Australian Energy Market Commission

RULE CHANGE

DRAFT RULE DETERMINATION

National Electricity Amendment (Causer Pays for Ancillary Services to Control the Tasmanian Frequency) Rule 2009

Rule Proponent
Hydro Tasmania

Commissioners
Tamblyn
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30 July 2009

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For and on behalf of the Australian Energy Market Commission

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AEMC 2009, *National Electricity Amendment (Causer Pays for Ancillary Services to Control the Tasmanian Frequency*, Draft Rule Determination, 30 July 2009, Sydney

About the AEMC

The Council of Australian Governments, through its Ministerial Council on Energy, established the Australian Energy Market Commission (AEMC) in July 2005 to be the Rule maker for national energy markets. The AEMC is currently responsible for Rules and policy advice covering the National Electricity Market and, from 1 July 2008, concerning access to natural gas pipeline services and elements of the broader natural gas markets. It is a statutory authority. The AEMC's key responsibilities are to consider Rule change proposals, conduct energy market reviews and provide policy advice to the Ministerial Council on Energy as requested, or on AEMC initiative.

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Abbreviations

Additional Cost	The cost of the additional quantity of R6 that must be purchased in order to comply with the TFOS set by the TFOS Review that would not have been required had the current TFOS remained in force
AEMC	see Commission
AEMO	Australian Energy Market Operator
Amended Rule change proposal	Hydro Tasmania's Rule change proposal, as amended on 20 March 2009
CCGT	Combined cycle gas turbine
Commission	Australian Energy Market Commission
FCAS	Frequency control ancillary services
MCE	Ministerial Council on Energy
MW	Megawatt
NEL	National Electricity Law
NEM	National Electricity Market
NEMMCO	National Electricity Market Management Company, now the AEMO
NEO	National electricity objective
New TFOS Unit	Generating units who can operate in the Tasmania region once the TFOS set by the TFOS Review commences
NGF	National Generators Forum
Original Rule change proposal	Hydro Tasmania's Rule change proposal dated 23 December 2008
R6	Six second raise contingency market ancillary service
Reliability Panel	AEMC Reliability Panel
Rule change proposal	Hydro Tasmania's Rule change proposal, as amended on 13 May 2009
Rules	National Electricity Rules
TFOS	Tasmanian Frequency Operating Standard
TFOS Review	Tasmanian Frequency Operating Standard Review
TVPS	Tamar Valley Power Station

Summary

On 23 December 2008, Hydro Tasmania lodged a Rule change proposal with the Australian Energy Market Commission (Commission) for a Participant Derogation to change the methodology for recovering the costs of purchasing local contingency market ancillary services[a] in Tasmania (Original Rule change proposal).

On 20 March 2009, Hydro Tasmania made a late submission to the initial round of public consultation amending its Rule change proposal (Amended Rule change proposal). On 13 May 2009, Hydro Tasmania further modified its proposal (Rule change proposal).

Summary of the Rule change proposal

The Rule change proposal concerns the methodology used to allocate and recover the cost of six second contingency raise services (R6) in the Tasmania region after the new Tasmanian Frequency Operating Standard (new TFOS) commences. It proposes that the Australian Energy Market Operator (AEMO) calculate the quantity of R6 that must be purchased in order to comply with the new TFOS that would not have been required had the current TFOS remained in force. The cost of the additional quantity of R6 (Additional Cost) is recovered from market generators in Tasmania who were first registered with AEMO after 18 December 2008 and who could not have operated under the current TFOS (New TFOS Unit). The Additional Cost is allocated between New TFOS Units in proportion to each unit's registered capacity.

Commission's draft Rule determination

Under section 99 of the National Electricity Law (NEL), the Commission has determined to not make the Participant Derogation proposed by Hydro Tasmania (proposed Derogation).

Reasons for the Commission's draft Rule determination

The Commission is not satisfied that the proposed Derogation will or is likely to contribute to the achievement of the national electricity objective (NEO). If made, the Commission considers it likely that the proposed Derogation would:

[a] Hydro Tasmania refers to the contingency market ancillary services as frequency control ancillary services (FCAS). In order to maintain consistency between the Rule change proposal (as amended from time to time), submissions and this draft Rule determination, the Commission will refer to contingency market ancillary services as FCAS, but notes that this reflects the definition of market ancillary service presently contained in the Rules. The introduction of additional market ancillary services in the future (by way of a Rule change) could occur, which could affect the inter-changeability of the terms FCAS and market ancillary services.

- *distort signals for investment in the Tasmanian electricity generation sector*: the obligation on New TFOS Units to meet the cost of the additional R6 increases the cost of operating those units, thereby making the investment less attractive relative to investment in units that are not required to contribute to the cost of the additional R6. Distorting investment signals in this way may create incentives to build plant that would have met the current TFOS in order to avoid these additional costs;

- *restrict competition*: delaying or deferring decisions to invest in New TFOS Units in Tasmania limits the development of competition in the generation sector, and prevents consumers from accessing the benefits of price-based competition;

- *impede the achievement of economic efficiency*: distorted investment signals and limited competition hamper the market's ability to deliver to consumers electricity produced at least cost;

- *create a barrier to entry*: recovering the cost of the additional R6 only from New TFOS Units is likely to create a barrier to entry for that class of generator;

- *introduce a technological bias into the National Electricity Rules* (Rules): the effect of the proposed Derogation on investment signals, economic efficiency and conditions for entry is likely to create a competitive advantage in favour of those generators who meet the current TFOS;

- *create regulatory uncertainty*: making the proposed Derogation would demonstrate a willingness to change accepted cost allocation methodologies in a way that increases investment risk and undermines certainty in existing regulatory decision making and processes;

- *be inconsistent with the existing causer pays principle*: the basis on which the proposed Derogation allocates and recovers the cost of the additional R6 is not consistent with the causer pays principle that governs cost recovery for contingency FCAS services in the National Electricity Market (NEM).

For these reasons, the Commission is not satisfied that the proposed Derogation meets the Rule making test set out in section 88(1) of the NEL.

Making a submission

Stakeholders are invited to make a written submission in response to the Commission's draft Rule determination by Friday, 11 September 2009.

In accordance with section 101 of the NEL, any interested person or body may request that the Commission hold a hearing in relation to the draft Rule determination. Any request for a hearing must be made in writing and must be received by the Commission no later than 6 August 2009.

Submissions and requests for a hearing are required to be lodged electronically via the AEMC website (www.aemc.gov.au) or in hardcopy by mail to:

Australian Energy Market Commission
AEMC Submissions
PO Box A2449
Sydney South NSW 1235

All submissions and requests for a hearing should cite the reference "ERC 0082/3".

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1 Hydro Tasmania's Rule Change Proposal

1.1 Hydro Tasmania's Rule change proposal

On 23 December 2008, Hydro Tasmania lodged a Rule change proposal with the Australian Energy Market Commission (Commission) for a Participant Derogation to change the methodology for recovering the costs of purchasing local contingency market ancillary services[1] in Tasmania.

On 20 March 2009, Hydro Tasmania made a late submission to the initial round of public consultation. Its submission responded to some of the issues raised during public consultation by amending its Rule change proposal. Hydro Tasmania proposed further amendments on 13 May 2009 following discussions with the Australian Energy Market Operator (AEMO).

In this draft Rule determination, unless otherwise stated, a reference to the "Rule change proposal" or to the "proposed Derogation" means the Rule change proposal and proposed Derogation as amended on 13 May 2009.

1.2 Context of the Rule change proposal

In December 2008, the Reliability Panel amended the Tasmanian frequency operating standards (TFOS). The principal change was to raise the lowest frequency that the Tasmanian power system is permitted to operate at under extreme conditions (raising it from 46 Hz to 47 Hz). In addition, the Panel made a number of small changes to reduce the disparity between the TFOS and frequency operating standards on the mainland. The changes to the TFOS relative to the mainland standards are best depicted in Figure 1.1.

