



NOTICE TO MARKET PARTICIPANTS AND STAKEHOLDERS

Date: September 10, 2010

Re: Market Participant Offer Behaviour: Illustrative Examples

This document collects a number of illustrative examples intended to provide more clarity for market participants on the MSA's two recent discussion papers: Foundational Elements and Analytical Framework. The examples form the basis for discussion at the MSA's stakeholder workshop on September 17, 2010.¹

The examples are not intended to be a comprehensive description of good and bad conduct, nor are they intended to highlight particular concerns held by the MSA. Some examples have been developed in response to comments made at the Stakeholder session on June 25, 2010 or in response to the comments received on both discussion papers.² We have also worked with a few market participants to try to make the examples as realistic as possible and ensure that they address areas where clarification would be helpful.

As drafts to stimulate discussion in a stakeholder workshop they should not be held as a binding statement of MSA enforcement policy. We are hopeful that the workshop and stakeholder comments will lead to further refinement to be reflected in a final document providing guidance to market participants

The examples follow a common format:

- A preamble describing in broad terms the conduct at issue
- A description of a simple fact pattern, intended to be something observable by the MSA that potentially raises an issue under the FEOC provisions (legislation and regulation).
- A discussion of the course of action the MSA would take in looking at a matter and how it would be addressed in different circumstances.

¹ http://www.albertamsa.ca/files/Notice_Workshop_Sept_17_083110.pdf

² <http://www.albertamsa.ca/1161.html>

References to the MSA's two discussion papers are abbreviated FE = Foundational Elements and AF = Analytical Framework.

The examples cover a number of issues, grouped under the two broad categories introduced in the Analytical Framework paper: 1) unilateral (also called vertical) effects and 2) coordinated (also called horizontal) effects.

- Unilateral Effects
 - Economic withholding
 - Other Unilateral Conduct

- Coordinated Effects
 - Collusion and Conscious Parallelism
 - Load buying groups and arrangements between generators and loads

This categorization is important because it underlines the difference the MSA sees between both the evidentiary burden and potential remedies. Collusion among sellers regarding prices and output is a *per se* offence under the *Competition Act*.³ Unilateral behaviour is looked at as a 'rule of reason' matter, in other words a weighing of the facts to determine competitive harm.

Having noted this, we expect the discussion at the workshop will focus on the analytics and competition principles identified in the examples – a give and take on when and why the MSA becomes concerned with marketplace behaviour and what actions it would take.

³ Buying group agreements are not treated as *per se* matters.

1 Economic Withholding

The MSA has used the term ‘economic withholding’ to describe the situation where a market participant offers a generator at a price such that other higher cost generators are dispatched instead (FE, Section 3.1, p.7). Such a situation results in a loss of allocative and productive efficiency (collectively ‘static efficiency’). The MSA has stated that losses in static efficiency might be expected in Alberta’s market design and are acceptable if the result is an overall gain in market efficiency (dynamic gains outweigh static losses. (FE, Section 3.1, p.8). The MSA has made it clear that a strategy aimed at raising the Pool price through economic withholding or lowering it by offering below cost, is not, by itself, going to be challenged. Further, the MSA has stated that it will monitor behaviour of this kind but only begin to be concerned if there is evidence that the market participant undertook additional actions to prevent or impede competitive response, what is referred to as abusing market power.

Market participants have requested examples of these ‘additional actions’. The combination of any action that impedes competitive response with an economic withholding strategy would likely be considered as unacceptable. In this section, we consider two further cases where there is no additional action to impede competitive response but still a potential for a large loss of efficiency and hence a cause for concern. In each case, the MSA adopts a consistent approach of reporting, monitoring and, where there is systematic behaviour and a continuing concern, taking additional action.

Note that while the descriptions that follow focus on unilateral conduct, the MSA would also be considering whether the circumstances suggest coordinated behaviour with other market participants. For ease of exposition the MSA’s assessment of coordinated behaviour is address in separate examples.

1.1 ECONOMIC WITHHOLDING: MUTED COMPETITIVE RESPONSE WITHIN THE T-2 WINDOW

ISO rule 3.5.3.3 prevents source assets, importers and exporters from making price restatements within two hours of a settlement interval (also known as the T-2 lockdown). While loads can still respond during this period competitive response is muted by the existence of the rule. This may cause losses in both static and dynamic efficiency.

1.1.1 Fact Pattern

Participant A adopts an offer strategy for HE14 – HE16 inclusive, moving 300MW from a level currently in merit (\$50) to a range of prices price currently out of merit (between \$400 and \$500). In HE17, Participant A returns to the previous offer of \$50. The resulting Pool Price for HE14-HE16 is between \$400 and \$500. During the hours HE14-HE16 there is sufficient space on the intertie for additional imports. The average Pool price for other hours in the month is \$62/MWh.

