

Stakeholder Comment Form

Rule 6.6 Review – Recommendation Update

Date of Request for Comment: February 6, 2009
Period of Consultation: January 15, 2009 to February 6, 2009

Stakeholder: TransCanada

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	<p>It was discussed at the stakeholder session that there would be allowance provisions, during steady state operations, for legitimate deviations based on the plant's operating characteristics at that time. TransCanada requests that the allowance provisions definition be robust enough to capture circumstances in which a physical or operational constraint causes a generating asset to deviate from the allowable tolerance band but the generating asset is still reasonably expected to return to its energy market dispatch level.</p> <p>At the stakeholder session it was confirmed that the tolerance band (set at the maximum of 5MW or the greater of 2.5% of MCR and 10MW) continues to be recommended by the AESO and TransCanada supports this. However, for simplicity, it may be beneficial to utilize MCR ranges to determine the allowable tolerance band for a generating asset. For instance, generators with MCR below 200MW would have a tolerance band of +/- 5MW and generators with MCR at or above 200MW would have a tolerance band of +/-10MW.</p> <p>However, TransCanada wishes to reiterate that these two components (new tolerance band and allowance provisions for normal and expected deviations of a short duration due to plant operating characteristics) work together to substantially resolve the steady state operational issue.</p>
2 The AESO recommends that the maximum delay time to start ramping be increased to 10 minutes and	<p>TransCanada suggests combining the 10-minute delay time with the ramp profile (according to recommendation #3) to calculate and issue the energy market dispatch in volume (MW) and time. In other words, if a generator's ramp profile is 5MW/minute and the AESO dispatched the unit for 50MW, then the dispatch would be "50MW within 20 minutes". (10 minutes</p>

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	<p>allowance for set up and communication and 10 minutes for ramping). Once the ramp profiles are provided to the AESO, it would be mathematically simple to calculate the range of times (Minimum and maximum) to bring generation output within the new dispatch tolerance band.</p> <p>Also, during the stakeholder session, the AESO provided a sample graph for an energy market dispatch and suggested three compliance check points. One to ensure the dispatch volume did not come on too early (Labeled as “min ramp time”), one to determine whether the unit began to ramp within the 10 minute allowance (Labeled as “max delay time”) and one to determine that the dispatch was achieved within the allowable time (Labeled as “max ramp time”).</p> <p>TransCanada submits that with the suggestion provided above (dispatch given in MW and range of time allowed), the compliance check point at the “max delay time” would become redundant and should therefore be eliminated. Also, determining when a ramp has begun would often be difficult to differentiate from normal output fluctuations. (I.e. how would the AESO, pool participant and/or the plant operator determine that the unit has begun to ramp if the generating asset’s output is fluctuating as it often does?)</p> <p>Additionally, TransCanada suggests that pool participants be allowed to rely upon the allowance provisions reference above if the unit is experiencing temporary operational difficulties and not meeting its expected dispatch level within the required time. The key to success with this process is to ensure the System Controller is apprised of the operational difficulty as early as possible and assists in determining if a restatement is required.</p>
<p>3. Participants submit a ramp profile for each of their generating assets.</p>	<p>In its January 29, 2009 Rule 6.6 Recommendation Paper Update; the AESO suggested that pool participants submit seven ramp “blocks”. Four profiles for ramping up with the first one expected to be zero to minimum stable generation with the ramp rate set to a dash meaning “not applicable” and three profiles for ramping down. TransCanada supports this concept.</p>
<p>4. The rule will contain language that prohibits intentional deviation from the dispatch level. Checks for intentional non-compliance include deviation and price correlation, synchronization to the grid,</p>	<p>The AESO, pursuant to section 17(m) of the <i>Electric Utilities Act</i> , and the MSA, pursuant to section 46 of the <i>Alberta Utilities Commission Act</i> and Alberta Regulation 266/2007 already provide the authority to investigate potential intentional deviations from the energy market dispatch level without the need for further ISO Rules on the matter. In addition, because the AESO’s proposed indicia of “intentional non-compliance” may not ultimately reflect intentional deviations, any new “checks” or audits must contain clear criteria.</p>

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intentionally operating at a different level than the dispatch level	Regardless, TransCanada would be willing to examine the wording that the AESO proposes to use and supports the concept of prohibiting intentional deviation from the energy dispatch level.
5. Next steps	
6. Other	<p>TransCanada has taken the liberty of inserting “other” comments and concerns in this section although not explicitly provided for in the response matrix.</p> <p>1. Personnel Accuracy</p> <p>TransCanada suggests it is appropriate to set a level of accuracy for human activities. Attached to this submission is a study (Human Error and Available Time in SPAR-H) conducted for a nuclear power plant which clearly demonstrates that humans carrying out operational activities can expect to experience errors. The report cites the many factors such as stress, number of required steps an operator must conduct, complexity of the activity etc that contribute to the level of accuracy that is achievable by a human operator.</p> <p>According to the report, error rates for cognitively engaging tasks, such as diagnosis which TransCanada believes relates to activities of AESO System Controllers, exhibit a base human error rate of 1 in 100. Yet Alberta’s system currently maintains reliability even with this expected error rate. The report further suggests that for tasks that are more action oriented, which relates to dispatch and plant operators, the base human error rate in 1 in 1,000.</p> <p>TransCanada suggests utilizing a target of 99.8% accuracy rate consistent with the report’s findings. (Equates to two human error event for every 1,000 dispatches because there are typically two steps in the dispatch process, the first step is to the dispatchers and the second is to the plant operator)</p> <p>Enforcement of this type of performance target would reduce the administrative burden of investigating every innocent and unavoidable error (which would be necessary with a zero tolerance rule). In addition, the performance based target would be more fair than a zero tolerance approach which would impose a new risk and cost on participants.</p>

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	<p>TransCanada notes that dispatch risks already exist in the market and a zero tolerance approach to human errors would add to those risks. In addition, only price responsive suppliers that participate in the market bear these risks. Adding further risks to these participants could discourage market participation which is contrary to the AESO mandate.</p> <p>Concerns that human error rates pose a system reliability concern are unfounded. Given that the current error (or non-compliance) rate in total is less than 1%, the likelihood of simultaneous errors that could be problematic for system reliability is statistically improbable. It is also important to recognize that dispatches are for relatively small MW quantities compared to the size of contingency that the system is required to safely withstand. (Single largest contingency requirements)</p> <p>Regardless, TransCanada endeavors to achieve a high standard of operator performance but achieving 100% accuracy given the human nature of operating complex equipment is virtually impossible.</p> <p>2. Restatement for Dispatch time lag</p> <p>Another issue that TransCanada wishes to raise is when a generating asset has been restated, there may be a delay in receiving the corresponding dispatch from the System Controller. During that delay, the pool participant is non-compliant through no fault of their own. TransCanada submits that such an event should be considered an event covered under the allowance provisions.</p> <p>3. Compliance Measurement Transparency</p> <p>TransCanada also requests that a consistent metering point be utilized for real time operations and compliance monitoring. Some plants may rely on meters on the low side of the transformer, others on the high side and settlement is done based on 15-minute interval averages. Additionally, the methods of handling energy taken from the grid as station service during start up often leads to disagreement about the output of the unit between the AESO and</p>

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	<p>pool participant. In order to effectively monitor compliance in real time, industry, including the AESO, requires a consistent measurement point and polling frequency. TransCanada requests the AESO address the metering discrepancy issues directly and, while they are doing so, make available the metering values that are being used to screen for compliance issues to the participants.</p>