



Australian Energy Market Commission

DRAFT RULE DETERMINATION

National Electricity Amendment (Compliance with dispatch instructions) Rule 2015

Rule Proponent(s)

Snowy Hydro

17 December 2015

**RULE
CHANGE**

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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.

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Executive Summary

The Australian Energy Market Commission (Commission or AEMC) has decided not to make a Rule to change the standard for compliance by generators and other market participants with dispatch instructions from the market operator. This is in response to a rule change request from Snowy Hydro which proposes to amend the standard for compliance with dispatch instructions under clause 4.9.8(a).

Clause 4.9.8(a) of the National Electricity Rules (NER) provides this standard for compliance by requiring 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.

Background information

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 bids and offers to consume or produce electricity at various prices in each five minute dispatch interval. These bids and offers are combined into a merit order, and then dispatched by AEMO. The aim of this process is to maximise the value of spot market trading.

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.

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 which explains how the AER responds to potential breaches and the factors it has regard to when deciding whether to take enforcement action.

AEMO's system security obligations

AEMO is responsible for maintaining power system security to protect the system from damage through the use of system constraints, procurement of frequency control ancillary services (FCAS) and by issuing directions.

AEMO's non-conformance procedure

AEMO monitors non-conformance with dispatch instructions in accordance with its Dispatch System Operating Procedure. This procedure is designed to monitor the conformance of participants' dispatch against dispatch targets for the efficient operation of the market (ie aligning pricing with dispatch). AEMO identifies

participants who are non-conforming based on the severity and duration of the event. If a participant is found to be non-conforming it is removed from the basis for setting the dispatch price.

Failure to comply with dispatch instructions can result in AEMO declaring a market participant non-conforming and also affect AEMO's management of power system security, even though these two aspects of AEMO's functions are distinct.

A failure to comply with dispatch instructions can also separately result in a market participant being considered non-compliant by the AER, as AEMO's non-conformance procedure is distinct from the AER's non-compliance process.

The rule change request

Snowy Hydro propose to replace the standard for compliance with dispatch instructions under clause 4.9.8(a) with an obligation which means 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 standard for compliance with dispatch instructions under clause 4.9.8(a). It suggests that the current rule is uncertain in its enforceability as it may not always be possible for market participants to exactly comply with dispatch instructions and market participants are subject to the AER's 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.

Draft Determination

Regulatory Uncertainty

The Commission considered that there is no issue with the way the current arrangements work, and there is no issue with regulatory uncertainty around how the current standard for compliance with dispatch instructions operates or is enforced.

When considering regulatory uncertainty, the regulatory framework must be viewed as a whole, taking into account both the obligation in the NER to comply with dispatch instructions and the AER's approach to enforcement of that obligation.

The AER has issued guidance as to how it will enforce the obligation to comply with dispatch instructions. In considering whether to take action in respect of conduct that may not comply with a dispatch instruction, the AER will take into account matters such as:

- whether the conduct was deliberate;
- 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 small, “technical” breaches of this obligation, the AER has historically only issued three infringement notices and instituted one legal proceeding.

The Commission is not aware of any indication that this approach to the AER's monitoring and enforcement will change.

Other Issues

The Commission considers that the current obligation to comply with dispatch instructions is important for maximising the value of spot market trading in energy and ancillary services and for maintaining the NEM in a secure operating state.

Were the standard for compliance with dispatch instructions under clause 4.9.8(a) to be relaxed and there was less diligent compliance with 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 revenues received by other market participants, particularly at times of high prices.

Snowy Hydro's rule change request suggests that the current standard for compliance under clause 4.9.8(a) may result in higher costs being incurred by some market participants in minimising the risk of breaching this obligation, compared to a more relaxed standard. However, in considering whether a rule change would contribute to the National Electricity Objective it is necessary to consider the total system costs and the long term interests of consumers. The Commission considers that retaining the current standard for compliance under clause 4.9.8(a) is likely to result in lower total system costs.

Is the solution proposed in the rule change appropriate?

As the Commission is not satisfied that there is an issue with the standard for compliance with dispatch instructions under clause 4.9.8(a), the solution proposed in the rule change request is not required to be considered.

However, if amendments were necessary, the use of a compliance obligation based on reasonable endeavours is inconsistent with the use of reasonable endeavours obligations elsewhere in the NEM and could result in uncertainty about when compliance is required, and therefore potentially higher compliance costs. In addition, use of AEMO's non-conformance procedure is not appropriate 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.

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.

It is not considered that the proposed Rule will contribute to regulatory certainty for market 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 market participants, the proposed Rule is likely to result in higher compliance costs across the system. The proposed Rule also needs to be balanced against the broader market efficiency and system security benefits associated with the current standard for compliance with dispatch instructions under clause 4.9.8(a).

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1 Background

Snowy Hydro Limited's rule change request states that there is a need to amend the standard for compliance with dispatch instructions under clause 4.9.8(a). 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 requiring compliance with dispatch instructions;
- the current arrangements for compliance with dispatch instructions;
- Snowy Hydro's rule change request;
- the rule making process to date; and
- consultation on draft rule determination.

