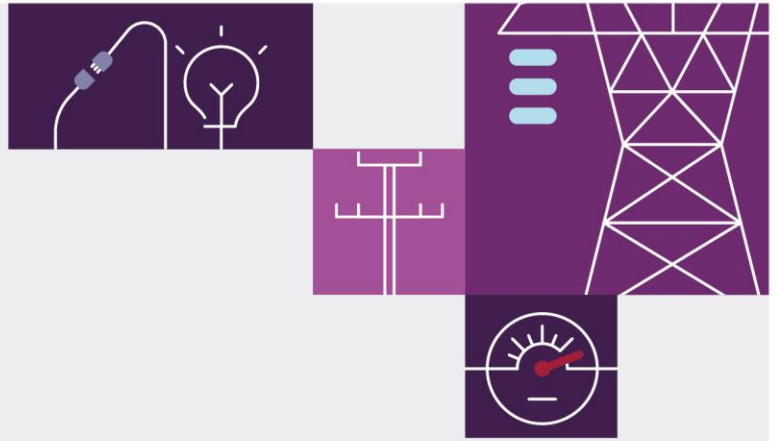# T-3 Reliability Instrument Request for Victoria

August 2024

A request to the Australian Energy Regulator

Important notice

Purpose

This document has been prepared by AEMO as required by section 14I of the National Electricity Law (Law) and clauses 4A.C.1, 4A.C.2 and 11.132 of the National Electricity Rules (Rules) and has effect only for the purposes set out in the Law and Rules. This document has been prepared by AEMO using information from its 2024 Electricity Statement of Opportunities (ESOO).

Disclaimer

AEMO has made reasonable efforts to ensure the quality of the information in this publication but cannot guarantee that information, forecasts and assumptions are accurate, complete or appropriate for your circumstances.

Modelling work performed as part of preparing this publication inherently requires assumptions about future behaviours and market interactions, which may result in forecasts that deviate from future conditions. There will usually be differences between estimated and actual results, because events and circumstances frequently do not occur as expected, and those differences may be material.

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Version control

Version	Release date	Changes
1	29/8/2024	Request release

Contents

Tables

Figures

1   Reliability instrument request

In its 2024 Electricity Statement of Opportunities (ESOO)[1], AEMO identified a forecast reliability gap in Victoria in 2027-28. AEMO requests the Australian Energy Regulator (AER) consider making a reliability instrument for this identified forecast reliability gap.

The T-3 cut-off day[2] for this reliability gap is 1 December 2024.

1.1   Creating a T-3 reliability instrument

Where a reliability forecast identifies a forecast reliability gap for a region, AEMO must request the AER to consider making a reliability instrument[3] in accordance with section 14I of the National Electricity Law (NEL) and the requirements of Part C, Division 1 of Chapter 4A of the National Electricity Rules (NER).

Once a decision has been made by the AER, it will publish the decision and the reasons supporting that decision[4], and, if applicable, the reliability instrument. The reliability instrument takes effect once published on the AER's website[5]. This request has been prepared in alignment with the AER's Interim Reliability Instrument Guidelines[6] and AEMO's Reliability Forecast Guidelines[7].

The reliability forecast published in the 2024 ESOO, was published on 29 August 2024, which is in the six months immediately preceding the T-3 cut-off day. A reliability gap was identified against the relevant reliability standard for 2027-28 at time of publication, being the Interim Reliability Measure (IRM) of 0.0006% expected unserved energy (USE)[8].

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[1] See https://aemo.com.au/en/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-reliability/nem-electricity-statement-of-opportunities-esoo.

[2] The T-3 cut-off day for a forecast reliability gap is the day that is three years before the day the forecast reliability gap period for the forecast reliability gap starts: see section 14G(3) of the NEL.

[3] The requirements about when a decision must be made by the AER is governed by section 14K of the NEL and Part C, Division 2 of Chapter 4A of the NER.

[4] In accordance with section 14K(6) of the NEL.

[5] In accordance with section 14K(5) of the NEL.

[6] See https://www.aer.gov.au/system/files/Interim%20Reliability%20Instrument%20Guidelines%20-%20RRO%20-%20July%202019.pdf.