1.1.2 Discussion

As described, this event would not raise an issue under section 6 of the *EUA* or section 2 of the FEOC Regulation. The MSA would log the event and include a description in its next Quarterly Report on a no-names basis. It would be catalogued as an exercise of market power and an implicit loss of static efficiency associated with the T-2 lockdown. Participant A would be given an opportunity to comment on whether the description is factually correct or there are other relevant circumstances that should be noted. For example, it may offer some plausible evidence that the opportunity cost of the 300 MW had increased perhaps because of anticipated higher prices in Alberta or surrounding markets that did not materialize. Alternatively, it may simply decline to comment. The MSA would categorize and roll up events of this nature as part of a periodic scorecard on health of the market. Unless this was later seen as part of the evidence in support of a breach of the *EUA* or the FEOC Regulation, Participant A would not be named.

In evaluating the conduct of Participant A, the MSA does not consider that it represents conduct that is prohibited by Section 2 of the FEOC regulation or in conflict with section 6 of the *EUA*. Taking advantage of the existence of the T-2 rule would not be construed as ‘circumvention’ (FEOC Reg., **subsection 2(k)**). There is nothing in ISO rule 3.5.3.3 that addresses, directly or indirectly, a market participant’s freedom to change its offer price before the 2 hour lockdown. The inability of the competitors to respond is a function of the rule and not the result of a barrier created by Participant A. For this same reason the MSA would not view the action of Participant A as conduct that prevents or hinders competitors from responding (**subsection 2(h)**).

A single event of the type described in the fact pattern would not be pursued as ‘manipulating’ within the meaning of **subsection 2(j)**. On the basis of a single

incident it is difficult to conclude that the prices had been moved away from “a competitive market outcome”. As stated in the FE paper: “...market prices would need to be moved a large amount over a short period of time, or a smaller amount over a long period of time away from levels suggested by fundamentals.” By itself the 3 hour price event would have raised the average monthly Pool price by less than \$2/MWh⁴ and the (static) productive efficiency loss would also likely be small even if the replacement energy was high cost.

Persistent conduct by Participant A and repeated outcomes where competitive response is muted would imply a significant efficiency loss. The MSA would be particularly concerned if a single, or small number of participants, were able to demonstrate control over market outcomes in a large number of hours. In such circumstances the MSA believes that the fidelity of the price signal would be harmed resulting in adverse consequences for dynamic efficiency.

To determine the size and cause of an ongoing efficiency loss the MSA would deploy a variety of metrics, such as those outlined in the AF. For example:

- Is there a relationship between a participant being pivotal and successfully carrying out an economic withholding strategy within T-2?
- To what extent are prices related to the ‘supply cushion’ and other fundamentals?
- To what extent did load respond to the withholding strategy?

The MSA would consider the static efficiency loss attributable to the direct conduct and whether there was evidence to support the likelihood of competitive responses over a longer time horizon. The MSA would also recognize that in some circumstances a competitive response might compound rather than relieve efficiency loss. For example, if the conduct of Participant A was repeated but not predictable it might occasion importers to increase volumes in all hours. Such an import strategy may be profitable overall, consisting of occasional high profit hours and small losses in most other hours – implying an efficiency loss.

The MSA would also consider whether persistent conduct was “manipulating” as per **subsection 2(j)**. In doing so, the MSA would consider the subsection’s meaning as described in the FE paper (Section 4.1), i.e. whether the conduct:

⁴ Assuming 720 hours in a month, with an average price in all but three hours of \$62/MWh and pool price of \$450 for 3 hours would raise the month average price by approximately \$1.60/MWh.

- *“controls or manages an outcome”* - If Participant A repeated the essential elements of the behaviour described in the fact pattern on several occasions with a similar effect on Pool price, it would be consistent with Participant A controlling or managing outcomes. On the other hand, if it had implemented the same action on a number of other occasions and failed to move the price (e.g., because of a timely response from competitors), it would probably not support a finding that Participant A was manipulating the Pool price.
- *was intentional* - dramatic changes in offer strategy, for short periods of time (coinciding with the T-2 parameters), on a repeated basis, that are profitable to Participant A all point to an intent to move the Pool price. The MSA would consider any evidence that changes in offer strategy was motivated by other factors (e.g. operational constraints), ; and
- *moves price away from a competitive market outcome* - offer prices higher (or lower) than the estimated marginal cost of the generator are a necessary but not sufficient condition. Evidence on whether outcomes were consistent with a competitive market would be analytical in nature - considering the range of prices typically associated with similar market fundamentals (supply cushion, fuel prices, inertia ATC, outages etc.). Drawing on the fact set above, if the typical Pool price for a large sample of peak hours with similar fundamentals was in the \$60-100/MWh price range, there would be a rebuttable presumption of divergence from “a competitive market outcome”.