In deciding whether to amend the TFOS, the Reliability Panel considered whether Tasmania would need additional generation in the future, and whether such generation would be built. It found "there was a credible probability that a proponent for a new base load generator will be forthcoming" and that "the most likely fuel sources for this new generation are gas and wind."[2]

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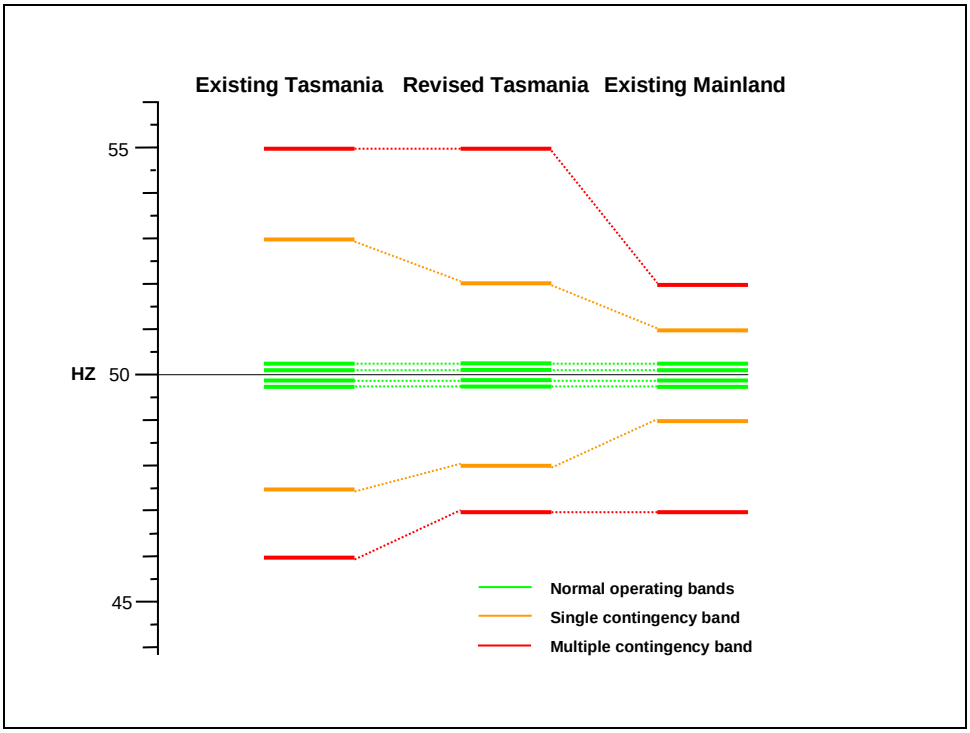
1 Hydro Tasmania refers to the contingency market ancillary services as frequency control ancillary services (FCAS). In order to maintain consistency between the Rule change proposal (as amended from time to time), submissions and this draft Rule determination, the Commission will refer to contingency market ancillary services as FCAS, but notes that this reflects the definition of market ancillary service presently contained in the Rules. The introduction of additional market ancillary services in the future (by way of a Rule change) could occur, which could affect the inter-changeability of the terms FCAS and market ancillary services.

2 AEMC Reliability Panel, *Tasmanian Frequency Operating Standard Review*, Final Report, 18 December 2008, Sydney, p. 19.

Figure 1.1 Comparison of the current TFOS and the new TFOS with the NEM mainland frequency operating standard under normal conditions



Source: AEMC Reliability Panel, *Tasmanian Frequency Operating Standard Review*, Final Report, 18 December 2008, Sydney, p. xiii.

Before making its final decision, the Reliability Panel retained CRA to analyse the economic costs and benefits of changing – and of not changing – the TFOS. One of the costs of tightening the TFOS would be an increase in the amount of FCAS required, particularly the six second raise service (called "R6"). The Reliability Panel reported that the CRA analysis showed:

> … a smaller, but clear, marginal net benefit for changing the Tasmanian frequency operating standards to allow more efficient thermal gas turbines to operate provided the contingency size is limited to 144 MW.[3]

The Reliability Panel also noted CRA's finding that if a second combined cycle gas turbine was connected, the economic benefits would increase in proportion to the capacity.[4]

Given the benefits of tightening the TFOS to allow combined cycle gas turbines to connect outweighed the economic costs (albeit by a small margin), the Reliability Panel tightened the TFOS.

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3 Ibid, p. 21.

4 Ibid.

1.3 Interactions with other processes

1.3.1 AEMO's treatment of inertia

On 18 May 2009, AEMO announced it would change the engine (called XDFCAS) it uses to calculate the Tasmanian FCAS requirements, including taking into account the effects of inertia and demand.[5] The changes will reduce the amount of Tasmanian inertia that is calculated as being available by excluding the inertia provided by certain generators from the relevant FCAS calculations, and implementing corresponding changes to constraint equations. These changes take account of the reduction in inertia following the trip of Basslink or the largest contingency generator.

The changes to XDFCAS will affect the demand for and cost of contingency raise FCAS in Tasmania, in particular R6. However, the Commission does not consider that the changes themselves, or their effect on demand and costs, have any bearing on the its assessment of the Rule change proposal against the national electricity objective (NEO).

1.4 Issue to be addressed

The Rules require AEMO to calculate and secure contingency raise FCAS in sufficient quantities to ensure the power system remains secure following a contingency event. Under the new TFOS, larger quantities of contingency raise FCAS will be required. Accordingly, total FCAS costs will increase. It is expected that the most substantial increase will be to the R6 requirement.

In accordance with clause 3.15.6A of the Rules, the costs of market ancillary services, including R6, are recovered according to the "causer pays" methodology. In this context, "causer pays" is a term used to describe a cost recovery methodology that requires the market participants to pay FCAS recovery costs in proportion to the extent to which that participant is deemed to have contributed to those costs.

Under clause 3.15.6A(f), the cost of the contingency raise services secured in each dispatch interval in a given trading interval is recovered entirely from market generators. The cost allocation to a region is apportioned between generators operating in that region during that trading interval on the basis of each generator's sent-out energy output. Under this approach, each generator pays the same price per unit of energy output.

The commencement of the new TFOS will increase the quantity of contingency raise services, particularly R6, that AEMO is required to have available to maintain system frequency. As the largest generator (by MW) in Tasmania, Hydro Tasmania is

5 NEM Communication No. 3379, *Changes to Tasmanian FCAS calculation method – Removing the Inertia of the generating unit(s) at risk*, 18 May 2009.

expected to experience the largest increase in FCAS costs.[6] However, Hydro Tasmania submits there is no benefit to it or other generators operating under the current TFOS from moving to the new TFOS.

Hydro Tasmania contends that generators who meet the current TFOS (and therefore do not benefit from the change) should not be required to contribute to the additional FCAS costs[7] imposed by the new TFOS. It submits that maintaining the current approach to cost recovery would create regulatory uncertainty and impede economic efficiency by distorting signals for investment in new generation. Further, Hydro Tasmania suggests that maintaining the existing cost recovery methodology would be contrary to the causer pays principle that has historically governed FCAS cost recovery in the National Electricity Market (NEM).

1.5 Hydro Tasmania's proposed solution

Hydro Tasmania submitted its Rule change proposal for a Participant Derogation to the Commission on 23 December 2008. A reference to the "Original Rule change proposal" is a reference to this version of the proposal.

Hydro Tasmania refined the terms of the Derogation it sought on two subsequent occasions. The first amendments were proposed on 20 March 2009.[8] The changes reflect Hydro Tasmania's response to issues of concern raised in submissions made during the initial round of public consultation. A reference to the "Amended Rule change proposal" is a reference to this version of the Rule change proposal.

The second series of amendments were put forward on 13 May 2009. The variations took account of AEMO's concerns about the practicalities of implementing the proposed Derogation. The revisions were prepared in conjunction with AEMO. Given that no subsequent changes have been made to either the Rule change proposal or the language of the draft Derogation, a reference to the "Rule change proposal" or the "proposed Derogation" are references to the Rule change proposal and Derogation as at 13 May 2009.

The Commission notes that it was difficult for some stakeholders to identify the scope of the changes proposed by Hydro Tasmania.[9] To assist stakeholders to prepare submissions in response to this draft Rule determination, and to clarify the parameters of the proposal analysed by the Commission, this section summarises the evolution of the proposed Derogation since the Original Rule change proposal was lodged.

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6 As the sole registered provider of contingency raise services to the Tasmania region (including R6), Hydro Tasmania's FCAS revenue is also expected to increase.

7 The Rule change proposal originally applied to all contingency raise services. On 13 May 2009, the proposed Derogation was narrowed to apply only to R6. Hydro Tasmania's Original Rule change proposal and subsequent amendments to it are detailed in 1.5 below.

8 Hydro Tasmania, first supplementary submission, 20 March 2009.

9 Gunns, response to additional information, 18 June 2009, p. 3; AETV Power, response to additional information, 15 June 2009, p. 5.

1.5.1 Original Rule change proposal

The key operational features of the Participant Derogation originally proposed by Hydro Tasmania were:

1. The Derogation takes effect once AEMO declares the market systems are ready to implement it.

2. The Derogation remains in force for 15 years.

3. Where AEMO needs to purchase additional contingency raise or lower services for Tasmania from Tasmanian generators (i.e. the local market ancillary service requirement) for a given dispatch interval, AEMO must calculate the additional FCAS requirements under two frequency operating standards: First, using the current TFOS and then using the new TFOS. The difference in the FCAS requirements under the two standards is called the "Additional Requirement" (clause 5(a) of the Derogation).

