ECAs and the Scheduling, Pricing and Billing of External Transactions in BME and SCD

Presented by Andrew P. Hartshorn

Scheduling and Pricing Working Group

Albany, New York
September 12, 2000

INTRODUCTION

Two ECAs were enacted on September 7th that effect the scheduling, pricing and billing of external transaction.

The two ECAs are:

- ECA 20000907A: Market Design Flaw Regarding HAM Transactions Failing Checkout
- ECA 20000907B: Market Design Flaw Regarding Real Time External Proxy Bus Prices

This presentation will introduce each of the ECAs, discuss why they were created and how they will be implemented.

ECA 20000907A OVERVIEW

This ECA has been put in place to reduce any incentive of market participants to schedule phantom transactions in BME.

Currently, transactions that fail checkout after BME has run face no financial consequences for the checkout failure.

This creates the potential for market participants to use phantom transactions to create or relieve congestion across external interfaces and affect internal real-time prices.

ECA 20000907A OVERVIEW

These phantom transactions can result in:

- Correctly bid and scheduled transactions being cut in real time to maintain net interchange or manage external interface constraints;
- Artificially high real-time prices in New York when scheduled imports fail checkout;
- Artificially low real-time prices in New York when scheduled exports fail checkout.

ECA 20000907A IMPACT

As described in the ECA, external transactions scheduled in BME that fail checkout for reasons within the control of the market participant or that are cancelled at the request of a market participant will face the following potential charges:

- Imports that fail checkout will be charged the difference between the real time price and the BME price (when positive);
- Exports that fail checkout will be charged the difference between the BME price and the real time price (when positive);
- Wheel throughs that fail checkout will be treated as two transactions, an import and an export, and charges will be calculated as described in the preceding two bullets.

ECA 20000907A EXAMPLE 1

A 50 MW import from OH fails the checkout when the BME price for OH is $50 and the real time price for OH is $100:

- The import is charged ($100 - $50) * 50 MW or $2,500.

If the real time price for OH had been $49 no charge or payment would be made.

ECA 20000907A EXAMPLE 2

A 50 MW export from NE fails the checkout when the BME price for NE is $100 and the real time price for NE is $50:

- The export is charged ($100 - $50) * 50 MW or $2,500.

If the real time price for NE had been $101 no charge or payment would be made.

ECA 20000907A IMPACT

No price reservations or corrections are required to implement this ECA.

All adjustments and charges made under the provisions of this ECA will be handled in the billing and accounting systems.

ECA 20000907B **OVERVIEW**

Binding transmission constraints on imports and exports as well as net interchange constraints are honored and priced in BME. However, SCD has does not dispatch external generators and does not price any constraints not affected by internal generators. This can lead to inconsistencies in the way external transactions are scheduled and priced between BME and SCD.

ECA 20000907 has been applied to remove the inconsistencies in such a way that all external transactions bid into BME will settle at Real-Time prices that include the congestion caused by external constraints.

ECA 20000907B **OVERVIEW**

The external constraints that are included in the implementation of the ECA are constraints that can only be relieved by changes in generation or loads at external locations. None of these constraints can be relieved by moving internal generation or load. The constraints include:

- External interface constraints, e.g., PJM - NY, OH - NY, NE - NY, HQ - NY
- DNI constraint - 700 MW hour to hour change
- Any other constraints where only external generation and load have shift factors that relieve the constraints

ECA 20000907B **EXAMPLE 3**

Because BME prices are not used for settlements, and because SCD does not price external constraints, external transactions scheduled in BME do not face the financial consequences of the binding external constraints.

- Consider a situation in which NY is scheduled in BME to export as much energy as it can to PJM and the PJM - NY interface is binding going out.
- If there is load in PJM willing to pay $1,000 to be scheduled in BME and export constraints are binding, BME will schedule generation in PJM to meet this load at a cost of up to $1,000.

ECA 20000907B **EXAMPLE 3 (cont'd)**

If the internal NYCA price in BME and real time is $100:

- the PJM load will buy at $100;
- the PJM generator will receive a real time bid production cost guarantee, in effect selling the generation at $1000;
- the $900 difference is included in real time uplift charges.

ECA 20000907B **EXAMPLE 4**

Consider a situation where the PJM - NY interface is binding on imports but the marginal generator in PJM bid -$3,000 while the internal NYCA price in BME and SCD was again $40.

Under the old pricing rules:

- the PJM generators and loads would have settled their real time imbalances at $40;
- external loads willing to schedule at low prices (between $40 and -$3,000 in this case) will not bid in BME for fear that the real time price will not reflect their willingness to consume energy.

ECA 20000907B **EXAMPLE 4 (cont'd)**

Under the provisions of ECA 20000907B:

- the Real Time PJM price will be set to -$3,000
- any generator or load scheduled Hour-Ahead without a corresponding Day-Ahead schedule will face this price, i.e., the generator will have to pay $3,000 to generate each MW scheduled and load will be paid $3,000 to consume encouraging demand side participation;
- if the real time price happened to fall below -$3000 the Real Time PJM price would be set to the lower of the BME or real time price.

ECA 20000907B MUST RUN BIDS

It is anticipated that ECA 20000907B will, in time, allow the $20,000 "must-run" bid adjustments to become voluntary or perhaps eliminated. If generators scheduled day-ahead have a reservation price below which they would rather buy energy to cover their day-ahead obligation than generate, under the ECA they can more meaningfully bid this in BME.

When an external transmission constraint that impacts their location is binding in BME external suppliers and loads will be guaranteed that the price they receive will be consistent with their bid.

If no external transmission constraint is binding in BME then the external supplier or load will still face some risk that the real time price will be inconsistent with their bids. This is mitigated for external suppliers by the real-time bid production cost guarantees.

ECA 20000907B IMPACT

Under the provisions of this ECA some real time external prices may need to be corrected.

The procedure for correcting these prices is the same as for all other price corrections:

- reserve external prices that are subject to review under the provisions of the ECA within one calendar day
- complete price corrections and post corrected prices within six total calendar days

Billing and accounting will then run using the corrected external prices without the need for any billing code changes.