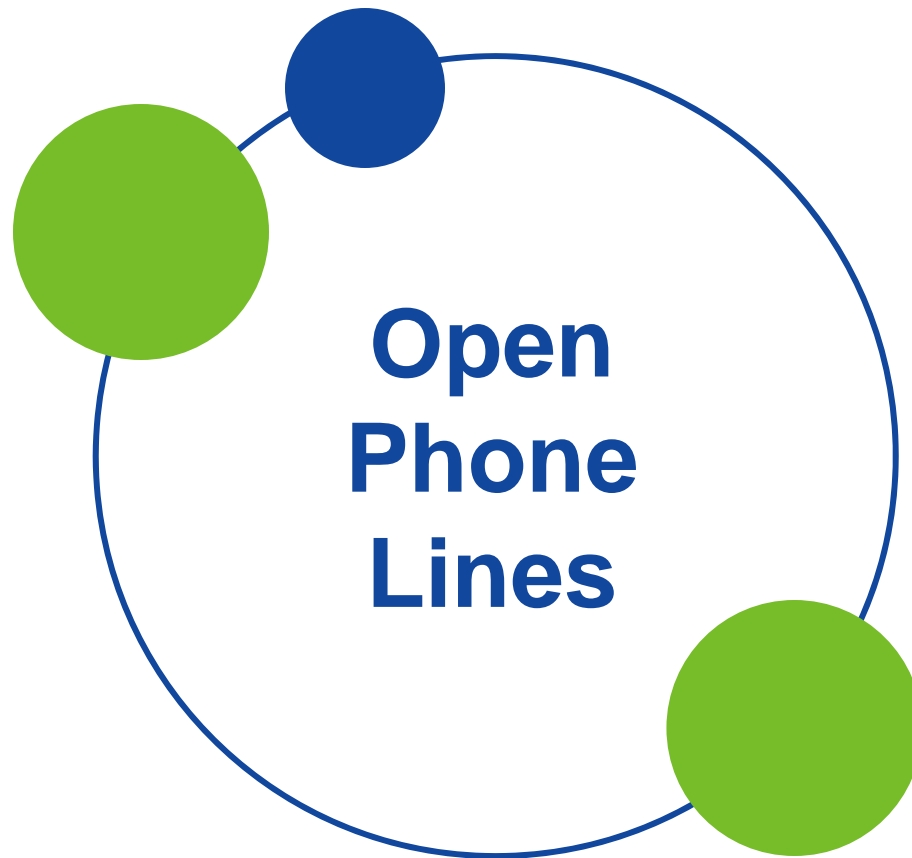
- As done today, when any reduction of exports is requested, the ISO will automatically review all transactions referencing de-listed MW (those transactions flagged as ‘non-recallable’)
  - If the transactions flagged ‘non-recallable’ are not properly backed, they are eligible to be reduced comparable to any other export
  - If the transactions flagged ‘non-recallable’ are properly backed, they are treated comparable to native load

# Impacts on Energy Transactions Backing ICAP Imports

- Energy backing ICAP imports must continue to offer the same transaction type in the DAM and RTM
- Currently, priced transactions that cleared the DAM can be 'bumped' by self-scheduled transactions submitted to the RTM
- Effective June 2008, priced transactions that clear the DAM will be treated as self-scheduled in the RTM
  - The economics of the priced ICAP Import transactions will now be equal to the Self Scheduled (SS) RTM transactions
  - When this set of transactions exceed transfer limits in RTM, transaction priority and timestamp will be used as tie breakers
  - If the ICAP Import transaction was submitted before the SS RTM transaction, it will have priority

# Impact on Day-Before Checkout Process

- Currently, RT transaction timestamp is critical to the scheduling of the transactions
- Effective June 2008, the DA cleared status of the transaction becomes more critical than the timestamp of the transaction.
  - At that time, ISO will eliminate the practice of denying RT transactions that fail the day-before checkout process
  - However, the denial remains in place for self-scheduled transactions backing ICAP Imports
- This will allow customers to submit transactions intended ONLY for the RTM days in advance rather than waiting until after noon the day-before the Operating Day