Assuming the matching of evidence with the tests outlined above does not disclose an obvious breach, but faced with an ongoing and serious efficiency loss, the MSA would assemble the necessary analysis and evidence and take other action, e.g., present a case for rule change. The MSA understands the requirement for the T-2 lockdown is to enhance visibility for the System Controller. A shorter lockdown period might be considered that preserves much of this visibility and reduces the period during which competitive response is muted. Improvements in AESO business practices may also reduce impediments to competitive response, for example an improved price forecast might signal a forthcoming episode of withholding and allow a quicker market response.

1.2 ECONOMIC WITHHOLDING – PIVOTAL PARTICIPANT COMBINED WITH SIGNIFICANT WITHHOLDING

1.2.1 Fact Pattern

Participant A offers 1000MW of energy at a price of \$900 setting system marginal price. During the period of this offer strategy there is a supply cushion of 800MW (i.e. 800MW remain undispached in the merit order) of which 500MW is controlled by Participant A. There is no un-utilized import ATC. Historical observation suggests supply cushions of 800MW are usually associated with prices significantly lower than \$900. Participant A takes no other action to impede or otherwise prevent market response.

1.2.2 Discussion

The fact pattern described above represents a situation whereby a large market participant has adopted a simple, if large, withholding strategy. The fact pattern suggests that if all out of merit participants other than A offered at less than \$900 there would be no change in the resulting market price. Participant A is not taking any additional actions to impede or prevent competitive response but relying on the size of the strategy to dominate the response of others. Given a sufficiently long portfolio position for Participant A such a strategy might remain profitable.⁵

The fact pattern suggests Participant A has not taken any action to impede or hinder competitive response. Consequently, there appears to be no breach of **subsection 2(h)**. In circumstances where this was less clear the MSA might undertake enquiries to satisfy itself that competitive response was indeed unimpeded.

As with the previous example, a single event of the type described in the fact pattern would not be pursued as “manipulating” within the meaning of **subsection 2(j)**. On the basis on a single incident it is difficult to conclude that the prices had been moved away from “a competitive market outcome” and the loss of efficiency associated with an isolated event is likely small. The MSA would follow its standard protocol described earlier, that is, log the event and include a

⁵ Assuming a price of \$90 would exist with Participant A’s MW being fully dispatched the withholding strategy would be profitable with a long position of X MW when, in the absence of supplier response $\$900/\text{MWh} * (X-500) \text{ MW} > \$90/\text{MWh} *(X)\text{MW}$ or $X > 555\text{MW}$, and would remain profitable even if all other suppliers responded when $\$900/\text{MWh} * (X-800) \text{ MW} > \$90/\text{MWh} *(X)\text{MW}$ or $X > 888\text{MW}$.

description in its next Quarterly Report on a no-names basis. It would be catalogued as an exercise of market power and an implicit loss of static efficiency.⁶ Participant A would be given an opportunity to comment on whether the description is factually correct or there are other relevant circumstances that should be noted. Alternatively, it may simply decline to comment. The MSA would categorize and roll up events of this nature as part of a periodic scorecard on health of the market. Unless this was later seen as part of the evidence in support of a breach of the EUA or FEOC regulation, Participant A would not be named.

Persistent or repeated outcomes would suggest an ongoing efficiency loss. The MSA would use a similar framework outlined in the previous example again deploying metrics and analysis to understand the event and its impact. In this case the MSA is likely to examine the number of hours in which Participant A has found itself in a similar pivotal situation. The MSA may also examine to what extent a participant increased or decreased its long position prior to an event. The MSA would consider whether persistent conduct was “manipulating” as per **subsection 2(j)**. Absent evidence of such conduct the MSA would assemble the necessary analysis and evidence and present a case for change. Since the strategy outlined in the fact pattern does not rely upon rules but rather on size, MSA would consider the case for a change in market structure to enhance competition.

⁶ There would be a productive efficiency loss if the withheld generation was replaced by higher cost generation. There would be a loss of allocative efficiency if at the less than the prevailing price other generators would have wished to produce. For further discussion, see FE, Section 3.1.

2 Other Unilateral Conduct

2.1 OPERATING RESERVES: IMPACT OF CANCELLED TRADES

The MSA has observed that Operating Reserve markets are both complex and are frequently the subject of stakeholder concerns around competition.⁷ In some instances cancelled trades end up influencing market clearing prices. The MSA does not consider this a good feature of the market and in some cases might be viewed as ‘manipulative’.

2.1.1 Fact Pattern

The AESO attempts to procure all of its requirement for a particular kind of active operating reserves one day before delivery (D-1), bidding \$0 for 150MW. Shortly before close Participant A offers 146MW at -\$1000 and Participant B offers 4MW at \$-2000, Participant C offers 10MW at -\$100. Only Participant A and B offers are required to meet the AESO’s requirement and the trade price is -\$500 (the mid point between the bid of \$0 and the last required offer of -\$1000). Subsequently, Watt-ex cancels the trade in accordance with its rules since the volume is less than 5MW (minimum that the ISO will dispatch).

