November 18, 2008

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Doug Simpson
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*** Sent Via Email***

Dear Doug:

Re: AESO Recommendation Paper Rule 6.6 Review dated October 30, 2008

Please find attached TransCanada's response to the above noted paper. You will note that a more fulsome response is appended to the matrix to add more clarity to the issues raised by TransCanada.

If you require any further information or have any questions, please do not hesitate to contact either myself at (403) 920-2087 or Jim Paton at (403) 920-5422.

Regards

(Original signed by)

Vince Kostesky
Director, Market Services

Cc: Alan Ross - Borden Ladner Gervais
Ken Kunz – TransCanada
Janine Watson – TransCanada
Jim Paton – TransCanada
Darren Angerman - TransCanada

SUBMISSIONS OF TRANSCANADA ENERGY LTD.

on the

AESO RECOMMENDATION PAPER

RULE 6.6 REVIEW

November 18, 2008

I. INTRODUCTION

1. TransCanada Energy ("TransCanada"), a wholesale electricity marketer in the province of Alberta, has been an active participant in the Alberta Electric System Operator's ("AESO") stakeholder process respecting ISO Rule 6.6. In accordance with the AESO's directions, TransCanada provides its comments on the AESO's Recommendation Paper – Section 6.6 ("Recommendation Paper") filed October 30, 2008. TransCanada's comments are set out in this submission as well as a stakeholder matrix filed concurrently.

2. ISO Rule 6.6 as currently drafted is technically deficient, does not support a fair, efficient, and openly competitive market and is unjust and unreasonable. The Alberta Utilities Commission is currently considering the inadequacies of ISO Rule 6.6 in a number of proceedings. However, the Recommendation Paper fails to fully address those inadequacies. TransCanada's concerns with the Recommendation Paper include the following:

   (a) the Recommendation Paper does not identify specific objectives underlying ISO Rule 6.6;

   (b) the AESO should address dispatch compliance separately from non-compliance for financial gain;

   (c) the Recommendation Paper does not adequately address the time required to ramp some generation units, including the time required for dispatch communication and evaluation; and

   (d) the Recommendation Paper does not adequately address thermal Power Purchase Arrangement ("PPA") compliance issues.

3. Furthermore, the AESO's proposed timeframe for subsequent steps leading to an amended rule is unacceptable.[1] In its June 24, 2008 stakeholder session, the AESO indicated that it intended to file a revised rule with the Commission in January 2009. The Recommendation Paper now indicates that a draft rule will not be filed with the

[1] Recommendation Paper, page 19.

Commission until April 16, 2009. Depending upon the Commission's hearing schedule, the length of hearing time required, and assuming a decision within 90 days of the close of proceedings, a new ISO Rule 6.6 might not be approved until Autumn of 2009.

4. It is unreasonable for market participants to continue to operate under a deficient rule and face potential specified penalties under that rule for a period of time that may ultimately not end until almost a year from now. Revising ISO Rule 6.6 remains an urgent and important issue that should be reflected in a more streamlined AESO process schedule.

II. THE RECOMMENDATION PAPER DOES NOT IDENTIFY SPECIFIC OBJECTIVES UNDERLYING ISO RULE 6.6

5. Under the auspices of a rule change to address technical deficiencies in ISO Rule 6.6, the AESO is proposing compliance requirements beyond which all generators, when acting diligently, can comply. Neither the objectives behind these tighter standards nor the levels of performance required are set out in the Recommendation Paper.[2] The Recommendation Paper therefore does not fully address the technical deficiencies respecting both ramp times and variance levels.

6. While it is TransCanada's understanding that some "standard" has been applied in respect of response times required for dispatch compliance, it is unclear, either in the Recommendation Paper or elsewhere, what that standard is.[3] Accordingly, TransCanada has concerns that the Recommendation Paper, which indicates that compliance levels above the 99th percentile of compliance in steady state generation would be required in a revised ISO Rule 6.6,[4] creates a more onerous compliance standard than has been historically applied to generators.

