



14 November 2025

The Electricity Authority
Wellington
By email: OperationsConsult@ea.govt.nz

Emergency reserve scheme – Code amendment proposal

Transpower welcomes the opportunity to submit on the Electricity Authority's (Authority's) "Emergency reserve scheme – Code amendment proposal" consultation, published 17 October 2025. We are submitting to this consultation in our role as System Operator.

The Authority's proposal for a new emergency reserve service (ERS) is a positive development that would recognise the value demand side flexibility can provide when potential capacity shortfalls near real-time occur. It could reduce the likelihood of involuntary load shedding being necessary to keep the power system secure during tight capacity (or 'low residual') situations.

Updating the Code to establish the new ancillary service is the first step to implementation. We note that this then activates a broader range of implementation activities in our role as the System Operator.

Working with the Authority we have developed a conceptual minimum viable product (MVP) design that could meet all the Authority's design principles. While system and process changes for us to operationalise the ERS service would be relatively contained, it is the procurement of the ERS providers that will take time – across both the work we and potential providers would need to do.

The Authority appropriately anticipates that most elements of the detailed design of the ERS and the terms and conditions of contracts with ERS providers would be set out in the Procurement Plan. Developing these requirements by progressing a Procurement Plan review would be foundational for implementing the ERS. We would be required to follow the process the Code makes mandatory, including engagement with the Authority, consultation with stakeholders and submission of a proposal to the Authority. This would typically take a minimum of 6 months. It is unlikely to be practically feasible to have the amended Procurement Plan in place in Q1 or early Q2 of 2026 as is suggested by the consultation paper.

We are concerned that the EA's desire for implementation before winter will not provide enough time for effective procurement. In our view implementation for Winter 2026 is not necessarily the target, given the low residual situations for which the ERS might be useful very often occur outside of the winter months.

The common factors contributing to capacity (low residual situation) risks are generally coincident (i) planned generation and/or transmission outages reducing availability of supply-side capacity, and (ii) low or no contribution from intermittent wind and solar generation, and (iii) relatively low prevailing

spot prices that result in low commitment of slow-start thermal units, and (iv) a seasonally-cold weather snap that increases peak demand. These situations can happen at any time of year and are almost always resolved by participant action ahead of time. Not many progress to real-time low residual situations and very few result in involuntary demand management – only two instances in the last 20 years (on 9 August 2021, and in June 2006). Another, on 10 May 2024 was mitigated by voluntary moderation of electricity use by the public. Predicting ahead of time when, how much and how frequently an ERS could expect to be activated would be challenging for the System Operator and for potential providers. There can also be unforecastable and very fast-moving situations when there may not be time to activate the ERS.

A potential way to better support timely implementation and enable multiple essential procurement-related activities to progress in parallel could be to adopt a sandbox or proof-of-concept approach. Doing so could de-risk initial MVP implementation for the System Operator and for potential ERS providers including by supporting pragmatic transitional approaches such as:

- setting the technical requirements and commercial/legal standing for an initial ERS MVP outside the Procurement Plan, perhaps in a transitional stand-alone annex to it. Such an approach could support iterative development and learning that could include co-design with industry
- setting up an initial period cost recovery fund and mechanism that could support potential providers to commit early to beginning their own preparations
- considering whether it may be appropriate to allow some existing providers of reserves (such as some interruptible load sites) to switch from providing reserves to providing ERS services. Such an approach, for the transition, may be appropriate given recent trends in greater availability of reserves including as BESS participation increases – and lower prevailing reserves prices. It could help to create the momentum necessary to establish an ERS as a meaningfully useful new ancillary service
- selecting one or two potential providers with existing capability and experience to work with for the initial roll out, before opening up for wider participation
- contracting and making availability payments for a set period (of say 3-6 months) which may allow time to learn and consider developing a more dynamic method of forecasting ERS need periods.