2.1.2 Discussion

The MSA believes market participants should not offer volumes in operating reserve markets with the intent of the trade being cancelled. Such a practice may be harmful to competition and may be a circumvention of the rules. Isolated instances of intentional cancelled trades are unlikely to impact dynamic efficiency but neither do they appear to have legitimate purpose.

Should the MSA observe the fact pattern above it may seek an explanation from Participant B as to the intent of its offer. The likelihood of the MSA seeking such an explanation would increase if the conduct appeared to be repeated, material or if other market participants submitted a complaint.

If the conduct appeared minor (for example, resulted from an error inputting the offer by Participant B) the MSA may consider publishing a summary of the event and providing guidance on market participant behaviour (e.g. in a Quarterly Report).

⁷ MSA Report, *Operating Reserves Procurement – Understanding Market Outcomes*, September 16, 2009

The MSA would consider whether rules / business practices could be changed to facilitate competition. In this case the AESO is currently reviewing the Operating Reserves market design. The MSA would likely monitor this process and advocate for changes that would remove or mitigate the impact of cancelled trades on procurement prices or volumes.

If the conduct appeared to be repeated and/ or material in nature the MSA would consider whether the conduct was contrary to either Section 6 of the EUA or more specifically the provisions of the FEOC Regulation. Given the Fact Pattern above two provisions may be relevant, subsection ‘manipulating’ **2(j)** and ‘circumvention’ **2(k)**.

In evaluating whether the actions of Participant B could be construed as a ‘manipulating’ as per **subsection 2(j)** of the FEOC regulation the MSA would consider the subsection’s meaning as described in the FE paper (Section 4.1), i.e. whether the conduct:

- *“controls or manages an outcome”* - If Participant B repeated the essential elements of the behaviour described in the fact pattern on several occasions with a similar effect, it would be consistent with Participant B controlling or managing outcomes. On the other hand, if there were a timely response from competitors that rendered Participant B’s strategy ineffective, it would probably not support a finding that Participant B was manipulating the operating reserve prices.
- *was intentional* – the MSA would consider: whether the actions of Participant B were consistent with competitive behaviour. Was the conduct of Participant B explained by an input error, if so the MSA would not expect to see repeated behaviour.
- *moves price away from a competitive market outcome* - The MSA would also need to find effect. Evidence on whether outcomes were consistent with a competitive market would be analytical in nature – for example considering the range of operating reserve prices and market shares typically associated with similar market fundamentals (available supply, expectations of Pool Price etc.).

2.2 TIMING OF INTERTIE SCHEDULING

Intertie scheduling is governed by a series of business practices whereby market participants must complete certain steps in accordance with strict timelines. For the BC intertie, this timeline is summarized in Figure 1. The existence of timelines may create opportunities for market participants to restrict or prevent competitive response. In the MSA's view market participants that use timelines to their advantage or to the detriment of competitors may be failing to support *fair, efficient and openly competitive* market operations.

2.2.1 Fact Pattern

Import ATC for hour ending X is 400MW and Export ATC is 0MW. Prior to T-2, Participant A offers to import 200MW and Participant B to export 200 MW.

Participant A submits an e-tag for the import shortly before the gate closes at T-20 minutes. At this time, 200MW of exports are now possible but there is insufficient time for Participant B to submit an e-tag for the offered export.

2.2.2 Discussion

Should the MSA observe the above fact pattern it would seek to quantify whether there had been a loss of static efficiency, i.e. how outcomes would have differed had the export flow occurred. In the event of significant impact the MSA would consider publishing a summary of the event and the relevant circumstances (e.g. in a Quarterly Report).

While the issue has been raised by a number of market participants, at the current time the MSA has not documented a systematic problem. Absent this the MSA would refrain from issuing guidance and/or advocating for rule change. Should a systematic problem be documented a number of possibilities would be considered, including:

- Are initiatives possible that would relieve the constraint on competition (i.e. for increasing export ATC)?
- Would rule changes result in an increase in efficiency? For example, would a rule whereby importers were required to schedule by T-25 to

allow exporters the last five minutes before gate close be efficiency enhancing, or would it be more likely to deny import flows.⁸

- Would MSA guidance be likely to hinder or enhance competition and overall efficiency (for example, if the MSA suggested that market participants should enter e-tags as soon as reasonably possible would this enhance competitive response or ‘chill’ otherwise efficient flow).

With evidence of a systematic problem that appeared material in nature, the MSA would also consider whether the conduct was contrary to either Section 6 of the EUA or more specifically the provisions of the FEOC Regulation. Given the Fact Pattern above two provisions may be relevant, **subsection 2(h)** and **2(j)**.