1.1 Overview of the National Electricity Market

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 is concerned with maximising the value of spot market trading relating to the provision of both energy and ancillary services, subject to dispatch offers, dispatch bids, ancillary service offers and various other constraints.¹ 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.²

The centralised dispatch process is designed to facilitate the supply of electricity in a secure manner³ 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.

Consistency between central dispatch and pricing is therefore a key market design principle of the NEM. Non-compliance with dispatch instructions may lead to inconsistencies between central dispatch and pricing and distort the efficiency of

1 NER, Clause 3.8.1.

2 NER, Clause 4.9.8(a).

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

market outcomes. 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 current rules requiring compliance with dispatch instructions are 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 in section 1.3.3 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 target is still paid for the amount of energy and frequency control ancillary services (FCAS) it is dispatched for by AEMO. AEMO has set out how it approaches the non-conformance procedure in one of its power system operating procedures, which is summarised in section 1.3.2 below.

1.3 Current arrangements for compliance with dispatch instructions

1.3.1 AEMO's system security obligations

AEMO's power system security obligations are set out in Chapter 4 of the NER. This includes responsibilities for AEMO to maintain power system security, to monitor the operating status of the power system and to assess potential infringements of the technical envelope which could affect the security of the power system.⁴ AEMO maintains the secure operation of the power system through the use of system

⁴ NER, Clause 4.3.1.

constraints, procurement of frequency control ancillary services (FCAS) and by issuing directions.

1.3.2 AEMO's non-conformance procedure

AEMO monitors non-conformance with dispatch instructions in accordance with its Dispatch System Operating Procedure.⁵ The purpose of AEMO's non-conformance procedure is to:

- monitor conformance of participants' dispatch against dispatch targets (ie aligning pricing with dispatch);⁶ and
- implement corrective measures if participants fail to follow a dispatch instruction, such as removing a generating unit from dispatch.⁷

AEMO identifies participants who are non-conforming based on the severity and duration of the event. This is based on whether the dispatch from a 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 target. A 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.⁸

AEMO implements corrective measures aimed at resolving the mismatch between actual and total dispatched generation in the NEM. Corrective measures involve communications with the participant to notify that it is dispatching outside its error thresholds. Through this process a participant's compliance status could change from 'Normal' through to 'Suspended', as outlined below:⁹

- **Normal:** Plant is following dispatch target within error thresholds;
- **Off target:** Plant is not following dispatch target and MW error exceeds detection thresholds;
- **Non responding:** A number of dispatch intervals have passed and the plant is still not following target (the number of dispatch intervals depends on the severity of the error);
- **Non-conforming pending:** The non-response has reached a stage where the plant will be declared non-conforming;

⁵ AEMO, *Dispatch System Operating Procedure*, 23 October 2014.

⁶ Dispatch targets for all scheduled generators, semi-scheduled generators, scheduled network services and scheduled loads are derived by the NEM Dispatch Engine after co-optimising the energy market with the frequency control ancillary services market; AEMO, *Dispatch System Operating Procedure*, 23 October 2014, p9.

⁷ Ibid, p10.

⁸ AEMO, *Dispatch System Operating Procedure*, 23 October 2014, p35.

⁹ Ibid, p31

- **Non-conforming:** The plant is declared non-conforming; and
- **Suspended:** The plant is not included in the compliance process.

Therefore at the end point of this process, a non-conforming plant is removed from dispatch by AEMO. This means that bids or offers from the non-conforming plant cannot be used as the basis for setting wholesale spot prices.

If AEMO declares a market participant to be non-conforming, AEMO must notify all market participants by publishing a notice before the end of the day after the non-conformance event.¹⁰

Failure to comply with dispatch instructions can result in AEMO declaring a market participant non-conforming. Failure to comply with dispatch instructions also has the potential to impact power system security and may require AEMO to procure additional frequency control ancillary services to maintain the system in a secure operating state. In this way, failure to comply with dispatch instructions can separately impact AEMO's non-conformance and power system security obligations. The impact is distinct in that AEMO would always be required to maintain the power system in a secure state, even when a particular generating unit is not complying with its dispatch targets, by constraining other generating units, procuring ancillary services or issuing directions.

AEMO's non-conformance procedure is unrelated 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 compliance with the rules. AEMO's non-conformance procedure is different from the AER's non-compliance process in that it specifies error threshold trigger levels, unlike the AER non-compliance process. Under AEMO's non-conformance procedure, if a participant's dispatch outside of 3% or 5% of their dispatch target for a specified number of dispatch intervals it will be identified as non-conforming by AEMO.

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.¹¹ 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:

¹⁰ AEMO, *Dispatch Systems Operating Procedure*, 23 October 2014, p14.

¹¹ NEL section s15(1)(a)-(d); AER, *Compliance and Enforcement Statement of Approach*, April 2014, p4.

