

NEOmobile is used to view and analyse National Electricity Market (NEM) data. NEOmobile has been updated to support the introduction of IESS (Integrating Energy Storage Systems) in the NEM,. This document describes key changes made as part of the NEOmobile update.

1 BACKGROUND

1.1 IESS (Integrating Energy Storage Systems)

On 3 June 2024 the Integrating Energy Storage Systems (IESS) final rule change commences, supported by market system changes implemented by AEMO. These market system changes impact the data published by AEMO and viewed via NEOmobile. Some key changes are:

- Units can now register as bidirectional units (BDUs) with Dispatch Type 'BIDIRECTIONAL'. Previously units were registered as either 'GENERATOR' or 'LOAD'.
- All bids are given a direction, either 'GEN', 'LOAD', or 'BIDIRECTIONAL'.

The resultant updates in NEOmobile are discussed in the following sections.

2 NEOmobile Update

This section describes the key NEOmobile updates associated with IESS.

2.1 'BIDIRECTIONAL' Dispatch Type

A bidirectional unit can generate or consume. It is represented in the NEM data with a single DUID (Dispatchable Unit Identifier) and a dispatch type of 'BIDIRECTIONAL'. Previously units could only be registered as 'GENERATOR' or 'LOAD'.

Data labelled in NEOmobile as 'Generation' was previously associated with units registered as 'GENERATOR'. Similarly, data labelled in NEOmobile as 'Load' was associated with units registered as 'LOAD'. With the introduction of bidirectional units, in NEOmobile:

- Data labelled in NEOmobile as 'Generation' incorporates generation from units registered as 'GENERATOR' and 'BIDIRECTIONAL'.
- Data labelled in NEOmobile as 'Load' incorporates load from units registered as 'LOAD' and 'BIDIRECTIONAL'.

Several NEOmobile reports and/or parameters have been renamed to specify whether data presented is 'Generation' or 'Load'.

2.2 Directional bids

Bids labelled in NEOMobile as 'Generation Bids' (or similar) were previously associated with units registered as 'GENERATOR'. Similarly, bids labelled in NEOMobile as 'Load Bids' (or similar) were associated with units registered as 'LOAD'.

IESS introduces bidirectional units which can bid to generate and/or consume. In the energy and FCAS Regulation markets, a bidirectional unit submits separate generation and load bids (setting the bid DIRECTION to 'GEN' or 'LOAD' accordingly). In the FCAS Contingency markets, a bidirectional unit can submit bidirectional bids (setting the bid DIRECTION to 'BIDIRECTIONAL').

in NEOMobile:

- For Energy bids and for FCAS bids for Regulation services:
 - o Bids labelled in NEOMobile as 'Generation Bids' (or similar) only incorporate bids with a DIRECTION of 'GEN'. This will incorporate generation bids for units registered as 'GENERATOR' and 'BIDIRECTIONAL'.
 - o Bids labelled in NEOMobile as 'Load Bids' (or similar) only incorporate bids with a DIRECTION of 'LOAD'. This will incorporate load bids for units registered as 'LOAD' and 'BIDIRECTIONAL'.
 - o Bids labelled in NEOMobile as 'WDR Bids' (or similar) only incorporate bids with a DIRECTION of 'GEN' for units registered as 'WDR' (Wholesale Demand Response).
- For FCAS bids for Contingency services:
 - o Bids labelled in NEOMobile as 'FCAS Generation Bids' (or similar) will incorporate bids with a DIRECTION of 'GEN' AND bids with a DIRECTION of 'BIDIRECTIONAL'.
 - o Bids labelled in NEOMobile as 'FCAS Load Bids' (or similar) will incorporate bids with a DIRECTION of 'LOAD' AND bids with a DIRECTION of 'BIDIRECTIONAL'.

It should therefore be noted that the same 'BIDIRECTIONAL' bids will be incorporated into FCAS Generation and FCAS Load bidstacks for Contingency services.

2.3 Other Changes

Other (non IESS-related) changes incorporated in the NEOMobile update include:

- Added a separate menu item for Predispatch reports, which includes weather and Predispatch reports previously accessible from the PASA menu.
- Introduced more reports on a DUID-basis.
- Renamed 'Intermittent Generation' (and similar) to 'Non-Scheduled Generation', to reflect the definition of the NEM data called 'TOTALINTERMITTENTGENERATION'.
- 'Native Demand' calculation changed to add WDR dispatch.