Subsection 2(h) would require an examination as to whether competitive response had been impeded - while the MSA believes ‘intent’ is not required it is relevant to what remedy the MSA might seek, i.e. absent ‘intent’ other remedies, such as those listed above, would be more likely.

Depending on the specific circumstances the MSA might also evaluate whether the actions of Participant A could be construed as ‘manipulating’ per **subsection 2(j)** of the FEOC regulation. In doing so, the MSA would consider the subsection’s meaning as described in the FE paper (Section 4.1), i.e. whether the conduct:

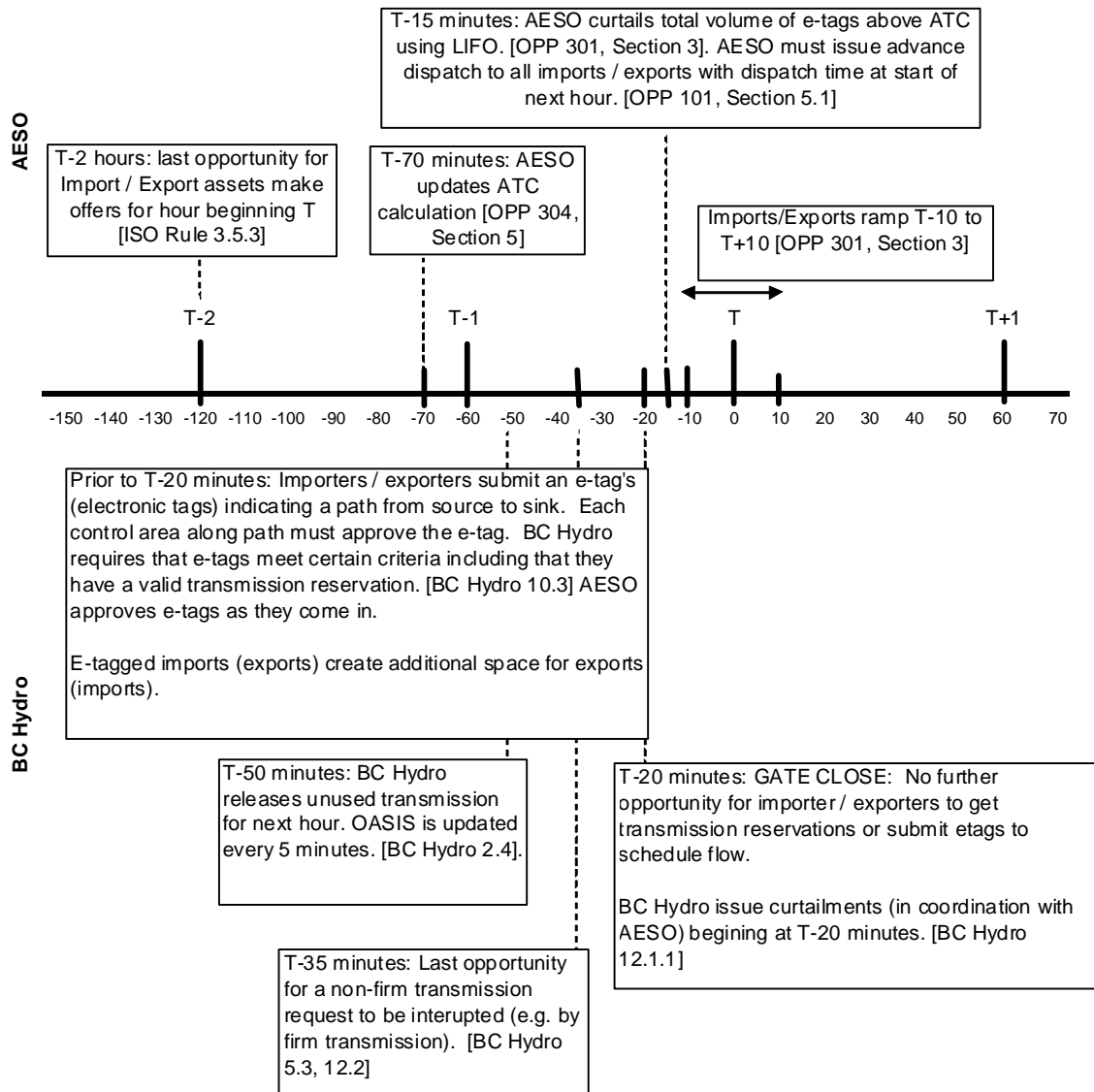
- “*controls or manages an outcome*” - If Participant A repeated the essential elements of the behaviour described in the fact pattern on several occasions with a similar effect on Pool price, it would be consistent with Participant A controlling or managing outcomes. On the other hand, if it had implemented the same action on a number of other occasions and failed to move the price (because of a timely response from competitors), it would probably not support a finding that Participant A was manipulating the Pool price.
- *was intentional* – the MSA would consider: What impediments Participant A would face in scheduling imports earlier. Could Participant A reasonably foresee a benefit from preventing exports?⁹ Was the conduct repeated?