4. AEMO calculates the cost of the Additional Requirement (called the "Additional Cost") using the local market ancillary service price for the relevant dispatch interval (clause 5(b) of the Derogation).

5. AEMO uses a variation of the formula specified in clause 3.15.6A(f) of the Rules to allocate the cost of local market ancillary services in Tasmania. That portion of the Additional Cost that relates to contingency raise services is subtracted from the total cost of local market ancillary raise services for that dispatch interval. A corresponding calculation is performed for contingency lower services (clauses 6(1) and (2) of the Derogation).

6. The Additional Cost is allocated to those Market Generators who have a generation unit that would not have been able to connect to the network under the current TFOS (i.e. a "non-compliant generating unit"). The Additional Cost is allocated between each non-compliant generating unit on the basis of the each generation unit's registered capacity (clause 6(3) of the Derogation).

7. A "non-compliant generating unit" is a generating unit which:

   (a) is a Market Generating unit;

   (b) is located in Tasmania;

   (c) does not meet the current TFOS;

   (d) was first registered with AEMO after 1 July 2008.

8. Where the Additional Cost is equal to zero, no adjustment to the allocation of local market ancillary service costs is required (clause 6 of the Derogation).

1.5.2 Amended Rule change proposal

The Amended Rule change proposal retained the features of the original Rule change proposal identified above in items 1, 3, 4, 5, 6, and 8. The amendments put forward on 20 March 2009 made the following the changes:

1. Revise the triggers for the expiration of the Derogation to provide that it ceases at the earlier of:

   (a) 15 years; or

   (b) a further material change to the TFOS; or

   (c) the commissioning of a baseload station in Tasmania with an output in excess of 100 MW.

   This amends item 2 of the Original Rule change proposal.

2. In the definition of "non-compliant generating unit", amend the date for registration with AEMO to 18 December 2008 (item 7 of the Original Rule change proposal). All other aspects of the definition remain unchanged.

1.5.3 Rule change proposal

The Rule Change proposal, in its final form, retains items 1, 5, 6, and 8 of the Original Rule change proposal and items 1 and 2 of the Amended Rule change proposal. The amendments proposed on 13 May 2009 introduced the following new features:

1. The Additional Requirement is calculated solely on the additional R6 service required under the new TFOS. This represents a change to item 3 of the Original Rule change proposal.

2. The Additional Cost is calculated based on the price for R6 that applies for that dispatch interval. This varies the value of the price input used to perform the calculation described in item 4 of the Original Rule change proposal. The calculation itself remains the same.

3. In calculating how much additional R6 is required, AEMO is to use the greater of the following two contingency events:

   - a Basslink trip if the Basslink frequency control system protection scheme is in service; or

   - a trip of the largest generator (by MW and by inertia).

   This is a new element of the Derogation.

1.6 Consultation on the Rule change proposal

The Commission published Hydro Tasmania's Rule change proposal on 29 January 2009 and invited comments from interested parties by 13 March 2009. The Commission received six submissions.[10]

As noted above, on 20 March 2009 Hydro Tasmania provided a supplementary submission in response to these submissions. In its supplementary submission, Hydro Tasmania proposed certain amendments to the Original Rule change proposal.

On 29 April 2009, the Commission requested further information from Hydro Tasmania about the costs it asserted it would incur in providing the additional FCAS required under the new TFOS. The Commission also requested that Hydro Tasmania advise it of the outcome of Hydro Tasmania's discussions with AEMO concerning the practicalities of implementing the proposed Rule change.

Hydro Tasmania provided the information requested by the Commission on 13 May 2009. In addition, Hydro Tasmania amended the Amended Rule change proposal and provided new draft language for the proposed Derogation that reflected its changes.

The Commission published Hydro Tasmania's correspondence and invited interested parties to provide relevant written observations, including in the context of AEMO's revised approach to calculating Tasmanian market ancillary service requirements (outlined at 1.3 above). The Commission received responses from AETV Power, Aurora Energy and Gunns.

On 17 July 2009, Hydro Tasmania submitted a third supplementary submission. as the Commission has not been able to test the submission through public consultation, stakeholders are invited to comment on Hydro Tasmania's most recent submission in their submissions in response to the draft Rule determination.

1.7 Consultation on the draft Rule determination

Stakeholders are invited to make a written submission in response to the Commission's draft Rule determination by Friday, 11 September 2009. The Commission will have full regard to all submissions lodged within the specified time period but may not be able to afford late submissions the same level of consideration. To ensure the Commission is able to give full consideration to each submission, parties are encouraged to lodge their submissions by 11 September 2009.

In accordance with section 101 of the NEL, any interested person or body may request that the Commission hold a hearing in relation to the draft Rule determination. Any request for a hearing must be made in writing and must be received by the Commission no later than 6 August 2009.

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10 AEMO, AETV Power, Aurora Energy, Gunns, National Generators Forum and Roaring 40s.

Submissions and requests for a hearing are required to be lodged electronically via the AEMC website (www.aemc.gov.au) or in hardcopy by mail to:

Australian Energy Market Commission
AEMC Submissions
PO Box A2449
Sydney South NSW 1235

All submissions and requests for a hearing should cite the reference "ERC 0082/3".

2 Draft Rule Determination

2.1 Commission's draft Rule determination

Under section 99 of the NEL, the Commission determined to not make the Participant Derogation proposed by Hydro Tasmania, as amended on 20 March and 13 May 2009. The Commission is not satisfied that the Participant Derogation will or is likely to contribute to the achievement of the NEO. The Commission's reasons for its draft Rule determination are summarised at 2.5 below and set out in greater detail in Appendix A.

2.2 Rule making test and the national electricity objective

The NEO is the basis for assessing a Rule change proposal under the Rule making test. The NEO is set out in section 7 of the NEL:

> The objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to—
>
> (a) price, quality, safety, reliability and security of supply of electricity; and
>
> (b) the reliability, safety and security of the national electricity system.

The Rule making test, set out in section 88 of the NEL, states:

> (1) The AEMC may only make a Rule if it is satisfied that the Rule will or is likely to contribute to the achievement of the national electricity objective.
>
> (2) For the purposes of subsection (1), the AEMC may give such weight to any aspect of the national electricity objective as it considers appropriate in all the circumstances, having regard to any relevant MCE statement of policy principles.

There is no MCE statement of policy principles that is relevant to Hydro Tasmania's Rule change proposal.

2.3 Commission's power to make the proposed Derogation

The matters about which the Commission may make Rules are set out in section 34 and schedule 1 of the NEL.

The Commission is satisfied that the Derogation proposed by Hydro Tasmania falls within the matters the Commission may make Rules about as the proposed Derogation relates to regulating:

- the operation of the NEM, as it relates to the costs of market ancillary services necessary to maintain power system security;
- the activities of persons participating in the NEM, as it relates to the costs faced by market generators in the Tasmania region.

Accordingly, Commission is satisfied that the subject matter of the proposed Derogation is a subject matter about which the Commission may make a Rule.

2.4 Matters the Commission had regard to

This draft Rule determination sets out the Commission's reasons for not making a draft Rule. The Commission's decision took into account:

- the Commission's powers under the NEL to make a Rule;
- the Rule change proposal (as originally submitted and subsequently amended on 20 March 2009 and 13 May 2009);
- submissions received during the first round of consultation;
- the additional information provided by Hydro Tasmania on 13 May 2009 and the written observations provided by stakeholders in response to it;
- Hydro Tasmania's late submission dated 17 July 2009; and
- the Commission's analysis of whether the proposed Derogation will or is likely to contribute to the achievement of the NEO.

For the reasons set out in this draft Rule determination, the Commission is not satisfied that the proposed Derogation will or is likely to contribute to the achievement of the NEO. As such, the Commission is not satisfied that the proposed Derogation satisfies the Rule making test under section 88 of the NEL.

2.5 Commission's assessment of the Rule change proposal

This section of the draft Rule determination sets out the Commission's assessment of the Rule change proposal and the proposed Derogation against the NEO. The Commission's assessment of the proposal and the issues raised in submissions is set out in further detail in Appendix A.

2.5.1 Efficient investment in electricity services

The Commission considers the proposed Derogation is likely to distort signals for future investment in generation in the Tasmania region such that investment

decisions are less efficient. Less efficient investment in generation may affect the price at which electricity is sold to consumers, and the reliability of the supply of electricity. The Commission's conclusion reflects its view that the increase in the amount of R6 that will be required once the new TFOS commences is not caused by a decision by a New TFOS Units to connect to the network but, rather, is a consequence of the Reliability Panel's decision to adopt the new TFOS. The Reliability Panel's decision was based on its conclusion that allowing New TFOS Units to connect would be likely to contribute to the NEO.[11]

Requiring New TFOS Units to meet the cost of the additional R6 will increase the revenues the units must earn in order for the investment to be profitable. The need to generate higher returns may delay investment beyond the time that it would otherwise occur or, depending on the magnitude of the Additional Cost, may operate as a barrier to new entry. Distorting market price signals such that they fail to result in timely new generation investment to meet demand growth could jeopardise the reliability of electricity supply. Tighter supply/demand conditions are likely to translate into higher prices to consumers.

