Australian Energy Market Commission

RULE CHANGE

FINAL RULE DETERMINATION

National Electricity Amendment (Compliance with dispatch instructions) Rule 2016

Rule Proponent(s)
Snowy Hydro Limited

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About the AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

Executive Summary

The Australian Energy Market Commission (Commission or AEMC) has decided not to make a Rule to amend the nature of the obligation on generators and other market participants[1] to comply with dispatch instructions from the market operator. This is in response to a rule change request from Snowy Hydro Limited which proposes to replace the current strict obligation to comply with dispatch instructions under clause 4.9.8(a)[2] with a qualified obligation.

Clause 4.9.8(a) of the National Electricity Rules (NER) imposes a strict obligation on market participants to comply with a dispatch instruction unless to do so would, in that participant's reasonable opinion, be a hazard to public safety or materially risk damaging equipment.

The rule change request

Snowy Hydro proposes to replace the strict obligation to comply with dispatch instructions under clause 4.9.8(a) with a qualified obligation under which market participants who either:

- use reasonable endeavours to comply with a dispatch instruction; or
- are not found by AEMO to be non-conforming;

will not be in breach of the relevant rules.

Snowy Hydro's rationale for the rule change request is primarily based on regulatory uncertainty around the strict obligation to comply with dispatch instructions under clause 4.9.8(a). Snowy Hydro suggests that the current rule is uncertain in its enforceability as it may not always be possible for market participants to strictly comply with dispatch instructions and market participants who breach the provision may be the subject of enforcement action by the Australian Energy Regulator (AER), depending on how the AER exercises its enforcement discretion.

Snowy Hydro also suggests that the current Rule is unnecessary for the efficient operation of the NEM or to maintain the NEM in a secure operating state, and imposes an unnecessary compliance burden on market participants.

Background information

To put this proposal and the Commission's decision in context, set out below is relevant background information, including the specific roles of the Australian Energy

1 In this document market participant refers to any participant that is involved in the central dispatch process and must comply with dispatch instructions.

2 NER Clause 4.9.8(a) – A Registered Participant must comply with a dispatch instruction given to it by AEMO unless to do so would, in the Registered Participant's reasonable opinion, be a hazard to public safety or materially risk damaging equipment.

Market Operator (AEMO) and the AER in relation to compliance with dispatch instructions.

Governance arrangements of Australian energy markets

Governance of Australia's energy markets relies on the division of clearly specified functions between separate institutions. The AEMC is rule maker and advisor to the COAG Energy Council. AEMO's role is system and market operator. The AER's role is to regulate energy markets and networks, including monitoring and enforcing compliance with the rules.

Overview of the central dispatch process

AEMO's central dispatch process maintains power system security by balancing the supply and demand of electricity throughout the day. Market participants, such as generators and scheduled loads, independently make offers and bids to consume or produce electricity at various prices in each five minute dispatch interval.[3]These offers and bids are combined into a merit order, based on the optimal mix of generation for that dispatch interval, which then forms the basis of dispatch instructions issued to these market participants by AEMO.

This process maximises the value of spot market trading, subject to constraints designed to manage power system security. By maximising the value of spot market trading, wholesale electricity price outcomes for consumers will be minimised.

While the central dispatch process determines dispatch instructions for market participants, these participants have a substantial degree of influence over these instructions. This is because they control the range of prices at which they offer their generation capacity, as well as other technical parameters such as how they specify their up and down ramp rates. In addition they can vary these offers for each five minute dispatch interval through rebidding. There is a range of information available to participants to inform them about conditions in the market, including pre-dispatch schedules.

Given that the central dispatch process, and the dispatch instructions it produces, maximises the value of spot market trading, it is critical that market participants follow these instructions. Where this does not happen, some capacity of generators which forms part of the optimal mix of generation for that five minute dispatch interval could potentially be displaced by capacity of generators who may not be part of this optimal mix. In these circumstances, the value of spot market trading would likely be reduced and total system costs would likely increase, with any higher wholesale electricity prices in the long-term ultimately flowing through to customers. In addition, there are likely to be consequences for individual generators who may be moved away from their original dispatch instructions through the action of frequency control ancillary services (FCAS). It could also reduce AEMO’s ability to manage power system security.

3 In addition, some generation and load is unscheduled.

Tools that AEMO can use to manage the outcomes of non-compliance with dispatch instructions

AEMO, in its role as operator of the market and the power system, has a number of tools which it can use to manage the outcomes of non-compliance with dispatch instructions, including applying constraints, procuring ancillary services including FCAS and by issuing directions and instructions. Some of these are described in its non-conformance procedure.

AEMO's non-conformance procedure

AEMO is required to monitor non-conformance with dispatch instructions under clause 3.8.23 of the NER, which it carries out in accordance with its Dispatch System Operating Procedure. This procedure is designed to monitor the conformance of market participants' dispatch against dispatch instructions for the efficient operation of the market (ie aligning pricing with dispatch). AEMO identifies market participants who are non-conforming based on the severity and duration of the event. If a generation unit is found to be non-conforming AEMO declares this to the market and the market participant's offer price can be removed from the basis for setting the dispatch price. This could mean the value of spot market trading is not maximised or there are fewer options to manage power system security.

Importantly, AEMO's non-conformance procedure is distinct from the AER's enforcement processes. The AER's processes are designed to enforce market participant behaviour and conduct from a NER compliance perspective. AEMO's non-conformance procedure is designed to achieve dispatch integrity to contribute to the effective operation of the market and the security of the power system.

AER's approach to compliance and enforcement

The AER is responsible for monitoring, investigating and enforcing compliance obligations under the National Electricity Law (NEL), including compliance with dispatch instructions. The AER's approach to monitoring and enforcing compliance is outlined in its Compliance and Enforcement Statement of Approach[4] which explains how the AER responds to potential breaches and the factors it has regard to when deciding whether to take enforcement action. The AER included a draft of an updated Compliance Bulletin with its first and second round submissions on this rule change.[5]

4 AER, *Compliance and Enforcement Statement of Approach*, 17 April 2014, p4. https://www.aer.gov.au/publications/corporate-documents/aer-compliance-and-enforcement-statement-of-approach

5 AER, *Draft Compliance with dispatch instructions, offers and bids, Compliance Bulletin No. 1*, 23 October 2015. http://www.aemc.gov.au/getattachment/098f8014-2521-4693-910f-053b5e2f6cec/Australian-Energy-Regulator-(10-February-2016).aspx

Final Determination

Regulatory Uncertainty

The Commission considers that there is an appropriate level of regulatory certainty around how the current strict obligation to comply with dispatch instructions under clause 4.9.8(a) operates or is enforced. The case for changing the rules to a more qualified obligation has not been made.

In keeping with the AER's enforcement role within the overall governance framework, the AER has a level of discretion as to how it exercises its enforcement powers.

The Commission considers this level of discretion is appropriate, and it is important for the AER as an enforcement body to retain this discretion.

The AER clearly outlines how it exercises this discretion taking into account the realities of the market. The AER has issued guidance as to how it will enforce the obligation to comply with dispatch instructions, principally set out in its Compliance Bulletin and Compliance and Enforcement Statement of Approach. These guides outline the matters that the AER will take into account when considering whether to take action in respect of conduct that may not comply with dispatch instructions. These include:

- whether the conduct was deliberate;
- whether the business has a corporate culture of compliance;
- the impact of the conduct, including on consumers and other parties; and
- the extent of any financial gain from the conduct.

This approach to enforcement appears to have been borne out in practice. While there have been a large number of minor, "technical breaches" of this obligation, the AER has historically only issued four infringement notices and instituted one legal proceeding. This exercise of the AER's discretion is consistent with the approach the AER applies in enforcing market participants' compliance with the other obligations in the NER.

Some aspects of the AER's guidance have recently changed in its draft of an updated Compliance Bulletin. However, the Commission is not aware of any fundamental change in the AER's approach to monitoring and enforcing compliance with clause 4.9.8(a).

Importance of current dispatch processes for maximising the value of spot market trading

The central dispatch process is designed to maximise the value of spot market trading subject to constraints designed to manage system security. On this basis, the Commission considers that dispatch instructions are fundamental to this process and the current strict obligation to comply with dispatch instructions is critical.

Were the strict obligation to comply with dispatch instructions under clause 4.9.8(a) to be qualified (as proposed by Snowy Hydro) and market participants were systemically less diligent in complying with their dispatch instructions, this would not only impair AEMO's ability to maintain the NEM in a secure operating state but also have an impact on costs incurred and revenues received by other participants, particularly at times of high prices. That is, the value of spot market trading would not be maximised.

Costs of compliance and total system cost impacts

The rule change request suggests that the current obligation on market participants to strictly comply with dispatch instructions may result in higher costs being incurred by some participants compared to a reasonable endeavours requirement. While this is possible, market participants have a substantial degree of influence over their dispatch instructions and can minimise their costs through the way they bid parameters such as their price, capacity and ramp rates. Ultimately, these are commercial matters for market participants.

In addition, moving away from the current strict obligation to comply with dispatch instructions would likely result in higher total system costs, with any higher wholesale electricity prices ultimately flowing through to customers. This could manifest in the need for AEMO to procure more FCAS to manage frequency fluctuations, higher prices for FCAS and greater safety margins in network constraints leading to network under-utilisation and higher network expenditure. These costs represent systemic rather than short-term effects. The cost for procuring additional regulation lower FCAS alone could be in the order of tens of millions of dollars per year in the NEM.

Is the solution proposed in the rule change appropriate?

The Commission considers that qualifying the strict obligation to comply with dispatch instructions, to be based on the use of reasonable endeavours, is not appropriate. It is inconsistent with the nature of the obligations imposed on participants for other obligations that are critical to market integrity elsewhere in the NER.

It is likely that a more qualified obligation, such as the use of reasonable endeavours, would lead to a systemic change in generator compliance, particularly at times of higher prices where there is a stronger incentive to exceed dispatch instructions.

The level of regulatory certainty faced by participants is likely to be lower if the strict obligation to comply with dispatch instructions is replaced with a more qualified obligation based on reasonable endeavours. What would be found to be "reasonable" endeavours in all the circumstances would be unclear and would vary from case to case. This could potentially result in higher costs of compliance for these market participants. It would also make enforcement action where a breach has occurred more difficult for the AER. As described above, it is also likely to lead to higher total system costs.

Non-compliance with dispatch instructions would also affect the degree of consistency between pre-dispatch outcomes and dispatch outcomes. Pre-dispatch outcomes are developed by AEMO based on bids and offers. If the quality of this pre-dispatch

information is reduced there would be less certainty for participants and this may impact price transparency over time.

In addition, use of AEMO's non-conformance procedure is not appropriate for the purpose outlined in the rule change because it is primarily intended to achieve efficiency of dispatch and pricing. It does not consider the broader range of issues such as whether conduct relating to non-compliance with dispatch instructions was deliberate, its market impact, any financial gain, or whether it complied with clause 4.9.8(a) of the NER.

Other solutions were proposed in submissions on the draft determination. These include providing further guidance or prescription in the NER around how the AER should conduct enforcement or what it should include in its guidance on its enforcement activities. Ultimately, as described above, it is appropriate for the AER to retain discretion in how it undertakes enforcement.

National Electricity Objective

Having regard to the issues raised in the rule change request, the Commission is not satisfied that the proposed Rule will, or is likely to, contribute to the achievement of the National Electricity Objective.

The Commission does not consider that the proposed Rule will contribute to regulatory certainty for participants, the efficient price of supply of wholesale electricity or the security of the national electricity system. While it may reduce compliance costs for some participants, the proposed Rule is likely to result in higher total system costs as there are broader market efficiency and system security benefits associated with the current obligation to strictly comply with dispatch instructions under clause 4.9.8(a).

Contents

1 Background

In the rule change request, Snowy Hydro Limited states that there is a need to replace the current strict obligation to comply with dispatch instructions under clause 4.9.8(a) with a qualified obligation. This chapter sets out the following background information to the rule change request:

- an overview of the NEM, including wholesale electricity market design and the central dispatch process;
- the current rules for compliance with dispatch instructions;
- the current mechanisms for responding to non-compliance with dispatch instructions;
- the rule change request proposed by Snowy Hydro; and
- the rule making process.

1.1 Overview of the National Electricity Market

A key area of context for this final determination is how dispatch works in the NEM. AEMO's centralised dispatch process manages energy and power system security by co-optimising the provision of energy and ancillary services for each five minute dispatch interval of the day. This process is operated through the National Electricity Market Dispatch Engine (NEMDE).

NEMDE maximises the value of spot market trading in energy and ancillary services, subject to constraints designed to manage system security.[6] By maximising the value of spot market trading, wholesale electricity prices flowing through to customers would be minimised. The NEM relies on scheduled and semi-scheduled generators, scheduled network service providers and market participants, independently making dispatch offers through the centralised dispatch process and following dispatch instructions.[7]

The centralised dispatch process is designed to facilitate the supply of electricity in a secure manner[8] and at an economically efficient price. Market participants make bids and offers to consume or produce electricity at various prices in each five minute dispatch interval in a day. Each generator's offers are combined into a merit order, and then dispatched by AEMO based on these bids, offers and other market conditions. These dispatch instructions allow electricity supply and demand to be balanced every five minutes of the day.