⁸ Such a rule would be presumably only apply in instances where there was insufficient export ATC to facilitate flow and could be symmetric in the sense that if import ATC was constrained exporters would be required to schedule by T-25.

⁹ We note that an importer expecting to profit from an arbitrage opportunity between the source and the Alberta market is incented to provide the maximum opportunity to exports, since any additional exports would increase the Alberta Pool Price. An importer hoping to benefit a short portfolio position in Alberta has the opposite incentive.

- *moves price away from a competitive market outcome* - The MSA would also need to find effect. Evidence on whether outcomes were consistent with a competitive market would be analytical in nature – for example considering the impact had exports occurred and the range of prices typically associated with similar market fundamentals (supply cushion, fuel prices, intertie ATC, outages etc.).

Figure 1: AESO / BC Hydro Intertie Scheduling Timeline



References:

- BC Hydro *Open Access Transmission Business Practices*, (July 2, 2010) (http://transmission.bchydro.com/transmission_scheduling/business_practices/)
- ISO Rule 3.5.3
- OPP101 Dispatching the Energy Market Merit Order (Effective 2010-03-03)
- OPP 301 Alberta-BC Interconnection Scheduling (Effective 2009-05-28)
- OPP 304 Alberta-BC Interconnection Transfer Limits (Effective 2010-01-22)

3 Coordinated behaviour: Collusion and Conscious Parallelism

The MSA's Analytical Framework paper noted that the Alberta spot market, in particular, may be susceptible to coordinated behaviour [AF, Section 3.2].

Subsection 2(h)(i) of the FEOC Regulation prohibits “a market participant directly or indirectly colluding, conspiring, combining, agreeing or arranging with another market participant to restrict or prevent competition.”

Stakeholders have requested some additional definitions and examples to help clarify the MSA's views. In the Analytical Framework the MSA noted three types of coordinated behaviour, we define these as:

- **Collusion:** presence of an explicit agreement (written or verbal) either directly between two or more parties or facilitated without direct contact by a third party (a hub and spoke conspiracy); agreement could be written or verbal in form.
- **Tacit Collusion:** in the case of tacit collusion the agreement is unspoken but implied by one participant's signaling, or other similar conduct, and is inferred or understood by the co-conspirators.
- **Conscious Parallelism:** describes the situation whereby a participant independently adopts a common or accommodating strategy with only an *expectation* or awareness of their competitors' responses.

In the following sections we consider four illustrative examples.

3.1 COORDINATED OFFER BEHAVIOUR

3.1.1 Fact Pattern

Participant A offers blocks of energy out of merit in a relatively narrow range. Participant B also offers a number of blocks of energy, some slightly higher and some slightly lower than Participant A. The combined impact of the offers is such that SMP is set at a level where some but not all of A's and B's reoffered blocks are dispatched. This pattern is observed to persist over time without A or B undercutting the offers of the other.

3.1.2 Discussion

Observation of the above fact pattern is sufficient to raise an issue, since ex-post it appears individually both Participant A and B could have been better off undercutting the other (offering slightly lower to increase dispatch and presumably profits at expense of the other). While potentially of concern, the above fact pattern is not sufficient to describe a situation of explicit or tacit collusion. For example, the lack of competition may have resulted from impediments to competition (e.g. restrictions on the ability to restate) or it may have been the case that Participants A and B had other reasons to independently adopt similar strategies.

To test a hypothesis that the fact pattern was the result of collusion the MSA would look for additional evidence, such as:

- Were the actions of Participant A and B inconsistent with short run profit maximizing? Could either participant have made significant short run profits from undercutting one another? Were the opportunities for undercutting observable?
- Did the conduct persist for a long period of time despite changes in market fundamentals and portfolio positions?
- Did the two participants have unique opportunities to coordinate behaviour, e.g., through a PPA relationship, joint ventures elsewhere, the hiring of the other firm's senior staff, etc.
- Did the participants engage in strategies aimed at disciplining others or otherwise encouraging the continuation of the behaviour? For example:
 - (1) Participant A observes Participant B undercutting its offers by a few dollars for the last few hours and decides to drop all of its offers to \$0 with the expectation of a resulting Pool Price below both A and B's costs. A repeats this strategy whenever B deviates from the fact pattern described above.
 - (2) Participant A and B have both been following the above fact pattern for a number of hours. Participant B experiences a unplanned outage leaving it a net purchaser in the Pool. Both Participant A and B offer at cost until Participant B's unit returns to service. At this time both return to the above fact pattern.
- Was there evidence of signaling that would support a hypothesis of an agreement? For example:
 - (1) Participant A offers a small block of energy out of merit at exactly \$250, Participant B observes this and places a similar small block of

energy at \$250.01. Two hours later both participants offer much larger volume around \$250 as described in the fact pattern above. Absent an alternate explanation for the offer strategy the MSA may consider this evidence of signaling.