7. The AESO analysis in Table 4 of the Recommendation Paper[5] essentially concludes that in steady state generation, compliance within the +/- 10 MW band is achievable in excess of 99%.[6] TransCanada submits that the AESO's analysis overlooks the following:

[2] The Recommendation Paper at page 3 suggests that "merit order instability" might be a basis to justify revising the allowable dispatch variance. This ignores that the implementation of T-2 addresses merit order instability.
[3] The Recommendation Paper at Section 2.2 #2 is not specific about the values that it uses in its review.
[4] Recommendation Paper, page 11.
[5] Recommendation Paper, page 11.

(a) whether the standard achieves or exceeds the performance required;[7]

(b) even .5% non-compliance with sample sizes so large is a very large number of non-compliance events and dollar amounts in fines;

(c) Table 4 itself shows that the standard proposed is significantly easier for some units to achieve than others, and therefore it is unreasonable to apply the same standard for all units; and

(d) it is necessary to recognize differences such as technology and purpose as well as size.

8. To the extent that an objective of the Recommendation Paper is to tighten the threshold for enforcement above existing requirements, this could lead to owners of units that cannot today meet the newly proposed limits being forced to increase spending in order to meet a higher standard than those facilities were designed for, or than the Alberta interconnected electric system ("AIES") requires. Irrespective of the merits of better system operating outcomes from unit improvement, this should not be the underlying basis of ISO Rule 6.6 and new system needs should not be imposed onto unit owners through that rule. There is a difference between "good tuning"[8] which TransCanada undertakes, and the development of new system requirements that the Recommendation Paper, while unclear, appears to suggest.[9]

9. Finally, the Recommendation Paper's references to reliability as a policy objective are disconcerting, particularly the AESO's unsupported statement that "[a] tight dispatch variance aligns with reliability standards."[10] The Recommendation Paper's evaluation of reliability is flawed because it is undertaken on an aggregate basis, rather than in respect of specific units. Further, the Recommendation Paper does not establish that reliability depends upon the effectiveness of ISO Rule 6.6 or state the level of performance required for reliability. Load changes and unexpected generator output changes, during steady

[6] Further, the AESO recommends that allowable dispatch variance be revised in the Rule and defined as the greater of +5 MW or 2.5% of the assets' Maximum Capability up to a maximum of 10 MW for a generator that has reached its dispatch level.
[7] Given that the objectives for Rule 6.6 are not described, it is impossible to know what performance is required.
[8] Recommendation Paper, page 7.
[9] See generally section 3.2, Recommendation Paper.

state operations, occur without reliability being compromised and both of those scenarios tend to be substantially larger than either the average dispatch or the steady state tolerance bandwidth. Therefore, the tight tolerances on generators for dispatch proposed by the Recommendation Paper are not required for reliability purposes. [11]

III. THE AESO SHOULD ADDRESS DISPATCH COMPLIANCE SEPARATELY FROM NON-COMPLIANCE FOR FINANCIAL GAIN

10. ISO Rule 6.6 as currently drafted and enforced attempts to deal with dispatch compliance and gaming. TransCanada submits that the AESO should issue two rules – one to address dispatch compliance, and another to address deliberate self-dispatch for gain.

11. If the Recommendation Paper's intent is to target malfeasance, the AESO should take into account the underlying basis for non-compliance. TransCanada submits that it is possible to characterize each concern listed in the Recommendation Paper as relating to either an intentional behaviour (i.e. gaming) or inadvertent non-compliance (i.e. non-compliance due to unit characteristics). As shown in the table below, these types of behaviour are significantly different and create different outcomes. Therefore, two rules are needed.

Inadvertent non-compliance	Non-compliance for gain
1. Compliance requires little motivation.	1. Compliance requires substantial motivation.
2. Unlikely to result in multiple simultaneous non-compliance events.	2. Likely to result in multiple simultaneous non-compliance events if several participants are similarly motivated.
3. Due to #2 above, is unlikely to have any reliability issues because relatively few MWs of variation will occur in any single event situation.	3. Due to #2 above, has the potential for large MW variation amounts.
4. Due to #2 above, missed compliance events and system problems will not be correlated.	4. More likely to occur at times when system is operating under duress of some kind rather than under normal operations.