[7] See https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2024/2024-reliability-forecast-guidelines-consultation/final/reliability-forecasting-guidelines.pdf?la=en.

[8] In September 2023, the Australian Energy Market Commission amended the NER to extend the end date for the application of the IRM to the Retailer Reliability Obligation to 30 June 2028. See clause 11.132.2 of the NER and https://www.aemc.gov.au/rule-changes/extension-application-irm-rro.

1.2 Forecast reliability gap

The size of the **forecast reliability gap** is 130 megawatts (MW).

This reliability instrument request applies to the **forecast reliability gap period** of 1 December 2027 to 31 March 2028 inclusive.

The region in which the forecast reliability gap is forecast to occur is **Victoria**.

AEMO's **one-in-two-year peak demand forecast** for the forecast reliability gap period is 10,303 MW (reported on a 50% probability of exceedance [POE], 'as generated' basis)[9].

The **trading intervals** during the forecast reliability gap period are those that fall between 3:00 pm and 9:00 pm on working weekdays in December 2027, January 2028, February 2028, and March 2028. For clarity, this means the trading intervals occurring between the periods ending 3:05 pm and 9:00 pm inclusive[10].

1.3 Further information on the forecast reliability gap[11]

A sensitivity matrix to assist with understanding of the identified *forecast reliability gap* for Victoria and related inputs and assumptions is provided in **Table 1**. The information shows how additional firm capacity (in megawatts) is forecast to affect expected USE if that firm capacity is continuously available throughout all periods of the year. The additional capacity row of the table can be interpreted as either an increase in supply or a reduction in demand.

Table 1   Sensitivity matrix for forecast reliability gap

Additional capacity (MW)	0	100	130	200	300	400	500	600	700
Expected USE (%)	0.000840	0.000644	0.000594	0.000491	0.000372	0.000280	0.000211	0.000159	0.000119

1.4 Further information on the reliability forecast[12]

Figure 1 shows the monthly expected USE in Victoria in 2027-28. USE is forecast to occur in December 2027 and January, February, and March 2028. No other months have forecast expected USE. This request relates to this December 2027 to March 2028 period only.

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[9] In August 2024, AEMO updated the formula used to calculate the one-in-two-year peak demand forecast to take into consideration the impact of the forecast demand side participation, distributed aggregated storages, and 30-minute to five-minute maximum demand adjustment. See https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2024/2024-reliability-forecast-guidelines-consultation/final/reliability-forecasting-guidelines.pdf?la=en.

[10] All times are National Electricity Market (NEM) time.

[11] In accordance with section 3.1 of the Interim Reliability Instrument Guidelines.

[12] In accordance with section 5.2.2 of the Reliability Forecast Guidelines, as requested in stakeholder consultation.