- (2) A trader at Participant A calls a trader at Participant B to enquire whether they have power for sale at \$250 three hours from now, even though expected supply demand conditions would suggest a significantly lower price. No transaction is concluded. Both Participant A and B enter offers for three hours time around a price level of \$250.

The AF notes that the MSA may choose different methods of resolving matters depending on whether they involve explicit conspiracies or tacit collusion [AF, Section 3.2, p.5]. In the case of collusion with an explicit agreement the MSA has noted it would likely refer such a matter to the Competition Bureau. Cases involving possible tacit collusion are likely to be pursued by the MSA. For obvious reasons the MSA would not publish the results of its efforts to detect coordination while examining a particular matter. Once matters of potential concern were resolved the MSA would seek to share its conclusions through its regular reporting.

In cases of conscious parallelism (i.e. absent evidence of agreement among competitors) the MSA would not seek sanction against any market participant.

The MSA would track events to determine whether there was a significant and repeated loss to efficiency. Particular events may be a candidate for the MSA's regular reporting (e.g. in the Quarterly Report). In the event that conscious parallelism results in material harm to competition and/or efficiency the MSA would still act although not in a manner punitive to the market participants. The MSA approach would be tailored to the circumstances. The MSA would assemble the necessary analysis and evidence examining the case for a change in market rules, change in information available in the market or a change to market structure. The MSA would forbear from acting only if there was persuasive evidence that problem was temporary i.e. that the market will be subject to competition sufficient to protect the public interest [AUCA 57(1)].

3.2 COORDINATED BEHAVIOUR AND POWER PURCHASE ARRANGEMENTS

In Decision 2010-293 the Alberta Utilities Commission (AUC) ruled that Power Purchase Arrangement owners and buyers were not required to have an order from the AUC pursuant to section 3 of the FEOC Regulation in respect of records

relating to excess energy and increased capacity so long as the requirements of the PPA were followed. The MSA believes market participants that are parties to PPAs still need to be aware that in some circumstances such sharing may give us grounds to investigate whether the sharing breaches **subsection 2(h)** of the FEOC regulation.

3.2.1 Fact Pattern

Participant A, a Power Purchase Arrangement (PPA) owner provides Participant B, a PPA buyer, with details of its offers for excess energy in accordance with a Power Purchase Arrangement. The MSA observes that the offers in Participant A and Participant B's portfolio appear to be coordinated.

3.2.2 Discussion

The MSA accepts that the communication between Participants A and B is necessary to facilitate the PPA. Coordination between PPA participants is of no greater concern than other types of coordinated behaviour, other than there are:

- pre-existing lines of communication as a result of the PPA; and
- PPA participants are typically large and likely to possess market power, meaning that coordination could have a larger impact.

As part of its regular monitoring activities, the MSA would look for patterns indicating possible coordination between the offer strategies of market participants. Where the MSA believes the apparent coordination cannot be explained by independent responses to market forces it would likely investigate to determine the cause for the apparent pattern following the general approach described in the previous example. Similarly, enforcement action would depend on the circumstances of the case involved.

During an investigation into coordinated effects involving a PPA should the MSA find that Participant A and B had safeguards in place to protect the information being shared (e.g. Participant B had decided upon its strategy prior to receiving communications for A, and/or Participant B's staff receiving information from A were not involved in deciding strategy for B), the MSA would likely be able to swiftly resolve the matter. While such organizational separation would be sufficient to alleviate the MSA's concern other evidence that strategies were set independently would be considered on its merits.

3.3 OUTAGE SCHEDULING

Information about upcoming outages is provided in aggregate and on an anonymous basis on the AESO's website through the *Short Term Outage* and *Monthly Outage* graphs. Additional information on the forthcoming supply demand situation is provided in the *Year End Supply Demand Projection*. Subject to the requirements of the AESO rules regarding submission of outage information, the MSA believes market participants are free to take into account this information when deciding on whether to change future planned outages. In the following examples the MSA considers a different fact pattern where two participants coordinate outages.

3.3.1 Fact Pattern

Participants A and B begin planning maintenance outages for some of their units. In separate discussions with an independent service provider who would carry out key aspects of their equipment overhaul, Participant A learns that Participant B has already tentatively reserved the service provider for most of A's planned outage. Participant A contacts Participant B and offers to pay it \$25K if it will change its reservation time slot. B accepts and the result is that non-conflicting maintenance outages are rescheduled.

3.3.2 Discussion

In general the MSA would be concerned by direct or indirect (e.g. through the independent service provider) arrangements that caused outages to be changed. Such arrangements would be scrutinized to see if the conduct was inconsistent with **subsection 2(h)** of the FEOC regulation. The MSA would examine the two elements outlined in the AF (Section 3.2. p.6). With the fact pattern above the MSA would have sufficient evidence to conclude that there was an 'agreement' (the first element). Further analysis would be required to support a conclusion that the agreement was directed at restricting or preventing competition (the 'naked restraints' described in AF, section 3.2).

