

## Stakeholder Comment Matrix

### Supply Surplus Discussion Paper

**Date of request for comment:** May 20, 2010

**Period of consultation:** April 29, 2010 – May 20, 2010

**Stakeholder:** ATCO Power

| Section                                       | Subsection | Stakeholder Comment   |
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| <b>2.0 Purpose</b><br><b>3.0 Introduction</b> |            | <p>ATCO Power questions the need to implement a Short Term solution. Our strong preference would be to focus on a sustainable Long Term solution.</p> <p>AESO has existing administrative processes in place to address supply surpluses. The central issue that arises from their anticipated greater use is not their effectiveness but rather that their administrative nature results in inefficient and unfair outcomes. In our view, while changing these procedures may result in different outcomes, at their core, the need remains for directing participants to take actions that are not in their interests and that they would not otherwise take. Different administrative procedures are unlikely to be “fairer” or measurably more efficient. Our focus and recommendations therefore are directed at facilitating the market’s ability to voluntarily clear.</p> |

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| <p><b>4.0 Supply Surplus Principles</b></p>                        | <ul style="list-style-type: none"> <li>• Are there any principles that are missing, that should be included? Please include reasons why.</li> <li>• Are there any principles listed that should not be included? Please include reasons why.</li> </ul> | <p>ATCO Power believes that the following principle should be changed:<br/> <b>b) Supply surplus rules should be drafted so that they <u>facilitate competition and reduce undue barriers to entry</u>;</b><br/> Competition is the result of a variety of factors and it is outside of the AESO’s mandate to look for ways to increase competition. The obligation on the AESO is to ensure that there are no undue barriers to competition.</p> <p>In the comment on principle <b>d)</b> the AESO limits the scope of this consultation by stating that <i>Market redesign is not part of the scope of this project</i>.</p> <p>ATCO Power agrees that expanding the range of potential solutions beyond those that would address the core issue – how to balance load and supply – does not appear to be justified. Potential solutions should reasonably include both administrative procedures and use of the EMMO.</p> <p>Resorting to administrative procedures should be a distant second choice to use of the EMMO. The basis for this discussion is AESO’s anticipation that absent change, it will be increasingly necessary. In ATCO Power’s view, neglecting to properly consider how we might avoid the need to do this is a significant deficiency of the discussion paper.</p> <p>Expanding the offer floor and thereby allowing participants greater flexibility in their offers should not be viewed as a prohibitive market re-design. If they do not wish to take advantage of that flexibility, they can simply choose not to.</p> |
| <p><b>5.0 Supply Surplus Conditions – contributing factors</b></p> | <p><b>5.1 Historical Analysis</b><br/> <b>5.2 Upcoming Considerations</b></p> <ul style="list-style-type: none"> <li>• Are there any other factors that are not</li> </ul>  | <p>ATCO Power believes the current misalignment between settlement and dispatch to be one of the contributing factors to supply surplus conditions. The current compensation methodology dilutes the value of</p>   |

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|  | <p>mentioned or considered in the paper that may contribute to or exacerbate supply surplus conditions? Please include reasons why.</p>          | <p>the SMP signal by averaging the price over the one hour settlement interval. This results in the reasonable expectation of suppliers that they will actually receive a positive price for their electricity which reduces the signal to curtail generation voluntarily. The alignment of settlement and dispatch should therefore be considered as one of the options and could further be used in combination with other solutions.</p> <p>ATCO Power would like to reiterate that the AESO should deal with situations that have the potential to exasperate current issues around supply surplus during the planning stage to the extent that they are foreseeable.</p>  |
| <p><b>6.0 Current Supply Surplus Rules</b></p> | <p><b>6.1 Market Participation Rules</b></p> <ul style="list-style-type: none"> <li>• Please provide comments on the rule assessment.</li> </ul> | <p>ATCO Power’s preferred option to address supply surplus conditions is the introduction of negative pricing. To the extent that administrative solutions are still required at the new price floor we support the listed rules and OPPs assuming the \$0 price is replaced with the new market price floor and the following additional comments.</p> <ol style="list-style-type: none"> <li>1. ATCO Power believes it inappropriate for flexible blocks to carry a greater burden than inflexible blocks. To the extent that the pro-rata curtailment of flexible blocks results in individual curtailments in excess of the size of inflexible blocks, those blocks should be included in the curtailment.</li> <li>2. ATCO Power agrees with the AESO that dispatch compliance is enforced separately and does not have to be a step within the supply surplus rules.</li> <li>3. Agreed</li> <li>4. ATCO Power believes this step to be unnecessary. If negative pricing is properly implemented participants have the opportunity to differentiate between minimum stable and otherwise inflexible generation and the AESO should treat any remaining inflexible blocks at the price floor as such. ATCO Power believes that a (time-based) pro-rata curtailment for</li> </ol> |