The Authority is also currently calling for nominations for a new voluntary technical group to co-design a standardised demand flexibility product (e.g., a standardised hedge product) for implementation later in 2026. We agree with the Authority that demand flexibility could help the electricity system manage high or volatile electricity prices. In our view the proposed product would also help to smooth demand away from very high peak periods, with the added benefit of reducing the potential for very tight capacity situations to occur. In light of this initiative, as well as other work the Authority is progressing, we consider a longer timeframe for implementation of an ERS would likely deliver a better outcome for the industry and be a better use of scarce resources – across the Authority, System Operator and participants.

Yours sincerely,

Rebecca Osborne
Head of Market Services

Appendix A: Transpower response to questions

Submitter	Transpower
Questions	Comments
Q1. Do you support the Authority's proposal to amend the Code to establish an emergency reserve scheme?	<p>The Authority's proposal for a new emergency reserve service (ERS) is a positive development that would recognise the value demand side flexibility can provide when potential capacity shortfalls near real-time occur. It could reduce the likelihood of involuntary load shedding being necessary to keep the power system secure during tight capacity (or 'low residual') situations.</p> <p>We also note the scheme would not avoid involuntary demand management in all circumstances. While some events will be sufficiently gradual that ERS providers will have sufficient time to prepare to respond to activation, there will be events which are either unexpected or too rapid to be able to activate the ERS, and involuntary demand management could still be required in these events.</p>
Q2. Do you have any comments on the drafting of the proposed amendments?	<p>Updating the Code to establish the new ancillary service is the first step to implementation. This then activates a broader range of implementation activities in our role as the System Operator.</p> <p>The drafting is consistent with the implementation of the other ancillary services and responsibilities appear appropriately allocated.</p> <p>Working with the Authority we have developed a conceptual minimum viable product (MVP) design that could meet all the Authority's design principles. While system and process changes for us to operationalise the ERS service would be relatively contained, it is the procurement of the ERS providers that will take time – across both the work we and potential providers would need to do.</p> <p>The Authority appropriately anticipates that most elements of the detailed design of the ERS and the terms and conditions of contracts with ERS providers would be set out in the Procurement Plan. Developing these requirements by progressing a Procurement Plan review would be foundational for implementing the ERS. We would be required to follow the process the Code makes mandatory, including engagement with the Authority, consultation with stakeholders and submission of a proposal to the Authority. This would typically take a minimum of 6 months. It is unlikely to be practically feasible to have the</p>

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	<p>amended Procurement Plan in place in Q1 or early Q2 of 2026 as is suggested by the consultation paper.</p> <p>A potential way to better support timely implementation and enable multiple essential procurement-related activities to progress in parallel could be to adopt a sandbox or proof-of-concept approach. Doing so could de-risk initial MVP implementation for the System Operator and for potential ERS providers by supporting pragmatic transitional approaches such as setting the technical requirements and commercial/legal standing for an initial ERS MVP outside the Procurement Plan, perhaps in a transitional stand-alone annex to it. Such an approach could support iterative development and learning that could include co-design with industry</p> <p>The Code amendment (maybe inadvertently) inserts an operational constraint by enforcing the use of the scarcity pricing mechanism (Schedule 13.3AA of the Code) when the ERS is activated. We understand the rationale for this provision is to ensure wholesale energy spot price integrity during demand response, to ensure the value of the unserved load is reflected in the price. Within the current framework this can be achieved in two ways, either by using the scarcity pricing mechanism which allows prices to be calculated using the shed load as input, or by clearing demand bids in the dispatch schedule (dispatchable demand). Our preference is for the Code amendment to be agnostic to how price integrity is maintained, as we have not yet decided how best to implement the scheme (though we have a tentative preference for using dispatchable demand bids). Alternatively, outside the current framework, another pricing mechanism could be implemented during ERS activation or involuntary demand management; this is considered further in our response to question 3.</p>
<p>Q3. Do you consider any further Code amendments are required to establish the emergency reserve scheme as outlined in section 5?</p>	<p>We have been working with the Authority to provide advice and interim options for implementing the ERS that could aim for early operational readiness of the scheme.</p> <p>To accelerate implementation the Authority could consider Code amendments which provide interim rights to the System Operator and Clearing Manager, to progress a proof-of-concept scheme that may not meet all the Authority's stated requirements and goals. In particular, relaxing the constraints around interaction of scheme activation with the energy spot price could lead to faster operational readiness and allow learning-by-doing. The Authority could consider an ex-post pricing system for events where ERS is activated (and/or when involuntary</p>