3.4 RESTRICTING OR PREVENTING COMPETITION: UNDUE INFLUENCE

As a matter of principle market participants should avoid talking to competitors about current or future offer strategies. Discussions of high level strategy that are restricted to long term strategy at joint ventures such as deciding whether to participate in ancillary service markets are considered acceptable. More specific

communications could form the basis for suspicion of collusion. The final example considered in this section provides a fact pattern of a different kind – a case where there is no collusion but there is an attempt to unduly influence a competitor.

3.4.1 Fact Pattern

Participant A observes a particular strategy being followed by Participant B. Staff at Participant A calls Participant B to advise them that if they continue the strategy they will report them to the MSA.

3.4.2 Discussion

The MSA would view the above fact pattern as potentially an overture to enter into coordinated behaviour and would monitor carefully to see if subsequent actions and market outcomes would support such a theory.

Alternatively, the direct contact by Participant A may be interpreted as an effort to unduly influence competition and restrict the competitive response of Participant B, contrary to **subsection 2(h)**. Again, the MSA would monitor if subsequent actions and market outcomes would support such a case.

Should A suspect that B is engaging in inappropriate conduct the obvious course of action is to report it to the MSA. By the same token, if Participant B perceives the communication as an attempt to alter its competitive behaviour it should report it to the MSA.

Participant A is also free to adopt a countervailing strategy as a competitive response. If Participant A believes its opportunities are restricted by the market design it is encouraged to bring that to the attention of the MSA and/or the AESO.

4 Load Buying Groups and Arrangements between Generators and Load

The MSA's *Analytical Framework* commented that joint purchasing arrangements and buying groups were deemed by the Competition Bureau as permissible in instances where the arrangement does not result in monopsony power.

Monopsony power is defined as the ability to decrease the price of a relevant product below competitive levels with a corresponding reduction in the overall quantity of the input produced or supplied in a relevant market, or a corresponding diminishment in any other dimension of competition.¹⁰

Some market participants have requested clarification on the MSA's views. The MSA notes that joint purchasing arrangements and buying groups are typically not subject to the same constraints that apply to coordination between suppliers. Transactions by buying groups in the forward electricity market present few concerns since load groups are unlikely to possess monopsony power. Understanding whether the operation of load buying groups in electricity spot markets has a harmful or beneficial effect on competition is more complex. The MSA is unaware of any such arrangements currently in place and is able to provide little guidance without a specific arrangement to consider.

To further discussion, the MSA has provided two fact patterns and corresponding views. For purposes of illustration we have considered a number of possible arrangements between loads and whether there are similar arrangements possible between generators and loads. Arrangements between generators and loads are expected and in almost all cases would pose no concerns for competition.

4.1.1 Fact Pattern and Discussion

1) Load Participants A, B and C form a buying group in the forward market to purchase energy. In aggregate the load participants are looking to purchase 100MW in each hour of a year.

Based on the above fact pattern the MSA would conclude that the conduct is consistent with a FEOC market. The aggregate of A, B and C is not large relative to the size of other buyers and sellers in the forward market. The MSA is likely to conclude that A, B and C do not have monopsony power and are unable to alter

¹⁰ <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03177.html>, section 3.10

prices below competitive levels or otherwise lessen competition. Consequently the MSA would conclude that there was no breach of **subsection 2(j)**. While A, B and C have an arrangement or agreement there is no suggestion that this is intended to restrict or prevent competition and consequently not in breach of **subsection 2(h)(i)**.

2) Load Participants A, B and C collectively form a buying group in the forward market and purchase 100MW of power in each hour of the year. Subsequently, they come to the arrangement that the purchased power will be resold to the Pool in the event SMP is above \$300 for more than 20 minutes. None of the members of the group are required to curtail. The proceeds of the sale are distributed among the buying group.

As in the previous example the MSA would find the forward market purchase would to be acceptable. In examining the real time arrangement the MSA would consider the impact on efficiency. Based on the above fact pattern, A, B and C are still free to consume power at the prevailing Pool price if they wish to do so. For this reason there is unlikely to be any harm to allocative efficiency. Productive efficiency is also not impacted.

The arrangement is essentially a financial one and similar to one where a market participant would purchase energy from a generator subject to a 'call' option. The MSA is of the view that the development of financial products in the Alberta market has the potential to increase overall market efficiency. Absent any evidence that arrangements would restrict or prevent competition or otherwise be part of "manipulating" the MSA would conclude this is acceptable. 'Call' options within the Alberta market remain unusual and are likely to be monitored by the MSA as part of our general assessment of market health.