

Stakeholder Comment Form

Rule 6.6 Review – Recommendation Update

Date of Request for Comment: February 2, 2009
Period of Consultation: January 15, 2009 to February 2, 2009

Stakeholder: __TransAlta

Any questions can be directed to Marcy Cochlan at 403-267-4664

General Comment:

If the AESO can agree that “intent” needs to be addressed in the rule (i.e. through a prohibition), then why do we still need unnecessarily tight tolerance bands? Once intent has been dealt with, deviations from dispatch will need a valid operational reason or they will be investigated. TransAlta questions the need for these tight bands. To date the AESO has not provided any evidence they are required for reliability. Tight tolerance bands will increase the need for communication to the AESO significantly, potentially creating an unnecessary administrative burden.

Recommendation	Stakeholder Comments
1 The AESO recommends that steady state dispatch compliance is based on the unit integrated average MW output for each clock 10 minute period	TransAlta would suggest a 15 minute clock period rather than a 10 minute time clock period. If the AESO switched to use a clock 15 minute period, they would be aligned with the Alberta Metering standard which also uses a 15 minute clock period
2 The AESO recommends that the maximum delay time to start ramping be increased to 10 minutes and	TransAlta supports the AESO in providing 10 minutes communication time to begin ramping. What happens after the communication time, however, is problematic. Once a generator begins its ramp, the AESO plans to place a compliance check to confirm that

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	<p>the ramp commenced within the allowed 10 minute period. From that check point, the AESO will then do a compliance check from when the unit commenced its ramp to when the unit finished its ramp. The AESO plans to compare this ramp rate (measured in time) to that of the unit’s declared ramp rate in ETS. If the full 10 minutes given for communication is used for communication, a problem arises. The ramp rate used by the AESO is a single number, and thus the facility will be required to meet that exact ramp rate to be considered in compliance. Each ramp is unique and it is unlikely the unit will meet the given AESO ramp rate exactly each time. In other words, it is unlikely to have a ‘perfect ramp’.</p> <p>How are Market Participants supposed to deal with an advanced energy dispatch?</p> <p>Currently the AESO has a definition for advanced energy dispatch but this definition is not mention in any of rules. The current definition is:</p> <p>“advanced energy dispatch” means a dispatch of one or more blocks of energy for a specified future time.</p> <p>Does this mean that you must begin ramping so you meet the dispatch at the stated time or does it mean that you cannot begin ramping until the stated time. Now with the additional clarity in rule 6.6 it is unclear how this 10 min period will be applied to an advanced dispatch.</p> <p>With the proposed rule, if the advanced dispatch is considered communication time, a participant with an advanced dispatch could not ramp a minute early or late without technically breaking the rule. Similar problems arise with an advanced dispatch inside the 10 minute window.</p> <p>TransAlta would suggest that the AESO make allowances that recognize that units cannot always perform perfectly to the ramp rate profile. In addition, we suggest that allowances be</p>

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	<p>made in the case of an advanced dispatch that if the facility started a few minutes early or a few minutes later than the specified time that it not be considered out of compliance in this circumstance.</p>
<p>3. Participants submit a ramp profile for each of their generating assets.</p>	<p>TransAlta has concerns with the ramp rate profiles as proposed. The AESO’s proposal of submitting a ramp rate profile is an improvement from the single ramp rate currently provided but still does not address an important issue. The ramp rate profile we provide will be an average ramp. Each ramp is unique and will not be equivalent to the average ramp rate. If it takes the facility the full 10 minutes to start ramping, then the facility will now be required to perform a perfect ramp in order to be considered in compliance. For example, if the ramp rate is 10 MW per minute, the facility receives a 100 MW dispatch and it takes the full 10 minutes to start ramping, then the facility has exactly 10 minutes to complete its ramp. If on this day the facility performs an 11 MW per minute ramp it will now be considered out of compliance. This is a likely outcome that may not be for any specific operational reason but is reflective of the unit’s historical performance and thus is reasonable and should be acceptable. We believe further changes are required here. We would suggest provision of a ramp rate range for each ramp rate provided. For example the above facility would be expected to perform at a ramp rate between say 8 and 12 instead of exactly at 10.</p> <p>A further concern is the ability of an operator to accurately calculate and restate a new ramp rate while simultaneously attempting to safely ramp the unit. For example if the same example is used as above, if the ramp is occurring but is slightly slow, when should the operator inform the AESO it is having an issue with the ramp? As soon as the calculated average ramp rate for the 10 minutes falls below the 10 MW’s per minute average? At this point the operator will only be able to say the ramp is a little slow and will likely not have a definite reason for this or be able to provide an accurate revised ramp rate. Further, ramps can occur over just a few minutes. Given that the operator has other activities besides watching his ramp rate if a ramp is supposed to take 4 minutes but instead take 6 minutes, it is likely that the variance may not be caught until after the ramp is complete.</p>