1. **Compliance Bulletin**¹² – this provides guidance on the AER's expectations and the approach it takes with respect to monitoring compliance with dispatch instructions. The AER is in the process of updating this guidance and provided an updated draft of its Compliance Bulletin¹³ with its submission to the first round of consultation for this rule change.
2. **Compliance and Enforcement Statement of Approach**¹⁴ – 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 participant whose dispatch has differed from its dispatch target.

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.¹⁵

Since the AER has been responsible for enforcing compliance with dispatch instructions, it has issued three infringement notices and instituted one proceeding for a breach of clause 4.9.8(a).¹⁶ These enforcement actions are discussed in section 3.2.4.

1.3.4 Summary of AEMO and AER processes and obligations

Table 1.1 summarises the AER non-compliance process as well as AEMO's non-conformance procedure and system security obligations.

¹² AER, *Compliance Bulletin No. 1 - Complying with dispatch instructions*, December 2006, p1.

¹³ AER, *Draft Compliance with dispatch instructions, offers and bids, Compliance Bulletin No. 1*, October 2015.

¹⁴ AER, *Compliance and Enforcement Statement of Approach*, April 2014, p10.

¹⁵ AER, *Quarterly Compliance Report: National Electricity and Gas Laws*, January - March 2015, p1.

¹⁶ *Ibid*, p3 and p6.

Table 1.1 Summary of AEMO system security obligations and 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.	Monitoring conformance against dispatch targets for the efficient operation of the market (ie aligning central dispatch with price). Implement corrective measures where a participant fails to follow dispatch instructions (ie removing generator from dispatch).	Monitoring and enforcing compliance with dispatch instructions.
NER	Chapter 4	Chapter 3	Chapter 4
How it works?	Maintain power system security through: <ul style="list-style-type: none"> • use of system constraints; • issuing directions; and • procurement of FCAS. 	Identify where participants are non-conforming based on the severity and duration of the event, as defined in AEMO's Dispatch Systems Operating Procedure. ¹⁷	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. ¹⁸

1.4 Snowy Hydro's rule change request

1.4.1 Proposed solution

On 13 April 2015, Snowy Hydro Limited made a request¹⁹ to the Australian Energy Market Commission to amend clause 4.9.8(a) of the NER by replacing it with a proposed obligation which means that registered participants²⁰who either:

¹⁷ AEMO, *Dispatch System Operating Procedure*, 23 October 2014, p10.

¹⁸ AER, *Compliance and Enforcement Statement of Approach*, April 2014, p10

¹⁹ Snowy Hydro, *Proposed Rule change: Reasonable endeavours to comply with dispatch instructions*, 13 April 2015.

- 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 claim 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 targets can change every five minutes. Generators would operate under an obligation to do everything they reasonably can to meet dispatch targets.

Use of AEMO's non-conformance procedure

Snowy Hydro suggest that the adoption of AEMO's non-conformance procedure will 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.²¹

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 current standard for compliance, and their proposed solution, is outlined below.

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 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 standard for compliance with dispatch instructions requires "strict compliance" with dispatch instructions, in every dispatch

²⁰ 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

²¹ Ibid, pp10-11.

interval, which may not always be possible.²² It is stated that this is due to a number of factors, including variability in the fuel to energy conversion process²³ and the accuracy of metering equipment.²⁴

"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 targets, due to the FCAS cost recovery process²⁵ 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 standard for compliance 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 targets.

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

Snowy Hydro claim 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 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 target for each dispatch interval.

1.5 The rule making process to date

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.²⁶ A consultation paper identifying specific issues

²² Snowy Hydro, *Proposed Rule change: Reasonable endeavours to comply with dispatch instructions*, 12 April 2015, p4.

²³ 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.

²⁴ Metering equipment for scheduled generators in the NEM is permitted to have an accuracy tolerance of between 0.5% and 3%.

²⁵ The Causer Pays process is used to allocate the costs of purchasing regulation FCAS from market participants that diverged from their dispatch target. AEMO, *Causer Pays: Procedure for Determining Contribution Factors*, 21 December 2008, p5.

²⁶ This notice was published under section 95 of the NEL.

and questions for consultation was also published with the notice. Submissions closed on 15 October 2015.

The Commission received 8 submissions on the rule change request as part of the first round of consultation. They are available on the AEMC's website.²⁷ A summary of the issues raised in submissions and the Commission's response to each issue is contained in Appendix A.

1.6 Consultation on draft rule determination

The Commission invites submissions on this draft rule determination by 11 February 2016.

Any person or body may request that the Commission hold a hearing in relation to the draft rule determination. Any request for a hearing must be made in writing and must be received by the Commission no later than 24 December 2015.

Submissions and requests for a hearing should quote project number "ERC0187" and may be lodged online at www.aemc.gov.au or by mail to:

Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

²⁷ www.aemc.gov.au

2 Draft 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 draft determination.

The Commission's draft rule determination is to not make the proposed Rule. The proposed Rule is to replace the standard for compliance with dispatch instructions under clause 4.9.8(a), with an obligation which means 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 draft 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).²⁸ 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.²⁹”

²⁸ See section 88(1) of the NEL.