Figure 1   Monthly expected USE in Victoria, 2027-28 (megawatt hours [MWh])
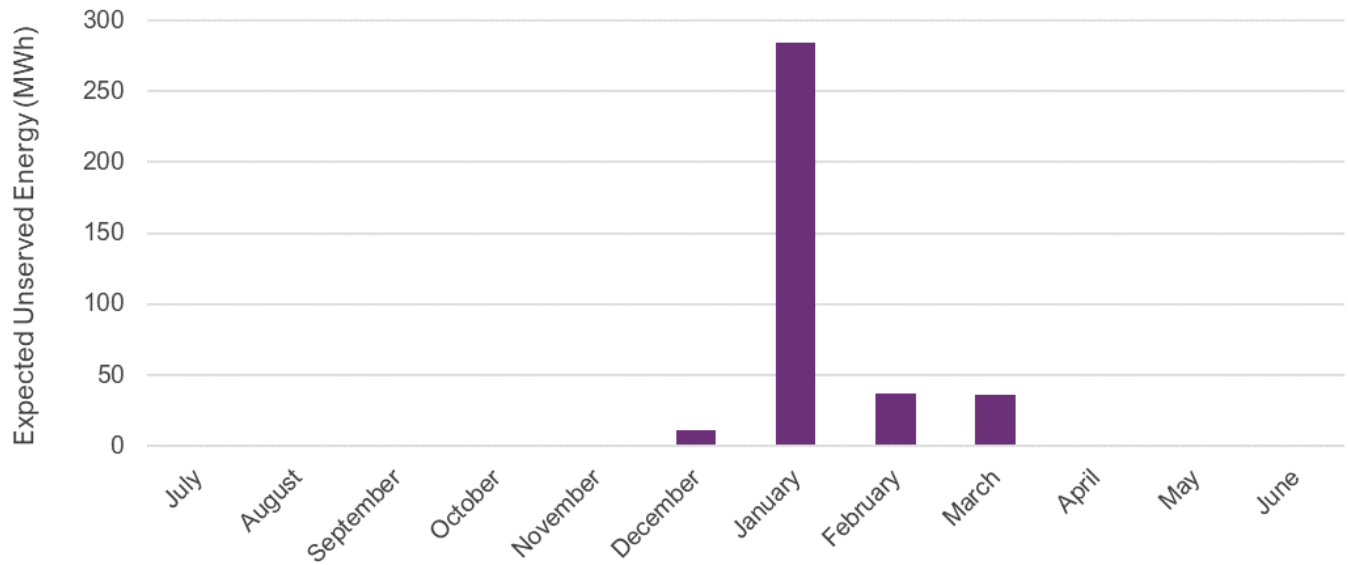
Figure 2 shows the duration of USE events forecast in Victoria in 2027-28. USE events in this year are forecast to most frequently occur for a duration of three and four hours, with the majority of USE events forecast to be of less than five hours duration.

Figure 2   Forecast reliability incident duration in Victoria 2027-28
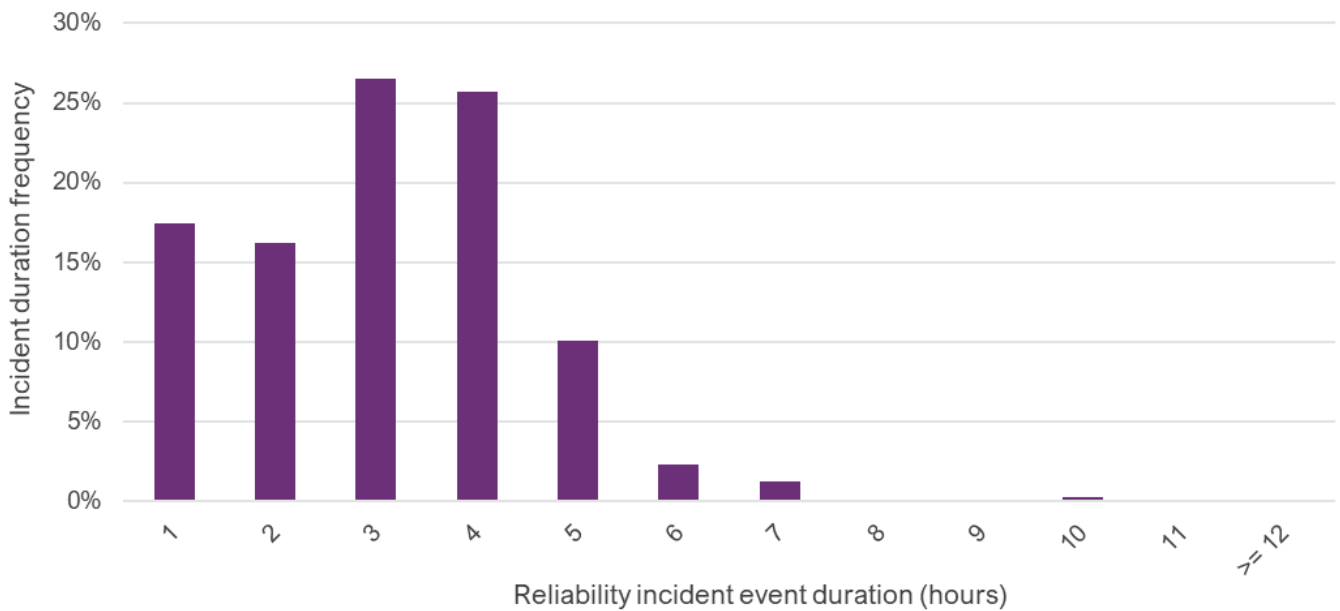
2 Supporting information[13]

AEMO has published information within the 2024 ESOO and accompanying documents regarding the data inputs, calculations, assumptions, and methodology used in the reliability forecast[14].

