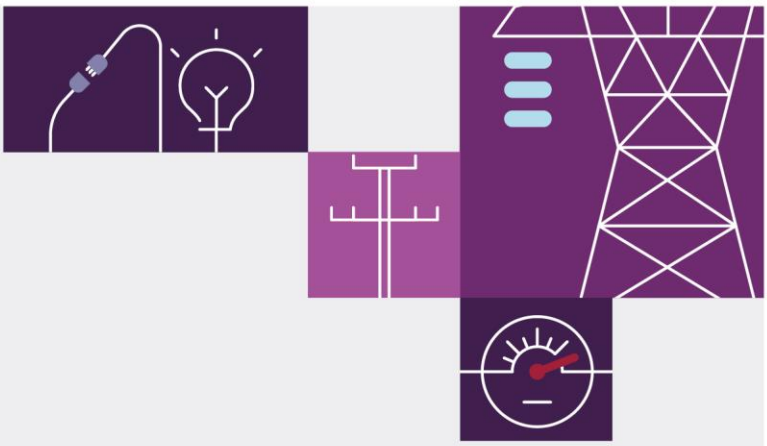
AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

T-1 Reliability Instrument Request for South Australia

August 2022

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.3 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 2022 Electricity Statement of Opportunities (ESOO).

Disclaimer

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Version control

Version	Release date	Changes
1	31/8/2022	Request release

AEMO acknowledges the Traditional Owners of country throughout Australia and recognises their continuing connection to land, waters and culture. We pay respect to Elders past and present.

1 Contents

Tables

Figures

AEMO acknowledges the Traditional Owners of country throughout Australia and recognises their continuing connection to land, waters and culture. We pay respect to Elders past and present.

2 Reliability instrument request

In its 2022 Electricity Statement of Opportunities (ESOO)[1], AEMO identified a forecast reliability gap in South Australia in 2023-24. AEMO requests that the Australian Energy Regulator (AER) consider making a reliability instrument for this identified forecast reliability gap.

The T-1 cut-off day for this reliability gap is 8 January 2023.

Creating a **T-1** reliability instrument

Where a reliability forecast identifies a forecast reliability gap for a region, and a related T-3 instrument has been made, AEMO must request that the AER consider making a reliability instrument[2] in accordance with section 14I of the National Electricity Law[3] and the requirements of Part C, Division 1 of Chapter 4A of the National Electricity Rules.

A related T-3 reliability instrument was made by the South Australian Minister for Energy and Mining under section 19B of the *National Electricity (South Australia) Act 1996.* That reliability instrument was published in the South Australian Government Gazette on 7 January 2021[4].

Once a decision has been made, the AER will publish the decision, the reasons supporting that decision[5], and, if applicable, the reliability instrument. The reliability instrument takes effect once published on the AER's website[6]. This request has been prepared in alignment with the AER's Interim Reliability Instrument Guidelines[7] and AEMO's Reliability Forecast Guidelines[8].

A reliability gap was identified against the relevant reliability standard for 2023-24 at time of publication, being the interim reliability measure of 0.0006% unserved energy (USE)[9].

[1] Available at 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 requirements about when a decision must be made by the AER is governed by section 14K of the National Electricity Law and clause 4A.C of the National Electricity Rules

[3] As modified by section 19B of the *National Electricity (South Australia) Act 1996*

[4] Available at https://governmentgazette.sa.gov.au/sites/default/files/public/documents/gazette/2021/January/2021_002.pdf

[5] In accordance with section 14K(6) of the National Electricity Law

[6] In accordance with section 14K(5) of the National Electricity Rules

[7] Available at https://www.aer.gov.au/system/files/Final%20determination%20-%20Interim%20Reliability%20Instrument%20Guidelines%20-%20RRO%20-%20July%202019.pdf.

[8] Available at https://aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/rsig/reliability-forecast-guidelines.pdf.

[9] In accordance with section 14G of the National Electricity Law and clauses 3.9.3C(a1) and 11.132 of the National Electricity Rules

Forecast reliability gap

The size of the **forecast reliability gap** is 230 megawatts (MW)

This reliability instrument request applies to the **forecast reliability gap period** of 8 January 2024 to 29 February 2024 inclusive.

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

AEMO's **one-in-two year peak demand forecast** for the forecast reliability gap period is 3,044 MW (reported on a 50% Probability of Exceedance [POE], 'as generated' basis).