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|  |   | <p>these blocks is appropriate.</p> <p>a) ATCO Power believes that general exceptions are undesired and potentially counter to FEOC. On the other hand we recognize that the current rules do not properly allow market participants to price their operational constraints. ATCO Power’s preferred solution would be to institute negative pricing to let the market clear (<b>Principle a</b>). Until such time ATCO Power believes that administrative rules are required that do not unduly disadvantage facilities with differing operational constraints. Given the complexities around cogeneration facilities a blanket exemption might be the best solution in this case (<b>Principle g</b>).</p> <p>b) Similar to a) above except that ATCO Power can not comment on the complexities surrounding wind generation facilities which might allow for a more refined inclusion in the rules in case negative pricing is not adopted.</p> <p>c) ATCO Power believes that the AESO should not curtail intertie transactions based on a forward view of price. If a supply surplus situation occurs it is appropriate that the AESO curtails imports in realtime.</p> |
|  | <p><b>6.2 Operating Policies and Procedures</b></p> <ul style="list-style-type: none"> <li>• Please provide comments on the rule assessment.</li> </ul> |  |
| <p><b>7.0 Supply Surplus Workgroup results</b></p> |   | <p>ATCO Power would like to provide the following comments on the recommendations:</p> <ol style="list-style-type: none"> <li>1. Including wind power and cogeneration facilities in OPP 103 without allowing for an adequate way to reflect their economics disadvantages these facilities.</li> <li>2. See 3</li> <li>3. It is ATCO Power’s belief that in essence all constraints are effectively economic constraints. Instead of creating an artificial</li> </ol>  |

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|  |   | <p>and overly complicated set of rules to determine which constraints are more operational than others the AESO should allow participants to price their constraints and let the market determine the outcome.</p> <p>4. See 3</p> <p>5. ATCO Power does not believe that it is useful to create a definition for different grades of flexibility. It is more useful to allow for proper price differentiation.</p> <p>ATCO Power believes it to be premature to discuss details of a curtailment protocol.</p> |
| <b>8.0 Comments on MOF Recommendation paper for Wind</b>         |   | <p>ATCO Power would like to reiterate that effectively all limitations are economic and as such participants just need the ability to properly price them to solve the issue. Barring this the AESO should recognize that participants face different economic constraints and exemptions might be an appropriate way to handle these.</p>  |
| <b>8.1 Minimum Operating Level and Minimum Stable Generation</b> | <ul style="list-style-type: none"> <li>• Is it appropriate to implement MOL when we already have MSG? Please provide reasons why or why not.</li> <li>• Please provide comments on possible modifications to the existing MSG definition and its' application.</li> </ul> | <p>See comments on 8.0</p>  |
| <b>9.0 Supply Surplus Rule Options</b>                           |   | <p>ATCO Power believes it to be inefficient to have both a Short Term and a Long Term rules consultation. The AESO has not justified a need for an accelerated process and as such it is appropriate to just look at proper long term solutions.</p>  |
| <b>9.1 Long Term Options</b>                                     |   | <p>In addition to the listed Long Term options ATCO Power would suggest to pursue the alignment of settlement and dispatch as this prevents the market price signal from being diluted. This would address other concerns as well. For example the complicated Quick Hits rules around payments to suppliers on the margin would become superfluous and price sensitive loads would see a clearer price signal. This option should</p>  |