Increasing the operating costs for New TFOS Units may create incentives to invest in generation plant that could operate under the current TFOS in order to avoid contributing to the Additional Cost. For example, it would be possible to build wind farms after the new TFOS commences that use turbines that would have met the current TFOS. This could give rise to a bias in favour of investment in certain technologies (e.g. hydro generation) relative to other technologies that can only operate under the new TFOS (e.g. more efficient combined cycle gas turbines). Each of these distortions could impede efficient investment in generation.

Permitting the proposed Derogation to expire when a new baseload generator of a specified capacity is commissioned is expected to interfere with decisions about the timing of and specifications for new plant. Investment may be committed early (or delayed) according to how the investor or its competitors are affected by the continued operation of the Derogation. Similarly, the future application of the proposed Derogation is likely to affect decisions about whether the size of the plant to be built does or does not meet the capacity threshold specified in the Rules. The magnitude of this distortion is likely to increase as the Additional Cost grows.

For these reasons, the Commission is not satisfied that the proposed Derogation will or is likely to promote efficient investment in electricity services for the long term interests of consumers of electricity. Therefore, the Commission is not satisfied the proposed Derogation will or is likely to contribute to the achievement of the NEO.

2.5.2 Efficient operation and use of electricity services

The Commission is concerned that the effects of the proposed Derogation on prospective investment will reduce the competitive benefits of adopting the new TFOS. In particular, the Commission is concerned that the resulting increase in the operating costs for New TFOS Units, actual or perceived barriers to entry, and

11 AEMC Reliability Panel, TFOS Review Final Report, p. 22.

distortions to signals concerning the timing and size of new plant will reduce the efficiency of decision making in the generation sector. Any reduction in efficiency brought about by weaker competition in the generation sector is likely to prevent consumers from being offered a price for electricity that is based on the efficient cost of supply.

For this reason, the Commission does not consider the proposed Derogation will or is likely to promote efficient operation and use of electricity services for the long term interests of consumers of electricity. Therefore, the Commission is not satisfied the proposed Derogation will or is likely to contribute to the achievement of the NEO.

2.5.3 Safety and security of the NEM

The Commission does not consider the proposed Derogation is likely to affect the safety or security of the NEM.

2.5.4 Good regulatory practice

The Commissions considers the proposed Derogation would undermine regulatory certainty and therefore is not likely to contribute to the achievement of good regulatory practice in the NEM.

The Commission does not agree that the cost recovery methodology embodied in the proposed Derogation is consistent with the causer pays principle reflected in clause 3.15.6A of the Rules. The Commission's position is underpinned by its view that the Additional Cost is not caused by New TFOS Units but, rather, is a consequence of the Reliability Panel's decision to adopt the new TFOS.[12] Therefore, making a Rule in the terms of the proposed Derogation would introduce inconsistency into the regulatory framework. It may also serve as a justification for subsequent proposals to diverge from other established market frameworks. Therefore, unless there are clear and demonstrable reasons for introducing different regulatory arrangements, certainty in regulatory decision making and processes is best achieved through consistency.

For these reasons, the Commission does not consider the proposed Derogation will or is likely to contribute to the achievement of the NEO.

2.6 Alternatives to making the proposed Derogation

It is foreseeable that the requirements for contingency FCAS within a region or throughout the NEM could change materially in the future. As discussed in the 2nd Interim Report of the *Review of Energy Market Frameworks in light of Climate Change Policies*, investment in wind farms may increase in response to climate change

[12] As noted above and in Chapter 1, the Reliability Panel's decision reflects its expectation that allowing New TFOS Units to connect would lead to reduced costs for Tasmanian electricity customers in the long run: AEMC Reliability Panel, TFOS Review Final Report, p. xii.

policies like the expanded Renewable Energy Target.[13] Substantial increases in wind farm capacity may reduce system inertia by displacing synchronous generators (such as hydro, thermal and gas units). Reduced system inertia can increase the need for market ancillary services to control frequency.

An increase in the size of the largest generator contingency will also increase the amount of contingency FCAS required. AEMO will be required to procure sufficient contingency raise services to ensure it can maintain power system security if the largest generator trips.

In light of the Commission's draft Rule determination that it not make the proposed Derogation, the Commission proposes that it monitor the need in the coming years for a NEM-wide review of the existing approaches to the allocation and recovery of contingency FCAS. In the event that is becomes appropriate to undertake such a review, it could be initiated either by the MCE or by the Commission.

[13] AEMC 2009, *Review of Energy Market Frameworks in light of Climate Change Policies*, 2nd Interim Report p. 9.

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A Analysis of the Rule Change Proposal

This appendix summarises the matters raised by stakeholders during the consultation process and sets out the Commission's analysis of the proposed Derogation. The scope of the final Rule change proposal put forward by Hydro Tasmania and considered by the Commission is set out in Chapter 1 of the draft Rule determination.

A.1 Background

In the Final Report in the *Tasmanian Frequency Operating Standard Review* (TFOS Review), the Reliability Panel noted that many of the benefits of changing the TFOS would be captured by the new higher efficiency generating units that will be able to operate once the new TFOS commences. It also observed that, under the current cost recovery arrangements, the cost of the additional contingency raise services necessary to comply with the new TFOS would be recovered from all Tasmanian market generators.

The Reliability Panel acknowledged there is merit in exploring alternative cost recovery mechanisms. As a starting point for further discussion, it outlined two alternatives:

- calculating the cost of the additional FCAS required to meet the new TFOS and recovering this from the new unit(s) that are only able to operate once the new TFOS commences;
- requiring these units to contract with AEMO to provide an additional amount of FCAS that AEMO would take into account when procuring FCAS through the ancillary services market.

However, the Reliability Panel identified that both options present difficulties that would need to be considered and addressed, and that either option could only be adopted through the Rule change process provide for in the NEL.[14]

The Rule change proposal put forward by Hydro Tasmania is based on the first of the options identified by the Reliability Panel.

A.2 Issue in the Rules to be addressed via a Rule change proposal

Hydro Tasmania's proposed Derogation reflects its position that the costs of the additional six second raise service necessary to meet the new TFOS should be recovered from those generators who benefit from the new standard, i.e. those generating units who are able to connect and operate in the Tasmania region once the new TFOS commences. Hydro Tasmania submits that recovering the Additional Cost pursuant to the existing cost recovery methodology would be inconsistent with

14 AEMC Reliability Panel, TFOS Review Final Report, pp. 26-27.

good regulatory practice and likely to reduce economic efficiency in the NEM.[15] Hydro Tasmania also submits the proposed Derogation places an appropriate incentive on New TFOS Units to provide or procure additional R6 services.[16] The proposed Derogation is supported by the NGF and Roaring 40s.[17]

Other stakeholders did not agree that the introduction of the new TFOS warranted changes to the current cost recovery methodology. The arguments in favour of maintaining the current arrangements are, in summary:

- the effects on investment signals, economic efficiency, regulatory certainty and competition are such that the proposed Derogation does not contribute to the achievement of the NEO;
- the proposed Derogation creates a barrier to entry for new investment and impedes the pro-competitive objectives of the Reliability Panel's decision to change the TFOS;
- the cost allocation and recovery methodology proposed by Hydro Tasmania is inconsistent with the existing causer pays principle applied throughout the NEM; and
- the issue to be addressed is a wealth transfer between generators and, as such, does not justify a change to the Rules.

The views expressed in the Rule change proposal and submissions, and the Commission's analysis of them, are set out in greater detail in this Appendix.

A.2.1 Commission's analysis

The effect of changing the TFOS on FCAS costs, particularly R6, was identified by submissions to the TFOS Review.[18] The Reliability Panel acknowledged the potential for stakeholders to submit Rule change proposals suggesting alternative cost recovery methodologies.[19]

The Rule change process provided for in the NEL allows any person to identify an issue it considers requires redress and appropriate solution, and for that issue to be tested with interested parties in order to identify the most suitable solution. However, whether the Rules are amended is ultimately a question of whether the Rule change proposal satisfies the Rule making test set out in the NEL.