The **trading intervals** during the forecast reliability gap period are those that fall between 5.00 pm and 9.00 pm on working weekdays in January and February 2024. For clarity, this means the trading intervals for the half-hour ending 5:30 pm, 6:00 pm, 6:30 pm, 7.00 pm, 7:30 pm, 8.00 pm, 8:30 pm and 9:00 pm[10].

The forecast reliability gap published in the related T-3 reliability instrument still persists.

Further information on the forecast reliability gap[11]

A sensitivity matrix to assist with understanding of the identified *forecast reliability gap* 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 only available during the likely trading intervals of the identified reliability gap period. The additional capacity in this 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	200	230	300	400	500	600
Expected USE (%)	0.00108%	0.00083%	0.00064%	0.00059%	0.00048%	0.00036%	0.00028%	0.00022%

Further information on the reliability forecast[12]

The additional firm capacity required to reduce expected USE to below the relevant reliability standard[13], assuming the additional capacity is available in all hours of the financial year, is 170 MW.

Figure 1 shows the monthly expected USE in South Australia in 2023-24. The majority of USE is forecast to occur in January 2024, with a small amount of USE forecast in February 2024. No other months have forecast USE.

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

[11] In accordance with section 3.1 of the Interim Reliability Instrument Guidelines. Available at: https://www.aer.gov.au/system/files/Interim Reliability Instrument Guidelines - RRO - July 2019.pdf

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

[13] Referring to the interim reliability measure of 0.0006% USE.

Figure 1 Monthly expected USE in South Australia, 2023-24

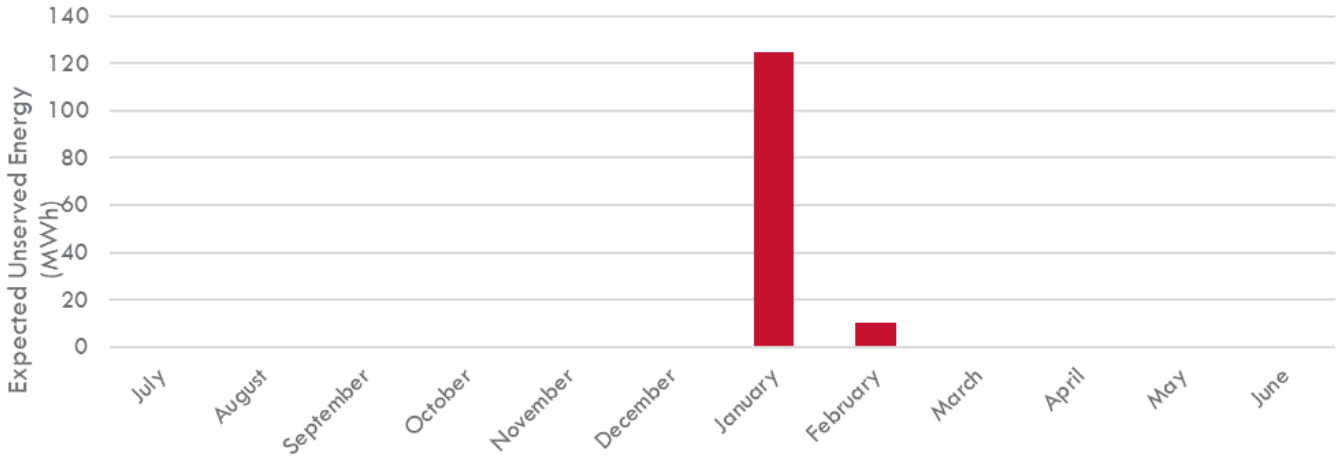
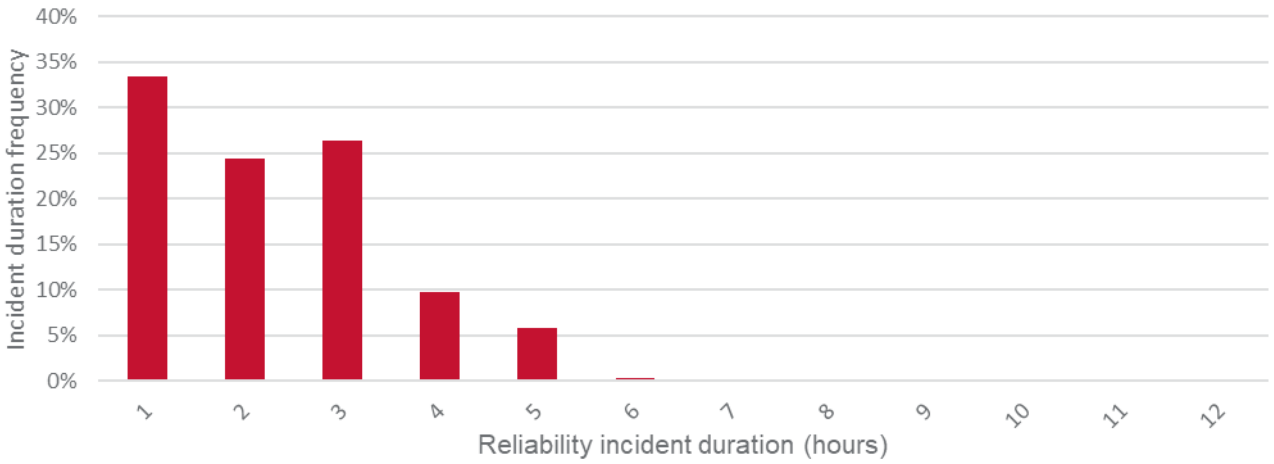


