NEM Transmission Loop Inter-Regional Settlements Residue reporting

Fact Sheet

This fact sheet explains the reports provided by AEMO that estimate the Inter-Regional Settlements Residue (IRSR) amounts for the NEM, reflecting the changes to the calculation of IRSR around transmission loops.

AEMO publishes estimates of Inter-Regional Settlements Residue (IRSR) in the NEM in near real-time to assist participants in understanding the impact on inter-regional trade, particularly for unit holders in the Settlements Residue Auction (SRA). To support the implementation of Project EnergyConnect (PEC), changes are being made to the way IRSR is calculated to reflect the inter-regional settlements residue arrangements for transmission loops rule change.

Information in this document is current as at October 2026 and may change subsequently. It is general information for explanatory purposes only and not advice. NEM participants should obtain their own advice about the National Electricity Rules and other laws, procedures or policies applicable to their business.

What is Inter-Regional Settlements Residue?

Inter-Regional Settlements Residue is the financial surplus or deficit that occurs when electricity flows between different regions in the NEM. It typically occurs either due to price differences between regions, or because of losses in the transfer. Positive IRSR usually occurs when power flows from a lower-priced to a higher-priced region, and is auctioned back to participants through the Settlements Residue Auction. Negative IRSR usually occurs when there is a counter-price flow from a higher-priced to a lower priced region and is paid for by the Co-ordinating Network Service Providers (CNSPs).

IRSR around transmission loops

The introduction of the new SNI interconnector (NSW-SA1) delivered through PEC results in a transmission loop between the New South Wales, Victoria and South Australia regions. As part of the inter-regional settlements residue arrangements for transmission loops rule change, the allocation of IRSR is being changed with respect to the directional interconnectors between the three regions that form the transmission loop. An explanation of the new arrangements, including worked examples, is located in the Project Energy Connect – Market Integration Stakeholder Reference Paper.

Changes have been introduced to the near real-time IRSR reports to support the introduction of transmission loops, with the key changes outlined in the following sections.

Directional Interconnectors

The previous reports calculated IRSR for each physical interconnector, including those that are in parallel with other interconnectors. An example of this is N-Q-MNSP1 (Directlink) which is in parallel with NSW1-QLD1 (QNI)

and connects New South Wales and Queensland. Due to changes in the way IRSR is allocated, parallel physical interconnectors will now be aggregated to a single directional interconnector. This means that N-Q-MNSP1 (Directlink) and V-S-MNSP1 (Murraylink) will be included in NSW1-QLD1 (QNI) and V-SA (Heywood) interconnectors respectively. Directional interconnectors will be reported individually, so that each interconnector has two separate records for each flow direction, identified by a FROMREGIONID (the region which is net exporting).

Estimated flow

The true IRSR value is determined based on metered interconnector flow during the settlement process, which is not available at the time the near real-time reports are generated. For the purposes of the reports, an approximation of interconnector flow is used based on SCADA and/or schedule targets as follows:

- For Dispatch, the energy flow is considered to be the loss-adjusted METEREDMWFLOW value for the interconnector, converted to MWh by dividing by 12. The METEREDMWFLOW value is usually derived from SCADA measurements of the flow taken prior to the start of the interval. Note that this is a change from the previous reports which used the average of METEREDMWFLOW and MWFLOW, to better align with the estimation of flow used in the settlements process for prudential purposes (before meter data is received).
- For 5-minute and 30-minute Predispatch, the energy flow is considered to be the loss-adjusted MWFLOW value for the interconnector, converted to MWh by dividing by 12 for 5-minute Predispatch or dividing by 2 for 30-minute Predispatch. The MWFLOW value reflects the interconnector target for each interval during the Predispatch run.

Residue

The previous reports only reported a single residue number, which estimated the residue (positive or negative) for the physical interconnector. To maintain compatibility with previous reports, this residue column is being retained but will now reflect the simple calculation of the total residue for each directional interconnector based on price and flow before any transmission loop adjustment has occurred. This value can be positive or negative.

Net Loop Allocation

A new column has been introduced which reports the Net Loop Allocation (NLA) for directional interconnectors associated with a transmission loop. NLA is calculated as the sum of the residues of the six directional interconnectors in the transmission loop, with the value being either positive or negative, and the NLA value will be shown against each of these directional interconnectors. The NLA will always be zero for directional interconnectors not associated with a transmission loop.

Net Trade Amount

A new column has been introduced which reports the Net Trade Amount (NTA) and estimates the distribution of positive IRSR across each directional interconnector around the transmission loop consistent with the calculation used in settlement. The NTA is intended to reflect the value which would then be distributed based on units that participants hold for the directional interconnector. The NTA is calculated as follows:

- If the Net Loop Allocation is positive, NTA will be positive or zero. This represents the distribution of NTA to directional interconnectors around the transmission loop.
- If the Net Loop Allocation is negative, NTA will be zero. The report does not attempt to calculate the regional sharing of negative IRSR to each region, and simply reports zero NTA on each directional interconnector around the transmission loop.
- If the directional interconnector is not associated with a transmission loop, NTA will be zero.