15 Hydro Tasmania, Original Rule change proposal, p. 5.

16 Hydro Tasmania, third supplementary submission, p. 2.

17 National Generators Forum, submission, 11 March 2009; Roaring 40s, submission, 13 March 2009.

18 AEMC Reliability Panel, TFOS Review Final Report, p. 27 and Appendix C.

19 Ibid, p. 27.

A.3 Effect on investment signals

Hydro Tasmania submits that the proposed Derogation will encourage efficient future investment in the generation sector in Tasmania. It contends that requiring investors in New TFOS Units to meet all the costs caused by their decision to enter the market (i.e. the costs of the additional R6 required to meet the new TFOS) will ensure investment decisions are based on the total costs of entry.[20]

Hydro Tasmania submits that making New TFOS Units more accountable for the costs they impose on the market will also improve dynamic efficiency. The analysis of the economic efficiency benefits of the proposed Derogation is set out at A.4 below.

The NGF supported making the proposed Derogation on the grounds that it would ensure prospective investors adopt the least cost approach to meeting the standards existing at the time of connection. It submitted that the least cost solution may include the new generation unit providing contingency services (including R6) to the market. As the NGF explained:

> This will mean that the entrant considers all the location specific costs and is incentivised to select the overall least cost investment option to ensure the lowest cost delivered energy to consumers consistent with the NEM objective. In this case, implementation of the rule will encourage TVPS [Tamar Valley Power Station] to provide the additional FCAS which they have caused in Tasmania which is a good outcome for the market and customers.[21]

It is the NGF's view that requiring new entrants to install plant or procure the services required to ensure their plant can operate within the frequency standards existing at the time of connection will prevent harm to incumbents.[22]

A number of stakeholders viewed the impact of the proposed Derogation on future investment differently. AETV Power, the owner of TVPS, submitted that investment decisions would be skewed because the proposed Derogation fails to allocate FCAS costs equitably between generators, loads and other entities in Tasmania.[23] Gunns submitted that Hydro Tasmania's proposal "[c]ould encourage investment in less than optimal technology to meet an outdated Standard, reducing the potential for low-cost operation."[24]

Gunns also advised that the potential increase in the operating cost faced by New TFOS Units will reduce competition and, in turn, reduce the potential for lower costs to consumers. It argued this would "tend to lead to increased electricity charges to

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20 Hydro Tasmania, Original Rule change proposal, 23 December, pp. 9-10.

21 National Generators Forum, submission, 13 March 2009, p. 3. See also p. 2 of the NGF's submission.

22 Ibid.

23 AETV Power, submission, 13 March 2009, p. 12.

24 Gunns, submission, 13 March 2009, p. 4.

consumers due to higher cost of production in new plants or continuing lack of competition."[25]

Gunns also noted that preventing or discouraging investment in larger steam and combined cycle generators is likely to give rise to difficulties with system control. This is because these types of plant increase the amount of system inertia available, which is necessary to enable large quantities of renewable energy sources, such as wind power, to connect to the power system.[26]

A.3.1 Commission's analysis

The Reliability Panel's economic consultant found that, under most plausible conditions, there is a case for additional baseload capacity in Tasmania.[27] However, the effect of the proposed Derogation will be to increase the operating costs of New TFOS Units built to provide the additional capacity required. The Commission is concerned that increasing the cost of operating units that meet the new TFOS will distort investment signals.

Increasing operating costs increases the returns that are required before it is economic to build new plant. This is likely to delay future investment beyond the time that it would otherwise occur. Delaying future investment could cause the balance between supply and demand to tighten, reducing the reliability performance of the power system and increasing the price paid by consumers for electricity. As discussed at A.7 below, distorting investment signals in a way that discourages new entry is also likely to restrict the pro-competitive objectives underpinning the Reliability Panel's decision to adopt the new TFOS, including lower average energy costs for customers in the long term.[28]

The proposed Derogation also risks interfering with the selection of the appropriate generation technology or the specifications of turbines. By excusing those generators who meet the current TFOS from having to contribute to the Additional Cost, the proposed Derogation creates an incentive to build generation plant that meets the current TFOS. The incentives are strengthened if the Additional Cost is, or is likely to be, substantially greater than the cost of building plant that complies with the current TFOS. The selection of wind turbines is most likely to be affected by this incentive.

Taking into account the way the proposed Derogation is likely to distort the market signals for investment in new generation, the Commission does not consider the proposed Derogation will or is likely to contribute to the NEO.

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25 Ibid.

26 Ibid.

27 AEMC Reliability Panel, TFOS Review Final Report, p. 19.

28 Ibid, p. 22.

A.4 Promoting economic efficiency

Hydro Tasmania contends that the proposed Derogation will contribute to achieving the NEO by creating incentives for efficient generation investment and therefore promoting dynamic efficiency. It submits the proposed Derogation will deliver these outcomes by:

- requiring investors to select the type of plant that presents the least cost investment option; and
- postpone commissioning the plant, thereby increasing its profitability.

According to Hydro Tasmania, these incentives will encourage more efficient investment decisions in transmission and load projects in Tasmania and, potentially, in other NEM regions.[29]

With respect to the type of plant selected, Hydro Tasmania submits that recovering the Additional Cost from New TFOS Units will force proponents of new generators to take into account the FCAS costs that these technologies impose on the market as a whole.[30]

In relation to the timing of investment, Hydro Tasmania considers the proposed Derogation may lead to the efficient deferral of commissioning dates:

> Assuming load growth and no other supply-side responses, a given generation project is likely to be more profitable the later it is commissioned. This is because wholesale prices and revenues would be higher, with no increase in costs. Therefore to the extent that the proposed Rule change leads to proponents of new higher-efficiency generators facing higher project costs, they are likely to defer the timing of their investments to some degree.[31]

The NGF agreed that, by providing incentives to ensure investors selected the least cost investment option, the proposed Derogation would improve productive efficiency. It stated:

> Compared to the absence of the proposed Rule change, the result should be a more favourable investment climate, lower cost of capital of investment, and ultimately greater productive efficiency as future load can be served at a lower cost.[32]

However, a number of submissions expressed concern that the proposed Derogation would reduce economic efficiency. AETV Power considered that:

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29 Hydro Tasmania, Original Rule change proposal, 23 December 2008, pp. 9, 10.

30 Ibid.

31 Ibid, p. 10.

32 National Generators Forum, submission, 11 March 2009, p. 3.

> … the Hydro Rule Change Proposal, rather than improving dynamic efficiency by implementing appropriate incentives for future investment, in fact reduces dynamic efficiency by skewing cost signals to parties who do not impose wider costs on the power system.[33]

Gunns suggested that the proposed Derogation would increase the cost of production faced by new plant or continue the lack of competition, leading to increased electricity charges. Neither result, Gunns submitted, appears to be in the best interests of consumers and therefore does not contribute to the achievement of the NEO.[34]

Aurora Energy did not agree that it is necessary to amend the current cost recovery mechanism. In its view, maintaining the current arrangements is unlikely to reduce the economic efficiency or distort future investment signals. Even if there was a need to change the existing arrangements, Aurora Energy did not consider the proposed Derogation would achieve the desired outcomes:

> The allocation of FCAS does not cause new plants to be developed inefficiently late, or result in the "wrong type of capacity or in the wrong location leading to inefficiently high consumer costs". There is not sufficient evidence to believe that the rule change proposed would have a material impact on the timing or merit order of new generation plants.[35]

A.4.1 Commission's analysis

The premise of the proposed Derogation is that the Additional Cost is a cost to the market imposed by a decision to invest in New TFOS Units. The Commission does not consider this characterisation is appropriate. As it discusses further at A.9, the Commission considers the increase in the amount of R6 required to meet the new TFOS and the Additional Cost are necessary consequences of the Reliability Panel's decision to tighten the TFOS.

Further, deferring potential investment in New TFOS Units will not necessarily improve efficiency outcomes, especially where the decision to defer investment is the result of increased project costs. Unnecessary delays in investment are likely to impede increased competition between generators. Weaker competition reduces the incentives generators face to generate electricity at its efficient cost. As well as failing to encourage generators to operate more efficiently, reducing competitive pressures prevents consumers from receiving the most efficiently priced electricity.

While investment signals should reflect the true costs of investment on the market, the Commission does not consider the effects of the proposed Derogation on

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33 AETV Power, submission, 13 March 2009, p. 13.

34 Gunns Limited, submission, 13 March 2009, p. 4.

35 Aurora Energy, submission 13 March 2009, p. 5.

investment signals will promote efficient investment in, or efficient operation and use of, generation services.

The Commission notes the comments in submissions concerning the relevance of wealth transfers to its assessment of the proposed Derogation.[36] In determining whether a proposed Rule change meets the Rule making test, it is appropriate to have regard to wealth transfers insofar as the transfers have an economic impact on the electricity sector. In the present case, the Commission considers that transferring the cost of the additional R6 between generators does not achieve any economic efficiency gains (or create any efficiency losses). Given that its economic impact appears to be neutral, the wealth transfer between Hydro Tasmania and the New TFOS Units does not affect the Commission's assessment of the proposed Derogation against the NEO.

