

Stakeholder Comment Matrix – Supply Surplus Discussion Paper

Date of Request for Comment: May 28, 2010

Period of Consultation: April 29, 2010 – May 20, 2010

Stakeholder: MEG Energy Corp.

Section	Subsection	Stakeholder Comment
1.0 Executive Summary		<p>MEG would caution AESO against relying on the sentence within Alberta’s Electricity Policy Framework of June 6th 2005, “The Department does not support one type of generation over another but rather allows competitive market forces to determine the appropriate generation mix (e.g. no fuel use policy)”. The sentence needs to be considered within the context of the document which also includes the sentence, “Environmentally friendly power generation benefits all customers with a cleaner environment and reduction in environment-related health problems. It also assists Alberta in meeting environmental emission targets under Clean Air Strategic Alliance (CASA).”</p> <p>A broader perspective is important in light of the changing environmental and royalty framework landscape. For instance, since 2005, Alberta has enacted the Specified Gas Emitter’s Regulation and the Canadian Government has advised commitments under the Copenhagen Accord.</p> <p>Furthermore, Alberta Energy has demonstrated an implicit fuel preference through the royalty structure on gas vs coal. Albertans not only gain the benefits of a cleaner environment and a reduction of environment-related health problems but also earn a fair share of royalties when gas rather than coal is the generation fuel.</p>
2.0 Purpose		MEG Energy Corp. (“MEG”) agrees with the premise that it is

<p>3.0 Introduction</p>		<p>possible that supply surplus events will occur with greater frequency over the next 10 years relative to the past 10 years. The AESO's current interconnection queue indicates that there are applications for 13,467 MW of generation capacity connection between 2010 and 2017 of which 10,497 MW may elect to operate as price takers. This increase in supply capacity should be considered within the context that the peak load-to date is 10,246 MW and the lowest level of demand in 2009 was 6,454 MW. If peak load was to grow by an aggressive 5% per annum, peak load in 2017 would have increased by 4,171 MW. Even assuming wind energy is 0 MW during the peak load hour in 2017, the AESO connection queue suggests that new supply will outpace peak load growth.</p>
<p>4.0 Supply Surplus Principles</p>	<ul style="list-style-type: none"> • Are there any principles that are missing, that should be included? Please include reasons why. • Are there any principles listed that should not be included? Please include reasons why 	<p>MEG agrees that AESO's identified supply surplus principles need be incorporated in developing both short-term and long-term initiatives:</p> <ul style="list-style-type: none"> • Competitive outcomes are preferred over administrative outcomes; • Supply surplus rules should be consistent with the existing market structure and support the existing energy only real-time energy price signal; • Supply surplus rules should encourage competition and reduce barriers to entry; • The market price signal should be visible and transparent to all competitors; • A level playing field for all competitors that accommodates the unique characteristics of each generation type; • Supply surplus rule changes must balance design complexity and implementation simplicity; and, • Impact on neighboring jurisdictions should be minimal. <p>MEG would add three more principles:</p> <ul style="list-style-type: none"> • Supply surplus rules should be consistent with other rules. Specifically, in MEG's stakeholder comments to TCM: Rule

		<p>9.4 AUC Re-Filing Proposal Paper, MEG identified <u>that transmission congestion management is essentially supply surplus on a regional basis</u>. MEG strongly encourages the AESO to ensure consistency of definitions, and of principles for management, under TCM and supply surplus. For instance, current management of supply surplus relies on EMMO prior to considering pro-rata dispatch amongst \$0 offers. Management of TCM should similarly rely on EMMO prior to considering pro-rata dispatch amongst \$0 offers.</p> <ul style="list-style-type: none"> • Management of supply surplus, in real time, should not cause a participant to be in violation of its environmental permits (e.g. NOx permit) or health and safety guidelines, adversely impact equipment reliability or increase risk of damage to other operations and assets. The term Minimum Operating Level has been defined in the comments to section 8.0; and, • Management of supply surplus, in real time, should not cause an adverse impact on the facility owner's processes (e.g. loss of bitumen production). <p>MEG requests that AESO confirm the addition of these three principles in the management of supply surplus whether it be on a regional basis (transmission congestion management) or province-wide basis.</p>
<p>5.0 Supply Surplus Conditions – contributing factors</p>	<p>5.1 Historical Analysis 5.2 Upcoming Considerations</p> <ul style="list-style-type: none"> • Are there any other factors that are not mentioned or considered in the paper that may contribute to or exacerbate supply surplus conditions? Please include reasons why. 	<p>MEG believes that the following factors could result in increasing frequency of supply surplus events:</p> <ul style="list-style-type: none"> • A projected increase of wind generation capacity. Currently 7,626 MW are in the connection queue; if only 25% of this capacity proceeds to commissioning, the resultant 1900 MW of wind capacity represents 20% of Alberta's peak load and potentially more energy than both the minimum stable generation and the dispatchable capacity from gas co-generation and hydro combined as shown in Figure 2 of