# Historical Bid Report for External Transactions

# Historical Bid Report for External Transactions

- Historical Bid data will begin to be published in June 2008 for External Transactions with the same timing as for internal generation
  - Information will be presented, hourly, by masked interface
  - Customer information will be masked
  - Both imports and exports will be presented
  - Both DAM and RTM data will be presented

# NCPC Changes

# External Transaction NCPC Changes

- Calculation of Real-Time NCPC for External Transactions has been modified as part of the re-offer changes for External Transactions
  - These changes impact both Priced Purchases (Imports) and Priced Sales (Exports)
  - There are no changes to the calculation of Day-Ahead NCPC for External Transactions

# External Transaction NCPC Changes (cont.)

- Real-Time Priced Transactions will now only be eligible for any incremental MW amount that they are scheduled in RTM for above their DAM cleared amount
  - These changes are conceptually the same changes that were made when generators were allowed to re-offer after having cleared in the DAM

# NCPC External Purchases

## Prior to June 2008

- Calculated across all eligible hours in the operating day
- Credits for Priced DAM External Purchases
  - DA Revenue = DA Cleared MW x DA LMP
  - DA Offer = DA Cleared MW x DA Offer Price
  - DA Credit = DA Offer - DA Revenue; where a negative value is set to 0
- Credits for Priced RTM External Purchases
  - RT Revenue = (RT Scheduled MW - DA Cleared MW) x RT LMP
  - RT Offer = RT Scheduled MW x RT Offer Price
  - RT Credit = RT Offer - (DA Revenue + RT Revenue + DA Credit);  
where a negative value is set to 0

# NCPC External Purchases

Effective June 2008

- Calculated across all eligible hours in the operating day
- No changes to the calculations of Priced DAM External Purchases
- Credits for Priced RTM External Purchases

RT Revenue = (RT Scheduled MW - DA Cleared MW) x RT LMP

RT Offer = (RT Scheduled MW - DA Cleared MW) x RT Offer Price

RT Credit = RT Offer - RT Revenue; where a negative value is set to 0

# NCPC External Sales

## Prior to June 2008

- Calculated across all eligible hours in the operating day

- Credits for Priced DAM External Sales

DA Cost = DA Cleared MW x DA LMP

DA Bid = DA Cleared MW x DA Bid Price

DA Credit = DA Bid - DA Cost; where a negative value is set to 0

- Credits for Priced RTM External Sales

RT Cost = (RT Scheduled MW - DA Cleared MW) x RT LMP

RT Bid = RT Scheduled MW x RT Bid Price

RT Credit = RT Bid - (DA Cost + RT Cost + DA Credit); where a negative value is set to 0

# NCPC External Sales

Effective June 2008

- Calculated across all eligible hours in the operating day
- No changes to the calculations of Priced DAM External Sales
- Credits for Priced RTM External Sales