Specifically, the reliability forecasts and indicative reliability forecasts published in accordance with the Retailer Reliability Obligation (RRO) constitute Chapter 4.1 of the 2024 ESOO. Key component forecasts and inputs include:

- Consumption and demand forecasts (see Chapter 2 of the 2024 ESOO).
- Supply forecasts (see Chapter 3 of the 2024 ESOO).
- The July 2024 Generation Information page[15].
- The August 2024 Transmission Augmentation Information page[16].
- The 2023 Inputs, Assumptions and Scenarios Report (IASR) [17].
- The 2024 Forecasting Assumptions Update (FAU)[18].

Table 2 below serves as a guide to these documents, by each key input, to assist the AER's review of the assumptions underpinning AEMO's reliability forecast data. In reading Table 2, please note:

- Relevant sections of the 2024 ESOO, 2023 IASR, and 2024 FAU are referred to in the "Description of input" column.
- AEMO adopted the *Step Change* scenario from the 2023 IASR as the ESOO Central scenario for the purpose of developing its reliability forecast in the 2024 ESOO.
- The Low, Medium, or High rating in the column "Materiality to the reliability forecast in 2027-28" is an approximate guide to each input's contribution towards the Victoria 2027-28 reliability forecast, particularly in the period over which the forecast reliability gap applies. Table 2 footnote A explains these ratings.
- Stakeholder consultation on the inputs, calculations, assumptions, and methodologies used in the reliability forecast included:
  - Consultation on the 2023 IASR and the 2024 FAU, which are the sources of most inputs, assumptions, and scenarios used in the 2024 ESOO.

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[13] In accordance with section 3.1 of the Interim Reliability Instrument Guidelines.

[14] See https://aemo.com.au/en/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-reliability/nem-electricity-statement-of-opportunities-esoo.

[15] See https://aemo.com.au/en/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-planning-data/generation-information.

[16] See https://aemo.com.au/en/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-planning-data/transmission-augmentation-information.

[17] See https://aemo.com.au/en/energy-systems/major-publications/integrated-system-plan-isp/2024-integrated-system-plan-isp/current-inputs-assumptions-and-scenarios.

[18] See https://aemo.com.au/consultations/current-and-closed-consultations/2024-forecasting-assumptions-update-consultation.

– The NEM Reliability Forecasting Guidelines and Methodology Consultation[19] and the 2024 Reliability Forecast Guideline Consultation[20]. This consultation complied with AEMO's obligations under the AER's Forecasting Best Practice Guidelines to undertake full two-stage consultation on all AEMO guidelines and methodologies at least every four years. These revised methodologies and guidelines were applied for the 2024 ESOO.

– Forecasting Reference Group (FRG) meeting presentations and discussions on select topics including relevant FRG consultations[21].

Summaries of stakeholder feedback and AEMO responses are published in each consultation, and in FRG meeting minutes.

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[19] See https://aemo.com.au/en/consultations/current-and-closed-consultations/2022-reliability-forecasting-guidelines-and-methodology.

[20] See https://aemo.com.au/en/consultations/current-and-closed-consultations/2024-reliability-forecast-guidelines-consultation.

[21] See https://www.aemo.com.au/consultations/industry-forums-and-working-groups/list-of-industry-forums-and-working-groups/forecasting-reference-group-frg.