[10] Recommendation Paper, page 7.
[11] See, for example, the discussion at page 7 of the Recommendation Paper.

12. Given the differences in unit characteristics and motivations behind market participant behaviour, a preferable approach to compliance is for the AESO to make assessments on a unit by unit basis, determine the past performance levels of each unit,[12] and create a rule that would result in no penalty if performance at that level continued. This would include consideration of not only equipment but also personnel performance. ISO Rule 6.6 should be clear that violations are directly related to relevant objectives of the rule and be consistent with the Alberta policy of a fair, efficient, open and competitive market for electricity.

13. Revisions to ISO Rule 6.6 should also be clear that a market participant is in compliance when it has taken all reasonable steps to comply with ISO Rule 6.6, an analysis that must be considered in the context of what is reasonable at the time of the alleged incident.

14. Good rules should always catch the guilty and never the innocent. The Recommendation Paper's approach catches innocent errors but still allows some gaming. TransCanada therefore recommends that the AESO establish two rules which stipulate compliance is achieved when:

    (a) in respect of a missed or slow dispatch that <u>was not deliberate,</u> in the previous 12 months the unit at issue has met historical levels of dispatch compliance (which can be determined to a certain percentage) or, for new facilities, system wide standards for new builds; or

    (b) in respect of a market participant exceeding its variance limits that <u>was not deliberate,</u> in the previous 12 months the unit at issue has met historical levels of dispatch compliance (which can be determined to a certain percentage) or, for new facilities, system wide standards for new builds when in steady state.

IV. THE RECOMMENDATION PAPER DOES NOT ADEQUATELY ADDRESS RAMP RATES AND TIMING

15. The existing ISO Rule 6.6 is deficient because it fails to state how quickly a generating asset must achieve its dispatch level to remain in compliance. It provides no indication of the time within which a generating asset must begin to change its output to remain in

[12] Even the Recommendation Paper at Figure 4 relies upon historical performance.

compliance, and no indication of the time within which a generating asset, once it has started to change output, must reach the dispatched level. In short, ISO Rule 6.6 is deficient by having no references to response time and ramp rate. For reasons that include the following, the Recommendation Paper does not adequately address the technical deficiencies of ISO Rule 6.6.

16. TransCanada is concerned with section 3.3 of the Recommendation Paper, and in particular, the AESO's statements on time required for dispatch instruction, particularly that "[i]t is unclear to the AESO what sort of evaluation participants need to do on receipt of the dispatch instruction"[13] and its expectation that evaluating dispatch conditions would occur prior to ramping. It would appear that the AESO does not fully appreciate that a unit's ability to dispatch (especially in the case of cogeneration units) is sometimes not determined until the ramping process is attempted. Power is a by-product of several other processes at cogeneration sites, making the ability to ramp and the ramp rate difficult to predict until the unit has started ramping, and in the case of the ramp rate until the unit has completed its ramp.

17. The AESO further misconstrues what would be a reasonable time delay for responding to dispatch. In particular, TransCanada submits that the approach set out at Figure 5 in the Recommendation Report,[14] demonstrating an average of one standard deviation for all delay times, should not be reflected in a revised ISO Rule 6.6. Calculating delay times in that manner is only reflective of dispatches that occur without complication. When a unit performs exactly as planned there is less buffer time needed to detect, solve, and report the problem. The AESO's analysis ignores that despite all best efforts, due to the complexity of generation units, complications do occur.

18. Some participants' restatements can take up to 15 minutes to be reflected in a System Controller dispatch. It is unreasonable that the dispatch time for other participants should be half of what the AESO allows itself. Moreover, the Recommendation Paper sets out a seven minute ramp period "from the issuance of any energy market dispatch in which the

[13] Recommendation Paper, page 12.
[14] Recommendation Paper, page 13.

generating asset must demonstrate progress in responding to the dispatch"[15] without any evidence in support of why a seven minute period has been chosen.