RT Cost = (RT Scheduled MW - DA Cleared MW) x RT LMP

RT Bid = (RT Scheduled MW - DA Cleared MW) x RT Bid Price

RT Credit = RT Bid - RT Cost; where a negative value is set to 0

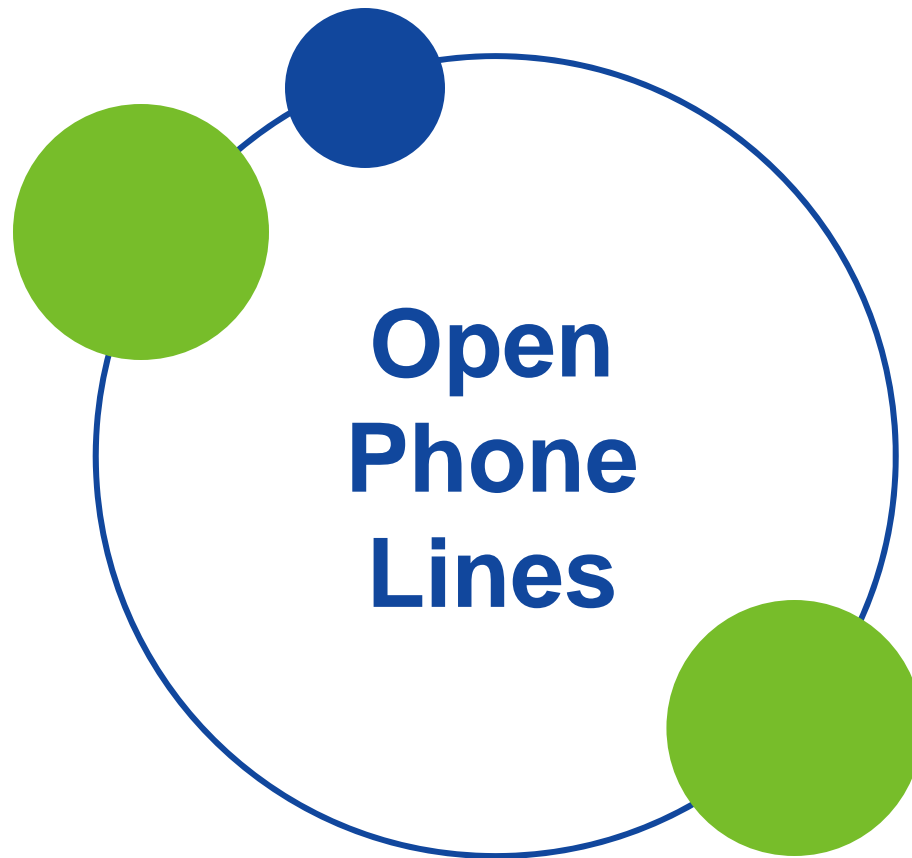
# Summary

# June 2008 Changes

- Transactions clearing the DAM will have priority in the RTM scheduling processes and RT Only transactions cannot cause or worsen a reliability condition
- Priced transactions:
  - Can re-offer, similar to internal generation
  - Will receive a report from the RAA, similar to internal generation
- RT Only transactions that fail day-before checkout will not be denied
