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Transpower

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## **Cross-submission on draft amendment proposal – *Security of Supply Forecasting and Information Policy Review (SOSFIP)***

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### **Introduction**

1. Energy Resources Aotearoa is New Zealand's peak energy sector advocacy organisation. We represent participants from across the energy system, providing a strategic sector perspective on energy issues and their adjacent portfolios. We enable constructive collaboration to bring coherence across the energy sector through and beyond New Zealand's journey to net-zero carbon emissions by 2050.
2. This cross-submission responds to Transpower's draft amendment proposal for the [Security of Supply Forecasting and Information Policy Review](#), ('the SOSFIP'), and the five submissions Transpower received on 7 November 2025. We previously submitted our views on the issues paper in March 2025, see [here](#).
3. Below, we provide some high-level comments and principles we think should apply to all SOSFIP amendments. Following, we respond to each of the consultation questions 1-17 in Appendix One. We give rationale and advice for each question.

### **Key messages**

4. We recommend that Transpower apply the following principles to the SOSFIP amendments:
  - a **technology neutrality** – no single fuel type is given preference over another;
  - b **focus on long-term risk** – hedges, thermal contracts, and hydro levels all matter for long-term security. Barriers to information across all three need to be addressed, using this set of principles, but the key barriers to energy

security are supply-driven. Transpower should focus primarily on getting more energy into the system rather than reallocating what is already there.

- c **proportionate and purposeful information disclosure** – information requirements should be least-cost and highest return; data is not free, nor is it alone useful. It requires analysis and insights. We are concerned that gas contract reporting has become a permanent and increasingly granular feature of the system without clear evidence of benefit;
- d **timeliness** – code changes should be implemented as quickly as possible. Consultation began in February 2025. Changes should not be delayed, and on current timeframes will be of no use for winter 2026;
- e **efficient process** – changes that do not require a formal SOSFIP amendment and are minor in nature should be implemented directly by the System Operator without further consultation or delay; and
- f **cost transparency** – for example, moving from day/night to 3-hourly data intervals will create new costs and must be clearly identified and justified.

### Technology neutrality

- 5. The SOSFIP provides a policy backdrop for emergency management when national fuel levels are low. It is sensible to manage the hydro-electric lake levels as proposed to draw as much energy as possible when demand is peaking. However, this consultation is about fuel of last resort, it does not answer our long-term strategic needs for fuel.
- 6. New Zealand needs additional thermal firming capacity in both the short and long term to provide resilience alongside growing renewable generation. Forecasts for future electricity demand vary widely, underscoring the importance of retaining optionality and maintaining a system that can respond to change.

### Process and timelines

- 7. Reviews of this kind are taking too long and involve excessive consultation. The energy system requires a stable bedrock of system-wide regulation that doesn't change frequently. Coupled with that, the system requires faster, iterative *operational* responses to emerging problems. This will maintain confidence and encourage investment in firming solutions.
- 8. These operational responses should not shift the sands on which the system stands, and as such, should be easily implemented with minimal consultation. This will become the flexible and reliable system all sector participants have been asking for.

## A long-term solution for security of supply

9. Transpower can play a leadership role in setting market expectations for firming capacity, to reduce reliance on hydro storage, which is seasonal and weather-dependent. This could involve specifying a minimum level of thermal firming capacity linked to the share of intermittent generation. The Electricity Authority could then enforce this through the Code, ensuring that new generation is supported by adequate firming.
10. The system needs a fuel-neutral, market-based mechanism to match firming capacity with new renewable generation. Transpower is well-positioned to design or coordinate such a mechanism and has been given the mandate from the Government to do so.
11. As System Operator, Transpower should adopt a more strategic approach to securing fuel and generation resources, including:
  - a short-term measures, such as implementing time-limited changes (a one-year adjustment to trigger points) so impacts can be tested and refined before becoming permanent; and
  - b long-term mechanisms – explore an annually adjusted base level of flexible generation that market participants would be required to meet. This would help ensure the system maintains adequate firming as renewables expand.

## Concluding comments

12. Security of electricity supply is a complex challenge. Hydro-electric generation provides valuable short-term security, but it cannot alone deliver year-round reliability.
13. Transpower, as System Operator, has a crucial role in strengthening energy security by encouraging investment in firming capacity and ensuring fuel neutrality in system design. We believe a baseline level of firming should accompany all new renewable generation to deliver a resilient, least-cost pathway to net zero and allow for growth.