19. Turning to ramp rates, Figure 6 of the Recommendation Paper sets out the analysis the AESO performed to determine ramping allowance. The AESO calculated a standard deviation for each unit to account for different ramping capabilities. For both coal and gas units the AESO suggests that one standard deviation from the mean is about 40% and recommends ±1 standard deviation would constitute an appropriate ramp rate. TransCanada disagrees with this analysis and submits that compliance with the ramping requirements set out in the Recommendation Paper may not be achievable by all units at all levels of output for reasons which include the following:

(a) evaluating ramp capability (including set-up time and ramp rate) would be impossible on some units without constantly attempting ramping, which is infeasible. These conditions are unrelated to, and unaffected by, the accuracy of offers or the correct declaration of available capacity;[16]

(b) the Recommendation Paper ignores the fact that ramp rates are dynamic even within the same unit;[17] and

(c) even above Minimum Stable Generation, ramp rates can change for any number of reasons. For cogeneration units, host processes can stall ramp rates, mill changes and coal quality can affect the ramp rates of coal units.[18]

20. Additionally, the scatter-graph set out as Appendix "A" to these submissions reflects a random sampling of dispatches for a single generator for which the control system design

[15] Recommendation Paper, page 14.

[16] Restating once these dispatch conditions have been determined would not remedy some units being out of compliance Technical characteristics may not have changed even with a change in setup time or ramp rate. Furthermore, ramp rate varies with output level and occasionally the AESO restricts participants to a single linear ramp rate for each unit.

[17] A standard deviation from the mean of +/- 40% does not account for varying ramp rates (even above Minimum Stable Generation). The AESO's ramp rate analysis does not set out what historically would have been achieved by the Alberta fleet. Further, the AESO does not mention potential ETS upgrades for submitting these types of unit characteristics. This would make compliance on the terms set out in the Recommendation Paper very challenging for TransCanada, which currently has plants whose ramp rates within a single unit vary from 4 MW/min to 12 MW/min within the range above Minimum Stable Generation and below full output.

[18] See Appendix A, where samples of ramps observed for a single generator are shown to be markedly different depending on output level of the unit (a cause for variability that the AESO did not consider in its analysis).

results in a ramp rate that varies with output. There is no single value that would not result in penalties on a regular basis using the AESO's recommended ± 40% allowable variance for this unit. For instance, using a 7 MW/minute ramp rate (the approximate median ramp rate for the data) and the AESO ±40% of ramp rate would yield an acceptable range between 4.2 MW/minute (60% of 7 MW/minute) and 9.8 MW/minute (140% of 7mw/minute). This would result in instances where there would be penalties for ramping too fast and several more for ramping too slow. Choosing a higher ramp rate would eliminate the "too fast" penalties, but create more "too slow" penalties and vice versa. There is no single value that would prevent penalties on a regular basis.

21. TransCanada further notes the declared ramp rate is also used to determine the quantity of ancillary services ("AS") that can be sold from the unit. While it is appropriate to limit AS sales in this manner because AS quantities that cannot be delivered should not be sold, in practice energy offers are managed to ensure the units are operating at levels where they can deliver the ramp rate needed to deliver the promised quantities.

22. For the AESO's proposal to be fair to participants there would have to be substantial changes to the ETS submission tool. These information technology additions would also have to be made to the systems of PPA Generation Facility Owners, so that these ramp rates could be more effectively monitored and communicated to PPA Buyers.

V. THE RECOMMENDATION PAPER DOES NOT ADEQUATELY ADDRESS PPA COMPLIANCE ISSUES

23. Section 3.1 of the Recommendation Paper characterizes the PPAs as "commercial arrangements between parties with respect to the operation of generating assets". TransCanada points out that the PPAs are not contracts – they are not the product of negotiation and agreement between two parties and they are not signed. The PPAs are the product of legislation and regulation – they were drafted by the Independent Assessment Team (the "IAT"), approved by the Energy Utilities Board, given legal effect under Section 45.95(1) of the *Electric Utilities Act*, S.A. 1996, cE-5.5 (the "Old Act") and continued by virtue of Section 95(1) of the current *Electric Utilities Act* (the "Act"). A review of the legal structure by which deregulation took effect is useful to explain the central role the PPAs play in the deregulated market.

