

## Introduction

The Market Evolution Program's (MEP) held several breakout sessions at the February 18 Market Advisory Council. The questions, which formed the basis of the discussion, are listed at the end of this document. The following summarizes the major themes and concerns raised by stakeholders as heard by the IMO.

## Day Ahead Market

Stakeholder input:

- Acceptance of the IMO's recommendation not to pursue the day ahead financial market (Option 1) for the summer of 2003
- The first point does not rule Option 1 out as a potential solution with a later implementation date
- If Option 1 is not pursued, consider phasing in the financial commitment feature of Option 2 or 3 if it can be done sooner than the additional features these options offer (such as unit commitment)
- It is difficult to imagine, based on the currently available information and the short timelines (4-5 weeks), that stakeholders can make a commitment to any of the Options by the March Board meeting; there are still too many unanswered questions
- Need more information on how other day ahead markets in the Northeast operate
- Be careful about assuming the degree to which participants are currently hedged
- Any solution needs to have convergence with adjacent markets (simplify participation through similar tools, rules and processes)
- Any recommendation to the Board should be based on a business case model that shows the benefits of the chosen option and accurately reflects the cost to the marketplace and the IMO
- There should be a concerted effort to promote the benefits of a day ahead market, particularly to loads
- Regardless of the solution, a successful day ahead market depends on educating the marketplace

## Multi-interval Optimization

The first part of the session focussed on gaining an understanding of the current 5-minute optimization and its impact on both price and dispatch. Stakeholders then provided the following input:

- Aggregation issues need to be considered as this initiative is explored
- Use weighting factors in the calculation, since the further out the algorithm looks the greater the uncertainty

- Use a penalty function during optimization
- Calculate anticipated 5-minute prices for the rolling 12 intervals in the future and publish them as an additional price predictor for the marketplace
- What will be the effect of multi-interval optimization on the gap between pre-dispatch and real-time prices?
- Dispatch advisories
  - Could use web exchange, with code for each meaning
  - Any advisory should be readable by a computer for participants that have automated their processes to respond to dispatch instructions

Other messages received by the IMO:

- There is a need to better explain how the dispatch algorithm co-optimizes energy and operating reserve
- The marketplace needs a better understanding of the issues that is initiative is meant to address versus those addressed by a day ahead market

### **Wholesale/Retail Integration**

The discussion focused on the first question:

*In general terms, which aspect of your organization's business has been most adversely affected by issues spanning the boundary between the Wholesale and Retail market?*

Stakeholder response was clearly aligned and consistent around three major issues:

- Cashflow problems
- The need to review/revise prudential requirements
- The need for a clear definition of the role of LDCs in the market

Other points raised by stakeholders:

- The number and complexity of compliance reporting procedures is excessive
- IMO and OEB should have a more consistent, coordinated set of rules
- OEFC should be included in the process
- It is difficult to get clarification on the rules (Bill 210)
- Rules give no incentive for load responsiveness
- IMO may not necessarily have a role to play in demand side management
- There are problems keeping some systems up to date
- The use of interval meters needs to be promoted if we want to see retail demand response; this requires regulatory support and consumer education

- A day ahead market could result in further workload for LDCs; any move to implement a day ahead market should include a cost/benefit assessment

## Resource Adequacy

Discussion focussed on defining what long term vs. short term meant and how these mechanisms interact, general stakeholder ideas on resource adequacy, and the impact of the recommended short term adequacy mechanisms on supply/demand and price. An overview of the procedural vs. automated implementation of Hour Ahead Dispatchable Load was also given.