- NCPC changes related to the Re-offer of priced transactions
- Historical Bid report for transactions available beginning in June 2008

# References

- Manual 11 – Market Operations  
[ISO Main Web page > Rules & Procedures > ISO New England Manuals > M-11 Market Operations](#)
- Market Rule 1  
[ISO Main Web page > Rules & Procedures > Transmission, Markets & Services Tariff > Section III - Market Rule 1](#)
- ISO New England Customer Service
  - Phone: 413-540-4220
  - E-mail: [custserv@iso-ne.com](mailto:custserv@iso-ne.com)





# Evaluations

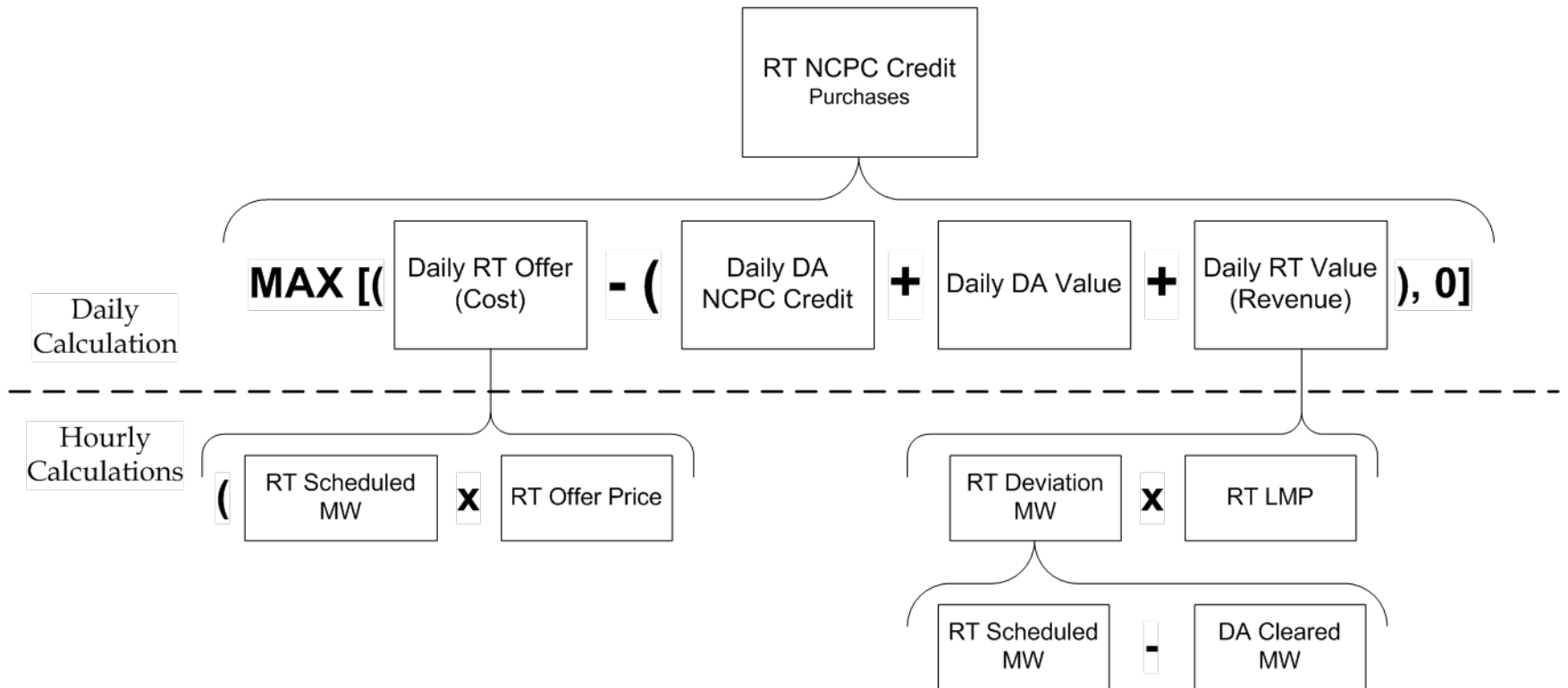
will be e-mailed to all registrants  
for this session

