



## PROACTIVE RELEASE COVERSHEET

<b>Minister</b>	Simon Watts	<b>Portfolio</b>	Climate Change
<b>Name of package</b>	Information on dry years and LNG	<b>Date to be published</b>	15 June 2026

### List of documents that have been proactively released

<b>Date</b>	<b>Title</b>	<b>Author</b>
23 April 2026	26-BRF-01084: Aide memoire: Further information on dry years and LNG	Ministry for the Environment

#### **Aide memoire: Information redacted      YES**

Any information redacted in this document is redacted in accordance with the Ministry for the Environment's policy on proactive release and is labelled with the reason for redaction. This may include information that would be redacted if this information was requested under Official Information Act 1982. Where this is the case, the reasons for withholding information are listed below. Where information has been withheld, no public interest has been identified that would outweigh the reasons for withholding it.

#### **Summary of reasons for redaction**

Some information has been withheld from: AIDE MEMOIRE "Further information on dry years and LNG" under Section 9(2)(a) and Section 9(2)(f)(iv) of the Official Information Act;

- a) To protect the privacy of natural persons
- b) Under active consideration



## AIDE MEMOIRE

### Further information on dry years and LNG

<b>Date:</b>	23 April 2026	<b>Priority:</b>	Medium
<b>Security classification:</b>	Classification	<b>Tracking number:</b>	26-BRF-01084

#### Information for Minister(s)

Hon Simon Watts  
Minister of Climate Change

#### Action for Minister's Office staff

None

#### Appendices and attachments

Appendix 1: South Island controlled hydro storage as of April 19<sup>th</sup>, relative to the historical mean  
Appendix 2: Transpower's national electricity risk status curves against current and historical hydro storage levels.

#### Contact for telephone discussion (if required)

Name	Position	Telephone	1st contact
Stephen Goodman	General Manager	021 238 5678	
Charlotte Harris-Miller	Manager	9(2)(a)	✓
William Berek	Author	9(2)(a)	

#### The following departments/agencies have been consulted

MBIE, Earth Sciences New Zealand, MfE

- Minister's office to complete:
- Noted
  Needs change
  See Minister's Notes
- Overtaken by Events
  Withdrawn
  Seen

#### Minister's Comments

# AIDE MEMOIRE

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### Purpose

1. This aide memoire provides background information you asked for on the:
  - impacts of LNG imports (and proposed new terminal) on emissions projections; and
  - likelihood of a dry year risk occurring during 2026-2028, and the implications of this for energy generation and associated emissions.

### Emissions from LNG imports and impacts on projections

1. MBIE led the modelling and advice on the LNG import terminal and its associated emissions. The headline was that an LNG terminal would result in a small emissions reduction in New Zealand through to 2035. The estimated emissions impacts were -0.24 MtCO<sub>2</sub>e in EB2 and -0.04 MtCO<sub>2</sub>e in EB3.
2. This result is because LNG storage enables more hydropower use over the course of the year, instead of needing to conserve hydropower (and use coal instead) if a dry year risk eventuates. This reduces coal and gas use over the year, and results in lower emissions compared to a scenario without an LNG import terminal.
3. MBIE's modelling assumed that the earliest possible time for the first LNG shipment to arrive in New Zealand is 2027, and estimated emissions impacts from 2027 to 2035. Their modelling predicted how New Zealand's electricity system would likely develop over time given certain assumptions about the level and pattern of future demand, and the resources available to satisfy projected demand (e.g. generation, batteries, demand response).
4. While the modelling accounted for the risk of dry-year conditions, it did not model the impact of a dry year on New Zealand's overall emissions. Instead, the modelling focused on estimating how an LNG import terminal would affect system-wide electricity prices and electricity-sector emissions.
5. This modelling has yet to be incorporated into annual projections, which will be completed in Q3/4 of 2026. MfE's current central projections forecast energy emissions of 67.2 MtCO<sub>2</sub>e and 57.5 MtCO<sub>2</sub>e in EB2 and EB3 respectively. 9(2)(f)(iv)

### Projected dry years

6. You asked us to investigate the extent to which dry year risk can be predicted over the next several years. The Ministry for the Environment does not model the likelihood of specific years being "dry" in its emissions projections. We have discussed this question with Earth Sciences

New Zealand (formerly NIWA) and MBIE to see if more detailed predictions can be provided on the likelihood of a dry year occurring during 2026-2028.