6 NER, Clause 3.8.1.

7 NER, Clause 4.9.8(a)

8 A secure operating state for the power system is defined in clause 4.2.4 of the NER.

Consistency between central dispatch and pricing is therefore a key market design principle of the NEM.[9] Non-compliance with dispatch instructions means that some capacity of generators which forms part of the optimal mix of generation for that five minute dispatch interval (the merit order) could potentially be displaced by capacity of generators who may not be part of this optimal mix. This may lead to inconsistencies between central dispatch and pricing and distort the efficiency of market outcomes. The value of spot market trading would no longer be maximised because the optimal mix of generation determined by NEMDE for that dispatch interval would not be achieved. Use of the transmission network would also not be optimised. Non-compliance with dispatch instructions can also degrade power system security and impair AEMO's ability to manage power system security.

1.2 Current rules for compliance with dispatch instructions

The regulatory framework for this centralised dispatch mechanism is set out in chapters 3 and 4 of the National Electricity Rules (NER), as outlined below.

Compliance with dispatch instructions - clause 4.9.8(a)

The obligation in clause 4.9.8(a) is a responsibility of all registered participants and a civil penalty provision. It states that:

> *A Registered Participant must comply with a dispatch instruction given to it by AEMO unless to do so would, in the Registered Participant's reasonable opinion, be a hazard to public safety or materially risk damaging equipment.*

This means that, with the exception of the circumstances set out in the clause, registered participants are required to comply with dispatch instructions under the current arrangements. The extent to which the Australian Energy Regulator (AER) takes action to enforce this obligation is subject to the AER's discretion, as described further below.

Failure to conform to dispatch instructions - clause 3.8.23

Clause 3.8.23 outlines the process to be followed by AEMO when a registered participant fails to conform to dispatch instructions. If a scheduled generator, scheduled network service provider or scheduled load fails to respond to dispatch instructions within a tolerable time and accuracy, it is declared by AEMO as non-conforming and its bids or offers cannot be used as the basis for setting wholesale spot prices. However, a registered participant that fails to meet its dispatch instruction is still paid for the amount of energy and frequency control ancillary services (FCAS) it is dispatched for. AEMO has set out how it approaches the non-conformance procedure in one of its power system operating procedures, described further below.

9 NER clause 3.1.4(a)(4)

1.3 Current mechanisms for responding to non-compliance with dispatch instructions

AEMO and the AER have key roles in respect of non-compliance with dispatch instructions, as described below.

1.3.1 Tools that AEMO can use to manage the outcomes of non-compliance with dispatch instructions

AEMO has a number of tools it can use to manage the outcomes of a market participant failing to comply with a dispatch instruction. These tools, shown in Table 1.1 below, are directed at maintaining the secure operation of the power system, or else achieving the effective operation of the market, and apply differently depending on the timeframe over which the non-compliance occurs.

Table 1.1 Tools available to AEMO to manage outcomes of non-compliance with dispatch instructions

Timeframe	Actual DI when non-compliance occurs	Short Term (duration of non-compliance several dispatch intervals)	Medium Term (duration of non-compliance more than several dispatch intervals)	Long Term (systemic non-compliance over months or more)
Tools available to AEMO to manage the outcomes of non-compliance with dispatch instructions.	• Use FCAS	• Use FCAS	• Use FCAS • Issue directions • Remove generator from merit order (non-conformance constraint) • Apply network constraints	• Use FCAS • AEMO may procure more FCAS • Apply network constraints

Frequency Control Ancillary Services

A key mechanism by which AEMO can maintain the secure operation of the NEM following a non-compliance with dispatch instructions is through the use of regulation FCAS. In 2015, AEMO usually procured 120MW of regulation lower and 130MW of regulation raise FCAS across the NEM.[10] Once this FCAS is procured, in any dispatch interval FCAS providers will be used to manage frequency fluctuations, including where these are caused by generators failing to meet their dispatch instructions. For

10 AEMO, *Dispatch System Operating Procedure*, 30 May 2014.

example if Generator A exceeds its dispatch instruction by 50MW, other generators which have been enabled for FCAS may have their output reduced to the same extent, reducing their spot market revenue for energy.

FCAS providers are paid when FCAS is procured, however they do not receive any additional payments if FCAS is used. Therefore, if there is no increase in the overall amount of FCAS procured by AEMO, non-compliance with dispatch instructions would not of itself, in the short-term, cause any increase in total FCAS costs for the market as a whole.

In general, regulation FCAS is used in these circumstances, though depending on the size of the frequency deviation contingency FCAS could also be used.

AEMO determines the amount of FCAS that is required to be procured to maintain the secure operation of the NEM. In doing so, AEMO may take into account a range of factors, including generators' compliance with dispatch instructions. NEMDE also co-optimises energy and FCAS requirements.[11]Over the long term, if there is a systemic change in generators behaviour in complying with dispatch instructions, AEMO may decide to adjust the amount of regulation FCAS it procures.

Network constraints

As part of maintaining system security, AEMO may impose certain limits (constraints) on the transfer of power over network elements. This protects those network elements from damage due to overload or to avoid power system instability or shutdown following a fault.[12] It may also have the effect of limiting the output from one or more generators.

NEMDE optimises the dispatch of generators to take into account network constraints and achieve the most efficient use of the transmission network.

Removing generator from merit order (non-conformance constraint)

Where a generator is declared as non-conforming with AEMO dispatch instructions but does not threaten system security, AEMO may issue a non-conformance constraint in respect of that generator. Such a constraint may apply in respect of part or all of the generator's capacity. A generator would be declared non-conforming according to AEMO's non-conformance procedures, described further below.

Where a non-conformance constraint is issued by AEMO, it has the effect of removing the generator's capacity from the basis for setting the spot price in the energy market and may alter the amount by which AEMO dispatches the generator.

11 NEMDE determines the optimal combination (price) of energy and ancillary services based on the price and quantity bids and offers for these services in each five minute dispatch interval, subject to constraints designed to maintain system security.

12 AEMO, *Pre-dispatch process description*, 1 July 2010, Version 3.1, p15.

Issuing directions

AEMO also has the power to issue directions if a participant is putting the security of the power system at risk. Such directions are generally only used as a last resort, and will specify a physical deliverable requirement for the participant to meet (without specifying what action is required).[13] Participants that are directed by AEMO may make a claim for compensation, which is recovered by AEMO from market customers.[14]

1.3.2 AEMO's non-conformance procedure

AEMO is required to monitor non-conformance with dispatch instructions under clause 3.8.23 of the NER, which it carries out in accordance with its Dispatch System Operating Procedure.[15] The purpose of AEMO's non-conformance procedure is to:

- monitor conformance of market participants' dispatch against dispatch instructions (ie aligning pricing with dispatch);[16] and
- implement corrective measures if market participants fail to follow a dispatch instruction, such as removing a generating unit from dispatch.[17]

The non-conformance procedure contributes to the management of the central dispatch process that maximises the value of spot market trading.

Thus, AEMO's non-conformance procedure describes how AEMO will deploy some of the tools available to it to manage the outcomes of a market participant failing to comply with a dispatch instruction. In particular, the decision to remove a generator's capacity from the basis for setting the spot price in the energy market.

AEMO identifies market participants who are non-conforming based on the severity and duration of the event. This is based on whether the dispatch from a market participant's unit is either outside the Small Error Trigger threshold of 3 per cent or Large Error Trigger threshold of 5 per cent, compared to its dispatch instruction. A market participant will be identified as non-conforming if it is outside the Small Error Trigger threshold for 8 consecutive dispatch intervals or if it outside the Large Error Trigger threshold for five consecutive dispatch intervals.[18]

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13 AEMO, *Intervention, Direction and Clause 4.8.9 Instructions, System Operating Procedure*, 11 September 2014, p6.

14 AEMO also has the power to issue instructions to entities that are not market participants and, in such cases, compensation is not paid.

15 AEMO, *Dispatch System Operating Procedure*, SO_OP3705, 11 December 2015.

16 Dispatch instructions for all scheduled generators, semi-scheduled generators, scheduled network services and scheduled loads are derived by the NEMDE after co-optimising the energy market with the frequency control ancillary services market; AEMO, *Dispatch System Operating Procedure*, SO_OP3705, 11 December 2015, p9.

17 Ibid, p10.

18 AEMO, *Dispatch System Operating Procedure*, SO_OP3705, 11 December 2015, p33.

AEMO's non-conformance procedure is unrelated to and distinct from the AER's process for monitoring and enforcing compliance with dispatch instructions, which is outlined below, because it is directed to a purpose other than enforcing compliance with the NER and is not concerned with behavioural or conduct issues. AEMO's non-conformance procedure is different from the AER's enforcement processes in that it specifies error threshold trigger levels, unlike the AER processes.

1.3.3 AER's approach to compliance and enforcement

The AER is responsible for monitoring, investigating and enforcing compliance with obligations under the National Electricity Law (NEL) and the respective rules and regulations.[19] Importantly, the AER is not obliged to take enforcement action in any circumstances. It has discretion in deciding whether to take action and the nature of that action.

The AER's approach to monitoring and enforcing compliance, including compliance with dispatch instructions, is set out in two of its documents:

- **Compliance Bulletin**[20] – this provides guidance on the AER's expectations and the approach it takes with respect to monitoring compliance with dispatch instructions. The AER included a draft of an updated Compliance Bulletin[21] with its first and second round submissions on this rule change;

- **Compliance and Enforcement Statement of Approach**[22] – this document explains how the AER responds to potential breaches and the factors it has regard to when deciding whether to take enforcement action. These include (but are not limited to) the nature, extent and impact of the conduct; whether the conduct was deliberate or avoidable; the extent of any financial gain; and the businesses' actions and corporate culture. The factors are generic to all enforcement actions and do not specify a megawatt (MW) error tolerance limit at which the AER will take enforcement action for a market participant whose dispatch has differed from its dispatch instruction.

The AER also issues Quarterly Compliance Reports which outline its compliance monitoring and enforcement activity for each three month period. These provide updates on the AER's engagement with industry, and if necessary provide further clarity on the AER's approach to enforcing compliance with the NER.[23]

19 NEL section 15(1)(a)-(d); AER, *Compliance and Enforcement Statement of Approach*, 17 April 2014, p4.

20 AER, *Compliance Bulletin No. 1 - Complying with dispatch instructions*, December 2006, p1.

21 AER, *Draft Compliance with dispatch instructions, offers and bids, Compliance Bulletin No. 1*, 23 October 2015.

22 AER, *Compliance and Enforcement Statement of Approach*, 17 April 2014, p10.

23 AER, *Quarterly Compliance Report: National Electricity and Gas Laws, October - December 2015*, 15 February 2016.

Since the AER has been responsible for enforcing compliance with dispatch instructions, it has issued four infringement notices and instituted one proceeding for a breach of clause 4.9.8(a).[24] These enforcement actions are discussed in section 3.2.4.

1.3.4 Summary of AEMO and AER processes and obligations

Table 1.2 below summarises the AER non-compliance process as well as AEMO's non-conformance procedure and system security obligations.

Table 1.2 Summary of AEMO system security obligations, AEMO non-conformance procedure and AER non-compliance process

	AEMO System security obligations	**AEMO Non-conformance procedure**	**AER Non-compliance process**
Primary function	Maintain power system security.	Primarily for monitoring conformance against dispatch instructions for the efficient operation of the market (ie aligning central dispatch with price) and implementing corrective measures where a market participant fails to follow dispatch instructions (ie removing generator from dispatch).	Monitoring and enforcing compliance with dispatch instructions.
Relevant legislation	NER Chapter 4	NER Chapter 3	NER Chapter 4 / NEL Section 15
How it works?	Maintain power system security through: • use of system constraints; • issuing directions; and • procurement of FCAS.	Identify where market participants are non-conforming based on the severity and duration of the event, as defined in AEMO's Dispatch Systems Operating Procedure.[25]	Directed at participant conduct/behaviour. The AER has discretion in deciding whether to take enforcement action and the nature of that action. The factors considered by the AER for enforcement action are outlined in its Compliance and Enforcement Statement of Approach.[26]

24 Ibid, p3 and p6.

25 AEMO, *Dispatch System Operating Procedure*, SO_OP3705, 11 December 2015, p9.

26 AER, *Compliance and Enforcement Statement of Approach,* 17 April 2014, p10

1.4 The rule change request proposed by Snowy Hydro

1.4.1 Proposed solution

On 13 April 2015, Snowy Hydro Limited made a request[27] to the Commission to amend clause 4.9.8(a) of the NER by replacing it with a proposed obligation which means that registered participants[28] who either:

- use reasonable endeavours to comply with a dispatch instruction; or
- are not found by AEMO to be non-conforming

will not be in breach of the relevant rules.

Replace "strict compliance" with a reasonable endeavours obligation

Snowy Hydro claims that replacing the requirement for market participants to "strictly comply" with dispatch instructions with an obligation based on reasonable endeavours reflects the reality of operating large, complicated equipment in a market where dispatch instructions can change every five minutes. Generators would operate under an obligation to do everything they reasonably can to meet dispatch instructions.

Use of AEMO's non-conformance procedure

Snowy Hydro suggests that the adoption of AEMO's non-conformance procedure would appropriately trade-off the need for market participants to comply with dispatch instructions to ensure secure operation of the power system, and the increase in overall electricity price if the compliance obligation is specified with a too high level of precision.[29]

Snowy Hydro considers that the use of AEMO's process should reduce AER costs by removing the need for the AER to run its own systems and processes to monitor compliance with dispatch instructions. It should also remove ambiguity as to how compliance is measured and triggered.

1.4.2 Rationale for the proposed solution

Snowy Hydro's rationale for the rule change request, including issues with the strict obligation to comply with dispatch instructions under clause 4.9.8(a), and their proposed solution, is outlined below.