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	<p>Ramp rates are a combination of design specifications and historical operational data. Ramp rates are a technical estimate and should only be used as an estimate, not a guarantee of unit performance. Thus a range for a ramp rate is needed.</p> <p>The rule also must incorporate time or allowance for the steps below which an operator takes in assessing the unit’s ability to achieve a declared ramp. Once an operator has established that there is an issue with the ramp that may affect the status of the current ramp (this alone can take 5mins or more), an operator must:</p> <ol style="list-style-type: none"> 1) Communicate to plant staff to investigate perceived problem 2) Wait for results of plant staff investigation 3) Calculate new ramp rate given estimated maintenance time 4) Communicate to trading or operations desk 5) Communicate with AESO <p>What happens if the operator is only able to ascertain a problem towards the end of the ramp? What happens if the allowable ramp time ends before the above process is completed?</p> <p>We would suggest that a phone call to the AESO would suffice to communicate a change in a ramp if outside a certain range. If an operator needs to be recalculating ramp rates in real time while simultaneously ramping this is an unnecessary burden that will take away from the operator’s focus on reaching the new dispatch level in a safe manner.</p>
<p>4. The rule will contain language that prohibits intentional deviation from the dispatch level. Checks for</p>	<p>TransAlta supports this initiative. We look forward to providing comments on the rule language as it is developed.</p>

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<p>intentional non-compliance include deviation and price correlation, synchronization to the grid, intentionally operating at a different level than the dispatch level</p>	
<p>5. Next steps</p>	
<p>Human Error</p>	<p>Human error is an inevitable event. The AESO rule has not acknowledged that there is an acceptable rate of human error. We believe it is reasonable that this should be included. Even when exercising due diligence, human error will occur. We would suggest the use of a human error rate for every X number of dispatches. As each dispatch represents a point where human error could occur, this would provide a level playing field across generating units and recognize that there is an acceptable rate of human error that needs to be recognized.</p> <p>Human error is recognized in all aspects of the industry especially in areas of hazard, compliance and safety analysis. The goal of root cause analysis is improvement and reduction of human error. TransAlta supports that where human error exists a non-punitive approach to improving compliance be adopted and that a root cause analysis and remediation process be adopted. This analysis should not be overly burdensome on the market participants and there needs to be recognition that human error can never completely be eliminated at any cost.</p> <p>The proposed AESO rules must take human error into account and the AESO should incorporate human error as an Acceptable Operational Reason for non-compliance events and make it incumbent upon the market participant to report the root cause and submit it to the AESO. The AESO can identify potential negligence, willful misconduct, intention and so on and take the appropriate action by referring the event to the MSA in those events.</p>
<p>Metering Issues on a go forward basis</p>	<p>Problem: AESO’s current data published through the CSD page & the Dispatch Variance Notification (DVN) tool is inaccurate with the Point of Supply Meters. In many circumstances particularly when units are ramping or starting, this results in inaccurate information on</p>