²⁹ 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. Potential costs incurred in complying with dispatch instructions;
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 degree 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, that better reflect the economic costs involved in its supply, as well as lowering the risks and costs of investment.

The degree 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 degree of certainty around the Rules; in particular, its wording relating to the standard for 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 is classified as ‘non-compliant’, 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 Compliance costs

In the context of this rule change request, the term ‘compliance costs’ reflects the costs market participants may incur in either complying with a dispatch instruction, and/or the costs incurred in rectifying instances 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 a high standard of compliance with the dispatch process include (without limitation) the reliable and secure provision of electricity, which benefits the overall system as well as individual market participants. Furthermore, a high standard of compliance can promote market participants' confidence in the NEM, and their willingness to participate in the NEM.

Reducing system-wide compliance costs could result in a reduction in wholesale electricity prices, and thereby be in the longer-term interests of customers, contributing to the NEO.

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.³⁰ 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. the potential impact on compliance costs across the NEM, compared to compliance costs for individual participants;
2. the potential impact on the costs of maintaining system security, and
3. market participants' confidence in the dispatch process and willingness to participate in the dispatch process and the electricity market more generally.

The proposed Rule is assessed against the relevant counterfactual of not making the proposed change to the NEM and maintaining the standard for compliance with dispatch instructions under clause 4.9.8(a).

³⁰ AEMO, *Power System Security Guidelines*, 21 October 2015, p11.

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 a sufficient 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 outline how it exercises this discretion taking into account the realities of the market;
- the current standard for compliance with dispatch instructions 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;
- the degree of regulatory certainty is likely to be lower if the “must comply” obligation in clause 4.9.8(a) of the NER to be replaced with a more relaxed standard, such as “reasonable endeavours”; and
- the proposed Rule, if implemented, may result in less regulatory certainty and less confidence in the transparency of the dispatch process. While the proposed Rule may, if implemented, lead to lower compliance costs for some participants, it is likely to raise costs for others and across the system as a whole.

Taking into account the above, the proposed Rule is likely to result in reduced market efficiency and system security, compared to the current standard for compliance. The costs of the proposed Rule are likely to outweigh its potential benefits.

Therefore, the Commission's draft 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 6.

3 Regulatory uncertainty

This chapter considers the extent of regulatory uncertainty for market participants associated with enforcement of the current rule.

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 various system security constraints, and dispatches electricity every five minutes of the day.

Under the current standard for compliance, 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.

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.³¹

3.1.2 Stakeholder views

Snowy Hydro's rule change request considers that a standard of "strict compliance" with dispatch instructions, in every dispatch interval, may not be possible to exactly comply with at all times. 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 differed on the extent of the issue relating to the current standard for compliance with dispatch instructions under clause 4.9.8(a).

Snowy Hydro, CS Energy, ESAA, Stanwell and Origin consider that the existing clause 4.9.8(a) of the NER creates regulatory uncertainty for generators and should be clarified to better reflect the realities of complying with dispatch instructions.³²

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.

³¹ AER, *Compliance and Enforcement Statement of Approach*, April 2014, p10.

³² Snowy Hydro submission, 13 October 2015, p1; CS Energy submission, 4 November 2015, p2; ESAA submission, 16 October 2015, p1; Stanwell submission, 15 October 2015, p2; and Origin submission, 27 October 2015, p1.

ESAA consider 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.³³

AEMO considers that there is no uncertainty for participants as clause 4.9.8(a) requires strict compliance and needs to be construed in light of market realities.³⁴ The AER considers that 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).³⁵ That is, ensure that at all times they are able to comply with their latest dispatch offer or bid.³⁶

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 market.³⁷

AEMO and the AER consider 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.³⁸

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.³⁹

The Commission agrees with this view. The dispatch instruction from AEMO is clear and the rule requires that the participant comply with this (a “must comply” obligation). Failure to do so results in a breach of the NER. The only exceptions to this, which again is clear, are where compliance with a dispatch instruction would cause a hazard in some way or materially risk damaging equipment.

³³ ESAA submission, 16 October 2015, p1.

³⁴ AEMO submission, 30 September 2015, p3.

³⁵ 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.

³⁶ AER submission, 23 October 2015, p3.

³⁷ Ibid.

³⁸ AEMO submission, 30 September 2015, p3; AER submission, 23 October 2015, p3.

³⁹ AEMO submission, 30 September 2015, p3.