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27 Snowy Hydro, *Proposed Rule change: Reasonable endeavours to comply with dispatch instructions*, 13 April 2015.

28 The categories of registered participants are outlined in Chapter 2 of the NER and include, among others, generators, scheduled generators, non-scheduled generators, market generators, non-market generator, ancillary service generating units and semi-scheduled generators

29 Ibid, pp10-11.

Regulatory uncertainty

Snowy Hydro states that the current rule is uncertain in its enforceability. This is due to the lack of clarity around the scope of enforcement in light of the difficulty of exactly complying with dispatch instructions and because market participants are subject to the AER's enforcement discretion. This creates uncertainty for generators applying the rule to their generation activities and may reduce the efficiency of the wholesale spot market.

Snowy Hydro states that the current obligation to comply with dispatch instructions under clause 4.9.8(a) requires "strict compliance" by market participants, in every dispatch interval, which may not always be possible.[30] It is stated that this is due to a number of factors, including variability in the fuel to energy conversion process[31] and the accuracy of metering equipment.[32]

"Strict compliance" is unnecessary for market security and efficiency, and imposes an unnecessary compliance burden

Snowy Hydro's position is that the current rule is unnecessary for either the efficient operation of the NEM or to maintain the NEM in a secure operating state. Generators continue to have financial incentives in the absence of a requirement to "strictly comply" with dispatch instructions, due to the FCAS cost recovery process[33] and because non-conformance removes the generator's offer as a basis for setting the dispatch price.

The rule change request suggests that the current strict obligation to comply with dispatch instructions under clause 4.9.8(a) impose a significant compliance costs on generators and the market. The current rules may increase operational costs for generators, for example, by requiring additional units to be started and stopped, and for reserve capacity to be kept solely to comply with dispatch instructions.

"Strict compliance" is inconsistent with the intention of the NER and with AEMO's non-conformance procedure

Snowy Hydro claims that current clause 4.9.8(a) of the NER is inconsistent with the intention of the NER and AEMO's procedures. Snowy Hydro considers that the NER

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30 Snowy Hydro, *Proposed Rule change: Reasonable endeavours to comply with dispatch instructions*, 12 April 2015, p4.

31 This refers to the fact that the amount of energy that can be produced from a fixed amount of fuel is not constant. Snowy Hydro states that this is due to a range of factors for each type of generation. For hydro-electric generation it depends on a number of factors including the operation of the headwater including pipeline and tail water infrastructure, whether the unit is producing a level of output that is approaching its minimum or maximum load and the condition and operating point of the plant.

32 Metering equipment for scheduled generators in the NEM is permitted to have an accuracy tolerance of between 0.5% and 3%.

33 The Causer Pays process is used to allocate the costs of purchasing regulation FCAS from market participants that diverged from their dispatch instruction. AEMO, *Causer Pays: Procedure for Determining Contribution Factors*, 13 December 2013, p6.

and AEMO procedures both contemplate regular departure from the need to comply with dispatch instructions. For example, AEMO's non-conformance procedure outlines how a market participant's dispatch output is monitored for departure against its dispatch instruction for each dispatch interval.

1.5 The rule making process

1.5.1 Consultation paper

On 17 September 2015, the Commission published a notice advising of its commencement of the rule making process and the first round of consultation in respect of the rule change request.[34] A consultation paper identifying specific issues and questions for consultation was also published with the notice. Submissions closed on 15 October 2015. Eight submissions in response were received.

1.5.2 Draft determination

On 17 December 2015, the Commission published a draft determination to not make a Rule in respect of the rule change. Submissions on the draft determination closed on 11 February 2016. Six submissions were received in response.

All submissions made throughout the rule making process are available on the AEMC's website.[35] A summary of issues raised in submissions and the Commission's response to each issue is contained in Appendix A.

1.5.3 Extension of time to make the final determination

On 24 March 2016, the Commission published a section 107 notice to extend the period of time to make the final determination to 5 May 2016.[36]

The publication of the final determination was extended because stakeholder submissions in the second round of consultation raised issues of sufficient complexity which required additional time to be considered.

34 This notice was published under section 95 of the NEL.

35 www.aemc.gov.au

36 AEMC, *Notice under National Electricity Law*, 24 March 2016.

2 Final rule determination

This chapter discusses the rule making test and assessment framework used for this rule change request. It also outlines the summary of reasons for the final determination.

The Commission's final rule determination is to not make the proposed Rule. The proposed Rule is to replace the strict obligation to comply with dispatch instructions under clause 4.9.8(a), with a qualified obligation under which market participants will not be in breach of the relevant rules if they either:

- use reasonable endeavours to comply with dispatch instructions; or
- are not found by AEMO to be non-conforming.

This Chapter outlines:

- the Commission's rule making test for changes to the NER;
- the Commission's assessment framework for considering the rule change request; and
- the Commission's consideration of the proposed Rule against the National Electricity Objective (NEO).

Further information on the legal requirements for making this final rule determination is set out in Appendix B.

2.1 Rule making test

Under the NEL, the Commission 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 (NEO).[37] This is the decision making framework that the Commission must apply.

The NEO 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.[38]"

37 See section 88(1) of the NEL.

38 Section 7 of the NEL.

For this rule change request, the Commission considers that the relevant aspects of the NEO are efficient operation and use of electricity services for the long-term interests of consumers with respect to the price of supply of electricity, and the security of the national electricity system.

2.2 Assessment framework

To determine whether the proposed Rule is likely to contribute to the achievement of the NEO, the Commission has considered the following four inter-related matters:

1. Regulatory certainty for market participants and confidence in the dispatch process;

2. The costs of compliance for market participants and total system costs;

3. The impact on the security of the national electricity system; and

4. The impact on market efficiency.

2.2.1 Regulatory certainty for market participants

A Rule, or a potential Rule, which results in a higher level of regulatory certainty around the dispatch process may lower the costs of participating in the market. This is because it may reduce the expenditure incurred in minimising the risk of breaching the current Rule. This may lead to lower wholesale electricity prices, which better reflect the economic costs involved in its supply, as well as lowering the risks and costs of investment.

The level to which the proposed Rule is likely to enhance regulatory certainty and predictable outcomes for market participants has been considered by the Commission. In the context of the rule change request, there are two aspects to regulatory certainty:

1. The level of certainty around the Rules; in particular, its requirement for strict compliance with dispatch instructions under clause 4.9.8(a) of the NER; and

2. The extent of certainty around the enforcement of the Rules – this includes the extent of certainty about what enforcement action will be taken where the obligation to comply with dispatch instructions is breached, the processes followed in identifying whether a particular action is 'non-compliant', and the discretion around whether potential non-compliance is acted upon by the appropriate authorities.

2.2.2 Costs of compliance and total system cost impacts

In the context of this rule change request, the costs of compliance refer to the costs market participants may incur in complying with a dispatch instruction, and total system cost impacts refer to the potential costs involved for the system as a whole as a result of non-compliance.

Compliance costs arise in many markets, not just the NEM, and may include (without limitation) costs associated with licensing and risk management. The issue is whether the costs incurred in compliance are proportional to the benefits from such compliance.

For electricity, the benefits of the current approach include (without limitation) maximising the value of spot market trading and the reliable and secure provision of electricity, which benefits the overall system as well as individual market participants. Furthermore, the current approach can promote market participants' confidence in the NEM, and their willingness to participate in the NEM.

If the value of spot market trading is maximised, this is likely to minimise total system costs, which is in the long term interests of consumers with respect to price.

2.2.3 The security of the national electricity system

AEMO is responsible for maintaining the power system within the limits of the technical envelope so that it is operating in a secure operating state.[39] A secure power system is important for the safety of consumers and electrical assets. System security is an inherent aspect of the dispatch process. A Rule, or potential Rule, that seeks to change aspects of the dispatch process may have implications for AEMO's management of system security.

The Commission has considered whether or not the proposed Rule is likely to contribute to the achievement of the NEO by considering the potential implications for system security (and their associated costs of maintaining system security).

2.2.4 Market efficiency

Taking into account the previous three matters, the Commission considered the likely impacts of the proposed Rule on the efficient operation and use of electricity services for the long-term interests of consumers, with respect to the price of supply of electricity. The Commission has considered the potential impacts of the rule change request on market efficiency in the following ways:

1. whether the value of spot market trading is maximised,
2. the potential impact on the costs of complying with dispatch instructions for market participants ;
3. the potential impact on the costs of maintaining system security, and
4. market participants' confidence in the dispatch process and willingness to participate in the dispatch process and the electricity market more generally.

39 AEMO, *Power System Security Guidelines*, 21 October 2015, p11.

The proposed Rule is assessed against the relevant counterfactual of not making the proposed change to the NER and maintaining the current strict obligation to comply with dispatch instructions under clause 4.9.8(a).

2.3 Summary of reasons for the Commission's determination

Having regard to the issues raised in the rule change request, the Commission is not satisfied that the proposed Rule will, or is likely to, contribute to the achievement of the NEO for the following reasons:

- there is currently an appropriate level of regulatory certainty associated with the manner in which the Rules are currently enforced. The level of discretion held by the AER is appropriate, and is consistent with the approach it applies in enforcing market participants' compliance with the other obligations in the NER. The Commission considers that this discretion is important for the regulator, and that the AER clearly outlines how it exercises this discretion taking into account the realities of the market;

- if some market participants do not follow their dispatch instructions the market participants dispatched for regulation FCAS are likely be adjusted away from their dispatch instructions and this is likely to reduce the value of spot market trading, which would likely increase total system costs from a systemic perspective. It may also impact the extent to which pre-dispatch outcomes reflect actual dispatch;

- the current strict obligation to comply with dispatch instructions under clause 4.9.8(a) is important for maintaining system security. The proposed Rule, if implemented, may have adverse impacts on system security and may lead to higher costs incurred in the management of system security; and

- the level of regulatory certainty is likely to be lower if the strict obligation in clause 4.9.8(a) of the NER is to be replaced with a qualified obligation to comply with dispatch instructions, such as "reasonable endeavours".

Taking into account the above, the proposed Rule is likely to result in reduced market efficiency and system security, compared to the current strict obligation to comply with dispatch instructions under clause 4.9.8(a). The costs of the proposed Rule are likely to outweigh its potential benefits.

Therefore, the Commission's final Rule determination is to not make the proposed Rule.

Further detail on our assessment of the proposed Rule is contained below, in sections 3 to 7.

3 Regulatory uncertainty

This chapter considers the extent of regulatory uncertainty for market participants associated with the meaning of the current rules and how the current rules are enforced.

3.1 Context and Stakeholder views

3.1.1 Summary of wholesale electricity market design

As outlined in section 1.1, NEMDE maximises the value of spot market trading, subject to constraints designed to manage power system security, and dispatches electricity every five minutes of the day.

Under the current strict obligation to comply with dispatch instructions under clause 4.9.8(a), market participants are required to comply with dispatch instructions, except in circumstances where a participant reasonably believes that doing so would be a hazard to public safety or materially risk damaging equipment. Market participants are in control of their dispatch bids and offers, specify their up and down ramp rates and can vary these for each five minute dispatch interval through rebidding, as discussed in section 4.

The AER has discretion in deciding whether to take enforcement action and the nature of that action against market participants who do not comply with dispatch instructions, as set out in its Compliance and Enforcement Statement of Approach.[40] Overall outcomes will also depend on the views taken by a court where enforcement action is contested.

3.1.2 Stakeholder views

In the rule change request, Snowy Hydro considers that it may not be possible to meet at all times the current strict obligation to comply with dispatch instructions, in every dispatch interval. Snowy Hydro also considers that the current rule is uncertain in its enforceability and the AER's enforcement discretion creates regulatory risk for market participants.

Stakeholder's views differ on the extent of the issue relating to the current strict obligation to comply with dispatch instructions under clause 4.9.8(a).

Snowy Hydro, CS Energy, ESAA, Stanwell, Origin, ERM Power and the AEC[41] consider that the existing clause 4.9.8(a) of the NER creates regulatory uncertainty for

40 AER, *Compliance and Enforcement Statement of Approach*, 17 April 2014, p10.

41 Snowy Hydro submission, 9 February 2016, p2; CS Energy submission, 11 February 2016, p2; Stanwell submission, 11 February 2016, p1; ERM Power submission, 10 February 2016, p3 and AEC submission, 15 February 2016, p1.

generators and should be clarified to better reflect the realities of complying with dispatch instructions.[42]

Snowy Hydro considers that AER enforcement discretion creates regulatory risk because there are no particular constraints that prevent generators from being penalised for every occasion where they do not exactly meet the dispatch instruction. ERM Power considers that an ambiguous level of discretion by a regulator in its enforcement activities is not a good substitute for clear and distinct meaning in the NER.[43] ESAA's view is that the current Rule is narrowly defined. ESAA considers that this obligation, and the AER's discretion, is not the best approach to manage the vagaries of the power system.[44]

Snowy Hydro, CS Energy, Stanwell, ERM Power and the AEC[45] consider that the AER's revised draft guidance,[46] which removed a statement from its earlier 2006 guidance that it did not intend to pursue a minor breach of clause 4.9.8(a), has increased the regulatory risk associated with compliance with dispatch instructions. ERM Power also claims that the AER has recently requested that market participants provide details of relatively small volumetric discrepancies from their dispatch instructions.[47]

AEMO considers that there is no uncertainty for market participants as clause 4.9.8(a) requires strict compliance and needs to be construed in light of market realities.[48] The AER considers that market participants can significantly reduce their risk of non-compliance with clause 4.9.8(a) by achieving compliance with clauses 4.9.8(b) to (e).[49] That is, ensure that at all times they are able to comply with their latest dispatch offer or bid.[50]

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42 Snowy Hydro submissions, 13 October 2015, p1 and 9 February 2016, p2; CS Energy submissions, 4 November 2015, p2 and 11 February 2016, p2; ESAA submission, 16 October 2015, p1; Stanwell submissions, 15 October 2015, p2 and 11 February 2016, p1; Origin submission, 27 October 2015, p1; ERM Power submission, 10 February 2016, p3; and AEC submission, 15 February 2016, p1;

43 ERM Power submission, 10 February 2016, p3.

44 ESAA submission, 16 October 2015, p1.

45 Snowy Hydro submission, 9 February 2016, p2; CS Energy submission, 11 February 2016, p2; Stanwell submission, 11 February 2016, p1; ERM Power submission, 10 February 2016, p3 and AEC submission, 15 February 2016, p1.