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|  |   | be pursued in addition to other long term options.  |
|  | <b>9.1.1 Market rules for wind generation</b>               | ATCO Power agrees with the AESO that ISO rules must treat generators fairly regardless of their fuel type. An important measurement of <i>fairness</i> is to ensure that the negative effects on all generators are comparable. As such <i>equal</i> treatment does not necessarily equate to <i>fair</i> treatment. Rules for wind generators should be carefully examined with this in mind.  |
|  | <b>9.1.2 Voluntary Generator Curtailment Program (VGCP)</b> | In ATCO Power’s opinion a VGCP program would create perverse incentives that would aggravate the original problem. Low priced generation would see an incremental revenue opportunity by offering additional generation at \$0 to then become eligible for an out of market payment. In addition, just like any administrative solution, a VGCP would result in inefficient outcomes, a transfer of wealth, and disturb the investment signal. As such ATCO Power opposes this option.  |
|  | <b>9.1.3 Negative Prices</b>                                | <p>ATCO Power prefers an introduction of negative offer prices to address supply surplus issues. Since the sentiment of the paper and the feedback from the AESO during the stakeholder session discourage this option we would like to discuss this in greater detail.</p> <p>The first argument concerns the increased frequency of negative prices in Ontario since 2006.</p> <ul style="list-style-type: none"> <li>• There is no <i>right</i> number of negative price hours but instead the number is determined by market conditions. As such ATCO Power questions why this presents an area of concern to the AESO.</li> <li>• The AESO states that the generation mix in Ontario is different than in Alberta and that <i>off-peak demand has decreased, while off-peak supply has grown</i>. Given these circumstances the high number of negative prices is to be expected. The reduction in off-peak demand signals that less baseloaded supply is required on the system. This is contrasted by the presumably baseloaded supply that was added to the system (increase in off-peak</li> </ul> |

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|  |  | <p>supply). This miss-match between required and installed supply-mix should result in a high number of negative hours. Given that <i>the frequency of negative prices in Ontario has been aggravated by generators incented by their contract design to produce in all hours, regardless of market conditions</i> and that <i>Ontario manages their long term adequacy issues through programs to attract generation by providing standardized prices through multi-year contracts</i> it is not unlikely that regulatory bodies incented the wrong generation mix and that the increase in negative pricing is a direct consequence of this. None of this should be an issue in Alberta's electricity market.</p> <p>The AESO cites that there has been a decline in average electricity prices in the past couple of years due to factors like a decline in the economy and gas prices. The AESO then continues that a further reduction in average prices due to negative pricing could cause long term adequacy issues. ATCO Power believes that the underlying logic (lower average prices = lower investment = adequacy concerns) is flawed.</p> <ul style="list-style-type: none"><li>• If the economy declines electricity demand decreases and electricity prices fall. This is a direct consequence of the increased oversupply which obviously would not result in adequacy concerns.</li><li>• A decline in gas cost – just like any other change in costs for individual generation types – results in a different optimal supply mix. In this case the market should contain more gas plants than currently installed and the reduced prices will send exactly this signal. There is no reason to believe that this would have an impact on long term adequacy.</li><li>• Negative pricing by its nature effects only plants that are still running when prices today would hit the \$0 floor today. These inflexible or baseloaded units are the only ones affected. In</li></ul> |
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|  |  | <p>essence the market sends a signal that the current supply mix contains too many of these plants at the moment. The long term outcome would not be a reduction in overall supply but a change in the supply mix.</p> <p>The AESO further voices the concern that instead of addressing the problem the result of a negative price floor might be that all the current \$0 volume would move to the new price floor creating no additional separation. While this is a possible outcome, the likelihood would be directly dependent on the new floor level. It is ATCO Power’s understanding that current wind generators actually have a true negative variable cost in the -\$15 range. Given our understanding of the flexibility of these units ATCO Power would expect even a moderately negative floor to already separate out these units. A further decrease in the floor for example up to the negative equivalent of the price cap (-\$999.99) should result in increasing separation which should alleviate the AESO’s concern.</p> <p>The AESO presents further <i>cons</i> of a negative pricing solution in the table in section 9.3. As the comment matrix does not include a comment section for this we are including our comments in this section.</p> <ul style="list-style-type: none"> <li>• <i>Imports</i> – Currently imports just like exports are price takers and as such are priced at the floor/cap respectively. Decreasing the floor to include negative pricing would not change this and importers would offer at the new floor. In addition to sending a stronger and better signal to importers in supply surplus situations this would also levelize the risk exposure of importers and exporters.</li> <li>• <i>Implementation Practicality</i> – While ATCO Power recognizes that there are costs to implementing a negative price floor we do not believe the initial costs to be significantly higher than the cost</li> </ul> |
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|                               |  | <p>for other solutions. In the long run ATCO Power would expect a market based solution to be significantly cheaper than an administrative solution.</p> <ul style="list-style-type: none"> <li>• <i>Price Boundaries</i> – While ATCO Power considers it worthwhile to evaluate all price boundaries we believe different boundaries to have separate effects. For example the price floor affects only the supply mix while the price cap only affects long term adequacy. As such we do not foresee a reason to delay the implementation of negative pricing due to other pricing boundaries.</li> </ul>   |
| <b>9.2 Short Term Options</b> | <ul style="list-style-type: none"> <li>• The paper provides an example of a supply surplus management procedure within this section. Please provide comments on suggested order of the procedure.</li> </ul> |   |
|                               | <p><b>No exemption for wind generators under OPP 103</b></p> <ul style="list-style-type: none"> <li>• Are there any points that the AESO has not considered within it's assessment in Table 3?</li> </ul>    | <p>ATCO Power believes that general exceptions are undesired and potentially counter to FEOC. On the other hand we recognize that the current rules do not properly allow market participants to price their operational constraints. ATCO Power's preferred solution would be to institute negative pricing to let the market clear (<b>Principle a</b>). Until such time ATCO believes that administrative rules are required that do not unduly disadvantage facilities with differing operational constraints. ATCO Power can not comment on the complexities surrounding wind generation facilities which might allow for a more refined inclusion in the rules in case negative pricing is not adopted.</p> |
|                               | <p><b>No exemption for co-generators under OPP 103</b></p> <ul style="list-style-type: none"> <li>• Are there any points that the AESO has not considered within it's assessment in Table 3?</li> </ul>      | <p>ATCO Power believes that general exceptions are undesired and potentially counter to FEOC. On the other hand we recognize that the current rules do not properly allow market participants to price their operational constraints. ATCO Power's preferred solution would be to institute negative pricing to let the market clear (<b>Principle a</b>). Until such time ATCO believes that administrative rules are required that do not unduly disadvantage facilities with differing operational constraints.</p>  |