Table 2   Guide for inputs, calculations, assumptions and methodology used in the reliability forecast

Input	Description of input	Materiality to the reliability forecast in 2027-28 [A,B]	Data input source – 2024 FAU Workbook[C] location	Stakeholder consultation	Consultancy reports
Demand forecasting assumptions	2023 IASR[D] Section 2.2 Scenario narratives and descriptions 2024 ESOO Section 1.2.1 Scenarios and sensitivities	**Medium** AEMO adopted the Step Change scenario from the 2023 IASR[C] as the ESOO Central scenario for the purpose of developing its reliability forecast in the 2024 ESOO. Relative to the 2024 ESOO Progressive Change scenario which is the next most likely scenario, 50% POE maximum demand under the ESOO Central scenario is forecast to be 230 MW higher.	Not applicable	AEMO received close to 70 submissions on the IASR, including not only scenario design, but also how the various inputs and assumptions were reflected across the breadth of the scenarios. These submissions were taken into account when finalising the scenarios for the 2023 IASR.	Not applicable.
Electric vehicle (EV) uptake	2024 FAU[C] Section 2.2.1 Electrification	**Medium** In 2027-28, 848 GWh of EV consumption is forecast in Victoria, which represents approximately 2.0% of operational consumption. Demand for EV charging is forecast to be approximately 111 MW at time of maximum 50% POE demand in summer.	Battery & Plug-in EVs (Step Change scenario)	2024 FAU submissions made by Energy Users Association of Australia (EUAA), Electric Vehicle Council (EVC), Energy Flex (EF), Energy Queensland (EQ), Griffith University (GU) and Queensland Energy Users Network (QEUN). 25 October 2023 FRG meeting – Draft electric vehicle forecasts.	CSIRO: Electric vehicle projections 2023[E]. Actual EV data (as of December 2023) sourced from VFACTS used to re-base CSIRO forecasts[F].
Behind-the-meter battery storage installed capacity	2024 FAU Section 2.2.2 Consumer energy resources	**Low** 61 MW of coordinated distributed storage is forecast to be available in Victoria in 2027-28. Due to the sustained nature of forecast USE, the average impact of this coordinated distributed storage during USE events is 18.9 MW. Uncoordinated distributed storage discharge during 50% POE maximum demand events is forecast to be approximately 10 MW.	Embedded energy storages tab (Step Change scenario)	2024 FAU submissions made by EUAA, EQ, QEUN and GU. 25 October 2023 FRG Meeting – Draft Consumer Energy Resources (CER) forecasts.	CSIRO: *Small-scale solar PV and battery projections 2022* [G]. Green Energy Markets: *Projections for distributed energy resources − solar PV and stationary energy battery systems* [H].
Distributed photovoltaics (PV) (including residential, commercial, and larger embedded and PV non-	2024 FAU Section 2.2.2 Consumer energy resources	**High** Estimated average distributed PV generation output during forecast USE for Victoria in 2027-28 is 628 MW, which is a small portion of the 8,381 MW forecast installed capacity.	Rooftop PV and PVNSG tabs (Step Change scenario).	2023 IASR submissions made by RE-Alliance, the ISP Consumer Panel, FFI, VBN, Hydro Tasmania.	CSIRO: *Small-scale solar PV and battery projections 2022* [G]. Green Energy Markets: *Projections for distributed*