A.5 Barriers to entry

A barrier to entry is any market characteristic or condition that places an efficient potential new entrant business at a disadvantage relative to an established business. A barrier to entry does not include a cost or other impediment that applies more or less equally to any party wanting to participate in the market, irrespective of whether it is an established business or a new entrant.

Some stakeholders expressed concerned that the Additional Cost may operate as a barrier to new entry. AEMO submitted:

> … there is a risk that the additional cost might operate as a barrier to entry when compared to an approach that does not impose additional charges in this way. This may bear consideration with respect to promotion of efficient investment and the NEM objective.[37]

Similar views were expressed by Aurora Energy[38] and AETV Power[39] in their submissions.

AETV Power was also concerned that the proposed Derogation would operate as a barrier to the competitive objectives identified by the Reliability Panel. AETV Power suggested that the outcome of the proposed Derogation would be to:

> … create an additional barrier for entry for a particular technology type within the Tasmanian region that doesn't exist in the rest of the NEM. AETV submits that this will stifle competition in a region that has a single dominant

36 Ibid, p. 5.

37 AEMO, submission, 12 March 2009, p. 4.

38 Aurora Energy, submission, 13 March 2009, p. 6.

39 AETV Power, submission, 13 March 2009, p. 6.

generator and significant limitations in sourcing competitive prices via Basslink.[40]

In response to concerns that the proposed Derogation created a barrier to entry, Hydro Tasmania amended its Rule change proposal on 20 March 2009. The amendment to the proposed clause 3 provided that the Derogation would expire at the earlier of:

- 15 years;
- a further material change to the TFOS; or
- a new baseload generator bigger than 100 MW being commissioned in Tasmania.[41]

Hydro Tasmania stated that allowing the Derogation to lapse if a new baseload generator is built would "remove the barrier to entry for subsequent new entrants."[42] In practical terms, the proposed Derogation would bind TVPS until a second large generator is built.

Aurora Energy[43], AETV Power[44] and Gunns[45] did not consider the revisions proposed by Hydro Tasmania alleviated the barrier to entry created by the proposed Derogation.

A.5.1 Commission's analysis

The Commission agrees that imposing the Additional Cost on new entrant New TFOS Units could operate as a barrier to entry. The draft Rule determination reflects its view that the proposed Derogation imposes a cost on generators who can not meet the current TFOS that is not borne by existing generators. This barrier could preclude entry, or delay new entry beyond the time that is economically efficient, especially where the business case for entry is finely balanced.

The Commission notes Hydro Tasmania's efforts to mitigate the adverse competitive impacts of the proposed Derogation by amending its proposed clause 3. Despite the amendments proposed by Hydro Tasmania, the Additional Cost would operate as a barrier to those investors wishing to construct a New TFOS Unit smaller than 100 MW (or such other capacity as specified in the Derogation) as the operator of that plant would be required to contribute to the Additional Cost.

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40 Ibid, p. 13.

41 Hydro Tasmania, first supplementary submission, 20 March 2009, p. 5.

42 Ibid.

43 Aurora Energy, response to additional information, 15 June 2009, p. 2.

44 AETV Power, response to additional information, 15 June 2009, p. 2.

45 Gunns, response to additional information, 18 June 2009, p. 4.

The level of prescription required to ensure the proposed clause 3 operates effectively and provides certainty to market participants and prospective investors is likely to distort investment signals. TVPS, as the generator most likely to be bound by the definition of "non-compliant generating unit", would face an incentive to build a plant that meets the specifications set out in the Derogation in order to trigger its expiration. Conversely, there is an incentive for generators who benefit from the Additional Cost being recovered from TVPS (e.g. Hydro Tasmania) and who wish to build additional plant to invest in generation that does not meet the specifications to ensure the Derogation continues. These incentives may result in inefficient decisions to invest in the generation sector in Tasmania.

The Commission notes Hydro Tasmania's view that material provided by AETV Power and Gunns to the Reliability Panel indicating their respective intentions to provide contingency raise services, including R6, is evidence that New TFOS Units do not face a barrier to entry.[46] The Commission considers the barrier created by the proposed Derogation is a barrier to entry into the generation sector, rather than a barrier to providing contingency FCAS.

In light of its conclusion that the Additional Cost would operate a barrier to new entry to the generation sector and the adverse incentives that clause 3 of the proposed Derogation would create for generator behaviour, the Commission does not consider the proposed Derogation will or is likely to contribute to the NEO.

A.6 Technological bias

AETV Power expressed concern that the proposed Derogation will create a barrier to entry for a particular technology type wishing to enter the Tasmania region that does not exist in the rest of the NEM and that this will stifle competition.[47]

A.6.1 Commission's analysis

The NEO is concerned with the comparative effects of changes to the Rules on different energy sources and technologies. The Second Reading Speech to the *National Electricity (South Australia) (New National Electricity Law) Amendment Bill 2005* discusses the economic efficiency objectives of the NEO (at that time called the National Electricity Market objective).[48] It states:

> Applying an objective of economic efficiency recognises that, in a general sense, the national electricity market should be competitive, that any person wishing to enter the market should not be treated more or less favourably than persons already participating in the market, and that particular energy

46 Hydro Tasmania, third supplementary submission, 17 July 2009.

47 AETV Power, submission, 13 March 2009, p. 13.

48 In accordance with section 8(2a)(c) of Schedule 2 of the NEL, consideration may be given to the Second Reading Speech to confirm the interpretation conveyed by the ordinary meaning of the provision.

sources or technologies should not be treated more nor less favourably than other energy sources or technologies.[49]

There is a material risk that the proposed Derogation will create outcomes that are inconsistent with these efficiency objectives. A result of the proposed Derogation is likely to be that generating units using certain technologies will be treated less favourably than others. Specifically, it is likely to increase the costs faced by units using technologies that can only operate under the new TFOS (e.g. combined cycle gas turbines and some wind turbines) relative to those units that operate under the current TFOS (e.g. hydro generators). Increasing the costs of generating units that use certain classes of technologies will, other costs being equal, create an incentive to adopt the technology that attracts lower R6 costs.

The language of the draft of the proposed Derogation prepared by Hydro Tasmania does not expressly identify any specific generation technology, e.g. hydro versus combined cycle gas turbine or wind power. However, the effect of the definition of "non-compliant generating unit" is to distinguish between hydro generators and units using more efficient gas turbine generators, thereby creating a bias against New TFOS Units.

Further, as discussed at A.5 above, it is likely that the proposed Derogation would operate as a barrier to new entry. Consistent with the economic efficiency objectives of the NEO, a person wishing to enter the market (e.g. a New TFOS Unit) should not be treated less favourably than persons already participating in the market (e.g. hydro generators). The Second Reading Speech supports this view.

By creating a distinction between generation technologies and between existing generators and new entrants, the proposed Derogation is likely to create outcomes that do not promote economic efficiency. As a result, the Commission does not consider the proposed Derogation will or is likely to contribute to the NEO.

A.7 Competition in the Tasmanian generation sector

The Reliability Panel's decision to change the TFOS was based on its view that enabling New TFOS Units to be commissioned in the Tasmania region is likely to contribute to the achievement of the NEO, in part by increasing competition in the generation sector. The Reliability Panel expected that increased competition in the supply of electricity would result in more efficient electricity prices to consumers.[50]

Opponents of the proposed Derogation maintain that it will hinder the development of competition in the electricity sector and undermine the competition objectives of the TFOS Review. Aurora Energy observed:

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49 Second Reading Speech, *National Electricity (South Australia) (New National Electricity Law) Amendment Bill 2005*, House of Assembly, 9 February 2005, p. 1452.

50 AEMC Reliability Panel, TFOS Review Final Report, p. 22.

> Any new prospective generator already has a significant disincentive to locate in Tasmania due to the generator contingency size limit imposed by the Tasmanian frequency standard review, without any additional raise and lower FCAS costs being assigned to it. This is clearly to the disadvantage of Tasmanian consumers and the development of a competitive market in Tasmania.[51]

AETV Power voiced a similar concern:

> Hydro [Tasmania] proposes that the additional FCAS costs should be borne by new high efficiency thermal generators—exactly the types of generators that the Reliability Panel indicated should be encouraged in Tasmania.[52]

A.7.1 Commission's analysis

In light of its effects on investment signals, economic efficiency, barriers to entry and incentives to invest in new technology, it is unlikely that the proposed Derogation will promote competition in the generation sector in the Tasmania region or in the NEM. The Commission is also concerned that weaker competition will preclude consumers from being offered a price for electricity that is based on the efficient cost of supply. Such an outcome is inconsistent with the NEO which, together with other goals, aims to promote efficient operation and use of electricity services with respect to price.