24. The ISO's definition of a PPA in its Rules acknowledges that the PPAs are statutory instruments. It provides that the PPAs are "**instruments** setting forth the rights and obligations of the parties in relation to the operation of generating units and entitlements to electricity and ancillary services and **approved by the EUB under the provisions of the Act**" (emphasis added).

25. The IAT explained its choice of this legal form for PPAs in its 27 August 1999 Report to the EUB as follows:

> The IAT has elected to proceed on the basis that **the PPAs will not be agreements**. It is proposed that the PPAs be specifically authorized and implemented in accordance with the legislation and the regulations which will specify that a particular arrangement attached by reference will operate between the named Owner and the successful bidder at the PPA auction(s) (the "Buyer").
>
> Although accepting that some terms of the PPA must be capable of alteration during the Effective Term (such as the replacement of indices and adjustments to cover changes resulting from a "Change in Law"), the IAT believes that there are some clauses that must be immutable. These terms are ones which have a public interest component in that the Balancing Pool will have involvement and include the clauses related to force majeure, change in law, destruction and termination. Accordingly, **there is a provision prohibiting amendment of the PPA except in certain narrow circumstances**.
>
> As a general rule, the IAT has drafted the PPAs to be as close to a contractual form as possible recognizing the limitations involved. There are recitals but they do not record any agreement as between the parties. Certain other clauses to contracts have been left out and, finally, there is no provision for the document to be executed since **it will be in effect by virtue of the legislation and the regulations** (emphasis added).

26. Accordingly, as drafted, the PPAs provide for variation by agreement only in certain narrow circumstances.

27. In respect of dispatch compliance, the PPAs rely on the AESO issuing Failure Flags in accordance with Schedule I to the PPA, Article I-1, a copy of which is attached to these submissions as Appendix "B". Absent this mechanism, the PPA Buyer is unable to influence the behaviour of the Owner under the present terms and conditions of the PPAs.

28. Failure Flags should be issued according to the steady state and ramp limit. These Flags will generally deal with compliance from PPA units. They will also provide the information the entities will need if they want to prove their compliance rates. It is appropriate for large units that are coming on or going off to provide the AESO with restatements against which Failure Flags would apply. The current absence of these flags contributes to operators not providing adequate information to the System Controllers.

29. Finally, there is one instance where ISO Rule 6.6 needs to go beyond the Supply Transmission Service contracting party. In order to prevent PPA Owners from employing deliberate strategies of non-compliance there needs to be some consequence beyond the PPA. The PPA terms are adequate to encourage Owners' diligence but the recourse is limited if the Owner is obtaining a portfolio benefit from non-compliance. ISO Rule 6.6 does not contemplate that Owners might have a merchant position in addition to their PPA units. The rule therefore needs to make a deliberate violation by PPA Owners a contravention for which the Owner is penalized. Then, if the AESO reports a violation, the Buyer's defence would point the MSA toward the Owner if deliberate gaming was going on.

VI. RECOMMENDATIONS

30. In view of the foregoing, TransCanada makes the following recommendations in respect of the Recommendation Paper:

(a) the AESO provide its specific objectives underpinning ISO Rule 6.6;

(b) the AESO issue two rules – one to address dispatch compliance, and another to address deliberate self-dispatch for gain;

(c) that assessments of market participant behaviour be undertaken on a unit by unit basis including a determination of the past performance levels of each unit with no penalty if performance at that level continued;