Figure 2 shows the duration of expected USE in South Australia in 2023-24. The majority of forecast USE events are between 1-3 hours in duration. There are only a small number of events forecast to last over 6 hours.

Figure 2 Forecast reliability incident duration in South Australia 2023-24



3 Supporting information[14]

AEMO has published information within the 2022 ESOO and accompanying documents regarding the data inputs, calculations, assumptions and methodology used in the reliability forecast[15].

Specifically, the reliability forecasts and indicative reliability forecasts published in accordance with the Retailer Reliability Obligation (RRO) constitute Chapter 5 of the 2022 ESOO. Key component forecasts and inputs include:

- Consumption and demand forecasts (See Sections 2.2, 2.3 and 2.4 of the 2022 ESOO).
- Supply forecasts (see Chapter 3 of the 2022 ESOO).
- The July 2022 Generation Information page.
- The 2021 Inputs, Assumptions and Scenarios Report (IASR) and the 2022 ESOO Forecasting Assumptions Update (FAU).

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. Please note:

- Relevant sections of the 2022 ESOO, 2021 IASR and 2022 FAU are referred to in the "Description of input" column.
- AEMO adopted the Step Change scenario as the ESOO Central scenario for the purpose of developing its reliability forecast in the 2022 ESOO.
- The Low, Medium or High rating in the column "Materiality to the reliability forecast in 2023-24" is an approximate guide to each input's contribution towards the South Australia 2023-24 reliability forecast, particularly in the period over which the forecast reliability gap applies.
- Stakeholder consultation on the inputs, calculations, assumptions, and methodologies used in the reliability forecast encompassed:
  - The 2021 IASR, which is the source of most inputs, assumptions and scenarios used in the 2022 ESOO.
  - The Draft 2022 Integrated System Plan (ISP)[16], which included stakeholder feedback on inputs and assumptions common to the ISP and ESOO.
  - The 2022 FAU[17], the source for inputs, assumptions and scenarios updated since the 2021 IASR.
  - Forecasting Reference Group (FRG) meeting[18] presentations and discussions on select topics.

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

[14] In accordance with section 3.1 of the Interim Reliability Instrument Guidelines. See https://www.aer.gov.au/system/files/Interim Reliability Instrument Guidelines - RRO - July 2019.pdf.

[15] Available at: 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

[16] See https://www.aemo.com.au/consultations/current-and-closed-consultations/2022-draft-isp-consultation

[17] See https://www.aemo.com.au/consultations/current-and-closed-consultations/2022-consultation-on-forecasting-assumptions-update