46 AER, *Draft Compliance with dispatch instructions, offers and bids, Compliance Bulletin No. 1*, 23 October 2015.

47 ERM Power submission, 10 February 2016, p3.

48 AEMO submission, 30 September 2015, p3.

49 These clauses require scheduled generators, scheduled network service providers, registered participants and market participants (in respect of ancillary service generating units or loads) to at all times be able to comply with any dispatch offer or dispatch bid that they make.

50 AER submission, 23 October 2015, p3.

The AER notes that, due to the large number of potential circumstances surrounding a breach of clause 4.9.8(a), the use of discretion is the best way to address conduct which is potentially harmful to the efficient and secure operation of the NEM.[51]

AEMO and the AER considered that discretion is not uncommon for enforcement agencies and is consistent with the approach the AER applies in its compliance activities for all energy legislation obligations.[52]

The AER states that it is important that its compliance and enforcement activities for dispatch instructions are clear and consistent and considers that it had demonstrated this through its past activities. It also states that it will continue to apply this approach but remain sufficiently flexible to adapt its approach in light of changing legislation, jurisprudence and market conditions. It states that its draft of an updated Compliance Bulletin[53] is not a fundamental change in the AER's approach but clarifies its approach to enforcing clause 4.9.8(a)-(e).[54] It also notes that its Compliance Bulletin should always be read in conjunction with its Compliance and Enforcement Statement of Approach.[55]

3.2 Assessment

3.2.1 Uncertainty around the Rules

In the context of analysing the issue that Snowy Hydro has raised, it is useful to distinguish the two different aspects of regulatory certainty in the context of the requirement that a generator comply with dispatch instructions.

The first aspect of regulatory certainty relates to the Rules themselves. Are the Rules, in particular clause 4.9.8(a), clear and certain? AEMO has, in its submission, stated that this clause does not cause any uncertainty.[56]

The Commission agrees with this view. The dispatch instruction from AEMO is clear and the rule requires that the market participant must comply with the dispatch instruction (a strict obligation to comply). Failure to do so results in a breach of the NER. The only exceptions to this, are where the relevant market participant reasonably considers that compliance with a dispatch instruction would be a hazard to public safety or materially risk damaging equipment.

Having a strict obligation to comply with dispatch instructions also appears consistent with other key NER provisions. The majority of civil penalty provisions in the NER

51 Ibid.

52 AEMO submission, 30 September 2015, p3; AER submission, 23 October 2015, p3.

53 AER, *Draft Compliance with dispatch instructions, offers and bids, Compliance Bulletin No 1*, 23 October 2015.

54 AER submission, 10 February 2016, p1.

55 AER, *Compliance and Enforcement Statement of Approach*, 17 April 2014.

56 AEMO submission, 30 September 2015, p3.

require strict compliance, as are requirements to comply with dispatch instructions in Chapter 2[57] and 3[58] and system security requirements in Chapter 4 of the NER.[59]

The strict obligation under clause 4.9.8(a) is also consistent with other obligations that support the operation of this clause. These include the requirement for market participants to operate in accordance with AEMO's central dispatch process;[60] to vary their available capacity (rebidding);[61] and to provide information about its up and down ramp rate, and any rebids of those ramp rates for each dispatch offer.[62] In addition, as noted by the AER, market participants can reduce their risk of non-compliance with clause 4.9.8(a) through achieving compliance with the relevant clause of 4.9.8(b)-(e).[63]

The counterfactual of moving from the existing strict obligation to comply, to a qualified compliance obligation such as one based on reasonable endeavours, could lead to a lower level of regulatory certainty for the market. This is because the nature and extent of a reasonable endeavours obligation is necessarily dependent on what is reasonable for that market participant in the circumstances, which could include its financial interests and even related regulatory obligations with which the market participant may need to comply. A reasonable endeavours obligation will require the AER, before a breach can be determined, to consider and assess the circumstances surrounding the breach to determine whether the relevant market participant did what was reasonable in the circumstances in order to comply with the obligation.

It is clear that if the obligation in clause 4.9.8(a) was qualified and made an obligation to use reasonable endeavours it would be more difficult for the AER to take action for significant breaches of dispatch obligations. It would also be more difficult for market participants to know what level of compliance is required for a reasonable endeavours obligation, by comparison to a strict obligation of compliance.

In addition, the counterfactual of moving from the existing strict obligation to comply to a more qualified compliance obligation, such as an obligation to use reasonable endeavours to comply, could lead to more generators not complying with dispatch instructions and generators who have been dispatched for FCAS being moved from their dispatch instructions in order to correct resulting frequency fluctuations. This could degrade power system security and impair AEMO's ability to manage power system security. It could also reduce the efficiency of the dispatch process and the maximisation of the value of spot market trading in the NEM. These and other issues associated with the use of a compliance obligation based on reasonable endeavours are discussed further in section 6.1.

57 For example, NER clause 2.2.6(g)(4).

58 For example, NER clause 3.9.7(a).

59 For example, NER Clause 4.5.2(b).

60 NER Clause 2.2.2(f), in relation to scheduled generators.

61 NER Clause 3.8.22(b).

62 NER Clause 3.8.6(a)(2).

63 AER submission, 23 October 2015, p3.

3.2.2 Uncertainty around how the Rules are enforced

Snowy Hydro is also concerned about the manner in which clause 4.9.8(a) of the NER is enforced. In particular, the concern is that due to fluctuations in the output of generators, it may not always be possible for a generator to exactly comply with a dispatch instruction. According to the rule change proponent, approximately half of all scheduled generators[64] missed their dispatch instructions at a 1 MW granularity.[65]

In the rule change request, Snowy Hydro states that due to uncertainty around enforcement of exact compliance with dispatch instructions, market participants may operate generation units below their efficient operating level to reduce the risk of breaching clause 4.9.8(a) of the NER. Snowy Hydro states that if it was provided with a dispatch instruction of around 90% of the MW capacity of one of its generation units, it may meet this dispatch instruction by operating two of its generation units at around 60% of each of their capacity, so that it has available spinning reserve to meet changes in future dispatch instructions.[66] Snowy Hydro suggests that the manner in which the Rules are enforced creates regulatory uncertainty and compliance costs for market participants.

The Commission acknowledges that exact compliance with dispatch instructions may not always be possible due to the physical realities of operating generators. For example, the variability in the fuel to energy conversion process and accuracy of metering equipment can cause fluctuations in a generator's output.

The Commission also acknowledges that it is important for market participants to have reasonable certainty about both the nature of any obligations under the NER as well as the manner in which those Rules are enforced.

In assessing the level of certainty around how the Rules are enforced, it is necessary to consider the rules in the context of the overall enforcement framework. This includes:

1. the AER's statutory powers to take enforcement action; and

2. its stated approach to how it will exercise those powers.

These components are discussed in the next section.

64 Based on Snowy Hydro's data - 47% of dispatch instructions were missed by scheduled generators in June 2014. Snowy Hydro, *Proposed Rule change: Reasonable endeavours to comply with dispatch instructions*, 13 April 2015, p4.

65 For example, a scheduled generator with a dispatch instruction to supply 50 MW of energy would have a dispatch instruction of between 49.5 MW and 50.5 MW.

66 Snowy Hydro, *Proposed Rule change: Reasonable endeavours to comply with dispatch instructions*, 13 April 2015, pp6-7.

3.2.3 Enforcement framework

AER Statutory Powers

Section 15 of the NEL gives the AER the power to take enforcement action in respect of breaches of the NER (among other things). The way in which the AER should exercise this discretion is not prescribed.

The level of discretion held by the AER is consistent with the approach it applies in enforcing market participants' compliance with the other obligations in the NER. As indicated by the AER, discretion is important for any enforcement agency.[67] It notes that there are many different rules and a large number of different circumstances that can occur in practice in respect of obligations imposed by those rules.

It is noted that the AER's compliance bulletins should always be read in conjunction with its Compliance and Enforcement Statement of Approach.[68]

AER's Stated Approach to Enforcement

The AER has provided guidance on the way in which it exercises enforcement discretion. Its Compliance and Enforcement Statement of Approach details the factors that the AER considers in deciding whether to take enforcement action and the nature of that action.[69] The AER is in the process of providing additional guidance to the industry and included a draft of its updated Compliance Bulletin with its first and second round submissions on this rule change.[70]

Snowy Hydro states that the AER is not bound by its own guidelines and procedures which Snowy Hydro argues means that there can be no certainty in how the AER will approach enforcement.[71] However in general, it is likely that an enforcement body would suffer reputational damage to the extent it ignored guidelines and procedures it had put in place.

3.2.4 Commission's view on enforcement framework

Governance of Australia's energy markets relies on the division of clearly specified functions between separate institutions. The AEMC is rule maker and advisor to the COAG Energy Council. AEMO's role is system and market operator. The AER's role is to regulate energy markets and networks, including monitoring and enforcing compliance with the rules.

67 AER submission, 30 September 2015, p3.

68 AER submission, 10 February 2016, p2.

69 AER, *Compliance and Enforcement Statement of Approach*, 17 April 2014, p10.

70 AER, *Draft Compliance with dispatch instructions, offers and bids, Compliance Bulletin No. 1*, 23 October 2015.

71 Snowy Hydro submission, 13 October 2015, p4.

In keeping with the AER's enforcement role within the overall governance framework, the AER has a level of discretion as to how it exercises its enforcement powers. The Commission considers this level of discretion is appropriate, and it is important for the AER as an enforcement body to retain this discretion, so that it can appropriately prioritise the enforcement activity that best promotes the NEO.

There is appropriate certainty and clarity in how the AER will apply its discretion around enforcement of the NER. While some aspects of the AER's stated approach to enforcement have changed in its draft of an updated Compliance Bulletin,[72] the Commission is not aware of any fundamental change or proposed change in the AER's approach to monitoring and enforcing compliance with clause 4.9.8(a). It remains unlikely that the AER would take enforcement action for minor "technical breaches".

The AER has stated in its Compliance and Enforcement Statement of Approach that, for example, in determining an appropriate enforcement response it will consider matters such as:[73]

- whether the conduct was deliberate;
- whether the business has a corporate culture of compliance;
- the impact of the conduct, including on consumers and other parties; and
- the extent of any financial gain from the conduct.

Stakeholders have noted that the reference in the AER's 2006 Compliance Bulletin[74] that the AER will not take action for minor breaches of clause 4.9.8(a) where the market participant has used best endeavours to comply, has not been included in recent statements of the AER's approach to enforcement.[75] The Commission considers that regardless of the wording of the relevant documents, in practice, the AER's approach has remained consistent and should provide sufficient certainty to market participants.

In support of this, since the AER has been the regulator, it has only issued four infringement notices and instituted one legal proceeding for a breach of clause 4.9.8(a), despite the number of minor "technical breaches" that have been referred to by Snowy Hydro.[76] These related to situations where generators significantly deviated from AEMO's dispatch instructions, as outlined below:

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72 AER, *Draft Compliance with dispatch instructions, offers and bids, Compliance Bulletin No. 1*, 23 October 2015.

73 AER, *Compliance and Enforcement Statement of Approach*, 17 April 2014, p10.

74 AER, *Compliance Bulletin No. 1 - Complying with dispatch instructions*, 1 December 2006.

75 CS Energy submission, 4 November 2015, p2.

76 In the rule change request Snowy Hydro suggested that, based on its sample of data across the entire NEM in June 2014, almost all generators missed their dispatch instruction to an accuracy of 0.1 MW and more than 10,000 dispatches per day missed their dispatch instruction to the accuracy of 1 MW.

- Infringement notice to Braemar Power Project Pty Ltd – the Braemar Power Station failed to follow dispatch instructions for seven dispatch intervals when it was instructed to reduce output due to a network constraint;[77]

- Infringement notice to Flinders Operating Services Pty Ltd – the Playford generator failed to follow dispatch instructions for nine dispatch intervals, which caused a network constraint to violate;[78]

- Infringement notice to Braemar Power Project Pty Ltd for starting its Braemar Power Station unit 1 without a dispatch instruction. The alleged breach related to five dispatch intervals with a maximum deviation of 107MW;[79]

- AER proceedings against Snowy Hydro for nine contraventions in which its generating units exceeded the dispatch instruction by 61 to 267 MW. The Court declared that seven of the nine contraventions resulted from Snowy Hydro's failure to afford sufficient importance to compliance with dispatch instructions;[80] and

- Infringement notice and penalty to Origin Energy - Uranquinty Power Station failed to follow dispatch instructions when it generated approximately 170 MW above the level specified in its dispatch instruction during a period of high wholesale electricity spot prices and when power flows across the network were limited.[81]

The small number of AER enforcement actions relative to the number of "technical breaches" appears to show an approach that is consistent with the AER's stated approach.