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	<p>generation output being supplied to the market in real time.</p> <p>Impact:</p> <p>This information is relied on by market participants for real time knowledge of how facilities are actually running and for managing compliance. We believe the AESO has an obligation to provide more accurate data than is currently being provided. This inaccurate data does affect participants' behavior and can result in unnecessary changes or incorrect changes being made to a unit's output.</p> <p>This also creates many unnecessary phone calls between the owners and the buyers of PPA units. Use of this data can create false signals to the market which may be relied on by participants in the following ways:</p> <ul style="list-style-type: none"> -Used by participants to analyze what is going in the market -Used by buyers to manage compliance -Use by participants when there are issue with their own data to ensure compliance. <p>Compliance is managed in real time so the real time signals provided must be accurate. We cannot correct compliance issues ex-poste; the only opportunity we have to correct them is in real time. Participants do use the CSD page as a basis for corrections. AUC Decision 2008-114 said EPCOR should rely on the CSD page. The data on this page must be accurate.</p> <p>Fix:</p> <p>Provide Data from Point of Supply Meters and use the AESO rule Meter Point Definition Record Formula along with accurate time clocks that use a minimum of 5 second data with one minute averages. Inaccurate data that is not updating must be flagged as such to the pool participant of the specified generating unit. This data would be used in real time.</p>

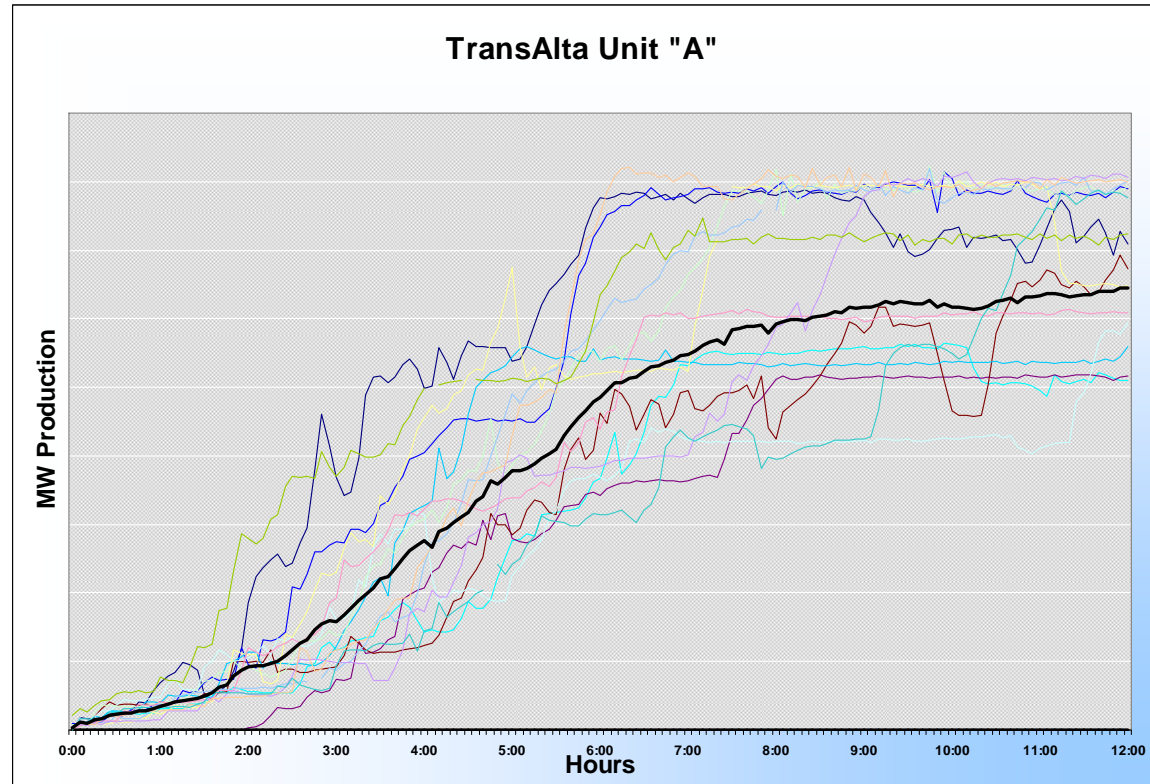
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	<p>Specific Issues</p> <ol style="list-style-type: none"> 1) Approximations of low side meters to high side meters result in inaccuracies. <ol style="list-style-type: none"> a. During unit start up station service factors used by the AESO are wrong <ol style="list-style-type: none"> 1. AESO formula divides station service by number of units. This is an inaccurate approximation that will lead to the CSD page and the DVN tool showing non-compliance. 2) AESO data does not take enough snap shots and is not time weighted over the minute—this results in very different numbers being provided for ramping. <ol style="list-style-type: none"> a. Example: a unit which ramps 12 MW’s per minute is asked to ramp 50 MW’s. <ol style="list-style-type: none"> 1. Likely AESO data – the AESO data published is not a time weighted average of the minute. It is not clear it is even taken every minute so it can be inaccurate on a ramp – for example, it could show 0 MW performance on a ramp when the unit is are actually at 36 MW 2. Scada data being used by the AESO provides more snap shots than what is used by the AESO. The AESO should pull data from scada system more often. 3. High side meter takes more snap shots so would provide much better data for ramping. 3) Meter Data used by the AESO regularly stops reading the new data and remains stuck at the same level. <ol style="list-style-type: none"> a. There is no way for a participant to know that the data is stuck. A flag or message should be provided when the data is stuck to inform the participant that there is an issue with the data.
<p>If lose an 80 MW mill.....need a process to inform without provided</p>	<p>When we have a mill trip it would be typical to see an 80 MW drop in the facility. When this occurs the 10 minute proposed time clock period would still view this facility outside of</p>