A.8 Regulatory certainty

In exercising its powers and functions under the NEL, the Commission aims to promote frameworks for regulatory processes and decision making that provide appropriate certainty and predictability to market participants, while allowing the regulator sufficient discretion and flexibility to perform its role effectively. Energy market frameworks that deliver these outcomes can be characterised as providing regulatory certainty.

Hydro Tasmania submits that the proposed Derogation enhances regulatory certainty by consistently applying the causer pays principle that applies elsewhere in the NEM, including in relation to other market ancillary services. Applying the causer pays principle in a consistent, predictable manner gives investors confidence that they will not be forced to bear costs imposed by future regulatory changes resulting from a subsequent new entrant.[53] According to Hydro Tasmania, this reduces "actual and perceived regulatory risk" by promoting "good regulatory practice and consistency with prior regulatory determinations."[54]

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51 Aurora Energy, submission, 13 March 2009, p. 6.

52 AETV Power, submission, 13 March 2009, p. 6.

53 Hydro Tasmania, Rule change proposal, 23 December 2008, p. 8.

54 Ibid, p. 11.

Hydro Tasmania submits that, in the absence of the proposed Derogation, prospective investors in new generation, load and transmission projects in Tasmania and elsewhere in the NEM "will be more reluctant to invest if they perceive a significant risk that they may be required to bear costs arising from decisions of a similar nature."[55] The inability of investors to control these costs could adversely impact the value of their investment(s).

The NGF argued that increased investor certainty is particularly important at present as the electricity industry adjusts to the impact of a carbon constrained world in which major new investments will be required. It supported Hydro Tasmania's view that the proposed Derogation will increase regulatory certainty for prospective investors:

> … protecting investments from costs derived from regulatory change is a cornerstone in developing confidence in the investment climate in the NEM …
>
> By adopting this Rule Proposal, the AEMC will have reaffirmed the principle that investors will not be faced with costs arising from regulatory decisions made in response to later investments.[56]

Aurora Energy and AETV Power did not agree that the introduction of the new TFOS, in the absence of the proposed Derogation, would undermine regulatory certainty for prospective investors in generation. Rather, they considered that making the Derogation would create uncertainty. In AETV Power's view:

> … "regulatory change" is merely a feature of market governance and accordingly does not present a compelling reason why the FCAS costs settlement market in Tasmania should be changed in the manner suggested by Hydro [Tasmania].[57]

Similarly, Aurora Energy noted:

> As a market participant, Aurora's experience is that the introduction and removal of jurisdictional derogations by their nature creates perceptions of regulatory unpredictability compared to the uniform application of rules across the National Electricity Market.[58]

Aurora Energy and AETV Power also queried Hydro Tasmania's view that the proposed Derogation insulates prospective investors from costs stemming from changes to the regulatory framework. AETV Power asserted that making the proposed Derogation would give rise to the precise consequence that Hydro Tasmania claims it intends to avoid: "changing the regulatory system in a manner

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55 Ibid, p. 8.

56 National Generators Forum, submission, 11 March 2009, pp. 2, 3.

57 AETV Power, submission, 13 March 2009, p. 12.

58 Aurora Energy, submission, 13 March 2009, p. 3.

which imposes additional costs on a party which has already made its investment decision."[59] Similarly, Aurora Energy observed:

> … the rule proposal would have the currently committed Tamar Valley Power Station investment and any future development exposed to a regulatory rule change that imposed additional costs on them that they are unable to control.[60]

In response to these comments, Hydro Tasmania submitted that "[a]ny generator is able to manage their FCAS costs."[61] Every generator has the option to use financial products to hedge their exposure to the market and generators with FCAS capability can sell FCAS into the market. Hydro Tasmania stated that the proposed Derogation creates incentives for TVPS to adopt this risk management option which, given "the scarcity of supply in Tasmania, this is a good incentive."[62]

Gunns observed that it may be difficult for generators to manage their FCAS costs as Hydro Tasmania is the only registered supplier of FCAS in the Tasmania region.[63]

A.8.1 Commission's analysis

The Commission does not consider that, if made, the proposed Derogation would contribute to regulatory certainty. Rather than promoting clarity, transparency and predictability, the changes the proposed Derogation would make to existing frameworks are likely to reduce confidence in the certainty of cost recovery processes.

The Commission also agrees that applying a cost recovery methodology consistently throughout the NEM, especially to the recovery of a given class of cost e.g. R6, promotes regulatory certainty. The cost recovery methodology in the proposed Derogation is inconsistent with the causer pays principle that currently applies to contingency FCAS services in the remaining NEM regions. It is also inconsistent with the application of this principle in other contexts, including transmission pricing. Accordingly, a determination by the Commission to make the proposed Derogation would add to existing inconsistencies in the NEM. The Commission's analysis of the differences between the cost allocation methodology in the proposed Derogation compared to the causer pays principle is set out in A.9 below.

Consistency plays an important role in promoting investor certainty and reducing regulatory risk. Therefore, maintaining consistency in the way contingency FCAS costs are recovered encourages regulatory certainty. Regulatory uncertainty can also be exacerbated where a decision to deviate from an existing market framework could be used to justify subsequent decisions to deviate from market frameworks. The

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59 AETV Power, submission, 13 March 2009, p. 10.

60 Aurora Energy, submission, 13 March 2009, p. 3.

61 Hydro Tasmania, first supplementary submission, 20 March 2009, p. 3.

62 Ibid.

63 Gunns, response to additional information, 18 June 2009, p. 3.

prospect of increased inconsistency within the NEM can undermine confidence in regulatory processes, and certainty in the market frameworks that are likely to apply into the future. Together, these factors can reduce investor confidence in the NEM.

In the present case, making the proposed Derogation could be used in support of the following arguments:

- in the event the Reliability Panel decides to tighten the TFOS a second time, grandfathering all plant registered at the date of the decision. This would require AEMO to calculate the FCAS requirements for the Tasmania region according to three different frequency operating standards;
- in the event of a change to the mainland frequency operating standards, grandfathering all plant registered at the date of the Reliability Panel's decision;
- changes to other standards (other than for access), including the Reliability Standard and the market price cap.

In light of the sorts of changes that the proposed Derogation could be used to support, the Commission considers making the proposed Derogation presents a material risk to good regulatory practice.

The Commission is also concerned to ensure market participants can identify, with confidence and certainty, the circumstances in which the proposed Derogation will expire (clause 3 of the proposed Derogation). It considers there are a number of risks inherent in the proposed Derogation that are likely to undermine regulatory certainty.

The first of the new criterion triggers the expiration of the proposed Derogation when a "further material change" is made to the TFOS. However, it does not specify the circumstances in which a change will be considered "material". As such, it is likely to be difficult for market participants and prospective investors to determine whether a proposed change to the TFOS will increase or reduce their liability for contingency FCAS costs.

In relation to the commissioning of a new baseload generator, the proposed Derogation should identify the technical specification of the plant that would trigger the expiration of the proposed Derogation. For example, the output of the unit (e.g. 100 MW) would need to be specified in some way e.g. the unit's registered capacity, or its winter or summer rating. The Rules must also contemplate whether the capacity of the generating plant reflects the output of a single turbine (e.g. 1 x 100 MW) or multiple turbines (e.g. 2 x 50 MW). Further, attempting to specify the position the new generation unit must occupy in the merit order is problematic as this is likely to change as generators respond to price signals in the wholesale energy market.

Finally, there is a lack of clarity about the process for confirming that a threshold for triggering the expiration of the Derogation has been met. It is possible to develop a process. For example, AEMO, at the request of a market participant, could confirm there has been in a material change to the TFOS, or that new plant has been

commissioned that meets the specifications contained in the Derogation. However, the administrative burden imposed on AEMO (or such other body) by this process indicates it is sub-optimal.

In the absence of compelling arguments in favour of making the proposed Derogation, and in light of the risks to confidence in NEM energy market frameworks and decision making that stem from diverging from existing regulatory frameworks, on balance the Commission does not consider the proposed Derogation will or is likely to contribute to the achievement of the NEO.

A.9 Determining the cause of the need for additional R6

In the context of market ancillary services, "causer pays" is a term used to describe a cost recovery methodology that requires the market participants to contribute to FCAS costs in proportion to the extent to which that participant contributed to those costs. The application of the causer pays principle to contingency raise FCAS costs is reflected in clause 3.15.6A(f) of the Rules.