3.3 Conclusion

In conclusion, analysis of regulatory certainty needs to consider the Rules themselves and the AER's approach to enforcing them. The way the AER exercises discretion in enforcing them is clear and takes into account the realities of the market. There is currently a sufficient level of regulatory certainty and this is borne out in practice.

77 AER, *Quarterly Compliance Report – January to March 2015, National Electricity and Gas Laws*, January p6.

78 Ibid.

79 Ibid.

80 AER, *Quarterly Compliance Report – January to March 2015, National Electricity and Gas Laws*, January p4.

81 AER, *Origin Energy pays penalty for alleged failure to follow dispatch instructions*, 2 March 2016. http://www.aer.gov.au/news-release/origin-energy-pays-penalty-for-alleged-failure-to-follow-dispatch-instructions

4 Costs of compliance and total system cost impacts

This chapter addresses the potential costs of compliance in respect of the current strict obligation to comply with dispatch instructions, by comparison to an obligation to use reasonable endeavours to comply. It also considers impacts on total system costs of moving to an obligation based on reasonable endeavours.

4.1 Context and stakeholder views

4.1.1 Rule change request

The rule change request states that the current requirement for strict compliance with dispatch instructions under clause 4.9.8(a) would cause generators to incur unnecessary expenditure to minimise the risk of breaching the current Rule.[82] It also suggests that wholesale spot market prices may increase as marginal generators factor in the potential cost of compliance into their dispatch bids. Snowy Hydro suggests that compliance costs relate to (but are not limited to) the following:

- operating generation plant inefficiently in the current dispatch interval to minimise the risk of not complying with dispatch instructions;
- operating costs associated with generation units starting and stopping to meet dispatch instructions in a given dispatch interval;
- additional compliance and system monitoring costs incurred by market participants; and
- administration costs to internally report on deviations from dispatch instructions.[83]

4.1.2 First round of consultation

Snowy Hydro and Stanwell[84] suggested that the cost of complying with dispatch instructions under clause 4.9.8(a) is significant and would be reduced if a more qualified compliance obligation, such as an obligation to use reasonable endeavours, was applied.

Snowy Hydro suggested that scheduled participants take a conservative approach to complying with dispatch instructions which imposes various costs, including additional start and stop operational costs and the need to run generation plant inefficiently. It also imposes an economic cost on the NEM, in that these market

82 Snowy Hydro, *Proposed Rule change: Reasonable endeavours to comply with dispatch instructions*, 13 April 2015, p6.

83 Snowy Hydro submission, 13 October 2015, p3.

84 Snowy submission, 13 October 2015, p2; Stanwell submission, 15 October 2015, p2.

participants apply more conservative bidding behaviour, such as lower ramp rates, which means that less generation capacity may be available than would otherwise be the case.[85]

EnergyAustralia suggested that compliance costs relating to plant cycling are not an issue as these can be managed by rebidding to reflect operational costs.[86]

The AER acknowledged that compliance costs exist for market participants. However, if the current strict obligation to comply with dispatch instructions under clause 4.9.8(a) were replaced with an obligation to use reasonable endeavours to comply, this could increase the costs of monitoring compliance and investigating breaches for market participants and the AER.[87]

4.1.3 Second round of consultation

Snowy Hydro maintains its position that the cost of complying with dispatch instructions under the current strict obligation in clause 4.9.8(a) is significant and would be reduced under a more qualified compliance obligation.[88]

4.2 Cost impact of current strict compliance obligation

4.2.1 Background

There are costs that market participants incur in complying with dispatch instructions. These costs cannot be eliminated; they are a function of market participants' involvement in the NEM dispatch process and their individual commercial and operational decisions. These decisions are the basis for market participants' bids and offers and bidding strategies. Dispatch instructions reflect these bids and offers, and should therefore also reflect the operational capability and costs of generation or load plant or equipment.

The expenditure required to minimise the risk of breaching rule 4.9.8(a) is a part of these overall costs of participating in the market. The Commission acknowledges that qualifying the obligation to comply with this rule may reduce the costs for some market participants of complying with dispatch instructions.

At the same time, even under a strict obligation to comply with dispatch instructions, market participants have a substantial degree of influence over their dispatch instructions. This concept is considered in section 4.2.2 below.

85 Snowy Hydro submission, 13 October 2015, p4.

86 EnergyAustralia submission, 16 October 2015, p1.

87 AER submission, 23 October 2015, p6.

88 Snowy Hydro submission, 9 February 2016, pp2-3.

4.2.2 Ability of market participants to manage their dispatch obligations

In the rule change request, Snowy Hydro identifies possible ways in which it could meet a dispatch instruction of 250MW. It may for example run one 275MW unit at 250MW and risk breaching the obligation to comply with dispatch instructions. It states it could also be more conservative and run two 275MW units at 125MW each. It has not indicated how it actually makes this decision in practice. It has also identified other challenges, such as the need to start and stop units more frequently (plant cycling) where there is a strict obligation to comply with dispatch instructions.

The Commission's view is that generators have a substantial degree of influence over their dispatch instructions through their offers. This means they are able to make commercial decisions about their dispatch instructions, such as avoiding targets that create challenges such as these.

There are a number of parameters that generators can offer, which provide them with a substantial degree of influence over their dispatch instructions:

- Generation volume - Generators may specify a range of prices for different levels of generation output. Initial offers must set out the volume of generation offered in up to ten price bands. The price bands selected have a direct impact on whether a generator's capacity is in merit and therefore subject to a dispatch instruction;

- Ramp rates - Ramp rates govern the manner in which the generation output from power stations can be physically changed through time. All generators must provide AEMO with an up ramp rate and a down ramp rate for each 30 minute trading interval; and

- Dispatch inflexibility profiles - Fast start plants have the discretion to include a dispatch inflexibility profile as part of their dispatch offers. These are used to inform the dispatch process of inflexibilities in plant such as minimum start and stop times, and minimum safe operating levels.

In addition, following their initial offers, generators are able to rebid part or all of their capacity to different price bands, provided they comply with the relevant clauses in the NER around rebidding. Ramp rates can also be rebid. This can be used to accommodate changes in the market, including the actions of other generators. Any rebids will affect dispatch instructions. EnergyAustralia identified in its submission on the consultation paper that issues around plant cycling can be managed by rebidding to reflect operating costs.[89]

In summary, although the current strict obligation to comply with dispatch instructions under clause 4.9.8(a) may impose higher costs on some market participants compared to a more qualified obligation, these costs are to an extent within the control

89 EnergyAustralia submission, 16 October 2016, p1.

of the market participant. If market participants are concerned at the cost of complying with dispatch instructions then they should structure their bids and offers accordingly.

4.3 Overall cost impact of moving to reasonable endeavours obligation

4.3.1 Introduction

As outlined in section 1.1, NEMDE identifies and dispatches an optimal mix of generation for each dispatch interval that meets demand in a way that maximises the value of spot market trading, subject to constraints designed to manage system security. To the extent that demand is met by a different mix of generation from what is optimal for that dispatch interval, it is likely that the value of spot market trading would not be maximised and total system costs would likely be higher at a systemic level. This section identifies what some of those costs are.

This section 4.3 assumes that by relaxing the compliance obligation to reasonable endeavours, there would be a change in behaviour of generators with respect to compliance with dispatch instructions. The Commission considers it likely that a more qualified obligation would lead to a change in generator compliance, particularly at times of higher prices where there is a stronger incentive to exceed dispatch instructions.

4.3.2 More FCAS procured

As described in chapter 1 above, FCAS is a key mechanism by which AEMO manages the impacts on the system of generators failing to follow dispatch instructions. Where generators exceed their dispatch instructions, regulation lower or contingency lower FCAS may be needed (depending on the size of the divergence). Where generators' output is lower than their dispatch instructions, regulation raise or contingency raise FCAS may be needed.

The Commission notes that FCAS is procured even under the current strict compliance obligation. That is, there is a "base level" requirement for FCAS. This is for a number of reasons, which include:

- The challenges of scheduled generators precisely supplying the amount of energy specified in their dispatch instructions;
- Difficulties in forecasting demand, including unexpected fluctuations in demand; and
- Input from non-scheduled generation.

If the requirement to comply with dispatch instructions changes such that there are more regular occurrences of generators failing to comply with dispatch instructions, this is likely to have consequences for the management of system frequency and the

need for FCAS. That is, where AEMO has a higher expectation that generators would not comply with dispatch instructions, in the long term it is likely to need to procure more FCAS. If AEMO expects that generators would more often exceed their dispatch instructions, it may increase the requirement to procure regulation lower FCAS. If AEMO expects that generators would more often supply less energy than their dispatch instructions, it may increase the requirement to procure regulation raise FCAS.

This would create additional costs (recovered from market participants and market customers through the Causer Pays process) which would be a key impact of moving to a reasonable endeavours obligation.

There may not be additional FCAS costs in the short term, prior to AEMO changing its approach to procuring FCAS. This is because FCAS providers are paid when FCAS is procured and there are no additional FCAS costs for AEMO when FCAS is used. To the extent FCAS is insufficient to manage frequency divergences caused by generators failing to meet dispatch instructions, AEMO would address this in other ways including by using constraints and directions, which would impose their own costs and are discussed further below.

The costs of procuring more FCAS can be explained with an example. This example only considers increases in the amount of regulation lower FCAS procured. In practice AEMO would likely need to procure additional amounts of other forms of FCAS as well:

- In 2015, AEMO usually procured around 120MW of regulation lower FCAS to correct for frequency variations in the power system.[90] 120MW represents approximately 0.6% of average NEM demand in 2015 of around 20,000MW;[91]
- In 2015, the total cost of procuring 120 MW of regulation lower FCAS across the NEM was approximately $15m.[92] That suggests that, in 2015, the average cost of regulation lower FCAS was $125,000 per MW for the year. Note that as more FCAS is procured this price is likely to increase, as discussed in section 4.3.3 below;
- As an example, AEMO may take the view that, under a compliance obligation based on reasonable endeavours, generators may exceed their dispatch instructions by 1%. In 2015, average demand in the NEM was around

90 In 2015, AEMO also usually procured around 130MW of regulation raise FCAS. AEMO, *ESOPP Guide - FCAS Constraint Equations*, 30 December 2009, p9.

91 AEMO, *Update – National Electricity Forecasting Report*, December 2015, p7

92 AEMO, *AS Payments Summary File 2015.CSV*. http://www.aemo.com.au/Electricity/Data/Ancillary-Services

20,000MW,[93] so if generators exceeded their dispatch instructions by 1%, this would be around 200MW;

- Therefore, under a compliance obligation based on reasonable endeavours, AEMO may have needed to procure a total of between 200MW and 320MW of regulation lower FCAS to correct for frequency variations in the power system. Therefore, an additional 80MW to 200MW of regulation lower FCAS may be required to be procured to meet the frequency standard;

- At $125,000 per MW, procuring an additional 80MW to 200MW of regulation lower FCAS could have represented an approximate cost in the range of $10-$25m in 2015.

Therefore, the costs of procuring additional regulation lower FCAS alone could be in the order of tens of millions of dollars per year in the NEM.

4.3.3 Increasing price of FCAS

Separate from AEMO needing more FCAS in aggregate, there are further general impacts of greater use of FCAS by AEMO.

First, AEMO currently sources FCAS through a market-based mechanism using offers made by market participants. Thus FCAS is procured from the least cost sources. Each additional MW of FCAS may therefore be more expensive to procure, and the average cost per MW of FCAS may be higher the more FCAS is procured.

Second, providers of FCAS offer to provide FCAS on the basis of an expectation of how likely it is that FCAS would be used. This is particularly significant for regulation lower and contingency lower services, since the FCAS provider may be deprived of revenue in the energy spot market to the extent the FCAS is used to manage frequency fluctuations following instances of non-compliance with dispatch instructions. Therefore, in the current environment where there are fewer FCAS providers, the more often generators do not comply with their dispatch instructions and AEMO needs to use FCAS, the higher the price of FCAS a provider of regulation lower or contingency lower services could be expected to offer to provide that FCAS.

In both of these cases above, higher FCAS costs would be passed on through the Causer Pays process, some of which are likely to flow through to customers. These are costs that would not have arisen where all generators complied with their dispatch instructions.

In addition to these general system-wide impacts, there would also be impacts on individual generators of additional FCAS being used. For example, where one generator generates in excess of its dispatch obligation by 100MW, there may be frequency fluctuations that AEMO would need to manage through using 100MW of

93 This is slightly less than NEM-wide annual operational consumption in 2015-16 of 184,241 GWh, which is an average of around 21,000 MW of operational consumption per hour for the year. AEMO, *Update – National Electricity Forecasting Report*, December 2015, p7.

regulation lower or contingency lower FCAS. This means that FCAS providers would have their generation reduced by 100MW in total. This could be sourced from one generator, however would more likely be sourced from multiple generators. These other generators that are used would lose revenue from the energy market to the extent they are used for FCAS.

4.3.4 Impact on network utilisation

More frequent occurrences of generators exceeding their dispatch instructions could create costs in ways other than through the wholesale market. One of these ways is in respect of network constraints.