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<p>a new dispatch...10 min clock will not allow for this. This is not covered by normal generator fluctuations.</p>	<p>compliance. It may take some time to determine what is wrong and/or attempt to return to the dispatch.</p> <p>At this point the operator is trying to stabilize the unit. The operator can tell the AESO, or the AESO can tell itself what the current actual generation is. What can't be determined is the facility's new capability without time to determine the problem and the necessary fix.</p> <p>The rule also must incorporate time or allowance for the steps below which an operator takes in assessing the unit's new capability. Once an operator has established that there is an issue with the facility (this alone can take 5mins or more), an operator must:</p> <ol style="list-style-type: none"> 1) Communicate to plant staff to investigate perceived problem 2) Wait for results of plant staff investigation 3) Calculate new ramp rate given estimated maintenance time 4) Communicate to trading or operations desk 5) Communicate with AESO <p>We believe the AESO needs to make allowances in the rule for this circumstance. We would suggest that the generator must restate the facility once it has enough information to know the new capability. We respect and support the system operator's need for the best available information but also need the AESO to understand that sometimes it takes time to provide this information. We cannot provide information we do not have.</p>
<p>Zero to Min Stable</p>	<p>The startup of a thermal unit, unlike a gas fired or hydro unit comprises of several complex processes and systems requiring special, focused resources and skills to achieve minimum stable generation. During this time frame equipment is operating at or near critical limits and requires extra operating diligence and intervention. There are literally thousands of components that contribute to or hinder a successful startup and loading to minimum stable generation. Because of these factors a thermal unit operator cannot reasonably predict with a high degree of accuracy the time required or the rate at which a unit can get from 0 MW to minimum stable generation.</p>

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	<p data-bbox="709 321 1923 570">Normal TransAlta resource levels dictate that a single operator manages a pair of units. As such, this operator is fully utilized during start up and loading to minimum stable generation levels. As such the operator is fully utilized and does not have additional time to provide many electronic restatements to the AESO. TransAlta proposes that the AESO rules state that a unit operator (Pool Participant) is required to verbally communicate the unit's estimated time to reach minimum stable generation. This would provide the AESO with the best available information at the time it is known about the unit's ramp to minimum stable.</p> <p data-bbox="709 613 1923 716">As provided in our earlier objection letter, TransAlta Unit "A's" ramp from zero to full load is quite variable. This is reflected in each unit's historical performance and thus needs to be considered compliance with in the rule.</p>

Recommendation

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<p>2.5% to max 10MWs</p>	<p>TransAlta believes the proposed tolerance band of 2.5% or 10MWs is still too tight given the AESO plans to incorporate the use of "intent" into Rule 6.6. By increasing the band to 2.5% with a maximum of 15MWs, there would be less unnecessary administrative burden for plant operators without sacrificing Reliability Standards.</p>

General Comment -