

13 July 2026

Ms Anna Collyer
Chair, Australian Energy Market Commission
Level 15, 60 Castlereagh St
Sydney NSW 2000

Reference: ERC0359 & ERC0360

Dear Ms Collyer,

AEMO submission to draft determination – Optimising contingency size in dispatch and Allocating FCAS contingency costs

AEMO appreciates the opportunity to submit to the draft determination on Grids Energy's proposed changes to the National Electricity Rules (NER) to explicitly require optimisation of contingency size and to allocate Frequency Control Ancillary Service (FCAS) contingency costs by runway settlement.

AEMO welcomes the Commission's efforts in expanding the rule change project in the manner suggested by our submission to the Consultation Paper, specifically by extending the timeframe, engaging an expert consultant and convening a technical reference group. AEMO supports the approach and framework the AEMC has applied to the rule changes.

AEMO's previous submission acknowledged that the existing FCAS contingency cost recovery was a weak interpretation of the "causer-pays" philosophy and identified situations where it is distortionary. The AEMC and its consultant found however that runway settlement introduced new distortions and may not be superior. Similarly, investigations into other approaches did not find a clearly preferred alternative.

Given those investigations, AEMO agrees with the draft determination that a change to an alternative cost recovery approach is unlikely to be justified.

On the use of co-optimisation of FCAS and contingency size, AEMO's previous submission argued that this is already performed in circumstances where AEMO considers it beneficial and as such, the existing NER is adequate. The AEMC proposes to explicitly encourage (with "best endeavours") the use of co-optimisation within the dispatch clause 3.8.1.

AEMO continues to view the existing NER as adequate, but notes that the addition is not intended to oblige co-optimisation in undesirable or impractical situations. AEMO proposes an alternative to the drafting presented in the draft rule document¹.

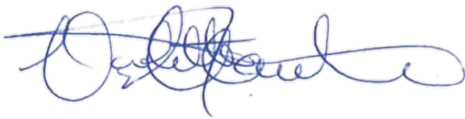
¹ A slightly different rule drafting was presented in the initially published Draft Determination. This submission responds to the form of drafting as presented in the Draft Rule document.



AEMO notes the draft determination of NER obligations for the documentation of co-optimisation procedure and ex-post reporting of its actual use. Locating these obligations in the Network Constraint Formulation Guidelines (CFG) and the routine Frequency Performance Reports (FPR) respectively are appropriate.

The attached submission expands on these issues in further detail. Should you wish to discuss any aspect of our submission, please contact Hannah Heath, Group Manager, Strategic Market Reform (Hannah.Heath@aemo.com.au).

Yours sincerely,



Violette Mouchaileh
Executive General Manager, Policy & Corporate Affairs

ATTACHMENT – Detailed submission

1. Clarifying and Improving the Transparency of Co-Optimisation

1.1. Greater use of Co-optimisation

Section 3 of the draft determination discusses the incremental system benefits that arise from co-optimising the size of the largest credible contingency with FCAS costs. In particular, the AEMC's consultant, ACIL Allen, provided theoretical advice of the benefits of expanding the use of co-optimisation and provided some modelling information suggesting a small (relative to total costs) reduction in system costs.

ACIL Allen also raises a concern that without co-optimisation, FCAS requirements are set based on the largest contingency determined from the end of the previous dispatch interval, which may change in the present interval. This means that the quantity of FCAS procured may fall short (or exceed) that required by the end of the present interval.

ACIL Allen also posits that the benefits of co-optimisation will grow over time during the industry transition.

As stated in our previous submission, AEMO agrees that co-optimisation can reduce system costs and currently employs it in circumstances where its benefits are likely to arise. This is in prior network outage conditions where the largest contingency (typically the flow on an interconnector) can be reduced at a lower incremental energy cost than the FCAS cost of protecting that contingency. These circumstances are discussed in section 5 of AEMO's Network Constraint Formulation Guidelines (CFG)².