## **APPENDIX ONE – Responses to consultation questions 1-17**

### **Question 1: Do you support our proposal to amend the SOSFIP?**

1. Yes, Energy Resources Aotearoa supports a targeted, carefully scoped amendment to the SOSFIP. We consider updates are timely given the increasing role of intermittent renewables, the evolving gas supply landscape, and Government direction to ensure Transpower's security-of-supply assessments are fit for purpose.
2. Our support is conditional on the System Operator applying the principles listed in our key messages: technology neutrality; proportionality, least-cost information disclosure; timely implementation; avoidance of duplication; clear cost identification; and attention to long-term firming options.
3. Amendments should be limited to measures that deliver material, demonstrable improvements to visibility or timeliness of security signals. Where changes impose ongoing data collection, Transpower must quantify likely costs and how they will be recovered, and ensure robust confidentiality and aggregation practices.

### **Question 2: Are there any other SOSFIP amendment options we should consider?**

4. Two further options merit consideration in addition to Transpower's proposals:
  - a phased / conditional implementation: For proposals with material operational/IT cost implications (e.g., 3-hourly intervals, contracted fuel scenario), adopt a phased roll-out with pilot testing and explicit review points before full adoption; and
  - b market-enabling firming signal: Explore an option to explicitly link new renewable generation registration or consent pathways to a decentralised "firming offset" market signal (fuel-neutral). This need not be a short-term SOSFIP clause but could be a policy proposal coordinated with the Electricity Authority. It would shape market expectations that new intermittent build requires additional firming resources, avoiding reliance on seasonal hydro.
5. These options preserve optionality and reduce the risk that data burdens or premature settings distort market incentives or stymie needed investment in firming.
6. For minor non-legislative changes [give examples], we recommend that Transpower adopt these without delay.

### Question 3: Feedback on Energy Security Outlook / Quarterly Security of Supply Outlook communications

7. The Energy Security Outlook and Quarterly communications are valuable and should be retained and strengthened. However, we have some suggested improvements:
  - a **accessibility:** provide executive (one-page) summaries plus technical annexes. Use clear visualisations of the Electricity Risk Curves (**‘ERCs’**) and Simulated Storage Trajectories (**‘SST’**) bands and scenario ranges;
  - b **scenario transparency:** when publishing ERCs/SSTs, explicitly summarise key modelling assumptions (e.g., hydro inflow sets, contracted fuel assumptions, demand drivers) and provide non-confidential scenario-level sensitivity ranges.
  - c **timeliness:** align publication sequencing with known decision points (e.g., pre-winter updates).
  - d **participant guidance:** add a short “what you should do next” guidance for different participant types (gentailers, retailers, major industrials, financiers) so the outlook prompts the right preparatory action.
  - e **public-facing communications:** create and maintain a consumer-friendly note that explains what a Watch / Alert / Emergency means for households and businesses.

### Question 4: Do you agree that introducing an additional ERC/SST scenario using contracted fuel information would better support understanding of forward energy risks?

8. Yes. We agree subject to safeguards, listed below.
9. Contracted fuel information (confidentially provided) can give useful forward-looking insight into the market’s own contracted backup for electricity generation and therefore better indicate the materiality of fuel shortfalls. Having a complementary contracted-fuel scenario alongside the physical capability scenario improves transparency about both what could be produced and what the market has contracted.
10. We recommend the following safeguards:
  - a implement only in confidential, aggregated form with strict access controls and clear legal protections;

- b Transpower must publish its methodology, confidentiality agreement terms, uncertainty thresholds, and any limitations on use and access;
- c avoid over-reliance. Maintain the physical capability scenario as primary for trigger decisions. The contracted scenario should only inform outlooks and market communications; and
- d quantify and communicate data collection costs and ensure they are proportionate and purposeful, and transparently so.