Input	Description of input	Materiality to the reliability forecast in 2027-28 [A,B]	Data input source – 2024 FAU Workbook[C] location	Stakeholder consultation	Consultancy reports
scheduled generation [PVNSG] systems[F])				September 2022 FRG Meeting - Distributed Energy Resources (DER) forecasts.	*energy resources – solar PV and stationary energy battery systems* [H].
Economic growth and population outlook	2024 FAU Section 2.2.3 Economic and population forecasts Section 2.2.4 Households and connections forecasts	**Medium** Economic and population growth assumptions are fundamental inputs to the development of energy consumption and maximum demand forecasts. As identified in the 'Demand Forecasting Assumptions', scenario variation above, which captures variation in economic and population assumptions, the selection of these inputs is of medium materiality.	Economic Growth Forecasts tab (Step Change scenario)	28 February August 20224 FRG Meeting – Draft Economic forecasts (FRG Consultation). FRG Consultation submission made by Collgar Renewables.	Deloitte Access Economics: Economic forecasts 2023/24[I].
Demand side participation (DSP)	2024 FAU Section 2.2.9 Demand side participation 2024 ESOO Section 2.5 Flexible demand can enhance the NEM's ability to meet forecast peak demand 2024 ESOO Appendix A6 Demand side participation forecast	**High** 553 MW of total DSP is forecast to be available in Victoria in 2027-28. Due to the sustained nature of forecast USE, the average impact of this DSP during USE events is 442 MW.	DSP tab (Step Change scenario)	29 May 2024 FRG Meeting – Draft DSP forecasts (FRG Consultation). FRG Consultation submissions made by EUAA and GU.	Not applicable.
Electrification (exclude EV)	2024 FAU Section 2.2.1 Electrification	**Medium** AEMO's 2027-28 forecast shows 1,139 GWh of consumption in Victoria related to electrification, which represents approximately 2.7% of operational consumption.	Electrification tab (Step Change scenario) Electricity forecasting data portal[J]	29 May 2024 FRG Meeting – Draft 2024 electricity consumption forecasts (FRG Consultation). No submissions received.	CSIRO and ClimateWorks Centre: *Multi-sector energy modelling 2022: Methodology and results*[K].
Energy Efficiency	2024 FAU Section 2.2.6, Energy efficiency forecast	**Medium** AEMO forecast a reduction of 1,693 GWh of consumption in Victoria due to energy efficiency measures. This represents a reduction of approximately 4.1% of operational consumption.	Energy Efficiency tab (Step Change scenario) Electricity forecasting data portal	29 May 2024 FRG Meeting – Draft 2024 electricity consumption forecasts (FRG Consultation). No submissions received.	Strategy Policy Research: Energy Efficiency Forecasts 2023[L].

Input	Description of input	Materiality to the reliability forecast in 2027-28 [A,B]	Data input source – 2024 FAU Workbook[C] location	Stakeholder consultation	Consultancy reports
Large Industrial Loads (LIL)	2024 FAU Section 2.2.5 Large Industrial Loads Note that LIL forecasts consider confidential information provided by operators.	**High** AEMO's 2027-28 forecast shows 8,426 GWh of consumption in Victoria related to LILs, which represents approximately 20.2% of operational consumption. LIL forecast contribution to the 50% POE maximum operational demand in Victoria is approximately 8.3%	Electricity forecasting data portal	29 May 2024 FRG Meeting – Draft 2024 electricity consumption forecasts (FRG Consultation). FRG Consultation submissions made by EUAA, Boston Consulting Group (BCG) and the University of New South Wales School of Photovoltaic and Renewable Energy Engineering, Faculty of Engineering (UNSW).	Not applicable.
Inter-regional transmission unplanned outage rates	2024 FAU Section 2.3 Existing generators and transmission 2024 ESOO Section 3.5 Inter-regional transmission unplanned outage rates	**Low** The complete removal of inter-regional transmission unplanned outage rates would be associated with a small change (an average of 26 MW) to USE in Victoria in 2027-28.	Transmission Reliability tab	12 June 2024 FRG Meeting – Draft unplanned outage rate forecasts (FRG Consultation). FRG Consultation submission made by Shell Energy.	Not applicable.
Unplanned outage rates	2024 FAU Section 2.3 Existing generators and transmission 2024 ESOO Section 3.3 Generator unplanned outage rates	**High** Generator forced outages have a high impact on unserved energy. Approximately 1,488 MW of generation forced outages occur on average in Victoria in 2027-28 during forecast USE periods.	Generator Reliability Settings tab	12 June 2024 FRG Meeting – Draft unplanned outage rate forecasts (FRG Consultation). FRG Consultation submission made by Shell Energy.	Not applicable.
Generation availability	2024 ESOO Section 3.1 Generator commissioning and decommissioning assumptions Section 3.2 Seasonal generator availability	**High** The reliability forecast in the 2024 ESOO considers existing and new generation and battery storage projects that meet the "committed", "committed*" and "anticipated" commitment criteria published in AEMO's Generation Information update in July 2024[M], subject to delays in full commissioning as per the ESOO and Reliability Forecast methodology.	Seasonal ratings tab	Not applicable.	Not applicable.