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|                        |  | Given the complexities around cogeneration facilities a blanket exemption might be the best solution in this case ( <b>Principle g</b> ).  |
|                        | <p><b>Voluntary Generator Curtailment Request</b></p> <ul style="list-style-type: none"> <li>• If VGCR is implemented, and included as a step in the supply surplus procedures, please provide comments on whether participants would respond to such a request.</li> </ul>  | In ATCO Power’s opinion a VGPC program would create perverse incentives that would aggravate the original problem. Low priced generation would see an incremental revenue opportunity by offering additional generation at \$0 to then become eligible for an out of market payment. In addition, just like any administrative solution, a VGCP would result in inefficient outcomes, transfer wealth, and disturb the investment signal. As such ATCO Power opposes this option.  |
|                        | <p><b>Exports within T-2</b></p> <ul style="list-style-type: none"> <li>• Are there any points that the AESO has not considered within it’s assessment in Table 3?</li> <li>• If exports were permitted within the current hour or within T-2 under supply surplus protocols, please provide comments on whether participants could use this service during such times.</li> </ul> | ACTO Power does not believe that creating selective exemptions to T-2 is a desired solution to address supply surplus and consider it to be contrary to FEOC. In the process of the current stakeholder consultation on the intertie framework ATCO Power has provided an example to more efficiently use the interties especially with regard to counter flows. We believe that implementing a solution similar to this would be the appropriate way to include interties in addressing supply surplus conditions.                                    |
| <b>10.0 Reporting</b>  | <ul style="list-style-type: none"> <li>• Please provide comments on the report provisions</li> </ul>   | ATCO Power agrees with the AESO that better information will enable suppliers to better respond to supply surplus situations. ATCO Power has not deliberated the specifics of such a report but would like to point out that unless reasonable accurate information is available at least 3 hours before the delivery hour, the reports will be of limited value.  |
| <b>11.0 Policy</b>     |  | <p>ATCO Power believes that new facilities should only be conditionally connected until proper rules are in place. We do not consider it appropriate to instead go through a limited and time constrained consultation process.</p> <p>In ATCO Power’s opinion the current design without negative pricing potentially violates section 4.4.11 of the Alberta Electricity Policy Framework. The relatively high price floor at \$0 devalues the flexibility of certain generation types and forces some participants to offer above marginal cost.</p> |
| <b>12.0 Next steps</b> |  | ATCO Power would like the AESO to discontinue the short term process   |

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|                            |  | and instead focus exclusively on the long term process. In addition the AESO should initiate consultation to enable the implementation of a negative price floor as soon as possible. |
| <b>Additional Comments</b> |  |   |