Thank you for taking part in today's session.

# Appendix: NCPC Conceptual Calculations

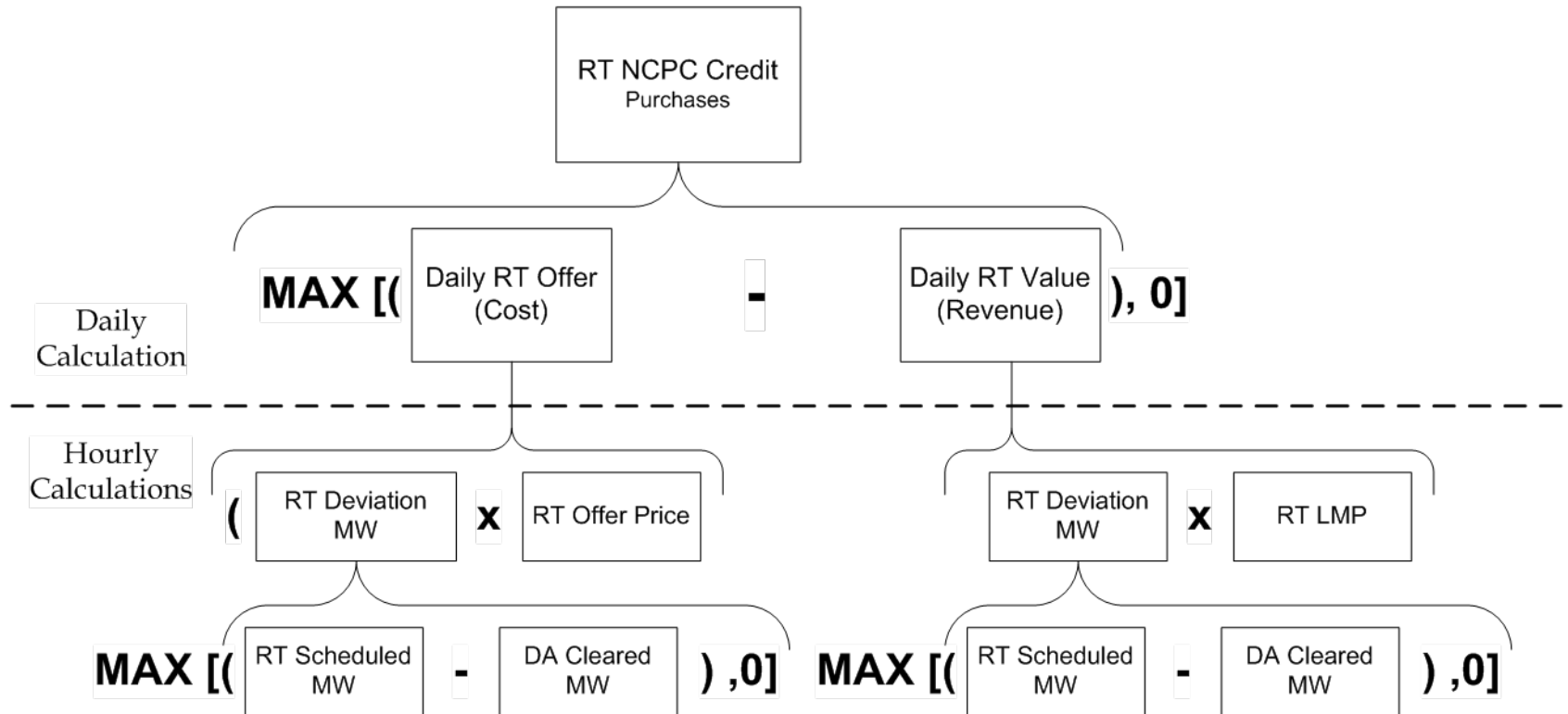
# RT NCPC External Purchases

## Prior to June 2008



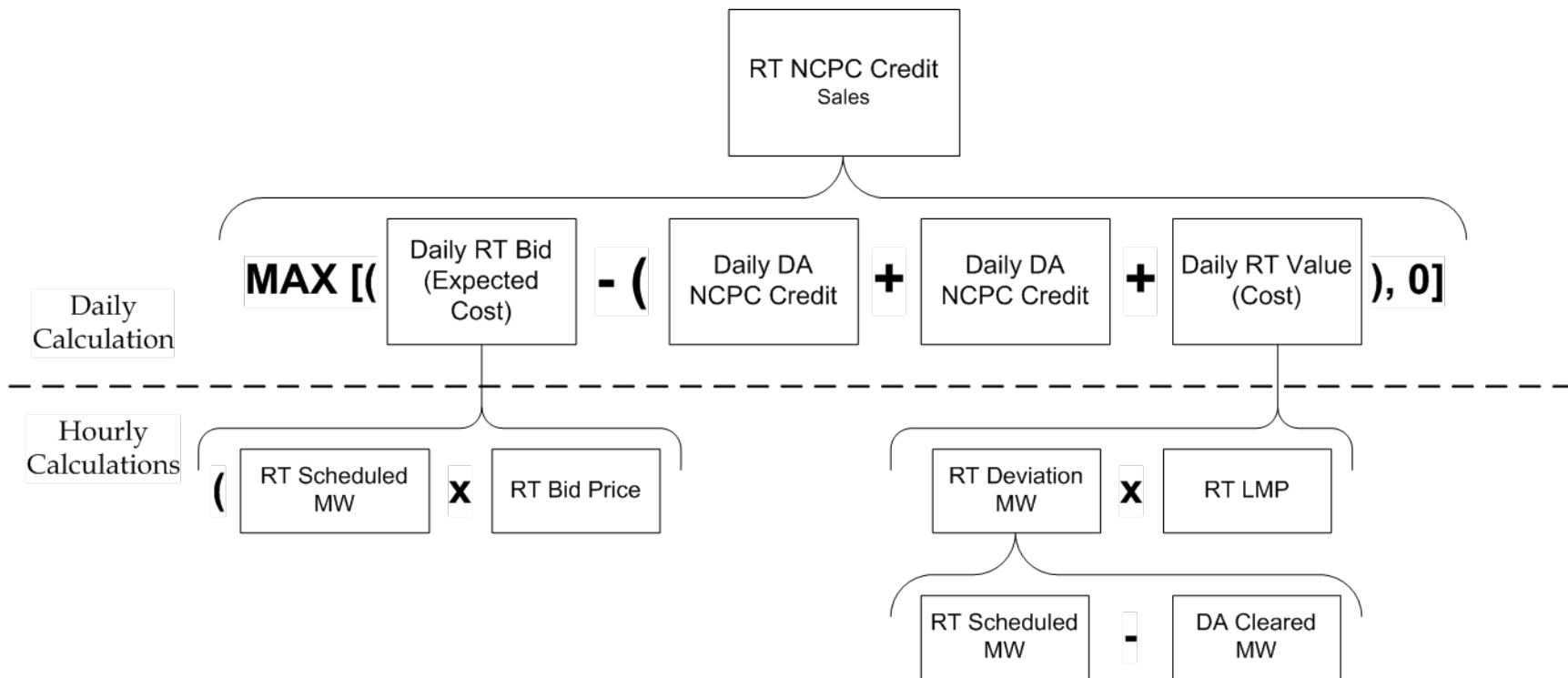