		<p>the supply surplus discussion paper.</p> <ul style="list-style-type: none"> • The commissioning of large base-load generators. There are currently 6 thermal generation projects in the interconnection queue with a capacity of 340 MW or greater, in aggregate representing 3,370 MW. Any one of these projects, during commissioning when not under the must offer, must comply obligation, could cause a supply surplus situation. • The aggregate impact of the critical transmission infrastructure transmission projects, the regional transmission infrastructure projects, the upgrading of the interties and the transmission projects currently under construction have a high probability of tripling transmission tariffs. It is quite plausible that industrial operations exercise the option of serving on-site load thereby simultaneously avoiding the transmission tariff and reducing their carbon footprint. Such a scenario could result in increased supply to grid without an offsetting increase in load thereby increasing the probability of supply surplus events. • The pool rules that do not require wind energy to must-offer, must-comply but require wind energy to offer at \$0. The market and the system controllers do not have visibility to wind energy and cannot adopt mitigating action prior to a supply surplus event. Wind generation may prefer to offer in at a non \$0 price and be dispatched down in advance of a supply surplus event. • The pool rules that prohibit imports from offering in at a non \$0 price. Imports may prefer to offer in at a non \$0 price and be dispatched down in advance of a supply surplus event. • The pool rules that require supply offers to be firm at T-2; within the dispatch hour, suppliers can respond only to dispatch and not to price. Suppliers may prefer to be dispatched down in advance of a supply surplus event.
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<p>6.0 Current Supply Surplus Rules</p>	<p>6.1 Market Participation Rules</p> <ul style="list-style-type: none"> • Please provide comments on the rule assessment. 	<p>MEG suggests that in the application of Rules 6.3.4 and 6.3.8, the system controller consider factors, beyond minimum stable generation as currently defined, such as violation of environmental permits and disproportionate economic hardship in terms of the primary business of bitumen production resulting from curtailment of a cogeneration unit.</p>
	<p>6.2 Operating Policies and Procedures</p> <ul style="list-style-type: none"> • Please provide comments on the rule assessment. 	<p>MEG recommends if the system controller anticipates a supply surplus situation at any time during the next 24 hours, the system controller send a notification to all participants to advise of the possibility, and time, of a supply surplus situation.</p> <p>MEG reiterates that transmission congestion is a regional form of supply surplus and therefore both should be treated consistently. As such, MEG agrees that in the event of either congestion or supply surplus, the system controller should dispatch down based on the merit order and only when \$0 supply remains, and all market based mechanisms have been employed, resort to pro-rata dispatch as one of a number of tools to manage the event.</p> <p>MEG supports an update to the rules to permit wind generation to must offer, must comply and be curtailed if necessary during a supply surplus event.</p> <p>MEG suggests the following steps be taken, in real time, to balance system supply and demand during supply surplus anticipation and events:</p> <ul style="list-style-type: none"> • If supply surplus is anticipated within the next 24 hours, an ADAMS message is sent to all participants to advise of the possibility, and time, of a supply surplus event. • During a supply surplus event: <ul style="list-style-type: none"> ○ Suspend the allowable dispatch variance rule. ○ Dispatch down generators that are operating above their dispatch levels to their dispatch levels.

		<ul style="list-style-type: none"> ○ Maximize posted export ATC limits and permit intra-hour exports. ○ Curtail imports. Imports are an opportunity service. ○ Release all suppliers from the T-2 price/quantity lock-down allowing intra-Alberta supply to respond to the \$0 SMP. ○ Curtail flexible blocks of \$0 offer on a pro rata basis. ○ Curtail intra-Alberta supply on a pro-rata basis to minimum operating levels. (Minimum operating level has been defined in comments to section 8.0)
7.0 Supply Surplus Workgroup Results		MEG believes that the Market and Operational Framework for Wind Recommendation Paper provided a number of recommendations that merit further participant discussion and possibly implementation.
8.0 Comments on MOF Recommendation paper for Wind		
8.1 Minimum Operating Level and Minimum Stable Generation	<ul style="list-style-type: none"> • Is it appropriate to implement MOL when we already have MSG? Please provide reasons why or why not. • Please provide comments on possible modifications to the existing MSG definition and its application. 	<p>Minimum Stable Generation (MSG) is a unit's minimum generation level as submitted to the energy trading system, at which an asset can be continuously operated without becoming unstable. The MSG is submitted by the owner except in the case of the power purchase arrangements (PPAs) wherein MSG is established by the owner but submitted by the PPA buyer. The AESO accepts, but does not test for validity, the MSG data.</p> <p>The following examples highlight the need for either a change in the definition used in managing both congestion management and</p>