**Question 5: How far into the future should a contracted fuel scenario be modelled?**

- 11. We recommend that Transpower model the contracted fuel scenario out to 12 months as the steady target, implemented in stages:
  - a conduct an initial pilot (3 months) then publish contracted fuel insights over a rolling 3-month horizon to validate data quality and processes;
  - b extend to 6 months after any pilot adjustments; and
  - c conduct a full 12-month evaluation once data robustness, confidentiality and modelling processes have been proven.
- 12. Energy security risks of most concern (dry years, seasonal storage, fuel supply outages) commonly manifest across months rather than decades. A 12-month horizon balances usefulness and data reliability. A phased approach reduces implementation risk.

**Question 6: Do you agree with replacing the worst-case SST with a time-to SST approach (less conservative further into the future)?**

- 13. Yes, subject to transparency and conservative safeguards.
- 14. A time-to SST approach that becomes progressively less conservative further out is sensible because worst-case tails are less informative beyond the short horizon and can generate misleading 'red alerts'. A time-to approach improves decision-quality by focusing attention on credible near-term risks.
- 15. We recommend the following safeguards:
  - a publish the exact method, assumptions, and sensitivity tests used to form the time-to SST;

- b keep a documented worst-case “stress test” for contingency planning and public briefing (not necessarily used to trigger Watch/Alert); and
- c ensure any reduced conservatism further out does not remove incentives for participants to build resilient contracts and firming.

**Question 7: Do you agree with updating the Watch curve to ensure Watch is always above Alert (preference for Option 1)?**

- 16. Yes, we support Option 1 (ensure Watch always triggers before Alert) with caveats.
- 17. Having Watch precede Alert consistently gives participants earlier warning and time to take precautionary measures. It reduces the risk of participants being surprised by an Alert with insufficient lead time.
- 18. We recommend the following safeguards:
  - a ensure the adder (e.g., the proposed 200 GWh) is routinely reviewed against empirical model results and adjusted if necessary; and
  - b provide clarity on how the Watch curve adder will change when simulated storage trajectories shift materially.

**Question 8: Do you agree with a minimum time under Alert of 4 weeks?**

- 19. Partially. We support a minimum duration but recommend flexibility and an explicit escape clause.
- 20. A minimum Alert duration reduces flip-flopping and gives participants certainty for operational and commercial responses. Four weeks is a reasonable starting point.
- 21. We recommend the following safeguards:
  - a include an escape clause permitting exit from Alert earlier where objective recovery criteria are met;
  - b allow exceptional rapid escalation/removal where a rapid change in conditions or clear new information justifies it; and
  - c monitor and review the minimum duration after Winter 2026 to ensure it does not delay necessary actions or cause unnecessary economic cost.

**Question 9: Do you agree with changing ERCs/SSTs from a day-night model to a 3-hour model?**

- 22. In principle, yes, but only with a careful cost/benefit assessment and staged implementation.
- 23. A 3-hour time resolution better aligns with modern operational realities: intra-day demand profiles, increasing inverter-based resources, EV charging patterns, and data-centre loads. It will improve capacity risk signalling and better capture shortfalls that occur within the day.
- 24. We recommend the following safeguards:
  - a Transpower should publish a quantified estimate of IT/tooling investments, implementation timelines, and expected ongoing costs;
  - b implement as a staged upgrade with a pilot period (e.g., one region/season) and testing;
  - c confirm that the finer granularity materially improves decision-making (avoid costs that do not produce material benefits); and
  - d engage vendors/industry early so market participants can adapt systems and contracts.

**Question 10: Do you agree with enhancing NZGB and Energy Security Outlook reporting (extend NZGB horizon, add capacity scenarios, include NZGB capacity risk in Outlooks)?**

- 25. Yes.
- 26. Better alignment between New Zealand Generation Balance ('NZGB') capacity analysis and Energy Security Outlooks will give a more coherent view of energy and capacity risks, which are increasingly coupled as electrification grows and intermittent resources proliferate.
- 27. We offer some thoughts on implementation:
  - a extending the NZGB horizon to 12 months would be consistent with contracted fuel modelling;
  - b publishing non-confidential scenario summaries and clearly explaining assumptions would aid transparency; and
  - c participants may need guidance on how the NZGB capacity scenarios should be used in decision-making.