NEMWEB reports

Reports are published through NEMWEB, and can be accessed at: https://www.aemo.com.au/energy-systems/electricity/national-electricity-market-nem/data-nem/market-data-nemweb

Dispatch (DISPATCH_IRSR)

The table below shows an example of the data produced by the Dispatch report:

TRADINGINTERVAL	INTERCONNECTORID	FROMREGIONID	RESIDUE	NET_LOOP_ALLOCATION	NET_TRADE_AMOUNT
25/10/2026 10:25:00 AM	NSW1-QLD1	NSW1	18.35951	0	0
25/10/2026 10:25:00 AM	NSW1-QLD1	QLD1	0	0	0
25/10/2026 10:25:00 AM	NSW1-SA1	NSW1	0	28.40364	0
25/10/2026 10:25:00 AM	NSW1-SA1	SA1	18.44599	28.40364	10.1490385
25/10/2026 10:25:00 AM	T-V-MNSP1	TAS1	0	0	0
25/10/2026 10:25:00 AM	T-V-MNSP1	VIC1	469.6781	0	0
25/10/2026 10:25:00 AM	V-SA	SA1	12.8339	28.40364	18.2546015
25/10/2026 10:25:00 AM	V-SA	VIC1	0	28.40364	0
25/10/2026 10:25:00 AM	VIC1-NSW1	NSW1	0	28.40364	0
25/10/2026 10:25:00 AM	VIC1-NSW1	VIC1	-2.87625	28.40364	0

Trading (TRADING_IRSR)

Trading reports will continue to be produced every 5 minutes, and will be identical to Dispatch

30-minute Predispatch (PREDISPATCH_IRSR)

The table below shows an example of the data produced by the 30-minute Predispatch report:

PREDISPATCHSEQNO	PERIODID	INTERCONNECTORID	FROMREGIONID	RESIDUE	NET_LOOP_ALLOCATION	NET_TRADE_AMOUNT
2026101307	01	NSW1-QLD1	NSW1	0	0	0
2026101307	01	NSW1-QLD1	QLD1	11097.699	0	0
2026101307	01	NSW1-SA1	NSW1	0	32964.54225	0
2026101307	01	NSW1-SA1	SA1	0	32964.54225	0
2026101307	01	T-V-MNSP1	TAS1	0	0	0
2026101307	01	T-V-MNSP1	VIC1	12849.496	0	0
2026101307	01	V-SA	SA1	0	32964.54225	0

2026101307	01	V-SA	VIC1	3692.011	32964.54225	3685.637545
2026101307	01	VIC1-NSW1	NSW1	0	32964.54225	0
2026101307	01	VIC1-NSW1	VIC1	29272.531	32964.54225	29278.90471

5-minute Predispatch (P5MIN_IRSR)

The table below shows an example of the data produced by the 5-minute Predispatch report:

RUN_DATETIME	INTERVAL_DATETIME	INTERCONNECTORID	FROMREGIONID	RESIDUE	NET_LOOP_ALLOCATION	NET_TRADE_AMOUNT
25/10/2026 10:05:00 AM	25/10/2026 10:05:00 AM	NSW1-QLD1	NSW1	115.7559	0	0
25/10/2026 10:05:00 AM	25/10/2026 10:05:00 AM	NSW1-QLD1	QLD1	0	0	0
25/10/2026 10:05:00 AM	25/10/2026 10:05:00 AM	NSW1-SA1	NSW1	0	116.08335	0
25/10/2026 10:05:00 AM	25/10/2026 10:05:00 AM	NSW1-SA1	SA1	57.07801	116.08335	108.910263
25/10/2026 10:05:00 AM	25/10/2026 10:05:00 AM	T-V-MNSP1	TAS1	0	0	0
25/10/2026 10:05:00 AM	25/10/2026 10:05:00 AM	T-V-MNSP1	VIC1	108.329	0	0
25/10/2026 10:05:00 AM	25/10/2026 10:05:00 AM	V-SA	SA1	28.37839	116.08335	7.173087008
25/10/2026 10:05:00 AM	25/10/2026 10:05:00 AM	V-SA	VIC1	0	116.08335	0
25/10/2026 10:05:00 AM	25/10/2026 10:05:00 AM	VIC1-NSW1	NSW1	0	116.08335	0
25/10/2026 10:05:00 AM	25/10/2026 10:05:00 AM	VIC1-NSW1	VIC1	30.62695	116.08335	0

Where can I find more information?

The implementation of transmission loops is part of AEMO's Project Energy Connect – Market Integration project. Further information is available on the project web page: https://www.aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/project-energyconnect-market-integration-project

For any further enquiries, please contact AEMO's Information and Support Hub via

- supporthub@aemo.com.au or
- call 1300 236 600

This fact sheet is only a summary of the near real-time Inter-Regional Settlement Residue reporting arrangements for transmission loops. Settlements Residue Auction Participants are responsible for understanding IRSR calculations and can refer to the further information available at the web page: https://www.aemo.com.au/energy-systems/electricity/national-electricity-market-nem/market-operations/settlements-and-payments/settlements/settlements-residue-auction