[18] 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 2023--24 [A,B]	Data input source – FAU Workbook location	Stakeholder engagement	Consultancy reports
Demand forecasting assumptions	2022 ESOO Section 1.4	**Medium** AEMO adopted the Step Change scenario as the ESOO Central scenario for the purpose of developing its reliability forecast in the 2022 ESOO. Relative to the Progressive Change scenario, which is considered the next most likely scenario, 50% POE maximum demand is forecast to be 94 MW higher, while coordinated distributed battery installations are forecast to be 15 MW higher, indicating an approximate net impact of 79 MW.	Not applicable	October - November 2021 Delphi panelC Draft 2022 ISP submissions made by ISP Consumer Panel, AGL, Delta, Jemena, APGA, Hydro Tas, Iberdrola, Tilt, CEIG, FFI, NICE, ECA, EC, Climate Works, BZE, ACF, QCC, Greenpeace and ARDL	Not applicable
Electric vehicle (EV) uptake	2022 FAU Section 2.1, Battery electric vehicle uptake	**Low** In 2023-24, 15 GWh of EV consumption is forecast in South Australia, which represents approximately 0.1% of operational consumption. Demand for EV charging is approximately 2 MW at time of maximum 50% POE demand in summer.	Battery & Plug-in EVs (Step Change scenario)	2021 IASR submissions made by ACF, Energy Australia, Infigen, ISP Consumer Panel, Hydro Tasmania and Nature Conservation Council. February, March and April 2021 FRG Meetings - Electric Vehicle forecasts. July 2021 FRG meeting – EV forecasting improvements. Draft 2022 ISP submission by Electric Vehicle Council.	See CSIRO's EV report[D]
Behind-the-meter battery storage installed capacity	2022 FAU Section 2.1, Battery storage uptake	**Medium** 89 MW of coordinated distributed storage is forecast to be available in South Australia in 2023-24. the average impact during USE events is forecast to be 44 MW. Uncoordinated distributed storage discharge during 50% POE maximum demand events is forecast to be approximately 5MW.	Embedded energy storages tab (Step Change scenario)	2021 IASR submissions made by Energy Queensland, MUA and Walcha Energy. March and April 2021 FRG Meetings - Distributed Energy Resources (DER) forecasts. Draft 2022 ISP submissions by Snowy Hydro, GE, CEC, EA, Powerlink, ENA, EA, IE&S, Hydro Tasmania, and FFI.	CSIRO: *Projections for small-scale embedded technologies* [E]. Green Energy Markets: *Projections for DER – solar PV and stationary energy battery systems* [F].
Distributed PV (including residential, commercial, and larger embedded and PV non-	2022 FAU Section 2.1, Distributed PV	**High** Estimated distributed PV generation output during forecast USE for South Australia in 2023-24 is 190 MW, which is a small portion of the 2,407 MW forecast installed capacity.	Rooftop PV and PVNSG tabs (Step Change scenario).	2021 IASR submissions made by ACF, Energy Australia, Nature Conservation Council, PIAC, Powerlink, Walcha Energy. March and April 2021 FRG Meetings - Distributed Energy Resources (DER) forecasts.	CSIRO: *Projections for small-scale embedded technologies* [E]. Green Energy Markets: *Projections for DER – solar PV and stationary energy battery systems* [F].

Input	Description of input	Materiality to the reliability forecast in 2023--24 [A,B]	Data input source – FAU Workbook location	Stakeholder engagement	Consultancy reports
scheduled generation [PVNSG] systems[F])				Draft 2022 ISP submissions by NICE, ECA, Snowy Hydro, GE, CEC, EA, Powerlink, ENA, EA, IE&S, Hydro Tasmania, and FFI.	
Economic growth and population outlook	2022 FAU Section 2.1, Economic and population forecasts, Households and connections forecast	**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, Energy Consumption, and Maximum demand tabs. (Step Change scenario)	2021 IASR submissions made by MMTech, Shell Energy, Sligar and Associates. February 2021 FRG Meeting – Draft Economic forecasts. September 2021 FRG Meeting – better integrating economic and energy data.	BIS Oxford Economics *Macroeconomics Projections* [G]. The Financial Year 2020-21 ABS National Accounts release was used for rebasing, as it was the most recently available annual dataset at the time of rebasing [H].
Demand side participation (DSP)	2022 FAU Section 2.1, Demand side participation 2022 ESOO Section 2.4 2022 ESOO Appendix A6	**Low** 13 MW of total DSP is forecast to be available in South Australia in 2023-24. The average impact of this DSP during USE events is forecast to be 13MW.	DSP tab (Step Change scenario).	2021 IASR submissions made by Energy Consumers Australia, MEU and MUA. 5 April 2021 and June 2022 FRG Meetings – Draft DSP Forecasts.	Not applicable.
Electrification	2022 FAU Section 2.1, Electrification	**Medium** AEMO's 2023-24 forecast shows 690 GWh of consumption in South Australia related to electrification, which represents approximately 5.8% of operational consumption.	Electrification tab (Step Change scenario)	2021 IASR submissions made by ENA, Energy Australia, TasNetworks and Origin. May and June 2021 FRG Meetings – Multi sector modelling. Draft 2022 ISP submissions by BZE, APA, EA and Jemena.	CSIRO's multi-sector modelling report [I].
Energy Efficiency	2022 FAU Section 2.1, Energy efficiency forecast	**Medium** AEMO forecasts a reduction of 361 GWh of consumption in South Australia due to energy efficiency measures. This represents a reduction of approximately 3.0% of operational consumption.	Energy Efficiency tab (Step Change scenario)	2022 ESOO forecasts rebased the 2021 IASR forecast to reflect 2021-22 as the 'base year'. No submissions on 2021 IASR consulted forecasts.	Strategy Policy Research[J].