Having an obligation framed in terms of 'must comply' also appears consistent with other key NER provisions. The majority of civil penalty provisions in the NER are written in terms of 'must comply', as are requirements to comply with dispatch instructions in Chapter 2⁴⁰ and 3⁴¹ and system security requirements in Chapter 4 of the NER.⁴²

The 'must comply' obligation in clause 4.9.8(a) is also consistent with other obligations that support the operation of this clause. These include the requirement for registered participants to operate in accordance with AEMO's central dispatch process;⁴³ to vary their available capacity (rebidding);⁴⁴ and to provide information about its up and down ramp rate, and any rebids of those ramp rates for each dispatch offer.⁴⁵ In addition, as noted by the AER, 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).⁴⁶

The counterfactual of moving from the existing 'must comply' obligation to an alternative compliance obligation that is less stringent, such as reasonable endeavours, could lead to greater uncertainty for the market. This is because the nature and extent of a reasonable endeavours obligation is necessarily dependent on what is reasonable for that participant in the circumstances, which could include its 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, potentially making it more difficult for the AER to take action for significant breaches of dispatch obligations.

In addition, the counterfactual of moving from the existing 'must comply' obligation to an alternative compliance obligation that is less stringent, such as reasonable endeavours, could lead to more generators not complying with dispatch instructions. 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 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 5.1.2.

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

⁴⁰ For example, NER clause 2.2.6(g)(4).

⁴¹ For example, NER clause 3.9.7(a).

⁴² For example, NER Clause 4.5.2(b).

⁴³ NER Clause 2.2.2(f), in relation to scheduled generators.

⁴⁴ NER Clause 3.8.22(b).

⁴⁵ NER Clause 3.8.6(a)(2).

⁴⁶ AER submission, 23 October 2015, p3.

dispatch instruction. According to the rule change proponent, approximately half of all scheduled generators⁴⁷ missed their dispatch targets at a 1 MW granularity.⁴⁸

In the rule change request, Snowy Hydro stated 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.⁴⁹ 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 causes fluctuations in a generator's output.

The Commission also acknowledges that it is important for market participants to have certainty in 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.

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.

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

⁴⁸ For example, a scheduled generator with a dispatch instruction to supply 50 MW of energy would have a dispatch target of between 49.5 MW and 50.5 MW.

⁴⁹ Snowy Hydro, *Proposed Rule change: Reasonable endeavours to comply with dispatch instructions*, 13 April 2015, pp6-7.

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. As indicated by the AER, discretion is important for any enforcement agency.⁵⁰ 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.

The Commission considers it is appropriate that the AER have this discretion, and it should exercise this discretion to take the best approach to enforcement.

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.⁵¹ The AER is in the process of providing additional guidance to the industry and included a draft of its updated Compliance Bulletin with its submission to the first round of consultation.⁵²

Snowy Hydro stated 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.⁵³ 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

The Commission considers that there is appropriate certainty and clarity in how the AER will apply its discretion around enforcement of the NER. Market participants should be able to expect that the AER is unlikely to take enforcement action for minor, "technical" failures to comply with dispatch instructions. The AER has stated in its Compliance and Enforcement Statement of Approach, for example, that in determining an appropriate enforcement response it will consider matters such as:⁵⁴

- whether the conduct was deliberate;
- the impact of the conduct, including on consumers and other parties; and
- the extent of any financial gain from the conduct.

⁵⁰ AER submission, 30 September 2015, p3.

⁵¹ AER, *Compliance and Enforcement Statement of Approach*, April 2014, p10.

⁵² AER, *Draft Compliance with dispatch instructions, offers and bids, Compliance Bulletin No. 1*, October 2015.

⁵³ Snowy Hydro submission, 13 October 2015, p4.

⁵⁴ AER, *Compliance and Enforcement Statement of Approach*, April 2014, p10.

Stakeholders have noted that the reference in the AER's 2006 Compliance Bulletin⁵⁵ that the AER will not take action for minor breaches of clause 4.9.8(a) where the registered participant has used best endeavours to comply, has not been included in recent statements of the AER's approach to enforcement.⁵⁶ 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 three infringement notices and instituted one legal proceeding for a breach of clause 4.9.8(a), despite the number of "technical breaches" that have been referred to by Snowy Hydro.⁵⁷ These related to situations where generators significantly deviated from AEMO's dispatch instructions, as outlined below:

- 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;⁵⁸
- 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;⁵⁹
- 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,⁶⁰ and
- 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.⁶¹

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.

⁵⁵ AER, *Compliance Bulletin No. 1 - Complying with dispatch instructions*, 1 December 2006.

⁵⁶ CS Energy submission, 4 November 2015, p2.

⁵⁷ Snowy Hydro's rule change request suggested that, based on its sample of data across the entire NEM in June 2014, almost all generators missed their dispatch target to an accuracy of 0.1 MW and more than 10,000 dispatches per day missed their dispatch target to the accuracy of 1 MW.

⁵⁸ AER, *Quarterly Compliance Report – January to March 2015*, National Electricity and Gas Laws, January p6.

⁵⁹ Ibid.

⁶⁰ Ibid.

⁶¹ AER, *Quarterly Compliance Report – January to March 2015*, National Electricity and Gas Laws, January p4.

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. The Commission considers that there is currently a sufficient level of regulatory certainty and this is borne out in practice.