AEMO's view diverges from ACIL Allen's as to whether, in system normal conditions, employing co-optimisation of FCAS costs with the largest scheduled contingency (typically a large generator unit) would reduce system costs sufficiently to justify the operational burden. Relevant to this are the following considerations:

1. It would require creating a series of FCAS co-optimisation constraints for every dispatchable unit (DUID) that might at some stage be the largest contingency. This is a non-trivial task.
2. The theoretical potential for an incorrect procurement of FCAS at the end of a dispatch interval is correct, however AEMO considers that is likely to be a relatively minor and short-lived error as the new contingency size will be captured in the following dispatch interval.
3. Due to the incentives created by the existing cost recovery, where co-optimisation leads to a reduction in energy dispatch target of a large DUID, it is likely that the participant will rebid such that the co-optimisation is ineffective.

² AEMO – [Constraint formulation Guidelines](#)

4. In system normal conditions, global FCAS contingency costs are now tending to be quite small for the vast majority of dispatch intervals³. They rarely reach high levels outside extreme energy market conditions, a time the markets are typically already convergent due to FCAS trapezium effects.
5. In the short-medium term at least, AEMO expects FCAS contingency markets will continue its present trend of adequate supply and low cost⁴, due to:
 - a. The rapid progress of large-scale Battery Energy Storage System (BESS) connections which can provide contingency FCAS at low incremental cost; and
 - b. Completion of Project Energy Connect stage 2 which will greatly reduce the instance of South Australian risk of separation constraints.

The draft determination has concluded at a midway between AEMO's and ACIL Allen's view as it does not lay out a mandatory requirement for additional co-optimisation, while introducing a new rule explicitly calling out an expectation that AEMO will undertake it.

AEMO considers that the existing NER dispatch clause 3.8.1(b), despite not mentioning co-optimisation explicitly, nevertheless supports use of co-optimisation where it is practical and beneficial, through its promotion of the maximisation of the value of trade.

3.8.1(b) The central dispatch process should aim to maximise the value of spot market trading i.e. to maximise the value of electricity consumption based on dispatch bids less the combined cost of electricity production, wholesale demand response, market network services and market ancillary services based on dispatch bids and market ancillary service bids subject to:

(1) dispatch bids and market ancillary service bids;.....

(9) constraints imposed by ancillary services requirements;....

The draft rule issued with the draft determination⁵ has proposed retaining the above but adding:

3.8.1(b1) AEMO must use reasonable endeavours to co-optimize the size of the largest credible contingency event in the central dispatch process when aiming to maximise the value of spot market trading under paragraph (b).and

3.8.1(b2) AEMO must explain how it will perform co-optimisation under paragraph (b1) in the network constraint formulation guidelines issued under clause 3.8.10(c), including the co-optimisation process and methods that it will apply.

³ See this commentary article on low FCAS prices
<https://wattclarity.com.au/articles/2026/02/who-killed-fcas/>

⁴ Ibid

⁵ Note the draft rule document had slightly different drafting than that presented in the draft determination. These comments refer to the drafting in the draft rule.

AEMO recognises that in order to explicitly capture co-optimisation in the CFG (b2) it is necessary to first define FCAS co-optimisation in (b1).

Nevertheless, AEMO considers the proposed “reasonable endeavours to co-optimize” in the drafting of (b1) above could be interpreted to create a stronger expectation on the use of co-optimisation than was intended by the draft determination. It may be interpreted to impose a positive obligation to co-optimize in all feasible instances without regard to materiality or practicality. For example, if AEMO takes the view that a co-optimisation is feasible, but its benefits are likely to be smaller than its implementation cost, then this wording may drive AEMO beyond its pragmatic judgement.

AEMO proposes that the above drafting could be improved as follows:

3.8.1(b1) AEMO must have regard to the benefits of co-optimising ~~use reasonable endeavours to co-optimize~~ the size of the largest credible contingency event in the central dispatch process when aiming to maximise the value of spot market trading in accordance with paragraph (b).

3.8.1(b2) AEMO must explain how it will ~~perform~~ have regard to the benefits of co-optimisation under paragraph (b1) in the network constraint formulation guidelines issued under clause 3.8.10(c), including the co-optimisation process and methods that it will apply.