Input	Description of input	Materiality to the reliability forecast in 2023--24 [A,B]	Data input source – FAU Workbook location	Stakeholder engagement	Consultancy reports
Large Industrial Loads (LIL)	2022 FAU Section 2.1, Large Industrial Loads. Note that LIL forecasts consider confidential information provided by operators.	**High** AEMO's 2023-24 forecast shows 3,503 GWh of consumption in South Australia related to LILs, which represents approximately 29.4% of operational consumption. LIL forecasts contribute 13.5% to the maximum operational demand in summer 2023-24 in South Australia.	Not applicable	2021 IASR submissions made by ISP Consumer Panel and MUA. May 2022 FRG Meeting – Draft consumption forecasts.	Not applicable.
Inter-regional transmission unplanned outage rates	2022 FAU Section 2.2, Transmission line unplanned outage rates. 2022 ESOO Section 3.5	**Low** The complete removal of inter-regional transmission unplanned outage rates would be associated with a negligible change of 1 MW on average to forecast USE in South Australia in 2023-24.	Transmission Reliability tab	2021 IASR submissions made by AusNet Services, Energy Australia and MEU. January 2022 FRG meeting – FRG Consultation on Unplanned transmission outage rate methodology. June 2022 FRG Meeting – FRG Consultation on Unplanned transmission outage rate forecasts.	Not applicable.
Generator forced outage rates	2022 FAU Section 2.2, Forced outage rate trajectories 2022 ESOO Section 3.4	**High** Generator forced outages have a high impact on unserved energy. Approximately 464 MW of generation forced outages occur on average during South Australia 2023-24 forecast USE periods.	Generator Reliability Settings tab	June 2022 FRG Meeting – FRG Consultation on Generation forced outage rate forecasts. Draft 2022 ISP submission by Electric Power Consulting	AEP Elical: Assessment of ageing coal-fired generation reliability[K]
Generation availability	2022 ESOO Chapter 3 Supply forecasts.	**High** The reliability forecast in the 2022 ESOO considers existing and new generation and battery storage projects that meet the "committed" and "committed*" commitment criteria published in AEMO's Generation Information update in July 2022[L].	Seasonal ratings tab	2021 IASR submissions made by Energy Australia, Energy Estate, ISP Consumer Panel, TasNetworks and Walcha Energy. 2022 FAU submissions made by Hydro Tasmania, TasNetworks and VBN. Draft 2022 ISP submissions by Sligar and associates, FFI, Delta, EA, Powerlink, MA, CEC and Walcha.	Not applicable.
Auxiliary loads	2022 ESOO Section 5.4.3. Note that auxiliary load has been determined based on confidential	**Medium** As part of the generator information updates AEMO request scheduled and semi-scheduled generators to self-report their typical auxiliary load percentage.	Auxiliary tab	October 2021 FRG Meeting – Forecast Improvement Plan	Not applicable.