Network constraints are imposed by AEMO on the transfer of power over network elements in order to protect those network elements from damage due to overload or to avoid power system instability or shutdown following a fault.[94] Given the various network constraints across the NEM, NEMDE optimises the quantity (utilisation) of energy supply across the transmission network. For example, where there are three generators behind a constraint, NEMDE would optimise the dispatch of those generators to alleviate the constraint and have the most efficient use of the transmission network.

Where generators exceed their dispatch instructions this may violate network constraints which could have adverse impacts such as moving the power system into an insecure state or in the extreme network damage or load shedding. It may also then require AEMO to issue directions, or create further constraints.

This could result in inefficient utilisation of the transmission network, as generators which have not been dispatched by NEMDE use the transmission network in place of those who were.

To avoid such adverse impacts, AEMO may apply an increased safety margin in network constraints. The more often generators fail to comply with dispatch instructions, the more of a safety margin AEMO is likely to build into its network constraints.

Overall, this inefficient use of the transmission network could be expected to translate into greater network expenditure than would otherwise be required if all generators complied with their dispatch instructions.

4.3.5 Other impacts

There are other likely effects of a more qualified obligation to comply with dispatch instructions, such as an obligation to use reasonable endeavours:

- Non-compliance with dispatch instructions would also affect the degree of consistency between pre-dispatch outcomes and dispatch outcomes. Pre-dispatch

94 AEMO, *Pre-dispatch process description*, 1 July 2010, Version 3.1, p15.

outcomes are developed by AEMO based on bids and offers. If the quality of this pre-dispatch information is reduced because of subsequent non-compliance with dispatch instructions there will be less certainty for market participants and this may impact price transparency over time;

- If a small number of generators miss their dispatch instructions by a large amount or a large number of generators regularly miss their dispatch instructions by a small amount, this may make it difficult to maintain the power system in a secure operating state. As a result, AEMO may need to issue directions more often than under the current strict obligation to comply with dispatch instructions. This would create costs that are recovered from market customers and ultimately consumers;[95] and

- The Commission supports the AER's view that it would impose a more onerous burden, including greater cost, on the AER of demonstrating failure to comply with a compliance obligation based on reasonable endeavours. Rather than merely showing that compliance with a dispatch obligation did not occur, the AER would need to take into account considerations of reasonableness and the impacts on the generator of achieving this compliance. Among other things, this is likely to require the AER to collect more evidence from market participants, and may mean greater legal input to determine reasonableness.

95 Participants may receive compensation for being directed under NER Clause 3.15.7.

5 Other issues raised

This chapter considers other issues raised in the rule change request.

5.1 Market efficiency

5.1.1 Context and stakeholder views

The rule change request considered that the current requirement for strict compliance with dispatch instructions under clause 4.9.8(a) is unnecessary for the efficient operation of the NEM. Snowy Hydro considers that other financial incentives create an incentive to reasonably follow dispatch instructions, such as potential costs through FCAS Causer Pays and being excluded from the basis of setting the spot market price.[96] Stanwell and CS Energy support this view.[97]

AEMO and the AER consider that the current strict obligation to comply with dispatch instructions under clause 4.9.8(a) is important for the efficient operation of the NEM.[98] AEMO uses dispatch instructions as the principal mechanism by which it seeks to have wholesale electricity supplied in a way that meets demand. This is consistent with the objective of the central dispatch process, which is to maximise the value of spot market trading on the basis of dispatch offers and bids, subject to constraints designed to manage system security, in accordance with clause 3.8.1 of the NER.

EnergyAustralia and the AER[99] consider that existing financial incentives are insufficient to ensure compliance with dispatch instructions under the proposed Rule. The AER suggests that, if the proposed Rule is made, the FCAS Causer Pays and exclusion of a generator from the price setting process would not provide sufficient financial incentives to ensure market participants comply as precisely as possible, as they may be outweighed by potential revenue earned in the energy spot market.[100]

5.1.2 Assessment and conclusion

The current obligation to comply with dispatch instructions under clause 4.9.8(a) is important for maximising the value of spot market trading from the central dispatch process. Were this obligation to be qualified, generators may have a reduced incentive to strive for compliance with dispatch instructions, thereby potentially reducing the value of spot market trading. For example, if a qualified obligation allowed an error tolerance, as per those outlined in the proposed Rule based on AEMO's non-conformance procedure, generators may target a dispatch output within this error

96 Snowy Hydro submissions, 13 October 2015, p2 and 9 February 2016, p1.

97 Stanwell submission, 15 October 2015, p2; CS Energy submission, 4 November 2015, p1.

98 AEMO submission, 30 September 2015, p2; AER submissions, 23 October 2015, p2 and 10 February 2016, p2.

99 EnergyAustralia submission, 16 October 2015, p1; AER submission, 23 October 2015, p7.

100 AER submission, 23 October 2015, p7.

tolerance rather than exact compliance. This could increase the frequency with which market participants do not meet their dispatch instruction and may increase the size of the deviation from their dispatch instruction. Across the NEM, this could result in significantly more or less power being supplied than instructed at any time.

As described above, resulting frequency fluctuations may mean FCAS providers need to be used to provide regulation FCAS, affecting their ability to earn revenue through the energy market. This could reduce the value of spot market trading in energy and ancillary services markets through the central dispatch process.[101]

There are other mechanisms that create incentives to comply with dispatch instructions. For example, a generator that fails to comply with its dispatch instructions may be required to pay more through the FCAS Causer Pays methodology. However this may be insufficient if the obligation to comply with dispatch instructions is qualified. In particular, this may be the case during periods of high energy spot market prices. AEMO considers that the typically lower value of regulatory FCAS markets compared to the energy market means that FCAS Causer Pays may not create a sufficiently strong incentive to comply with dispatch instructions.[102]

Under the proposed Rule, the exclusion from the basis of setting the spot price may not be a sufficient incentive to comply with dispatch instructions. This is because AEMO's procedure would permit generators to deviate from their dispatch instruction either briefly but substantially outside non-conformance thresholds, or consistently but within the non-conformance thresholds. For example, during a period of high prices, AEMO's non-conformance procedure could allow a generator to differ from its dispatch instruction by more than around five per cent of its dispatch instruction, for five consecutive dispatch intervals, without breaching the proposed Rule.[103]

5.2 System security

5.2.1 Context and stakeholder views

Snowy Hydro states in its rule change request that the requirement for strict compliance with dispatch instructions under clause 4.9.8(a) is unnecessary for the secure operation of the NEM.

Snowy Hydro, Stanwell and CS Energy[104] consider that the current strict obligation to comply with dispatch instructions under clause 4.9.8(a) is not required for power system security. Snowy Hydro suggests that the NEM technical envelope is robust to

101 Calculated through the National Electricity Market Dispatch Engine (NEMDE).

102 AEMO submission, 30 September 2015, p8.

103 Based on the large error trigger, which is the lower of 5% of the dispatch bid or the ramp rate (MW/min) multiplied by four. AEMO, *Dispatch System Operating Procedure*, SO_OP3705, 11 December 2015, p34.

104 Snowy Hydro submission, 13 October 2015, p2; Stanwell submission, 15 October 2015, p2; CS Energy submission, 4 November 2015, p4.

cater for sporadic changes in supply and demand and the secure operation of the NEM is catered for through AEMO's power of directions, use of system constraints and the procurement of FCAS.[105]

AEMO and the AER consider that the current strict obligation to comply with dispatch instructions under clause 4.9.8(a) is important for system security.[106] AEMO states that it uses dispatch instructions to balance the supply and demand of electricity in each region[107] and to address fluctuations in frequency and voltage that are adverse to the maintenance of a secure operating state.[108]

5.2.2 Assessment and conclusion

The current requirement for strict compliance with dispatch instructions under clause 4.9.8(a) is important for maintaining system security.

AEMO is responsible for maintaining the power system within the limits of the technical envelope so that it is operating in a secure operating state.[109] This technical envelope is implemented using network constraints such that plant remains within rating and power transfers remain within stability limits.[110] The technical envelope includes some safety margins to allow for measurement errors and limitations in the available power system modelling tools.

The five minute dispatch cycle relies upon market participants accurately representing their capabilities and following dispatch instructions, other than in the limited circumstances allowed by the Rules.[111]

If an individual scheduled generator were to supply a different level of active power from its dispatch instruction, electricity demand may not match electricity supply. Where there is an imbalance between supply and demand, frequency and voltage can be affected. This may require AEMO to use FCAS to manage frequency fluctuations. For voltage fluctuations, AEMO may be required to issue dispatch instructions for the supply of more reactive power.

The counterfactual of a qualified obligation for compliance with dispatch instructions could be degraded system security and an impaired ability for AEMO to manage power system security. A qualified obligation could result in more instances of non-compliance with dispatch instructions. If widespread, this could require AEMO to procure more FCAS to maintain the power system within a secure operating state on

105 Snowy Hydro submission, 13 October 2015, p2.

106 AEMO submission, 30 September 2015, p2; AER submission, 23 October 2015, p1; AER submission, 10 February 2016, p2.

107 Using both local generation and imports from another region, where available.

108 AEMO submission, 30 September 2015, p2.

109 AEMO, *Power System Security Guidelines*, 21 October 2015, p11.

110 Ibid, p10.

111 NER Clause 4.9.8(a). That is where doing so may be a hazard to public safety or materially risk damaging equipment.

an ongoing basis. It could also raise system security issues, such as in circumstances where constraints are binding, and require AEMO to intervene by issuing directions.

6 Solutions proposed by Snowy Hydro

This chapter addresses the solution proposed by Snowy Hydro to the issues it has raised. However, as outlined in chapters 3 and 4, the Commission considers that the current strict obligation to comply with dispatch instructions under clause 4.9.8(a) does not need to be amended. Therefore, the decision in this final determination is that the solution proposed in the rule change request is not required.

6.1 Reasonable endeavours

6.1.1 Context and stakeholder views

The first limb of the proposed Rule proposes to replace the current strict obligation to comply with dispatch instructions with an obligation to use reasonable endeavours to comply.

Snowy Hydro, Stanwell, CS Energy and ESAA[112] considered that a compliance obligation based on reasonable endeavours is better than the current Rule.[113]These stakeholders consider that this obligation:

- acknowledges the physical variability of the power system;
- retains the incentive to comply with dispatch instructions;
- reduces regulatory risk for market participants; and
- provides flexibility to respond to variability in supply and demand which may increase in future due to the increased penetration of distributed generation.

Stanwell considers that a compliance obligation based on reasonable endeavours is not likely to have a material impact on the efficient operation of the NEM or maintaining the NEM in a secure operating state.[114]

EnergyAustralia suggests that a compliance obligation based on reasonable endeavours is a potential option to address the issue of "strict compliance". However, it is concerned about the potential impact of a lesser obligation when prices are high or constraints are binding.[115]

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112 Snowy Hydro submission, 13 October p5; Stanwell submission, 15 October 2015, p3; ESAA submission, 16 October, p1; CS Energy submissions, 4 November 2015, p7 and 11 February 2016, p4.

113 In the second round of consultation, Snowy Hydro suggests that instead of amending clause 4.9.8(a) to be based on a "reasonable endeavours" obligation as per its rule change proposal, clause 4.9.8(a) could be amended to be based on a "best endeavours" obligation. This alternative solution is discussed in section 7.4.

114 Stanwell submission, 11 February 2016, p2.

115 EnergyAustralia submission, 16 October 2015, p1.

AEMO and the AER are not in favour of replacing the current strict obligation to comply with dispatch instructions under clause 4.9.8(a) with a compliance obligation based on reasonable endeavours. Both submit that this would undermine the sufficient level of certainty provided by the current obligation[116] and is likely to result in generators more often not complying with dispatch instructions.[117] It may excuse non-compliance based on commercial considerations and would require the AER to consider and assess whether the steps by a market participant were reasonable in the circumstances before a breach could be established, thereby increasing the cost of compliance for the AER and market participants.[118]

6.1.2 Assessment and conclusion

As outlined in the earlier chapters, the Commission is not satisfied that there is an issue with the current strict obligation to comply with dispatch instructions under clause 4.9.8(a).

A compliance obligation based on reasonable endeavours would not be a better alternative than the current strict obligation to comply with dispatch instructions under clause 4.9.8(a). A compliance obligation based on reasonable endeavours could create additional regulatory uncertainty, and reduce AEMO's ability to manage system security. In addition, by relaxing the requirement for market participants to comply with dispatch instructions, there is likely to be a systemic change in the behaviour of generators in complying with dispatch instructions, with the potential outcome that the value of spot market trading would be reduced.

The nature and extent of a reasonable endeavours obligation is necessarily dependent on what is reasonable for that participant in the circumstances. These circumstances could include a participant's financial interests and even related regulatory obligations with which the participant may need to comply. A reasonable endeavours obligation is therefore likely to increase the factors that need to be considered and assessed by the AER and potentially a court. In addition, a 'reasonable endeavours' obligation would make enforcement action where a breach has occurred more difficult for the AER. This could increase the costs of monitoring and enforcing compliance for the AER and market participants.

Therefore, while such a change may provide more flexibility for market participants in respect of minor, "technical breaches", it may make it more difficult for the AER to take action for more significant breaches of dispatch obligations that occur, for example, at times of high prices or when constraints are binding.

In addition, were the obligation to comply with dispatch instructions changed to an obligation to use reasonable endeavours to comply, it may need to be considered by a Court before participants could have any degree of clarity as to how a Court would

116 AER submission, 23 October 2015, p6.

117 AEMO submission, 30 September 2015, p5.

118 AER submission, 23 October 2015, p6.

interpret the requirement to use reasonable endeavours in the context of an obligation to comply with dispatch instructions.