# RT NCPC External Purchases

## Effective June 2008



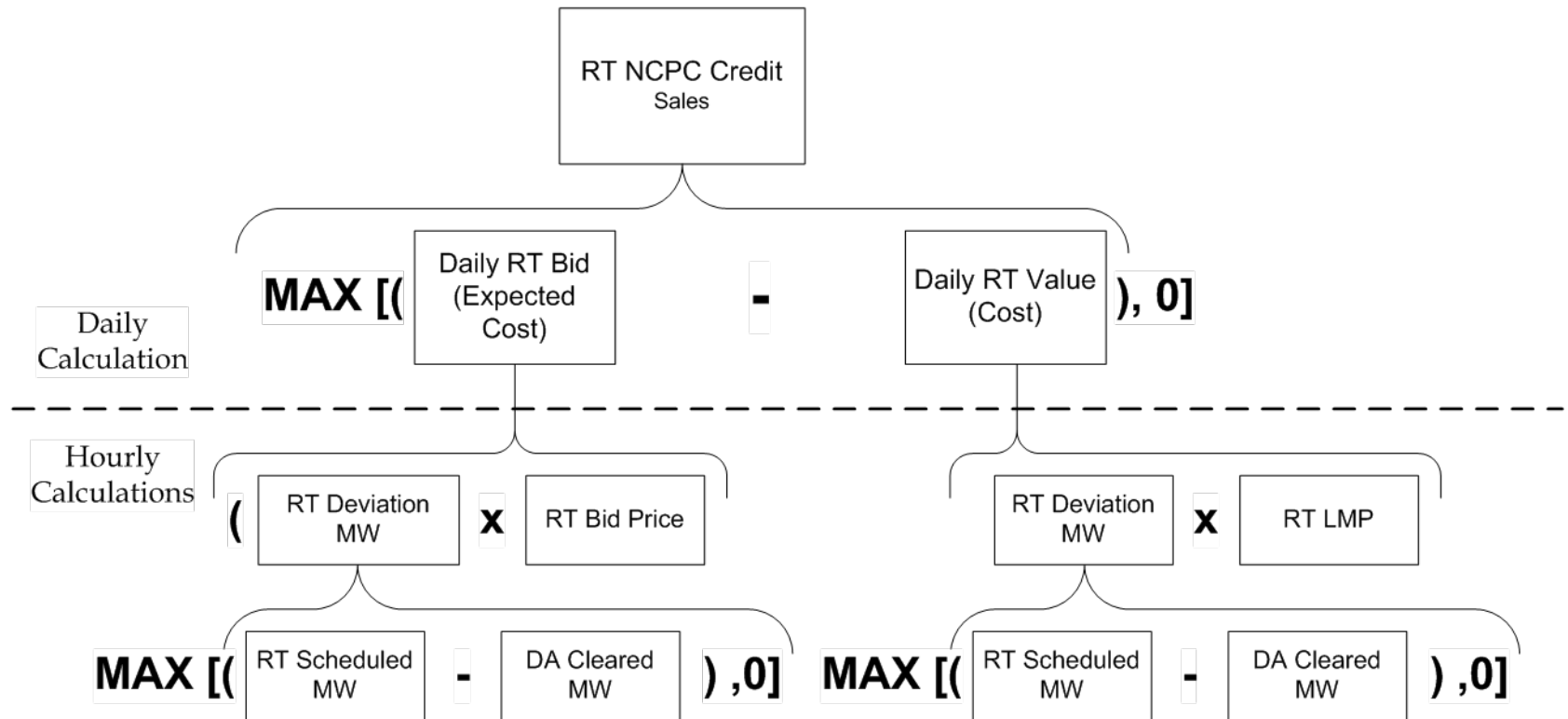
# RT NCPC External Sales

Prior to June 2008



# RT NCPC External Sales

## Effective June 2008



Note: It is assumed all MW values are positive for a sale.