Input	Description of input	Materiality to the reliability forecast in 2023--24 [A,B]	Data input source – FAU Workbook location	Stakeholder engagement	Consultancy reports
	information provided by participants.	Approximately 43 MW of auxiliary load is forecast during USE periods in South Australia in 2023-24.			
Interregional network losses	2022 FAU Section 2.4 Inter-regional loss flow equations, marginal loss factor (MLF) equations and loss proportioning factors	**Medium** Approximately 30MW interregional network losses are forecast during USE periods in South Australia in 2023-24.	Proportioning factors tab of IASR workbook.	2021 IASR submission made by Ausnet Services. October 2021 FRG Meeting – Forecast Accuracy Report Summary. Draft 2022 ISP submissions by Powerlink, ENA and the SA DEM	Not applicable.
Weather & climate	2021 IASR Section 3.1.7 Applying historical climatic conditions to forecast years.	**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.	Central scenario of Maximum Demand tab of IASR workbook.	2021 IASR submission made by TasNetworks. Draft 2022 ISP submission by EA.	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 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 SA in 2023-24 has been provided. Note that the forecast contribution of these inputs during periods of forecast USE may differ from these figures.

C. See A1.3 of the 2022 Draft ISP, available at: https://aemo.com.au/-/media/files/major-publications/isp/2022/appendix-1-stakeholder-engagement.pdf

D. Available at https://aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/inputs-assumptions-methodologies/2021/csiro-ev-forecast-report.pdf.

E. Available at https://aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/inputs-assumptions-methodologies/2021/csiro-der-forecast-report.pdf.

F. Available at https://aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/inputs-assumptions-methodologies/2020/green-energy-markets-der-forecast-report.pdf.

G. Available at https://aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/inputs-assumptions-methodologies/2021/bis-oxford-economics-macroeconomic-projections.pdf.

H. Available at: https://www.abs.gov.au/statistics/economy/national-accounts/australian-system-national-accounts/latest-release.

I. Available at https://www.aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/isp/2021/csiro-multi-sector-modelling.pdf.

J. Available at: https://aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/isp/2021/strategy-policy-research---energy-efficiency-forecasts-2021.pdf

K. Available at: 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

L. Available at https://www.aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-planning-data/generation-information.

4 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
2022 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
Demand Side Participation (DSP) Forecasting Methodology **Reliability forecast guidelines**	Available on https://aemo.com.au/en/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-approach
2021 IASR	https://www.aemo.com.au/-/media/files/major-publications/isp/2021/2021-inputs-assumptions-and-scenarios-report.pdf Addendum: https://www.aemo.com.au/-/media/files/major-publications/isp/2022/addendum-to-the-2021-inputs-assumptions-and-scenarios-report.pdf
2022 Forecasting Assumptions Update	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
Consultant reports	**BIS Oxford Economics:** Economics: https://www.aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/inputs-assumptions-methodologies/2021/bis-oxford-economics-macroeconomic-projections.pdf **CSIRO:** Multisector modelling: https://www.aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/isp/2021/csiro-multi-sector-modelling.pdf Electric vehicles: https://www.aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/inputs-assumptions-methodologies/2021/csiro-ev-forecast-report.pdf DER: https://www.aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/inputs-assumptions-methodologies/2021/csiro-der-forecast-report.pdf **Green Energy Markets:** DER: https://www.aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/inputs-assumptions-methodologies/2021/green-energy-markets-der-forecast-report.pdf
Relevant stakeholder consultations	
2021 Planning and forecasting consultation on Inputs, Assumptions and Scenarios Report (IASR)	https://www.aemo.com.au/consultations/current-and-closed-consultations/2021-planning-and-forecasting-consultation-on-inputs-assumptions-and-scenarios
Draft 2022 ISP consultation	https://www.aemo.com.au/consultations/current-and-closed-consultations/2022-draft-isp-consultation
Consultation on 2022 Forecasting Assumptions Updates (FAU)	https://www.aemo.com.au/consultations/current-and-closed-consultations/2022-consultation-on-forecasting-assumptions-update
Forecasting Reference Group (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
Responses provided by AEMO on 2021 IASR submissions	https://www.aemo.com.au/-/media/files/major-publications/isp/2021/2021-iasr-consultation-summary-report.pdf
Responses provided by AEMO on draft 2022 ISP submissions	https://www.aemo.com.au/-/media/files/major-publications/isp/2022/2022-documents/isp-consultation-summary-report.pdf

Term	Definition
Responses provided by AEMO on 2022 FAU submissions	https://www.aemo.com.au/-/media/files/major-publications/isp/2022/2022-forecasting-assumptions-update-consultation-summary.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

5 Glossary

Term	Definition
committed and committed* 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 megawatts (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 megawatts (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 (MD)	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 Interim Reliability Measure (IRM) in 2020 was intended to reduce the risk of load shedding across the NEM by helping keep USE in each 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 NER 3.9.3C.