4 Other issues raised

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

4.1 Market efficiency

4.1.1 Context and stakeholder views

The rule change request considers that the current standard for 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.⁶² Stanwell and CS Energy support this view.⁶³

AEMO and the AER consider that the current standard for compliance is important for the efficient operation of the NEM.⁶⁴ 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 maintaining system security, in accordance with clause 3.8.1 of the NER.

EnergyAustralia and the AER⁶⁵ consider that existing financial incentives are insufficient to ensure compliance with dispatch instructions under the proposed Rule. The AER suggest 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 participants comply as precisely as possible, as they may be outweighed by potential revenue earned in the energy spot market.⁶⁶

4.1.2 Assessment and Conclusion

The Commission considers that the standard for compliance under clause 4.9.8(a) is important for maximising the value of spot market trading from the central dispatch process. Were this standard to be relaxed, generators may have a reduced incentive to strive for exact compliance with dispatch instructions. For example, if a relaxed standard 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 tolerance rather than exact compliance. This could increase the frequency with which participants do not meet their dispatch instruction and may

⁶² Snowy Hydro submission, 13 October 2015, p2.

⁶³ Stanwell submission, 15 October 2015, p2; CS Energy submission, 4 November 2015, p1.

⁶⁴ AEMO submission, 30 September 2015, p2; AER submission, 23 October 2015, p2.

⁶⁵ EnergyAustralia submission, 16 October 2015, p1; AER submission, 23 October 2015, p7.

⁶⁶ AER submission, 23 October 2015, p7.

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.

This could reduce the value of spot market trading in energy and ancillary services markets through the central dispatch process;⁶⁷ partially or wholly displacing other participants in the merit order. In the case where a high priced scheduled generator fails to comply with dispatch instructions and supplies too much power, a lower priced scheduled generator would be instructed to supply less power than they were willing to supply at that price, negatively impacting its revenues. If the high-priced generator was also the marginal generator, this could result in customers paying more for a given amount of electricity than is economically efficient.

While there are other mechanisms that create incentives to comply with dispatch instructions, these may be insufficient under a reduced standard for compliance. 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.⁶⁸

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 target 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 target by more than around five per cent of its dispatch target, for five consecutive dispatch intervals, without breaching the proposed Rule.⁶⁹

4.2 System security

4.2.1 Context and stakeholder views

The rule change request considers that the standard for compliance under clause 4.9.8(a) is unnecessary for the secure operation of the NEM.

Snowy Hydro, Stanwell and CS Energy⁷⁰ consider that the standard for compliance under clause 4.9.8(a) is not required for power system security. Snowy Hydro suggest that the NEM technical envelope is robust to cater for sporadic changes in supply and

⁶⁷ Calculated through the National Electricity Market Dispatch Engine (NEMDE).

⁶⁸ AEMO submission, 30 September 2015, p8.

⁶⁹ 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*, 23 October 2014, p35.

⁷⁰ Snowy Hydro submission, 13 October 2015, p2; Stanwell submission, 15 October 2015, p2; CS Energy submission, 4 November 2015, p4.

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.⁷¹

AEMO and the AER consider that the current standard for compliance is important for system security. AEMO states that it uses dispatch instructions to balance the supply and demand of electricity in each region,⁷² and to address fluctuations in frequency and voltage that are adverse to the maintenance of a secure operating state.⁷³

4.2.2 Assessment and Conclusion

The Commission considers that the standard for 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.⁷⁴ This technical envelope is implemented using network constraints such that plant remains within rating and power transfers remain within stability limits.⁷⁵ 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.⁷⁶

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 issue dispatch instructions for 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 reduced standard for compliance with dispatch instructions could be degraded system security and an impaired ability for AEMO to manage power system security. A reduced standard 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. It could also raise system security issues, such as in circumstances where constraints are binding, and require AEMO to intervene by issuing directions.

71 Snowy Hydro submission, 13 October 2015, p2.

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

73 AEMO submission, 30 September 2015, p2.

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

75 Ibid, p10.

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

4.3 Compliance costs

4.3.1 Context and stakeholder views

The rule change request states that the standard for compliance under clause 4.9.8(a) causes generators to incur unnecessary expenditure to minimise the risk of breaching the current Rule.⁷⁷ 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.⁷⁸

Snowy Hydro and Stanwell⁷⁹ suggest that the cost of complying with dispatch instructions under the current standard for compliance under clause 4.9.8(a) is significant and would be reduced if a less stringent compliance obligations, such as reasonable endeavours, was applied.

Snowy Hydro suggests 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 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.⁸⁰

EnergyAustralia suggests that compliance costs relating to plant cycling are not an issue as these can be managed by rebidding to reflect operational costs.⁸¹

The AER acknowledges that compliance costs exist for market participants. However, if the current standard for compliance with dispatch instructions under clause 4.9.8(a)

⁷⁷ Snowy Hydro, *Proposed Rule change: Reasonable endeavours to comply with dispatch instructions*, 13 April 2015, p6.