Finally, the Commission acknowledges that the current NER already include a number of reasonable endeavours obligations on AEMO and market participants. However, these reasonable endeavours obligations are generally used when compliance does, or is likely to, require reliance on a third party or an event outside of the direct control of the person on whom the obligation is placed.[119] In addition, considering compliance with dispatch instructions, it is noted that market participants are in control of their own bids and offers and so the use of a reasonable endeavours obligation appears less appropriate.

6.2 Use of AEMO's non-conformance procedure

6.2.1 Context and stakeholder views

The second limb of the proposed Rule proposes that any failure to meet a dispatch instruction must be considered by AEMO to be non-conforming for such a failure to be a breach of the rule. This means that what is required to establish a breach of the rule will be dependent on AEMO's non-conformance procedure.

Snowy Hydro considers that AEMO's non-conformance procedure is appropriate for assessing whether scheduled participants have met their dispatch instructions.[120] It argues that this process is transparent and provides participants with certainty as to how compliance will be monitored and triggered, which lowers regulatory risk and may provide more efficient outcomes.

ERM Power considers that the purpose of AEMO's non-conformance procedure[121] includes, among other things, monitoring compliance with dispatch instructions, within a tolerance level that is satisfactory for maintaining the NEM in a secure operating state.[122]

Stanwell, Origin, EnergyAustralia, AEMO and the AER[123] consider that the use of AEMO's non-conformance procedure for the purpose outlined in the rule change request is not appropriate. It is considered that AEMO's procedure is primarily designed to overcome short-term effects in the market relating to spot prices; rather than primarily to manage system security or be a legal compliance management tool. An obligation based on this procedure could allow too much flexibility for generators

119 For example, market participants have a reasonable endeavours obligation to comply with directions issued by AEMO when there is a credible contingency or actual event that threatens power system security. NER, Clause 4.8.9(c).

120 Snowy Hydro submission, 13 October 2015, p6.

121 Based on ERM Power's understanding of clause 3.8.23 of the NER

122 ERM Power submission, 10 February 2016, p2.

123 Stanwell submission, 15 October 2015, p3; EnergyAustralia submission, 16 October 2015, p1; AEMO submission, 30 September 2015, p6 and AER submission, 23 October 2015, p5.

to diverge from their dispatch instruction. It is also considered that this obligation should be clearly set out in the NER rather than AEMO procedures.

6.2.2 Assessment and conclusion

As outlined above, the Commission considers the current arrangements are appropriate in that they require market participants to strictly comply with dispatch instructions.

Even if there was a need to change the current obligation for compliance, AEMO's non-conformance procedure is not fit for the purpose proposed in the rule change request. While it may have an indirect effect on system security, AEMO's non-conformance procedure is primarily designed to monitor the efficiency of the market (ie aligning central dispatch with pricing). It is not appropriate to use it in the way proposed in the rule change because it is intended to assist AEMO in operating the market and does not consider the broader range of issues such as whether conduct relating to non-compliance with dispatch instructions was deliberate, its market impact or any financial gain.

While the five minute dispatch cycle relies upon market participants accurately representing their capabilities and following dispatch instructions, AEMO also maintains power system security through the use of system constraints, procurement of FCAS and by issuing directions.

Using AEMO’s non-conformance procedure to set out how market participants need to comply with dispatch instructions, as proposed in the rule change request, may require it to be adjusted based on behavioural and conduct factors such as the impacts on one generator of another generator failing to comply with a dispatch obligation. This could reduce the efficiency of the market, adversely impact other market participants and reduce AEMO's ability to manage system security. It is not appropriate to use it in this way.

7 Alternative solutions proposed by stakeholders

This chapter addresses alternative options proposed by stakeholders to the current obligation for compliance with dispatch instructions and alternatives to the AER's non-compliance processes. As mentioned above, the Commission considers that amendment of the obligation for compliance with dispatch instructions under clause 4.9.8(a) is not necessary. Therefore, the decision in this final determination is that neither the solution proposed in the rule change request nor other alternative options are required.

7.1 Amend AER guidance on compliance and enforcement

EnergyAustralia suggests that more definitive guidance from the AER may provide participants with improved regulatory certainty.

Snowy Hydro and the AEC consider that the final determination should require the AER to re-issue guidance to remove the potential for enforcement action for minor breaches.[124]

As detailed earlier in this paper, the AER has previously provided guidance to the industry in the form of its Compliance Bulletin[125] and its Compliance and Enforcement Statement of Approach.[126] The Commission notes that the AER is in the process of updating its guidance on compliance with dispatch instructions and provided a draft of an updated Compliance Bulletin[127] with its first and second round submissions on this rule change.

In the end, the level of guidance that is provided is a question for the AER. As an enforcement body, the AER should retain discretion in how it undertakes enforcement activities.

7.2 Amend NER to include requirements for AER compliance and enforcement

Stanwell considers that the NER should be amended to include guidance on what must be considered when determining compliance or what must be contained in AER guidelines.[128] It considers that the NER should include "guidance or bounds to the regulator's - or court's - discretion, as seen in the Final Determination on Bidding in Good Faith".[129]

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124 Snowy Hydro submission, 9 February 2016, p4; AEC submission, 15 February 2016, p2.

125 AER, *Compliance Bulletin No. 1 - Complying with dispatch instructions*, 1 December 2006.

126 AER, *Compliance and Enforcement Statement of Approach*, 17 April 2014.

127 AER, *Draft Compliance with dispatch instructions, offers and bids, Compliance Bulletin No. 1*, 23 October 2015.

128 Stanwell, 11 February 2016, p2.

129 Ibid, p1.

The Commission considers that the level of guidance provided in relation to compliance and enforcement of dispatch instructions is a question for the AER. As an enforcement body, the AER should retain discretion over the guidance it provides. Therefore, it is not appropriate to amend the NER to include guidance on what must be considered when determining compliance or what must be contained in the AER's guidelines.

The Commission's final rule in Bidding in Good Faith did include, at clause 3.8.22A, matters to which the court must have regard when interpreting the specific provision about whether a rebid was made as soon as practicable.[130] This is different from limiting the discretion of the AER to take enforcement action. It is more important for an enforcement body to have discretion, given the range of scenarios that it would face. In addition, the AER itself provides guidance on its enforcement approach, unlike a court.

7.3 Amend financial incentives in the NER

AEMO and the AER[131] consider that there is not an issue with the current obligation on market participants to strictly comply with dispatch instructions under clause 4.9.8(a). However the AER considers that a mechanism that provides a stronger financial incentive to comply with dispatch instructions could be more effective and reduce the need for ongoing monitoring and enforcement action, compared to the current arrangements.

AEMO and the AER suggest a number of alternative solutions based on amending financial incentives to comply with dispatch instructions, including:

- amending the settlement procedure such that generators are paid in accordance with the lower of their dispatch instruction or actual generation for price greater than zero and the higher of their dispatch instruction or actual for prices less than or equal to zero;[132] and
- requiring non-conforming scheduled generators to compensate other scheduled generators 'bumped' by NEMDE on account of electricity generated in excess of a dispatch instruction.[133]

The Commission considers that amending financial incentives in the way proposed does not address the concern raised by the rule change request, which is regulatory uncertainty. Considering such alternatives is therefore out of scope of this rule change request.

130 AEMC, *Bidding in Good Faith, Final Rule Determination*, Sydney, 10 December 2015, pi

131 AEMO submission, 30 September 2015, p8 and AER submission, 23 October 2015, p8.

132 AER submission, 23 October 2015, p8.

133 AEMO submission, 30 September 2015, p9.

7.4 Amend NER to be based on a "best endeavours" obligation

Snowy Hydro, ERM Power and the AEC suggest that, instead of amending clause 4.9.8(a) to require a "reasonable endeavours" obligation to comply as per the rule change proposal, clause 4.9.8(a) could be amended to require market participants to use "best endeavours" to comply.[134]

As outlined in section 6.1, an obligation to use reasonable endeavours would not be a better alternative than the current requirement for strict compliance with clause 4.9.8(a), as it could create additional regulatory uncertainty, reduce the efficiency of the market and reduce AEMO's ability to manage system security. It is unclear under Australian law that an obligation to use best endeavours is different from an obligation to use reasonable endeavours and therefore the views of the Commission on the substitution of a strict obligation to comply with a reasonable endeavours obligation are the same in respect of a best endeavours obligation.

7.5 Reasonable endeavours for generators on automatic governor control

Stanwell's view is that generators which have Automatic Generation Control (AGC) with an appropriate frequency response profile, should be considered to have taken reasonable endeavours and therefore protected from enforcement action under the NER. It states that this would be consistent with the outcome of the AER v Snowy Hydro case,[135] in which one of the contraventions related to "a unit being adversely affected by an undiagnosed control system fault at another generating unit".[136]

The Commission considers that, for the same reasons outlined in section 6.1, a compliance obligation based on reasonable endeavours for generators on AGC would not be preferable to the current obligation for compliance under clause 4.9.8(a). It would create additional complexity in the NER – including in determining what sort of AGC would qualify – if generators on AGC should be under a different compliance obligation from other market participants. There may be other factors that could cause a generator on AGC to deviate from dispatch instructions; the existence of AGC is one factor the AER could consider. In the end, this can be left to the AER's discretion in how it enforces compliance. In considering the relevant circumstances, the AER has indicated it will consider whether the conduct was deliberate.

134 Snowy Hydro submission, 9 February 2016, p4; AEC submission, 15 February 2016, p2; ERM Power submission, 10 February 2016, p2.

135 *Australian Energy Regulator v Snowy Hydro Ltd (No 2)* [2015] FCA 58

136 Stanwell submission, 11 February 2016, p2.

Abbreviations

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AGC	Automatic Generation Control
Commission	See AEMC
ESAA	Electricity Supply Association of Australia
FCAS	Frequency Control Ancillary Services
MCE	Ministerial Council on Energy
MW	Megawatt
NEL	National Electricity Law
NEM	National Electricity Market
NEMDE	National Electricity Market Dispatch Engine
NEO	National Electricity Objective
NER	National Electricity Rules

A Summary of issues raised in submissions

A.1 Submissions on consultation paper

Stakeholder	Issue	AEMC Response
Regulatory uncertainty		
Snowy Hydro, CS Energy, ESAA, Stanwell and Origin	Cl. 4.9.8(a) creates regulatory uncertainty for generators and should be clarified to better reflect that it may not always be possible for generators to exactly comply with dispatch instructions	See section 3.2.
Snowy Hydro	There is regulatory risk because there are no particular constraints on the exercise of the AER's discretion that prevent generators from being penalised for every occasion where they do not exactly comply with the dispatch instruction.	See section 3.2.
ESAA	The current Rule is narrowly defined. This obligation and the AER's discretion, is not the best approach to manage the vagaries of the power system.	See section 3.2.
AEMO	There is no uncertainty for market participants as cl. 4.9.8(a) requires strict compliance and needs to be construed in light of the reality of the market.	See section 3.2.
AER	Market participants can significantly reduce their risk of non-compliance with cl. 4.9.8(a) by achieving compliance with clauses 4.9.8(b) to (e). That is, ensure that at all times they are able to comply with their latest dispatch offer or bid.	See section 3.2.
AER	Due to the large number of potential circumstances surrounding a breach of cl. 4.9.8(a), the use of discretion is the best way to address conduct	See section 3.2.

Stakeholder	Issue	AEMC Response
	which is potentially harmful to the efficient and secure operation of the market.	
AEMO and the AER	The AER's discretion is not uncommon for enforcement agencies and is consistent with its approach for other compliance activities.	See section 3.2.
Market efficiency		
Snowy Hydro, Stanwell and CS Energy	The strict obligation to comply with dispatch instructions under clause 4.9.8(a) is not required for the efficient operation of the market.	The strict obligation to comply with dispatch instructions under clause 4.9.8(a) is important for maximising the value of spot market trading. Under a more qualified compliance obligation, other mechanisms that create incentives to comply with dispatch instructions may be insufficient. Also see section 5.1.
Snowy Hydro	Other financial incentives exist to reasonably follow dispatch instructions, such as potential costs through FCAS Causer Pays and being excluded from the basis of setting the spot market price.	
AEMO and the AER	The strict obligation to comply with dispatch instructions under clause 4.9.8(a) is important for the efficient operation of the NEM.	
EnergyAustralia and the AER	Existing financial incentives are insufficient to ensure compliance with dispatch instructions.	
System Security		
Snowy Hydro, Stanwell and CS Energy	The strict obligation to comply with dispatch instructions under clause 4.9.8(a) is not required for the secure operation of the market.	The current strict obligation to comply with dispatch instructions under clause 4.9.8(a) is important for maintaining system security. The NEM technical envelope includes safety margins to allow for measurement errors and limitations in the available power system modelling tools. A qualified obligation to comply with dispatch instructions could degrade power system security and impair AEMO's ability to manage power system security.
Snowy Hydro	The NEM technical envelope is robust to cater for sporadic changes in supply and demand.	
AEMO and the AER	The current strict obligation to comply with dispatch instructions under clause 4.9.8(a) is important for system security. AEMO uses dispatch instructions as the principal mechanism by which it seeks to match supply and demand in each region. Failure to follow dispatch instructions	