If the Commission decides to retain the “reasonable endeavours” language in the final rule, AEMO encourages the Commission to include a clear explanation of the intent of the new rule in the final determination, in similar terms to the explanation of the intent included in the draft determination. This would include, in particular, the following paragraphs from section 3.3 (page 25):

The draft rule is not intended to mandate immediate implementation of co-optimisation through NEMDE, require changes to AEMO’s current dispatch systems or constraint architecture, or specify particular mathematical formulations or operational thresholds. Decisions on when and how to apply co-optimisation remain matters of operational judgement for AEMO, allowing it to respond appropriately to prevailing system conditions, FCAS availability and security risks.

and

The draft rule under clause 3.8.1(b1) does not create an expectation that co-optimisation be applied routinely or in all circumstances. The reasonable endeavours obligation means that AEMO is only expected to apply co-optimisation where, in its operational judgement, doing so is appropriate and consistent with maximising the value of spot market trading. The Commission considers that in deciding on the circumstances where co-optimisation is appropriate, AEMO should give consideration to the materiality, practicality and system security implications which are currently part of AEMO’s discretion and judgement when considering co-optimisation. Where AEMO considers that co-optimisation may not be appropriate, or is uncertain whether its application would improve market outcomes, the Commission would not expect co-optimisation to be applied.

1.2. Publication of co-optimisation policy in the Network Constraint Formulation Guidelines

The new clause 3.8.1(b2) above explicitly obliges the inclusion of co-optimisation policy within the CFG. As discussed above, the CFG has already evolved to include some discussion of this.

As the draft determination proposes no transition period, AEMO assumes that its present CFG version is compliant with (b2).

1.3. Publication of co-optimisation usage in the Frequency Performance Reports

The draft determination proposes an obligation to include within the weekly and quarterly FPRs some material on the use of co-optimisation. AEMO supports the obligation's non-specific tone which provides AEMO with the flexibility to develop and evolve the material to be both useful to the market and delivered at an efficient cost.

The proposed clause 4.8.16(a)(3) requires weekly reports to include "instances" of co-optimisation.

However, AEMO has concerns regarding 4.8.16(b)(5) requiring quarterly reports to include the "impact" of co-optimisation. This might imply performing ex-post modelling of cost reduction which would be a very difficult task. AEMO suggests replacing "impact" with "extent".

AEMO expects to meet an implementation date of 1 October 2027 on the assumption that the initial provision of this information will be provided incrementally to the existing reports, i.e. through some additional queries and discussion, and without having to develop a new system.

2. No Change to Cost Recovery arrangements

In its earlier submission to the consultation paper, AEMO raised concerns that the present allocation of FCAS contingency costs was a weak interpretation of the causer-pays objective and potentially outdated, as it socialises costs across a participant class, most of whom do not create the requirement.

AEMO described situations where high FCAS costs led to distortionary increasing in the prices of energy offers to reduce dispatch from assets not setting the requirement. And as explained in section 1.1, incentives in the current arrangements can undermine the benefits of co-optimising the largest contingency that were assumed by ACIL Allen.

However, AEMO also noted problems in the proposed runway settlement model, suggesting consideration of alternatives to both it and socialised settlement. It also encouraged consideration of the use of energy residues where a network contingency is co-optimised.

Should any of these alternatives have appeared theoretically promising, it would then have been necessary to investigate implementation costs and timeframes.

The AEMC has since undertaken more thorough research than was then anticipated by the consultation paper. It extended the timeframe, engaged ACIL Allen and convened a Technical Working Group. AEMO considers the AEMC's expanded process an appropriate and measured response to the matters raised by AEMO and some other submissions.

While recognising imperfections in the current allocation, AEMO is satisfied that the AEMC has reasonably determined that other options are insufficiently superior to pursue at this time. AEMO supports the findings that:

- Runway settlement would likely drive inefficient behaviour by second and third largest contingencies attempting to avoid costs.
- Allocation of the runway only to the largest contingency and socialisation elsewhere avoids some of the above but is unlikely to justify the cost and complexity of the solution.
- Shadow pricing has degeneracy problems (multiple valid solutions).
- Frequency Performance Payments and Deviation Pricing are not appropriate for recovering FCAS contingency costs.