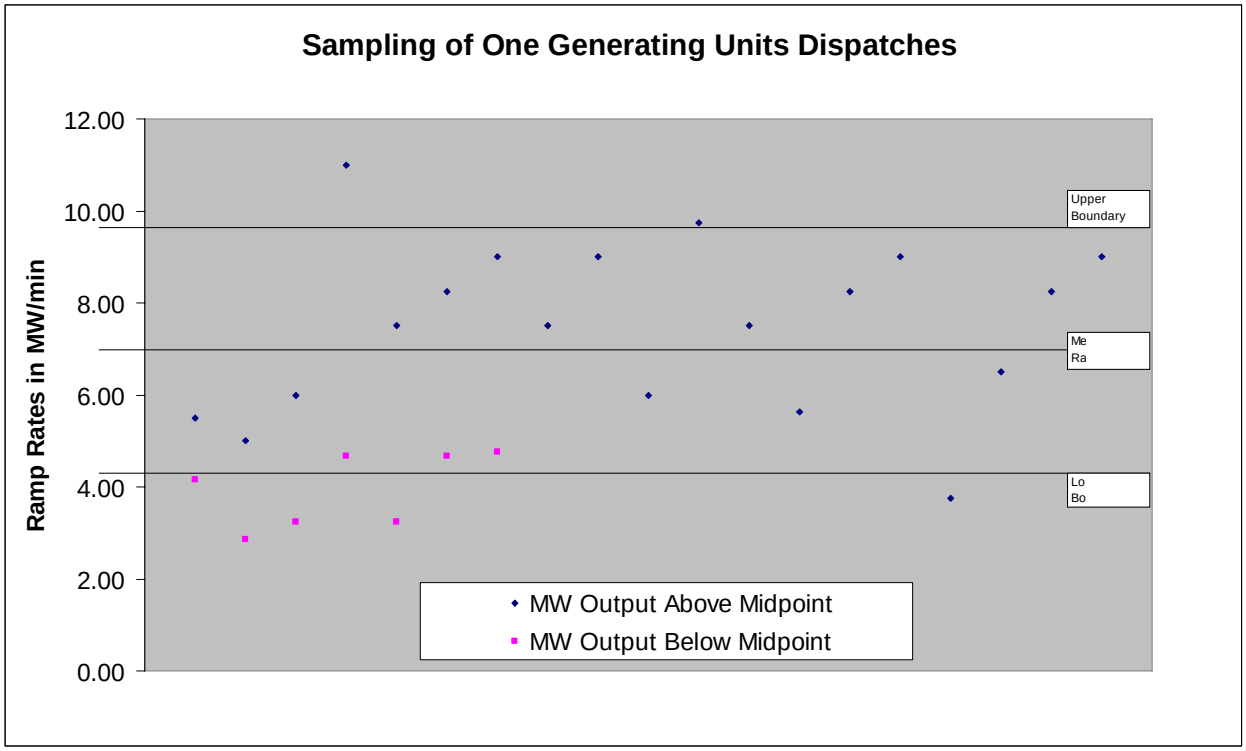
(d) revisions to ISO Rule 6.6 should state that a market participant is in compliance when it has taken all reasonable steps to comply with ISO Rule 6.6, an analysis that must be considered in the context of what is reasonable at the time of the

alleged incident, and take into account whether the current compliance record is at least equal to the level set out at paragraph 14 above;

(e) ISO Rule 6.6 should be amended to ensure that deliberate strategies of non-compliance by PPA Owners are contraventions for which the Owner is penalized; and

(f) In respect of compliance from PPA units, Failure Flags should be issued according to the steady state and ramp limits.

Appendix "A"


Sampling of One Generating Units Dispatches
Ramp Rates in MW/min
12.00
10.00
8.00
6.00
4.00
2.00
0.00
Upper Boundary
Me
Ra
Lo
Bo
MW Output Above Midpoint
MW Output Below Midpoint

Appendix “B”

SCHEDULE I - PERFORMANCE MONITORING

ARTICLE I-1

DEFINITIONS

I1.1 Definitions

See Schedule N for definitions of subscripts, descriptions of mathematical conventions adopted and list of units of measurements used in this Schedule.

"Failure Flag" means either an Under Generation Failure Flag or an Over Generation Failure Flag.

"Failure Period" means either an Under Generation Failure Period or an Over Generation Failure Period.