7. Dry years happen on average every 3 to 5 years, although the interval between dry years can be shorter or longer than this. While some countries may be able to produce longer-range forecasts of general weather patterns with relatively high confidence, this is not currently possible in New Zealand. This reflects the complexity of the climatic factors that influence our weather patterns, like the jet stream, El Nino, and the Southern Annular Mode.
8. Nevertheless, Earth Sciences New Zealand produces monthly seasonal climate outlooks. These outlooks provide information about whether rainfall in the coming season is expected to be above or below average by region over the next three months. NIWA's latest seasonal climate outlook forecasts that below-normal rainfall is most likely for the west of the South Island over the next two months, which include key hydro catchments.
9. Transpower's latest weekly market update<sup>1</sup> shows that as of 19 April, South Island hydro storage was slightly above the historical average for this time of year (Appendix 1). The same update shows that national hydro storage is above the mean for this time of year. Transpower's simulated storage trajectories through to the end of 2026 indicate that even under the lowest storage scenario, hydro levels would remain well above the "watch", "alert", and "emergency" thresholds that would trigger a system response ([Appendix 2](#)).
10. More generally, climate change is expected to increase the severity of drought conditions over time through a combination of changing rainfall patterns, higher temperatures, and increased evaporation. While recent research<sup>2</sup> commissioned by MBIE suggests that annual hydro flows may increase on average from 2020-2050 due to more precipitation, year-to-year variability and the basic physics of climate change that make dry conditions drier and wet conditions wetter, mean we cannot rule out a dry-year risk occurring in the 2026-2028 period.

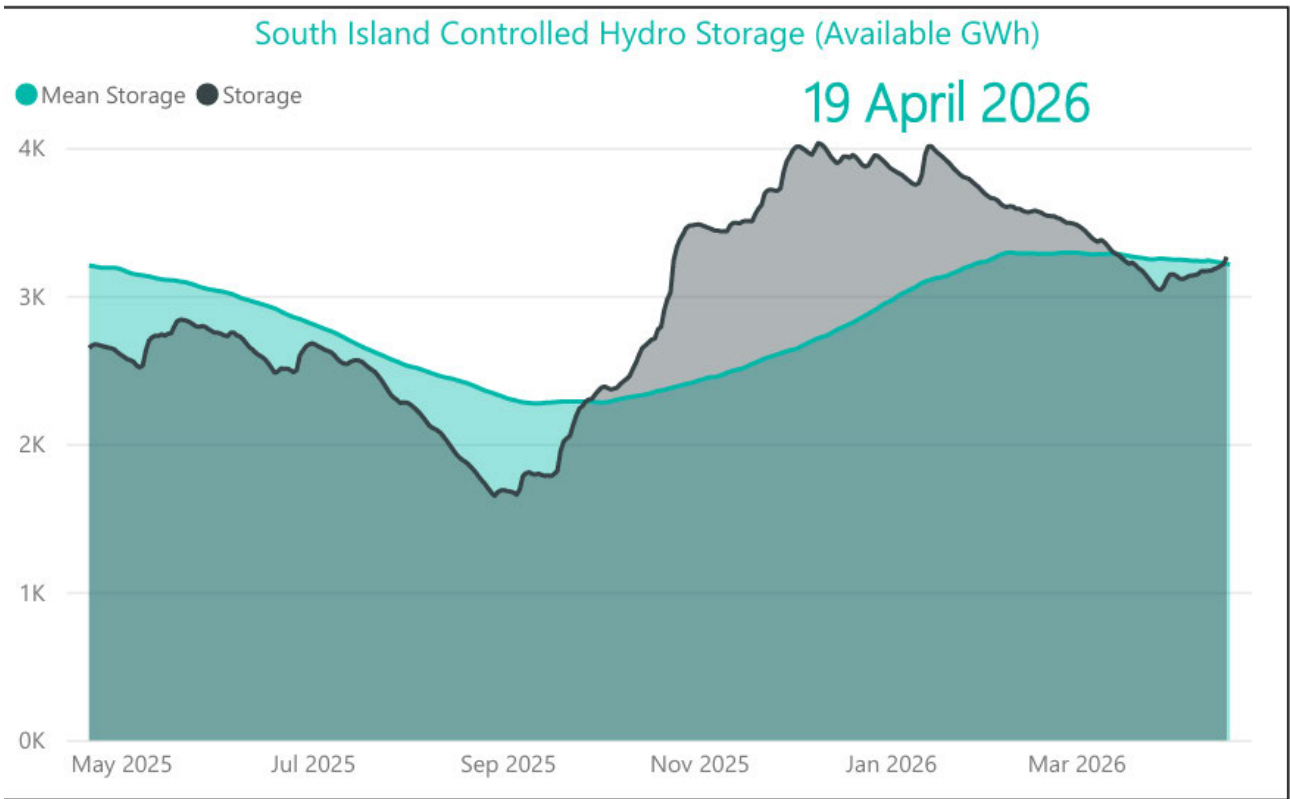
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<sup>1</sup> [MO Latest Update.pdf](#)

<sup>2</sup> [Climate change impacts on New Zealand hydro catchment inflows and wind speeds](#)

# Appendices

## Appendix 1: South Island controlled hydro storage as of April 19<sup>th</sup>, relative to the historical mean



## Appendix 2: Transpower's national electricity risk status curves against current and historical hydro storage levels.