**Question 11: Do you agree with expanding system risks (geopolitical / asset loss) for quarterly scenario assessments?**

- 28. Yes.
- 29. Geopolitical supply-chain shocks and long asset outages (e.g., HVDC outage, major plant loss, or fuel shortages) are credible risks with systemic impact. Including them increases preparedness and helps participants plan commercially.
- 30. However, we recommend that Transpower provides non-prescriptive guidance on plausible mitigations rather than prescriptive policy solutions, so industry can develop commercial responses.

**Question 12: (implied) Do you agree with proposals regarding contingent storage buffer (CSRB) default value and discretion?)**

**(Note: the paper frames multiple CSRB questions; we address buffer update and discretion below as Question 13)**

- 31. On buffer settings, we support an evidence-based approach.
- 32. Contingent storage release boundary ('**CSRB**') default values should be calibrated to operational history and potential dry-year scenarios but must not artificially or inadvertently discourage investment in firming. Any default increase should be justified by modelling and cost/benefit analysis.
- 33. We would like to request that Transpower publish the evidential basis for any CSRB change and maintain the discretion process (see Question 13) but with clear published criteria and timelines.

**Question 13: Do you agree the System Operator should retain the CSRB buffer discretion process?**

- 34. Yes. We recommend retaining CSRB discretion but clarifying process and decision-making criteria.
- 35. The discretion process provides necessary flexibility to respond to unusual or fast-emerging risks (for example, the August 2024 case). It is valuable so long as it is used sparingly and transparently.
- 36. We recommend the following safeguards:

- a publish clear criteria for discretion usage and a decision timeline;
- b where discretion is exercised, publish a redacted, time-bound rationale and an evaluation (to be included in the next Quarterly Outlook) so participants can learn and adapt; and
- c keep accountability via Electricity Authority oversight and an obligation to minimise market-distorting effects.

**Question 14: Do you agree with the objectives of the proposed SOSFIP amendment?**

- 37. Generally yes. The objectives to improve clarity, reduce uncertainty, and better align capacity and energy risk signals are appropriate.
- 38. The stated objectives align with the Authority's statutory objective to promote reliable supply and efficient operation. We emphasise that objectives should be operationalised with clear, measurable success criteria (e.g., timeliness of signals, reduction in late escalation events).
- 39. We recommend that Transpower include KPIs (monitoring metrics) for the SOSFIP: signal lead-time, accuracy/false-alarm rate, and participant preparedness metrics.
- 40. We also recommend that Transpower apply the principles recommended above in our key messages.

**Question 15: Do you agree it is appropriate to rely on qualitative evaluation of costs/benefits? If not, what quantification would you recommend?**

- 41. Partially. Qualitative assessment is acceptable for some items, but where potential costs are material or recurring (e.g., 3-hour intervals, contracted fuel collection), Transpower should attempt a quantitative cost estimate and sensitivity analysis.
- 42. Several proposals have direct implementation costs (IT systems, data collection), and recurring costs would ultimately be socialised. Stakeholders need cost estimates to judge proportionality and for Authority review under s32.
- 43. For proposals with material impact, Transpower should provide: (a) one-off implementation cost estimates; (b) annual operating cost estimates; (c) estimated pass-through to participants/consumers; (d) sensitivity ranges (low/medium/high cost scenarios).

**Question 16: Do you agree the benefits of the proposed amendment reasonably outweigh its costs?**

- 44. Potentially yes, but only if Transpower provides clearer quantification of costs for material items and if the proposed changes are implemented in an efficient, staged manner.
- 45. The potential benefits (improved market signalling, reduced surprise, better contingency planning) are real. However, without quantified cost estimates for some proposals (notably 3-hour modelling and extended contracted fuel reporting), it is difficult to fully confirm net benefit.
- 46. We recommend Transpower publish additional CBA/quantified cost estimates for the most material proposals prior to Authority submission and consider pilots to reduce implementation risk and test benefits.

**Question 17: Do you agree the proposed amendment complies with section 32(1) of the Act?**

- 47. On balance, yes. The proposed amendment appears consistent with section 32(1) because it seeks to promote long-term benefit to consumers through improved security-of-supply signals and clarity.
- 48. The amendments aim to reduce uncertainty and improve signalling so participants can respond efficiently. However, to fully satisfy a robust s32 analysis, Transpower should increase transparency on the costs and include alternative options more explicitly (e.g., phased implementation, pilots, or relying on NZGB enhancement only).