Input	Description of input	Materiality to the reliability forecast in 2027-28 [A,B]	Data input source – 2024 FAU Workbook[C] location	Stakeholder consultation	Consultancy reports
Auxiliary loads	2024 ESOO Section 5.5 Reliability forecast components Note that auxiliary load has been determined based on confidential information provided by participants.	**High** As part of the generator information updates AEMO request scheduled and semi-scheduled generators to self-report their typical auxiliary load percentage. Approximately 363 MW of auxiliary load is forecast during USE periods in Victoria in 2027-28.	Auxiliary tab	Not applicable.	Not applicable.
Interregional network losses	2024 FAU Section 2.1 Historical data affecting forecasting components Section 2.3 Existing generators and transmission	**Medium** Approximately 96 MW interregional network losses are forecast during USE periods in Victoria in 2027-28.	Network losses tab of IASR workbook	Not applicable.	Not applicable.
Weather & climate	2024 FAU Section 2.1 Historical weather data	**High** Weather and climate are a fundamental driver of the maximum demand distribution and the reliability forecast methodology. This methodology aims to capture the range of possible weather driven outcomes. Variation between 90% and 10% POE maximum demand forecasts, which are partially driven by weather are material. Variation between weather reference years that determine VRE generation and demand outcomes are also material.	Not applicable	Not applicable.	Not applicable.

Table Footnotes:

A. Materiality is:

- Low if complete removal of this input from the reliability forecast would result in negligible difference to the size of the forecast reliability gap,
- Medium if complete removal of this input from the reliability forecast could result in a noticeable change to the forecast reliability gap, and
- High if complete removal of this input from the reliability forecast could result in either complete removal, or more than doubling of the forecast reliability gap.

B. As a general measure of materiality of demand related inputs to the reliability forecast, the estimated contribution (in MW) to forecast maximum 50% POE demand in Victoria in 2027-28 has been provided. Note that the forecast contribution of these inputs during periods of forecast USE may differ from these figures.

C. See https://aemo.com.au/consultations/current-and-closed-consultations/2024-forecasting-assumptions-update-consultation.
D. See https://aemo.com.au/-/media/files/major-publications/isp/2023/2023-inputs-assumptions-and-scenarios-report.pdf.
E. See https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2023/2024-forecasting-assumptions-update-consultation-page/csiro---2023-electric-vehicle-projections-report.pdf.
F. See https://www.fcai.com.au/sales/get-vfacts.
G. See https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2022/2023-inputs-assumptions-and-scenarios-consultation/supporting-materials-for-2023/csiro-2022-solar-pv-and-battery-projections-report.pdf.
H. See https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2023/2024-forecasting-assumptions-update-consultation-page/green-energy-markets---2023-consumer-energy-resources-projection-report.pdf.
I. See https://aemo.com.au/consultations/current-and-closed-consultations/2024-forecasting-assumptions-update-consultation.
J. See https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-planning-data/electricity-forecasting-data-portal.
K. See https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2022/2023-inputs-assumptions-and-scenarios-consultation/supporting-materials-for-2023/csiro-climateworks-centre-2022-multisector-modelling-report.pdf.
L. See https://aemo.com.au/-/media/files/major-publications/isp/2023/iasr-supporting-material/2023-energy-efficiency-forecasts-final-report.pdf.
M. See https://www.aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-planning-data/generation-information.