⁷⁸ Snowy Hydro submission, 13 October 2015, p3.

⁷⁹ Snowy submission, 13 October 2015, p2; Stanwell submission, 15 October 2015, p2.

⁸⁰ Snowy Hydro submission, 13 October 2015, p4.

⁸¹ EnergyAustralia submission, 16 October 2015, p1.

were replaced with reasonable endeavours, this could increase the costs of monitoring compliance and investigating breaches for market participants and the AER.⁸²

4.3.2 Assessment and conclusion

Under the current standard for compliance with dispatch instructions, 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 participants' bids and bidding strategies. Dispatch instructions reflect these bids, and should therefore also reflect the operational capability and costs of generating 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. However, the Commission acknowledges that relaxing the standard for compliance with the rule may reduce the costs for some participants of complying with dispatch instructions.

Relaxing the standard for compliance in the way Snowy Hydro proposes involves a trade-off between the costs imposed on individual participants and total system costs. As outlined in section 4.1 and 4.2 above, the Commission considers that the current standard for compliance with dispatch instructions under clause 4.9.8(a) is important for the secure operation of the NEM. This standard for compliance also contributes to maximising the value of spot market trading.

The costs of compliance monitoring and enforcement action are also likely to be lower under clause 4.9.8(a) compared to a lower standard for compliance.

The Commission considers that while the current standard for compliance may impose higher costs on some market participants, compared to a more relaxed standard, the current standard is likely to contribute to lower total system costs and therefore contribute to the NEO. In addition, given that participants are able through the bids and offers they make, including rebids and ramp rates, to reflect the operating costs they incur (including those costs outlined in section 5.3.1), it is appropriate that they have an incentive to find the most efficient way to manage the operation their plant. For example, they could avoid bidding in such a way that they need to operate a unit at a low level of output to meet that bid.

⁸² AER submission, 23 October 2015, p6.

5 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 does not consider that the standard for compliance with dispatch instructions under clause 4.9.8(a) needs to be amended. Therefore, the decision in this draft determination is that the solution proposed in the rule change request is not required.

5.1 Reasonable endeavours

5.1.1 Context and stakeholder views

The first limb of the proposed Rule proposes to replace the current standard for compliance with dispatch instructions with a compliance obligation based on reasonable endeavours.

Snowy Hydro, Stanwell, CS Energy and ESAA⁸³ consider that a compliance obligation based on reasonable endeavours is better than the current Rule. 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.

EnergyAustralia suggest 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.⁸⁴

AEMO and the AER are not in favour of replacing the current standard for compliance with a compliance obligation based on reasonable endeavours. Both submit that this would undermine the sufficient level of certainty provided by the current obligation⁸⁵ and is likely to result in generators more often not complying with dispatch instructions.⁸⁶ It may excuse non-compliance based on commercial considerations and increase the factors that would need to be considered and assessed by the AER in its

⁸³ Snowy Hydro submission, 13 October p5; Stanwell submission, 15 October 2015, p3; ESAA submission, 16 October, p1; CS Energy submission, 4 November 2015, p7.

⁸⁴ EnergyAustralia submission, 16 October 2015, p1.

⁸⁵ AER submission, 23 October 2015, p6.

⁸⁶ AEMO submission, 30 September 2015, p5.

non-compliance process, thereby increasing the cost of compliance for the AER and market participants.⁸⁷

5.1.2 Assessment and conclusion

As outlined in the earlier chapters, the Commission is not satisfied that there is an issue with the current standard for compliance with dispatch instructions under clause 4.9.8(a).

The Commission considers that a compliance obligation based on reasonable endeavours would not be a better alternative than the current standard for compliance 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.

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. 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 participants in respect of smaller, "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 clause redrafted as reasonable endeavours, it may need to be considered in court in order to achieve better clarity as to what reasonable endeavours means 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.⁸⁸ 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 standard appears less appropriate.

⁸⁷ AER submission, 23 October 2015, p6.

⁸⁸ 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).

5.2 Use of AEMO's non-conformance procedure

5.2.1 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.⁸⁹ 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.

Stanwell, Origin, EnergyAustralia, AEMO and the AER⁹⁰ 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 to diverge from their dispatch target. It is also considered that this obligation should be clearly set out in the NER rather than AEMO procedures.

5.2.2 Assessment and conclusion

As outlined above, the Commission is not satisfied that there is an issue with the current standard for compliance with dispatch instructions with clause 4.9.8(a).

Even if there was a need to change the standard for compliance, the Commission considers that AEMO's non-conformance procedure is not fit for the purpose proposed in the rule change request. 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.

Using it to set out how participants need to comply with dispatch instructions, as proposed in the rule change request, may require it to be adjusted based on factors such as system security/reliability or the impacts on one generator of another generator failing to comply with a dispatch obligation. This could reduce the efficiency

⁸⁹ Snowy Hydro submission, 13 October 2015, p6.

⁹⁰ 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.

of the market, adversely impact other participants and reduce AEMO's ability to manage system security. It is not appropriate to use it in this way.