As discussed in the preceding sections, Hydro Tasmania contends that the proposed Derogation is consistent with the causer pays principle by recovering the Additional Cost from the party who caused the need for additional R6.[64] The NGF supports Hydro Tasmania's view.[65] Hydro Tasmania further submits that, as the main beneficiaries of the new TFOS, it is appropriate to recover the Additional Cost from the New TFOS Units.[66]

Roaring 40s noted that it is only the connection of the first New TFOS Unit that creates the need for additional R6; connection of the second and subsequent higher efficiency generation units does not increase the R6 required to meet the new TFOS. Accordingly, Roaring 40s suggested that the proposed Derogation apply only to the first New TFOS Unit connected.[67]

However, not all stakeholders accepted that New TFOS Units "caused" the need for the additional R6. These stakeholders submitted that making the proposed Derogation on this basis would not be consistent with the cost recovery arrangements for FCAS in the NEM.[68] As Gunns pointed out, the need for the additional R6 is the result of the Reliability Panel's decision to change the TFOS:

> Indeed the cause is not new entrants but the fact that the old standard was significantly out of line with that required for a modern multi generator type

64 Hydro Tasmania, Rule change proposal, 23 December 2009, p. 6.

65 National Generators Forum, submission, 11 March 2009, p. 3.

66 Hydro Tasmania, Rule change proposal, 23 December 2009, p. 6.

67 Roaring 40s, submission, 13 March 2009, p. 1.

68 Aurora Energy, response to additional information, 15 June 2009, p. 2; AETV Power, submission, 13 March 2009, p. 9.

system such as that found on mainland Australia and in most developed countries around the world.[69]

Aurora Energy and AETV Power noted that a new generator is not the sole cause of an incremental increase in the amount of FCAS required.[70] Other factors to be considered include system conditions[71] and the manner in which Basslink is operated.[72]

AEMO's response to Hydro Tasmania's position was that "it is not clear whether identifying the major beneficiary should be the key objective when applying a causer pays recovery framework."[73]

A.9.1 Commission's analysis

The Commission identified two important differences between the methodology in the proposed Derogation and the causer pays principle provided for in the Rules:

- the manner in which the "causer" of the additional R6 required under the new TFOS is identified, i.e. the Market Generators who fall within the proposed definition of a "non-compliant generating unit";

- the basis for apportioning the Additional Cost between "non-compliant generating units".

As discussed above, the "causer" is the market participant (or participants) who operates in a way that affects the quantity of FCAS that is required to maintain system frequency. In the case of regulation FCAS, the "causer" the generator(s) who exacerbated the frequency excursions in the relevant review period. In the case of contingency FCAS, identification of historical "causers" is not appropriate because significant generation and load contingency events are relatively rare.[74] Instead, all generators are deemed, as a group, to be "causers" of contingency raise FCAS and recovery costs are apportioned on the basis of sent-out energy. This means generators with a larger operating capacity will attract a larger share of the costs. While the link between contingency raise FCAS recovery costs and the operation of the generators is more direct for regulation FCAS than for contingency FCAS, there is a relationship between the potential for a generator's operation to increase contingency raise FCAS costs and its liability for those costs.

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69 Gunns, submission, 13 March 2009, p. 4. See also Aurora Energy, submission, 13 March 2009, p. 5.

70 Aurora Energy, submission, 13 March 2009, p. 4; AETV Power, response to additional information, 15 June 2009, p. 2.

71 Gunns, submission, 13 March 2009, p. 4.

72 AETV Power,

73 AEMO, submission, 12 March 2009, p. 3. See also Aurora Energy, submission, 13 March 2009, p. 5.

74 A single contingency event in a review period could result in that generator attracting all regional contingency costs, and cost allocation would vary widely from one period to the next.

The link between New TFOS Units and liability for the Additional Cost reflected in the proposed Derogation is more tenuous. Hydro Tasmania considers that because the New TFOS Units required the TFOS to be tightened before they could operate, these units "caused" the Additional Cost. The Commission does not consider this reasoning is consistent with the concept of causation that underpins the causer pays principle. The better view is that the change in the TFOS—and therefore the increase in the amount of R6 required—is a consequence of the TFOS Review; the influence of the New TFOS Units is limited to determining when the new TFOS commences.

The second difference between the causer pays principle and the proposed Derogation concerns the basis for apportioning the cost of the additional R6 required under the new TFOS. The Rules apportion contingency FCAS costs required in a dispatch interval between those Market Generators operating during the relevant trading interval on the basis of energy output. In this way, each generator pays the same price per unit of energy output in a given trading interval. However, the proposed Derogation divides the Additional Cost between "non-compliant generating units" on the basis of registered capacity. This means a non-compliant generating unit will be required to pay for R6 services during those trading intervals in which it did not generate.

Periodically, changes may be made to regulatory frameworks to reflect new circumstances, or to improve the clarity, transparency or certainty of the framework. However, changes should only be made where a case can be made that the amendment achieves a net benefit. In the case of the Rules, the Rule change process provides the opportunity to amend the regulatory framework, and the costs and benefits of the proposed amendment is assessed against the NEO.

The differences between the cost allocation and recovery methodology used in the proposed Derogation and the causer pays principle applied in the Rules are material. The Commission does not consider that the arguments presented by Hydro Tasmania in favour of changing the methodology demonstrate that its preferred methodology will benefit consumers in the long term. Further, the Commission agrees that seeking to recover costs from the primary beneficiary may not be consistent with the application of the causer pays principle in other contexts in the NEM. Finally, the Commission notes that other parties, such as market customers and consumers, may also benefit from the new TFOS through, for example, more efficiency electricity prices. For these reasons, the Commission does not consider the proposed Derogation will or is likely to contribute to the NEO.

A.10 Consistency of cost recovery mechanisms across the NEM

A corollary of Hydro Tasmania's position that the proposed Derogation reflects a consistent application of the causer pays principle is its view that the cost recovery mechanism in the proposed Derogation is consistent with the cost recovery mechanisms used throughout the NEM. The NGF supports this view.[75]

[75] National Generators Forum, submission, 11 March 2009, p. 2.

Several stakeholders submitted that making the proposed Derogation would create inconsistency. Aurora Energy noted that, not only was the proposed Derogation inconsistent with the Commission's application of the "causer pays" principle in other contexts (e.g. transmission costs), it was not consistent with the cost allocation of regulation FCAS in the NEM.[76] AETV Power characterised the effect in the following terms:

> It should be noted that, if the Rule Change Proposal were to be implemented, Tasmania would have a markedly differently system for the settlement of FCAS costs than the mainland NEM participating jurisdictions, without there being any demonstrated net economic benefit either to the Tasmanian region of the NEM or to the NEM as a whole which justifies the differential cost treatment.[77]

In its 2007 FCAS Review, AEMO considered the merits of replacing the existing cost recovery methodology with a form of runway pricing. The runway pricing methodology considered by AEMO is similar to the approach reflected in the proposed Derogation. AEMO concluded:

> Any move away from this uniform approach [of apportioning contingency costs in proportion to the energy produced] would need a strong argument to support it, particularly in order to explain why one non-uniform pricing arrangement would be better than another non-uniform pricing arrangement.[78]

In its submission to the Commission, AEMO further noted:

> The proposal is putting forward a form of runway pricing as an exception to current arrangements in a portion of the NEM, and its acceptance would therefore give rise to a need to maintain two recovery mechanisms. The merits of such an arrangements would need careful consideration in view of the lack of support for broader application of runway pricing revealed in [AEMO's 2007 FCAS] review.[79]

AETV Power expressed a similar view:

> In AETV's view, it would not represent good regulatory practice to move away from the current method of FCAS cost allocation in the absence of a compelling case and a well thought out and structured alternative which

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76 Aurora Energy, submission, 13 March 2009, p. 4.

77 AETV Power, submission, 13 March 2009, p. 7.

78 AEMO, *FCAS Review Final Report*, July 2007, p. 27.

79 AEMO, submission, 12 March 2009, p. 2.

achieves an efficient and equitable allocation of FCAS costs in a manner which best contributes to the achievement of the national electricity objective.[80]

A.10.1 Commission's analysis

Derogations, by their very nature, introduce inconsistency into the NEM. In 2007, the Energy Reform Implementation Group reported that inconsistency, in the form of derogations and other state-specific legislation and regulatory instruments, was hampering efficient national competition and the emergence of a truly national energy market.[81] In applying the Rule making test to derogations, it is appropriate that the Commission have regard to the effects that inter-regional inconsistency will or is likely to have on investment in, and the operation and use of, electricity services.

As discussed in A.9 above, the proposed Derogation would create inconsistencies between the cost recovery mechanism used in the Tasmania region and the approach applied in the remainder of the NEM. Further, the Commission notes AEMO's observations that the merits of adopting a form of runway pricing are unclear. In the absence of evidence of net benefits arising from maintaining divergent cost recovery mechanisms, the Commission does not consider that making the proposed Derogation will or is likely to promote the NEO.

80 AETV Power, submission, 13 March 2009, p. 10.

81 Energy Reform Implementation Group, *Energy Reform: The way forward for Australia*, A report to the Council of Australian Governments by the Energy Reform Implementation Group, January 2007, p. 113.