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- Aligned the StationNames for the storage units (batteries and pumped storage) to be the same for GEN and LOAD. Reports for storage units are now done by station rather than by DUID.
 - Use of Secondary loss factor (where one applies to a unit).
 - Changes have been made to more closely align the terminology and naming used in NEOmobile and NEOpoint. This has resulted in some changes to report names, and to characteristics such as station and portfolio naming, and fuel names.

Section 2.5 provides a map of report name changes between the previous and updated versions of NEOmobile.

2.4 NEOmobile Transition

During a short transition period, NEOmobile users can continue to use the previous version of NEOmobile in parallel with the NEOmobile update. During the transition period NEOmobile is accessible from both:

NEOmobile Previous Version	Production https://www.neomobile.com.au (ie the URL is unchanged during the transition period)
NEOmobile IESS Update	Pre-Production https://preprod.neomobile.com.au

After the transition period the NEOmobile updates will be accessible in Production and the Pre-Production site will no longer be available.

During the transition period:

- NEOmobile Production will be used for alerting.
Users should continue to create and maintain alerts in Production. The alerts will be synced to the NEOmobile IESS Update by IES when the NEOmobile IESS update becomes Production.
- Live market event messages relating to constraints will not be generated in the NEOmobile Pre-Production environment. The live market event messages will continue to be generated in NEOmobile Production.
Live market event messages are the messages that appear in the 'Live Market Events' pane on *Overview 1* and *Overview 2*, and also in the *Market Events* screen accessed from the menu.



2.5 NEOmobile Report Name Changes

The table below maps changes in report names in NEOmobile. Report Lists and/or report names are not presented if the report names are unchanged.

Report List	NEOmobile Previous Version	NEOmobile IESS Update
Demand	<i>Demand and Avail Gen (With Max Summer and Max Winter Demand)</i>	Removed
Generation	<i>Large Portfolio Snapshot</i>	<i>NEM Snapshot – Large Portfolios</i>
	<i>[Region] Snapshot</i>	<i>[Region] Snapshot – Large Stations</i>
	<i>SCADA Gantt</i>	<i>Generation SCADA Gantt</i> (displays generating units only. See the Load menu item for a <i>Scheduled Loads SCADA Gantt</i> report)
	<i>SCADA Gantt by Classification</i>	<i>Generation SCADA Gantt by Classification</i> (displays generating units only. see the 'Load' report list for a <i>Scheduled Loads SCADA Gantt</i> report).
	N/A	<i>Semi Scheduled and Non Scheduled</i> Moved from the <i>Generation (Wind only)</i> report list, as the report includes solar generation.
Generation by Fuel	<i>[Region]</i>	Now grouped into a folder called ' <i>Generation Stack (5min)</i> '
	<i>Daily [Region]</i>	Now grouped into a folder called ' <i>Generation Stack (Daily Avg)</i> '



Generation (Wind only)	<i>Semi Scheduled and Non Scheduled</i>	N/A Moved to the <i>Generation</i> report list.
Generation (Solar only)		No name changes
Load	N/A	<i>Scheduled Loads SCADA Gantt</i> New report incorporating load units moved from the <i>Generation</i> Gantt reports.
Predispatch	N/A	<i>Weather</i> Moved from the <i>PASA</i> report list.
	N/A	<i>Predispatch</i> Moved from the <i>PASA</i> report list.
PASA	<i>Weather</i> Moved to the <i>Predispatch</i> report list.	N/A
	<i>Predispatch</i> Moved from the <i>Predispatch</i> report list.	N/A
	<i>Lack of Reserve Condition (Latest PASA)</i>	<i>Lack of Reserve Condition (Last PASA per interval)</i> Displays data for the last PASA run published for any date range selected by the user.
	<i>Lack of Reserve Condition (Latest STPASA)</i>	<i>Lack of Reserve (Last PDPASA per interval)</i> Displays data for the last PDPASA run published for any date range selected by the user.
	<i>Lack of Reserve Condition (Latest PDPASA)</i>	<i>Lack of Reserve Condition (Last STPASA per interval)</i> Displays data for the last STPASA run published for any date range selected by the user.



	<i>PASA (PDPASA & STPASA)</i>	<i>STPASA</i>
	<i>PASA (PDPASA & STPASA) with LOR Condition</i>	<i>STPASA with LOR Condition</i>