3 Reference publications

Term	Definition
AER interim reliability instrument guidelines	https://www.aer.gov.au/system/files/Interim%20Reliability%20Instrument%20Guidelines%20-%20RRO%20-%20July%202019.pdf
2024 ESOO report, supplementary results, data files, methodologies, and constraints, including: **ESOO and Reliability Forecast Methodology Document**	https://www.aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-reliability/nem-electricity-statement-of-opportunities-esoo
DSP Forecasting Methodology **Reliability Forecast Guidelines**	https://aemo.com.au/en/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-approach
2023 IASR	https://aemo.com.au/-/media/files/major-publications/isp/2023/2023-inputs-assumptions-and-scenarios-report.pdf
2024 FAU	https://aemo.com.au/consultations/current-and-closed-consultations/2024-forecasting-assumptions-update-consultation
Consultant reports	**AEP Elical:** Forced outage rates: https://aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/inputs-assumptions-methodologies/2020/aep-elical-assessment-of-ageing-coal-fired-generation-reliability.pdf **CSIRO:** Multisector modelling (with ClimateWorks Centre): https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2022/2023-inputs-assumptions-and-scenarios-consultation/supporting-materials-for-2023/csiro-climateworks-centre-2022-multisector-modelling-report.pdf Electric vehicles: https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2023/2024-forecasting-assumptions-update-consultation-page/csiro---2023-electric-vehicle-projections-report.pdf?la=en CER: https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2022/2023-inputs-assumptions-and-scenarios-consultation/supporting-materials-for-2023/csiro-2022-solar-pv-and-battery-projections-report.pdf **Deloitte Access Economics:** Economic Forecasts 2023/24: https://aemo.com.au/consultations/current-and-closed-consultations/2024-forecasting-assumptions-update-consultation **Green Energy Markets:** CER: https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2023/2024-forecasting-assumptions-update-consultation-page/green-energy-markets---2023-consumer-energy-resources-projection-report.pdf?la=en **Strategic Policy Research:** Energy efficiency: https://aemo.com.au/-/media/files/major-publications/isp/2023/iasr-supporting-material/2023-energy-efficiency-forecasts-final-report.pdf
Relevant stakeholder consultations	
Consultation on 2023 IASR	https://aemo.com.au/consultations/current-and-closed-consultations/2023-inputs-assumptions-and-scenarios-consultation
Consultation on 2024 FAU	https://aemo.com.au/en/consultations/current-and-closed-consultations/2024-forecasting-assumptions-update-consultation
Consultation on 2024 Reliability Forecast Guidelines	https://aemo.com.au/en/consultations/current-and-closed-consultations/2024-reliability-forecast-guidelines-consultation
FRG meeting records	https://www.aemo.com.au/consultations/industry-forums-and-working-groups/list-of-industry-forums-and-working-groups/forecasting-reference-group-frg

Term	Definition
Responses provided by AEMO on 2023 IASR submissions	https://aemo.com.au/-/media/files/major-publications/isp/2023/2023-iasr-consultation-summary-report.pdf
Forecasting Accuracy Reporting	https://www.aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-reliability/forecasting-accuracy-reporting
NEM Reliability Forecasting Guidelines and Methodology Consultation	https://aemo.com.au/en/consultations/current-and-closed-consultations/2022-reliability-forecasting-guidelines-and-methodology

Glossary

Term	Definition
Committed, committed* and anticipated projects	Generation that is considered to be proceeding under AEMO's commitment criteria, defined under the Background information tab on the Generation Information page at https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Planning-and-forecasting/Generation-information.
distributed PV	Includes rooftop systems and other smaller non-scheduled PV capacity.
installed capacity	The generating capacity (in MW) of the following (for example): • A single generating unit. • A number of generating units of a particular type or in a particular area. • All of the generating units in a region. Rooftop PV installed capacity is the total amount of cumulative rooftop PV capacity installed at any given time.
generating capacity	Amount of capacity (in MW) available for generation.
generating unit	Power stations may be broken down into separate components known as generating units, and may be considered separately in terms (for example) of dispatch, withdrawal, and maintenance.
maximum demand	Highest amount of electrical power delivered, or forecast to be delivered, over a defined period (day, week, month, season, or year) either at a connection point, or simultaneously at a defined set of connection points.
non-scheduled generation	Generation by a generating unit that is not scheduled by AEMO as part of the central dispatch process, and which has been classified as a non-scheduled generating unit in accordance with Chapter 2 of the NER.
operational electrical consumption	The electrical energy supplied by scheduled, semi-scheduled, and significant non-scheduled generating units, less the electrical energy supplied by small non-scheduled generation.
Interim Reliability Measure (IRM)	The introduction of the IRM in 2020 was intended to reduce the risk of load shedding across the NEM by helping keep USE in each NEM region to no more than 0.0006%. This interim measure is intended to support reliability in the system while more fundamental reforms are designed and implemented.
unserved energy (USE)	Unserved energy is the amount of energy that cannot be supplied to consumers, resulting in involuntary load shedding (loss of consumer supply). USE is calculated consistent with clause 3.9.3C of the NER.
Expected USE	AEMO forecasts expected USE by calculating the weighted-average USE over a wide range of simulated outcomes.