Stakeholder	Issue	AEMC Response
	can raise system security issues.	Also see section 5.2.
Compliance costs		
Snowy Hydro and Stanwell	The cost of complying with dispatch instructions under the current strict obligation in clause 4.9.8(a) is significant and would be reduced under an alternative compliance obligation that was less stringent.	While the current strict obligation to comply with dispatch instructions under clause 4.9.8(a) may impose higher costs on some market participants, compared to a more qualified obligation, the current obligation is likely to contribute to lower total system costs. Also see sections 4.2 and 4.3.
EnergyAustralia	Compliance costs relating to plant cycling are not an issue as these can be managed by rebidding to reflect operational costs.	
AER	It acknowledges that compliance costs exist for market participants. However the use of reasonable endeavours could increase the costs of monitoring compliance and investigating breaches for market participants and the AER.	
The proposed solution - use of reasonable endeavours		
EnergyAustralia	The use of reasonable endeavours is a potential option to address the issue of "strict compliance", however it is concerned about the potential impact of a lesser obligation when prices are high or constraints are binding.	See section 6.1.
Snowy Hydro, Stanwell, CS Energy and ESAA	A compliance obligation based on reasonable endeavours is better than the current Rule.	See section 6.1.
CS Energy	During the period after the AER's 2006 Compliance Bulletin recognised that it may not always be possible to exactly comply with dispatch instructions and market participants should endeavour to meet dispatch instructions, that there was no evidence that the NEM was not operating securely or inefficiently. Therefore, a 'reasonable endeavours' obligation is not likely to have a material impact on security or efficiency.	During this period the AER enforced non-compliance in accordance with its guideline, including where action was found to be deliberate. Participants may act differently if an obligation in the NER was changed to be based on 'reasonable endeavours', which could impact the secure and

Stakeholder	Issue	AEMC Response
		efficient operation of the NEM.
AEMO and the AER	Not in favour of replacing the use of reasonable endeavours as it may undermine the sufficient level of certainty provided by the current obligation and is likely to result in generators more often than currently not complying with dispatch instructions.	See section 6.1
The proposed solution - use of AEMO's non-conformance procedure		
Snowy Hydro	AEMO's non-conformance procedure is appropriate for assessing whether scheduled participants have met their dispatch instructions.	The use of AEMO's non-conformance procedure would not be appropriate for the purpose proposed in the rule change request because it is designed to monitor the efficiency of the market and not issues relating to system security. Also see section 6.2
Stanwell, Origin, EnergyAustralia, AEMO and the AER	The use of AEMO's non-conformance procedure for the purpose outlined in the rule change request is not appropriate.	
Alternative solutions		
AEMO and the AER	These stakeholders did not consider there was an issue with the current strict obligation to comply with dispatch instructions in clause 4.9.8(a), however suggested a number of alternative solutions. The AER notes that a strong financial incentive to comply with dispatch instructions could be more effective and may reduce the need for ongoing monitoring and enforcement action.	Amending financial incentives in the way proposed does not address the concern raised by the rule change request, which is regulatory uncertainty. Considering such alternatives is therefore out of scope of this rule change request. Also see section 7.2.

A.2 Submissions on draft determination

Stakeholder	Issue	AEMC response
Regulatory uncertainty		
Snowy Hydro, AEC, Stanwell, CS Energy, and ERM Power	Consider that the current compliance obligation under clause 4.9.8(a) is a material regulatory risk. This risk has been magnified by the AER's revised draft guidance (2015), which removed a statement from its earlier guidance (2006) that it did not intend to pursue a minor breach of clause 4.9.8(a). It is claimed that the AER has recently requested that market participants provide details of relatively small volumetric discrepancies. It is considered that the draft determination was premised on the AER not inappropriately exercising its discretion to pursue minor "technical breaches" of clause 4.9.8(a). The AER's stated approach to compliance and enforcement of dispatch instructions is evolving. The AEMC should not rely on the AER's approach at a point in time because the AER can amend its approach at any point in time.	See section 3.2.
Snowy Hydro and ERM Power	The current strict obligation to comply with dispatch instructions under clause 4.9.8(a), associated with the combination of AEMO's non-conformance procedure and the AER's approach to compliance and enforcement, creates regulatory uncertainty and confusion for participants. The Commission should give further consideration to the provisions of clause 3.8.23 and the purpose of AEMO's non-conformance process.	See sections 1.2, 1.3 and 3.2.
ERM Power	Considers that an ambiguous level of discretion by a regulator in its enforcement approach is not a good substitute for clear and distinct meaning in the NER.	See section 3.2.

Stakeholder	Issue	AEMC response
CS Energy	Considers that, in relation to penalties or undertakings for failures to comply with dispatch instructions, an important consideration is whether the participant is able to offer an enforceable undertaking to improve future compliance with the NER. However, CS Energy considered that an enforceable undertaking is unlikely given the participant cannot guarantee it would be successful.	The issue of penalties or undertakings for failure to comply with dispatch instructions is a matter for the AER and the relevant market participant.
AER	Agrees with the draft determination that an assessment of regulatory certainty should be based both on the relevant requirement under the NER and the AER's approach to enforcing them. The AER supports the draft determination that there is a sufficient level of regulatory certainty regarding the requirements of clause 4.9.8(a).	Noted.
AER	Recognises the importance of a consistent and clear approach to its compliance and enforcement approach for dispatch instructions and considered that it has demonstrated this through it past activities in this area. The AER will continue to apply this approach but remain sufficiently flexible to adapt its approach in light of changing legislation, jurisprudence and market conditions.	Noted.
AER	The AER states that its draft revised bulletin[137] is not a fundamental change to its previous approach, however provides greater clarity around the AER's approach to enforcing clauses 4.9.8(a)-(e). The AER noted that its compliance bulletin should always be read in conjunction with its Compliance and Enforcement Statement of Approach. The AER propose to publish an updated version of this bulletin after this rule change.	Noted.
System security		
AER	Agrees with the draft determination that the current obligation is important	See section 5.2.

137 AER, *Draft Compliance with dispatch instructions, offers and bids,* 23 October 2015.

Stakeholder	Issue	AEMC response
	in relation to system security.	
Compliance costs		
Snowy Hydro and the AEC	Requested that the Commission provide analysis related to the Commission's assessment and conclusion on compliance costs.	See section 4.2 and 4.3.
Snowy Hydro	Maintained its position that the cost of complying with dispatch instructions under the current strict obligation in clause 4.9.8(a) is significant and would be reduced under an alternative compliance obligation that was less stringent.	See section 4.2 and 4.3.
The proposed solution - use of reasonable endeavours		
Stanwell	Changing clause 4.9.8(a) to a reasonable endeavours obligation is not likely to have a material impact on the efficient operation of the NEM or maintaining the NEM in a secure operating state.	See section 6.1.
CS Energy	Clause 4.9.8(a) should be amended to include a reasonable endeavours obligation. CS Energy's considers that the Commission's draft determination is based on the assumption that a qualified compliance obligation, such as reasonable endeavours, could result in more instances of non-compliance with dispatch instructions. CS Energy considered that this assumption is unlikely to be correct because a reasonable endeavours obligation is comparable to the AER's guidance provided in 2006, after which time there was no issue of non-compliance with the NER. In addition, when a unit is on AGC there can be uncontrollable technical deviations from dispatch instructions.	The current obligation in clause 4.9.8(a) is part of maximising the value of spot market trading and maintaining the NEM in a secure operating state. There are key differences between AER guidance and a provision in the NER, particularly a provision that is a civil penalty provision. One is guidance about how the AER intends to conduct enforcement, while the other creates an enforceable obligation. The provision in the NER also determines what the AER needs to show to take enforcement action.

Stakeholder	Issue	AEMC response
The proposed solution - use of AEMO's non-conformance procedure		
ERM Power	ERM Power disagreed with the draft determination which it claims states that AEMO's non-conformance procedure is solely related to setting the spot market price and is directed to a purpose other than compliance with clause 3.8.23 of the NER. ERM Power considered that the purpose of AEMO's non-conformance procedure includes[138] implementing corrective measures if a market participant fails to follow a dispatch instruction and monitoring compliance with dispatch instructions within a tolerance level which is satisfactory for maintaining the NEM in a secure operating state.	AEMO's non-conformance procedure includes implementing corrective measures if a market participant fails to follow dispatch instructions.[139] AEMO's non-conformance procedure is primarily designed to monitor the efficiency of the market (ie aligning central dispatch with pricing).
Alternative solutions		
Snowy Hydro and the AEC	The final determination should require the AER to re-issue guidance to remove the potential for enforcement action for minor breaches.	See section 7.1.
Stanwell	The NER be amended to include guidance on what must be considered when determining compliance or what must be contained in AER guidelines (i.e. strict compliance with all dispatch instructions is a physical impossibility). It considers that the NER should include "guidance or bounds to the regulator's - or court's - discretion, as seen in the Final Determination on Bidding in Good Faith".[140]	The Commission's final rule in Bidding in Good Faith did include, at clause 3.8.22A, matters to which the court must have regard when interpreting the specific provision about whether a rebid was made as soon as practicable.[141] This is different from limiting the discretion of the AER to take enforcement action. It is more important for an enforcement body to have discretion, given the range of scenarios that it would face. In addition, the AER itself provides guidance on its

138 Based on ERM Power's understanding of clause 3.8.23 of the NER

139 Based on Section 6.1 of AEMO, *Dispatch System Operating Procedure*, SO_OP3705, 11 December 2015, p9.

140 Stanwell submission, 11 February 2016, p1.

141 AEMC, *Bidding in Good Faith, Final Rule Determination*, Sydney, 10 December 2015, pi

Stakeholder	Issue	AEMC response
		enforcement approach, unlike a court. Also see section 7.2.
Snowy Hydro, AEC and ERM Power	The final determination should reframe the "reasonable" endeavours to comply with dispatch instructions to a "best" endeavours obligation.	See section 7.4.
CS Energy	In relation to the AER's suggested alternative solution to pay generators in accordance with the lower of their dispatch instruction or actual generation for prices greater than zero and the higher of their dispatch instruction or actual for prices less than or equal to zero, CS Energy suggested that this indicates that the AER may focus, when enforcing clause 4.9.8(a), on generator participants with an incentive to increase price. This is instead of a focus on generator participants with an incentive to reduce the price or the quantum or duration of non-compliance with dispatch instructions.	Noted. However how the AER undertakes enforcement and its focus is at its discretion (bearing in mind the guidance that it has issued).
CS Energy	Maintained its view that clause 4.9.8(b) should also be amended to reasonable endeavours. This clause is the sister rule to clause 4.9.8(a) and requires participants to ensure their units can comply with the latest dispatch offer	Amendments to clause 4.9.8(b) are out of scope for this rule change.
Stanwell	Considers that generators which have their control systems in AGC, with an appropriate frequency response profile, should be considered reasonable endeavours and designed a safe harbour. Stanwell considered that the wording of the current obligation should be amended to reflect a safe harbour and be consistent with the outcome of the AER v Snowy Hydro court case, in which one of the contraventions related to "a unit being adversely affected by an undiagnosed control system fault at another generating unit".	See section 7.5.
Validity of clause 4.9.8(a)		
Snowy Hydro	Considers that clause 4.9.8(a) is invalid in administrative law terms on the basis that it is unreasonable and not reasonably proportionate to the	For the reasons set out in this final determination, the Commission considers the strict obligation

Stakeholder	Issue	AEMC response
	subject matter. Is concerned that the draft determination, while acknowledging exactly meeting a dispatch instruction may not always be possible, does not amend clause 4.9.8(a) to reduce the risk of legal challenge on the validity of clause 4.9.8(a). It suggested that the Commission has not addressed the issue raised in the rule change in an attempt to avoid having clause 4.9.8(a) tested by the courts.	under clause 4.9.8(a) is not unreasonable or disproportionate given the importance of compliance with dispatch instructions for maximising the value of spot market trading and the secure operation of the NEM.

B Legal requirements under the NEL

This appendix sets out the relevant legal requirements under the NEL for the Commission to make this final rule determination.

B.1 Final rule determination

In accordance with section 102 of the NEL the Commission has made this final rule determination in relation to the rule proposed by Snowy Hydro.

The Commission's reasons for making this final rule determination are set out in this rule determination.

B.2 Power to make the rule

The Commission is satisfied that the proposed Rule falls within the subject matter about which the Commission may make rules. The proposed Rule falls within sections 34(1)(a)(ii) and (iii) of the NEL as it relates to the operation of the national electricity system for the purposes of the security of that system and the activities of persons (including Registered participants) participating in the national electricity system.

B.3 Commission's considerations

In assessing the rule change request the Commission considered:

- the Commission's powers under the NEL to make the rule;
- the rule change request;
- the fact that there is no relevant Ministerial Council on Energy (MCE) Statement of Policy Principles;[142]
- submissions received during first and second round consultations; and
- the Commission's analysis as to the ways in which the proposed Rule will or is likely to, contribute to the NEO.

The Commission may only make a rule that has effect with respect to an adoptive jurisdiction if satisfied that the proposed Rule is compatible with the proper performance of Australian Energy Market Operator (AEMO)'s declared system

142 Under section 33 of the NEL the AEMC must have regard to any relevant MCE statement of policy principles in making a rule. The MCE is referenced in the AEMC's governing legislation and is a legally enduring body comprising the Federal, State and Territory Ministers responsible for Energy. On 1 July 2011 the MCE was amalgamated with the Ministerial Council on Mineral and Petroleum Resources. The amalgamated Council is now called the COAG Energy Council.

functions.[143] The final determination is to not make the proposed Rule. Therefore no changes are proposed to AEMO's existing declared system functions.

143 See section [91(8) of the NEL.