		<p>supply surplus (i.e. MSG) or for a new definition such as minimum operating level (i.e. MOL).</p> <ul style="list-style-type: none"> • A notional 400 MW coal-fired generating unit may be able to generate continuously, without risk of instability, at 150 MW. However, due to economic concerns with managing fuel security at 150 MW (i.e. loss of coal fuel feed and expense of gas feed), the unit's MSG is set at 350 MW. • A notional 280 MW coal fired unit, under PPA, may be able to generate continuously at 150 MW but the owner who is not disadvantaged from advising a MSG higher than 150 MW, advises the buyer that the MSG is 250 MW. The buyer is obliged to submit a MSG of 250 MW. • A notional 80 MW gas fired co-generation unit may be able to generate continuously, without risk of instability at 10 MW. However, generating at 10 MW may cause it to exceed its NOx environmental limit. <p>MEG suggests the following definition be used in managing congestion management and supply surplus: The Minimum Operating Level is a physical operating limit (not an economic limit) for an asset constrained by legal/regulatory, environmental, health and safety, equipment reliability, operating level required to dispatch ancillary services or operating level required to prevent adverse impacts on other operations and assets.</p>
9.0 Supply Surplus Rule Options		
9.1 Long Term Options		
	9.1.1 Market Rules for Wind Generation	MEG supports requiring all generators, including wind generators, to have an obligation to offer and to comply. The AESO has

		engaged a wind forecasting service to provide an aggregate wind power forecast based on a facility by facility roll-up. Each wind generation facility now has the information to forecast and to create any necessary commercial arrangements to offer and to comply.
	9.1.2 Voluntary Generator Curtailment Program (VGCP)	MEG supports the principle that loads should not be compensated for not consuming during periods of supply shortfall nor should supply be compensated for not supplying during periods of supply surplus.
	9.1.3 Negative Prices	<p>MEG is not adverse to a review of the current price floor of \$0 and cap of \$999.99 to address supply surplus and supply shortfall. In theory, prices that are lower than the variable cost of generation or higher than the full cost of generation reflect real time supply surplus or shortfall situations and should not adversely discourage or encourage new supply. MEG requests the AESO demonstrate how a negative pricing mechanism will reduce the supply surplus transient situation when all supply to the grid (excluding wind) is already incurring a negative gross margin at a \$0 system marginal price. Will a greater negative margin present a greater incentive to reduce supply?</p> <p>To facilitate an assessment, MEG requests AESO detail the magnitude of the supply surplus in each of the supply surplus events described in the discussion paper.</p>
9.2 Short Term Options	<ul style="list-style-type: none"> • The paper provides an example of a supply surplus management procedure within this section. Please provide comments on the order of the procedure. 	<p>MEG supports the following supply surplus management procedure:</p> <ul style="list-style-type: none"> ○ Suspend the allowable dispatch variance rule. ○ Dispatch down generators that are operating above their dispatch levels to their dispatch levels. ○ Maximize posted export ATC limits and permit

		<p>intra-hour exports.</p> <ul style="list-style-type: none"> ○ Curtail imports. Imports are an opportunity service. ○ Release all suppliers from the T-2 price/quantity lock-down allowing intra-Alberta supply to respond to the \$0 SMP. ○ Curtail flexible blocks of \$0 offer on a pro rata basis. ○ Curtail intra-Alberta supply on a pro-rata basis to minimum operating levels.
	<p>No exemption for wind generators under OPP 103</p> <ul style="list-style-type: none"> • Are there any points that the AESO has not considered within its assessment in Table 3? 	
	<p>No exemption for co-generators under OPP 103</p> <ul style="list-style-type: none"> • Are there any points that the AESO has not considered within its assessment in Table 3? 	
	<p>Voluntary Generator Curtailment Request</p> <ul style="list-style-type: none"> • 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. 	<p>Currently, within the T-2 timeframe, suppliers cannot respond to price; they can only respond to dispatch. Under supply surplus conditions, if suppliers were able to respond to price i.e. SMP \$0, some suppliers may choose to dispatch down thereby reducing supply.</p> <p>A voluntary generator curtailment request that would permit suppliers to respond to \$0 SMP within the T-2 time period would offer an additional market based tool for the system controller to manage supply surplus situations prior to resorting to administrative mechanisms.</p>

	<p>Exports within T-2</p> <ul style="list-style-type: none"> • Are there any points that the AESO has not considered within its assessment in Table 3? • 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. 	
10.0 Reporting	<ul style="list-style-type: none"> • Please provide comments on the report provisions. 	
11.0 Policy		
12.0 Next Steps		
Additional Comments		