It may be argued that if AEMO's non-conformance procedure was to be used in the way proposed by Snowy Hydro, it could be amended to fit this additional purpose. This would appear inappropriate as it would then be less adapted to its primary purpose of aligning central dispatch with pricing.

6 Alternative solutions proposed by stakeholders

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

6.1 Amend AER guidance on compliance and enforcement

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

As detailed earlier in this paper, the AER has previously provided guidance to the industry in the form of its Compliance Bulletin⁹¹ and its Compliance and Enforcement Statement of Approach.⁹² The Commission notes that the AER is in the process of updating its guidance on compliance with dispatch instructions and provided an updated draft of its Compliance Bulletin⁹³ with its submission to the first round of 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 exercises its discretion.

6.2 Amend financial incentives in the NER

AEMO and the AER⁹⁴ do not consider there is an issue with the current standard for compliance with dispatch instructions. 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 target or actual generation for price greater than zero and the higher of their target or actual for prices less than or equal to zero;⁹⁵ and

⁹¹ AER, *Compliance Bulletin No. 1 - Complying with dispatch instructions*, 1 December 2006.

⁹² AER, *Compliance and Enforcement Statement of Approach*, April 2014.

⁹³ AER, *Draft Compliance with dispatch instructions, offers and bids, Compliance Bulletin No. 1*, October 2015.

⁹⁴ AEMO submission, 30 September 2015, p8 and AER submission, 23 October 2015, p8.

⁹⁵ AER submission, 23 October 2015, p8.

- requiring non-conforming scheduled generators to compensate other scheduled generators 'bumped' by NEMDE on account of electricity generated in excess of a dispatch instruction.⁹⁶

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.

⁹⁶ AEMO submission, 30 September 2015, p9.

Abbreviations

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
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

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 3.2.1.
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 3.2.4.
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 sections 3.2.2, 3.2.3 and 3.2.4.
AEMO	There is no uncertainty for 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 3.2.1.
AER	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 sections 3.2.1.
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 which is potentially harmful to the efficient and secure operation of the market.	See section 3.2.4.

Stakeholder	Issue	AEMC Response
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 3.2.3.
Market efficiency		
Snowy Hydro, Stanwell and CS Energy	The standard for compliance under clause 4.9.8(a) is not required for the efficient operation of the market.	The AEMC considers that the standard for compliance with dispatch instructions under clause 4.9.8(a) is important for maximising the value of spot market trading. Under a reduced standard of compliance, other mechanisms that create incentives to comply with dispatch instructions may be insufficient. Also see section 4.1.2.
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 standard for compliance 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 standard for compliance under clause 4.9.8(a) is not required for the secure operation of the market.	The current standard for compliance 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 reduced standard of compliance could degrade power system security and impair AEMO's ability to manage power system security. Also see section 4.2.2.
Snowy Hydro	The NEM technical envelope is robust to cater for sporadic changes in supply and demand.	
AEMO and the AER	The current standard for compliance 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 can raise system security issues.	

Stakeholder	Issue	AEMC Response
Compliance costs		
Snowy Hydro and Stanwell	The cost of complying with dispatch instructions under the current standard for compliance with dispatch instructions is significant and would be reduced under an alternative compliance obligation that was less stringent.	The Commission considers that while the current standard for compliance may impose higher costs on some market participants, compared to a more relaxed standard, the current standard is likely to contribute to lower total system costs. Also see section 4.3.2.
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 participants. However the use of reasonable endeavours could increase the costs of monitoring compliance and investigating breaches for registered 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 5.1.2.
Snowy Hydro, Stanwell, CS Energy and ESAA	A compliance obligation based on reasonable endeavours is better than the current Rule.	See section 5.1.2.
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 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.	The Commission notes that during this period the AER enforced non-compliance in accordance with its guideline, including where action was found to be deliberate. The Commission considers that participants may act differently if an obligation in the NER was changed to be based on ‘reasonable endeavours’.

Stakeholder	Issue	AEMC Response
		which could impact the secure and 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 5.1.2.
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 AEMC considers that 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 5.2.2.
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	<p>These stakeholders do not consider there is an issue with the current standard for compliance with dispatch instructions, however suggested a number of alternative solutions.</p> <p>The AER noted 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.</p>	<p>The Commission considers that amending financial incentives in the way proposed does not address the concern raised by the rule change request, that is regulatory uncertainty. Considering such alternatives is therefore out of scope of this rule change request.</p> <p>Also see section 6.2.</p>

B Legal requirements under the NEL

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

B.1 Draft rule determination

In accordance with section 99 of the NEL the Commission has made this draft rule determination in relation to the rule proposed by Snowy Hydro.

The Commission's reasons for making this draft 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;⁹⁷
- submissions received during first round consultation; 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

⁹⁷ 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.⁹⁸ The draft determination is to not make the proposed Rule. Therefore no changes are proposed to AEMO's existing declared system functions.

⁹⁸ See section [91(8) of the NEL.