### Short Term vs. Long Term

- Short term adequacy measures are those achievable by this summer
- Short term adequacy solutions should not impede the development of long term solutions

### Distributed generation

- The price cap under Bill 210 effectively:
  - Reduces available resources: ~50 MW of load displacement generation that no longer has an incentive to operate
  - Prevents another potential 350 MW (OEA estimate) of distributed generation from being realized

### Peaking generation

- There continue to be disincentives to the installation of peaking plants; investors must be allowed to realize sufficient profit during peak times to make their investments worthwhile (with 30% capacity factor)
- US experience suggests that peaking plants can be installed in ~ 9 months, if there is incentive to do so

### Generation incentives

- There must be a long term mechanism to incent new generation; the return to service of any currently laid-up nuclear generation only defers the problem

### Demand

- Demand response will not take place until LDCs are given some incentive to participant
- IMO should more actively pursue educating loads on the potential benefits of becoming a dispatchable load

A question was raised regarding the three short term adequacy measures being pursued for this summer; response follows.

*Has the IMO performed any analysis of the impact of these measures on supply, demand and price?*

#### Emergency Demand Response Program

- Not activated last year
- A few hundred MW, which is only activated as a last measure before non-dispatchable load is shed
- Market price will have already reached its scarcity value by the time these loads are cut

#### Hour Ahead Dispatchable Load (HADL)

- Participant survey estimated of 300-500 MW of potential participation, but many responses were conditional so actual number may be much lower
- Should cause downward pressure on price as less load needs to be served
- Should reduce IOG, but similar mechanism available to HADL participants (e.g. HADL are in competition with imports)

#### Replacement energy during outages

- Allows generators to take scheduled outages with replacement energy from an import
- Could result in increased IOG in the short term, but will avoid potential for much higher IOG and market prices if taking the scheduled outage avoids a forced outage during a peak period, i.e., without the replacement energy mechanism, a generator could suffer a forced outage in July because it was unable to carry out planned maintenance in May

An overview of manual versus automated implementation of Hour Ahead Dispatchable Load (HADL) was given:

- Both automated and manual processes use price/quantity offers in pre-dispatch to determine schedule and communicate it to participants the hour before the dispatch hour

#### Automated

- Model HADL loads in tools
- Participants submit price/quantity information through the Market Participant Interface (MPI) in the pre-dispatch scheduling timeframe analogous to imports/exports

#### Manual

- Submit price/quantity information via email to IMO
- Schedule communicated back to participants via email

## Questions

### *Day Ahead Market*

1. Do you support the IMO proceeding with the development of a Day Ahead Unit Commitment Market ( option 2 ) or a Day Ahead Physical Market (option 3)?
2. What benefit would a Day Ahead Unit Commitment model have for you?
3. What benefit would a Day Ahead Physical model have for you?
4. Would you prefer a Day Ahead Unit Commitment or Day Ahead Physical Market model?
5. Are there additional options for a DAM beyond what has been proposed in the discussion paper?
6. Would you be willing to participate in a working group to help further define the DAM design?

### *Multi-interval Optimization*

1. Do you agree that the IMO should proceed with the implementation of Multi-interval Optimization?
2. What benefit would you like Multi Interval Optimization to have as a:
  - Dispatchable generator
  - Dispatchable load
  - Non Dispatchable load
  - Self Scheduler

### *Wholesale/Retail*

1. In general terms, which aspect of your organization's business has been most adversely affected by issues spanning the boundary between the Wholesale and Retail market?
2. Specifically keeping in mind your answer to question # 1, what in your view has been the single largest contributing factor to the wholesale/retail problems faced by your organization?

Examples:

- Lack of alignment between wholesale and retail rules
  - Poor technical interface between wholesale/retail business processes and systems
  - Overall complexity of working in two markets at the same time
3. Has Bill 210 had any impact on the scope and severity of the wholesale/retail boundary issues faced by your organization? How?
  4. What specific suggestions would you have regarding the types of solutions that the IMO should be seeking - assuming the governing rules of both the wholesale and retail markets could be changed to allow for such solutions
  5. All things considered, how important are such issues to your organization, relative to other initiatives currently being explored by the IMO Market Evolution Program?

### *Resource Adequacy*

1. What other potential mechanisms exist to address short-term resource adequacy?
2. With regard to the hour-ahead dispatchable load, would this mechanism become less attractive from a user perspective if it were implemented procedurally?