"Over Generation Failure Flag" means the indicator set in accordance with the rules set out in Section I2.4 (b) below to mark the beginning of an Over Generation Failure Period.

"Over Generation Failure Period" means a continuous run of Settlement Periods set out below, during which a Unit is defined as having operated at a level above its instructed level and is set in accordance with the rules set out in Section I2.4 below.

"Under Generation Failure Flag" means the indicator set in accordance with the rules set out in Section I2.2 (b) below to mark the beginning of an Under Generation Failure Period.

"Under Generation Failure Period" means a continuous run of Settlement Periods during which a Unit is defined as having operated at a level below its instructed level and is set in accordance with the rules set out in Section I2.2 below.

"Valid Dispatch Instruction" means a Valid Dispatch Instruction as set out in Section J2.7 of Schedule J.

Variable	Sub-scripts	Units	Definition
AGEN	us	MWh	Actual Generation
CC	um	MW	Committed Capacity
DA	us	MWh	Declared Availability
PP	s	$/MWh	Pool Price
RAPPP	d	$/MWh	Rolling Average Monthly Peak Pool Price
SPD	s	Hours	Settlement Period Duration
UGP	s	$/MWh	Under Generation Comparison Price
UIL	us	MW	Unit Instructed Level

ARTICLE I-2
FAILURE PERIODS

I2.1 Owner's Obligation to Determine Failure Flags

The Owner shall determine the Failure Periods for each Unit in accordance with the rules set out in this Schedule I.

I2.2 Under Generation Failure Period

(a) An "Under Generation Failure Period" is that continuous run of Settlement Periods starting with (and including) the Settlement Period for which a "Under Generation Failure Flag" has been given (as defined in Section I2.2 (b) below) and ending with (and including) the Settlement Period identified in Section I2.3 below;

(b) A Unit will be given an Under Generation Failure Flag for any Settlement Period in respect of which:

(i) the System Controller has reported that the Unit has failed to follow a Dispatch Instruction and this Dispatch Instruction is a Valid Dispatch Instruction; and

(ii) the failure was a failure to reach its instructed dispatch level; and

(iii) the conditions described in Section I2.2(c) below do not apply;

(c) Notwithstanding the "failure to follow instructions" report by the System Controller, the Unit will not be given an Under Generation Failure Flag in the following circumstances:

(i) where the failure was a late synchronization, the Unit synchronized within one Hour of the instructed synchronization time; or

(ii) where the failure was an early desynchronization, the Unit desynchronized within one Hour of the instructed desynchronization time; or

(iii) the Settlement Period is the first Settlement Period of a Force Majeure event; or

(iv) where the failure was a failure to reach the instructed dispatch level and the following conditions applied:

If $UIL_{us} - (AGEN_{us} / SPD_s) \leq 2MW$; or

If $UIL_{us} - (AGEN_{us} / SPD_s) \leq \min[5, 0.05 \times CC_{um}]$

where UIL_{us} is the maximum MW level that the Unit was instructed to achieve in this Settlement Period as defined in the Dispatch Instruction, $AGEN_{us}$ is the Actual Generation level of the Unit in this Settlement Period as defined in Schedule E, SPD_s is the Settlement Period Duration and CC_{um} is the Committed Capacity of the Unit as set out in Schedule B.

I2.3 Termination of the Under Generation Failure Period

The last Settlement Period in an Under Generation Failure Period is the earliest of:

(a) the Settlement Period in respect of which the System Controller has reported that the Unit is no longer failing to follow a Dispatch Instruction; or

(b) the Settlement Period that immediately precedes a Settlement Period for which a new Failure Flag has been set; or

(c) the Settlement Period when the Actual Generation ($AGEN_{us}$) equals or exceeds the Declared Availability (DA_{us}) that applied for the Settlement Period for which the Failure Flag was set; or

(d) the Settlement Period when the Actual Generation ($AGEN_{us}$) equals or exceeds the Declared Availability (DA_{us}) that applied for that Settlement Period; or

(e) the Settlement Period in the day following the day in which the Failure Flag was set for which the following conditions apply:

(i) the Pool Price is not less than 10% above the Under Generation Comparison Price (UGP_s) that applied in the Settlement Period s in which the Failure Flag was set, where $UGP_s = \min[PP_s, RAPPP_d]$ (where PP_s is the Pool Price that applied at Settlement Period s and $RAPPP_d$ is the Rolling Average Monthly Peak Pool Price for Day d containing Settlement Period s); and

(ii) the Owner's Declared Availability (DA_{us}) in this Settlement Period is not less than the declaration of Availability that applied for the Settlement Period for which the Failure Flag was set that applied ; and

(iii) the Declared Operating Characteristics are not degraded compared with the Declared Operating Characteristics that applied in the Settlement Period for which the Failure Flag was set; and

(iv) the Unit is not dispatched.

I2.4 Over Generation Failure Period

(a) An "Over Generation Failure Period" is that continuous run of Settlement Periods starting with (and including) the Settlement Period for which a "Over Generation Failure Flag" has been given (as defined in Section I2.4(b) below) and ending with (and including) the Settlement Period identified in Section I2.5 below;

(b) A Unit will be given an Over Generation Failure Flag for any Settlement Period in respect of which:

(i) the System Controller has reported that the Unit has failed to follow a Dispatch Instruction and this Dispatch Instruction is a Valid Dispatch Instruction; and

(ii) the failure was for generating at a level above its instructed dispatch level; and

(iii) the conditions described in Section I2.4(c) below do not apply;

(c) Notwithstanding the "failure to follow instructions" report by the System Controller, the Unit will not be given an Over Generation Failure Flag in the following circumstances:

(i) where the failure was an early synchronization, the Unit synchronized within one Hour of the instructed synchronization time; or

(ii) where the failure was a late desynchronization, the Unit desynchronized within one Hour of the instructed desynchronization time; or

(iii) the Settlement Period is the first Settlement Period of a Force Majeure event; or

(iv) where the failure was a failure to restrict output to the instructed dispatch level and the following conditions applied:

$$\text{If } (AGEN_{us} / SPD_s) - UIL_{us} \leq 2MW; \text{ or}$$

$$\text{If } (AGEN_{us} / SPD_s) - UIL_{us} \leq \min[5, 0.05 \times CC_{um}]$$

where UIL_{us} is the maximum MW level that the Unit was instructed to achieve in this Settlement Period as defined in the Dispatch Instruction, $AGEN_{us}$ is the Actual Generation level of the Unit in this Settlement Period, SPD is the Settlement Period Duration and CC_{um} is the Committed Capacity of the Unit as set out in Schedule B.

I2.5 Termination of the Over Generation Failure Period

The last Settlement Period in an Over Generation Failure Period is the earliest of:

(a) the Settlement Period in respect of which the System Controller has reported that the Unit is no longer failing to follow a Dispatch Instruction; or

(b) the Settlement Period that immediately precedes a Settlement Period for which a new Failure Flag has been set; or

(c) the Settlement Period in which $AGEN_{us} = 0$.

I2.6 Owner's Disputes on Failure Flags

If the Owner reasonably believes that:

(a) the System Controller's report that it failed to comply with a Dispatch Instruction, as described in Sections I2.2(b)(i) or I2.4(b)(i) above, is incorrect; or

(b) the Owner believes that the Dispatch Instruction as described in Sections I2.2(b)(i) or I2.4(b)(i) above was not a Valid Dispatch Instruction; or

(c) the System Controller should have reported that its failure to comply with a Dispatch Instruction has ended, as described in Sections I2.3(a) or I2.5(a) above, but did not;

it shall promptly inform both the Buyer and the System Controller of its dispute in respect of the System Controller's report or failure to report.

The Buyer shall, in conjunction with the Owner, approach the System Controller to obtain resolution of the dispute that is acceptable to both the Owner and the System Controller. If such agreement is not reached, the Owner shall submit the matter to binding arbitration under the terms of Article 19 as if it were the Buyer that had submitted the System Controller's report.