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	<p>demand management is instructed), which would alleviate the current technical constraints around implementing 'what-if' pricing that factors unserved load into the pricing calculation.</p> <p>Other areas for consideration in leveraging a proof-of-concept approach and potentially accelerate implementation are:</p> <ul style="list-style-type: none"> • setting the technical requirements and commercial/legal standing for an initial ERS MVP outside the Procurement Plan, perhaps in a transitional stand-alone annex to it. Such an approach could support iterative development and learning that could include co-design with industry • setting up an initial period cost recovery fund and mechanism that could support potential providers to commit early to beginning their own preparations • considering whether it may be appropriate to allow some existing providers of reserves (such as some interruptible load sites) to switch from providing reserves to providing ERS services. Such an approach, for the transition, may be appropriate given recent trends in greater availability of reserves including as BESS participation increases – and lower prevailing reserves prices. It could help to create the momentum necessary to establish an ERS as a meaningfully useful new ancillary service • selecting one or two potential providers with existing capability and experience to work with for the initial roll out, before opening up for wider participation • contracting and making availability payments for a set period (of say 3-6 months) which may allow time to learn and consider developing a more dynamic method of forecasting ERS need periods.
<p>Q4. Do you see any unintended consequences in making the proposed amendments?</p>	<p>No. As drafted the Code amendment provides for the System Operator to specify, as part of its Ancillary Services Procurement Plan, the net purchase quantity assessment for the service, the methodology for that assessment, and the technical requirements for ERS providers, among other things. This work is foundational for implementing the service and requires the Authority's consent to consult on changes to the Procurement Plan and subsequently its approval of the proposed changes. For this reason, we suggest considering a novel approach to formalising the scheme requirements. Doing so may also create more opportunity to co-design the ERS with industry including participants with practical experience from similar schemes in other jurisdictions.</p>

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<p>Q5. Do you agree with the objective of the proposed amendment? If not, why not?</p>	<p>Yes, contingent on realising the expected benefits and accepting the opportunity cost implications of prioritising expert Authority, System Operator and participants resources to the ERS initiative over other priority work needed to support the transitioning power system and electricity market.</p> <p>We are concerned that the EA's desire for implementation before winter will not provide enough time for effective procurement. In our view implementation for Winter 2026 is not necessarily the target, given the low residual situations for which the ERS might be useful very often occur outside of the winter months.</p> <p>The Authority is also currently calling for nominations for a new voluntary technical group to co-design a standardised demand flexibility product (e.g., a standardised hedge product) for implementation later in 2026. We agree with the Authority that demand flexibility could help the electricity system manage high or volatile electricity prices. In our view the proposed product would also help to smooth demand away from very high peak periods, with the added benefit of reducing the potential for very tight capacity situations to occur. In light of this initiative, as well as other work the Authority is progressing, we consider a longer timeframe for implementation of an ERS would likely deliver a better outcome for the industry and be a better use of scarce resources – across the Authority, System Operator and participants.</p>
<p>Q6. Do you agree the benefits of the proposed amendment outweigh its costs? Please provide evidence to support your view.</p>	<p>The ERS effectively functions as an insurance policy against the risk of load shedding. As the Authority has noted throughout its previous consultations the cost of that insurance must be less than the cost of the impact of the load shedding should it be required. This makes the value of the ERS highly sensitive to the need—the number of load shedding events (that an ERS could avoid) that we expect to occur absent an ERS being in place. Predicting ahead of time when, how much and how frequently an ERS could expect to be activated would be challenging for the System Operator and for potential providers. The value of the scheme is also highly sensitive to the costs of ERS providers.</p>
<p>Q7. Do you agree the amendment is preferable to the other options? If you disagree, please explain your preferred option in terms consistent with the Authority's</p>	<p>Yes, refer to our response to Q5.</p>

Questions	Comments
objectives in section 15 of the Act.	
Q8. Do you agree the Authority's proposed amendment complies with section 32(1) of the Act? If not, why not?	Yes, refer to our response to Q5.