

2023-2024

# **NEM Connection Scorecard - Nov 2023**

Financial year to date (FYTD) summary of connections to the National Electricity Market (NEM).

#### Notes:

- Application stage: assess the performance of the plant "as designed".
- (2) "Approved Applications" have achieved NSP and AEMO approval of Generator Performance Standards (5.3.4A letter).
- (3) Pre-Registration stage: execute connection agreement, construct plant, network interface and prepare registration application. Completion milestone is when registration application is submitted.
- (4) Registration stage: assess registration application, demonstrating performance of "as built" plant.
- (5) "Approved Registrations" have received NEM registration approval from AEMO.
- (6) Commissioning to Full Output stage: assess physical interaction of the plant at successive hold points to confirm alignment between modelled and tested performance.
- (7) 'Full Output Achieved' means plant has commenced operating at maximum rated capacity in the NEM.
- (8) Alterations increasing/decreasing capacity, required to notify AEMO Registrations team.
- (9) Technology type groups are as stated. Solar (B) are projects with solar generation and battery. Other Hybrid includes projects combining multiple variable renewable generation types (e.g. Wind & Solar). Pumped hydro is included in Hydro. Other includes all other synchronous technologies beyond hydro.
- (10) Typical average duration shows complete project stages within the past 12 months, and excludes projects which experienced atypical delays (e.g. construction issues or funding uncertainty), in order to provide an indicative stage duration.

#### Key This value is:

- ▼ Lower than at the same time
- Higher than at the same time last year.

# Nov 2023 Summary

During November, 6 projects totalling 1.21 gigawatts (GW) received application approval and moved into the pre-registration stage, bringing the FYTD total to 19 projects (2.77 GW).

Four projects, totalling 0.45 GW completed registration, bringing the FYTD total to 11 projects (1.64 GW).

One project (0.13 GW) commenced operating at full output in November, increasing the FYTD total to 12 projects (1.55 GW).

# Approved Application Registration Full Output NORTHERN TERRITORY QUEENSLAND NEW SOUTH WALES VIORIA Tasman S TASMANIA Microsoft Bing © 2023 Microsoft Corporation

#### Approved Applications(2)

Six projects: 1 wind farm (577 MW), 2 solar + battery (313 MW), 1 BESS (155 MW) and 1 solar farm (9 MW) Four projects registered: Chinchilla BESS (100 MW), Broken Hill BESS (50 MW), Glenrowan Solar Farm (102 MW), and Goyder South 1b Wind Farm (196 MW).

Approved Registrations(5)

One project reached full output: Wandoan Solar Farm (125 MW) solar farm

Full Output Achieved(7)

#### Total Projects (FYTD) and Project Duration (Typical average duration) (10)



9.0
Typical avg. duration (months)



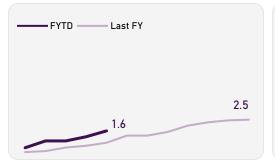
5.5
Typical avg. duration (months)

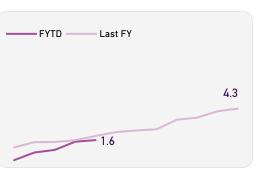


5.5
Typical avg. duration (months)

#### Approved FYTD GW by Stage in relation to last FY



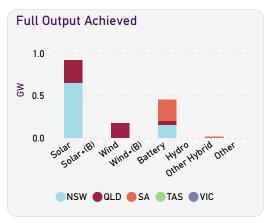




#### Approved FYTD GW by Technology Type(9) and Stage







## Connection projects underway - monthly changes

Learn more: Connection Scorecard







FY 2023-2024

Month ending

Nov 2023

# NEM Connection Scorecard

**In-progress** 

Snapshot of current projects (in-progress) in each stage as of Nov 2023

#### Notes

(1) Enquiries are potential applications for connection to the NEM. Project options and feasibility are assessed.

(2) Application stage: assess the performance of the plant "as designed".

(3) Pre-Registration stage: execute connection agreement, construct plant, network interface and prepare registration application. Completion milestone is when registration application is submitted.

(4) Registration stage: assess registration application, demonstrating performance of "as built" plant.

(5) Commissioning to Full Output stage: assess physical interaction of the plant at successive hold points to confirm alignment between modelled and tested performance.

(6) Alterations /Upgrades for plant already connected to the NEM e.g. setting changes or new plant components.

(7) Alterations increasing/decreasing capacity. required to notify AEMO Registrations team.

- Key This value is:
- ▼ Lower than at the same time
- Higher than at the same time last year.

# Fig. 1 Connection projects underway - monthly changes





Signifies the number of projects moving from one stage to the next this month. \* The conversion rate is an indicative MW % that will proceed through this stage based on historical data

## Fig. 2 - Connection Volume (GW) Trend Analysis by Stage

# Application GW per Month Pre-Regi



GW capacity in this stage is currently 116% more than 12 months ago

#### Pre-Registration GW per month



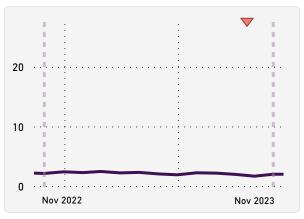
GW capacity in this stage is currently 64% more than 12 months ago

#### Registration GW per month



GW capacity in this stage is currently 25% less than 12 months ago

#### Commissioning to full-output GW per month



GW capacity in this stage is currently 6% less than 12 months ago

# Fig. 3 - Current number of projects in each Stage by Duration

#### **Application**



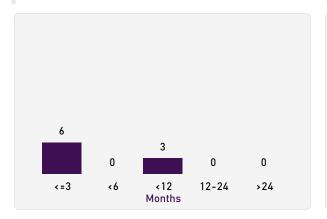
26% of projects have been in this stage for more than 12 months.

#### Pre-Registration



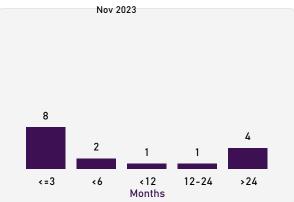
47% of projects have been in this stage for more than 12 months.

#### Registration



0% of projects have been in this stage for more than 12 months.

#### Commissioning to full-output



31% of projects have been in this stage for more than 12 months



FY 2023-2024

Month ending

Nov 2023

# NEM Connection Scorecard

**In-progress** 

Snapshot of current projects (in-progress) in each stage as of Nov 2023

#### Notes

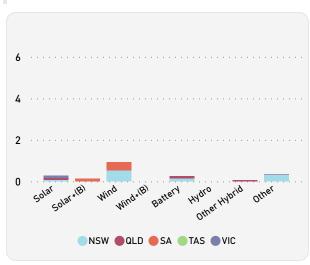
- (1) Technology type groups are as stated. Solar+(B) are projects with solar generation and battery. Other Hybrid includes projects combining multiple variable renewable generation types (e.g. Wind & Solar). Pumped hydro is included in Hydro. Other includes all other synchronous technologies beyond hydro.
- (2) Application stage: assess the performance of the plant "as designed".
- (3) Pre-Registration stage: execute connection agreement, construct plant, network interface and prepare registration application. Completion milestone is when registration application is submitted.
- (4) Registration stage: assess registration application, demonstrating performance of "as built" plant.
- (5) Commissioning to Full Output stage: assess physical interaction of the plant at successive hold points to confirm alignment between modelled and tested performance.

Fig. 4 GW Volume in each Stage by Technology Type(1) and State



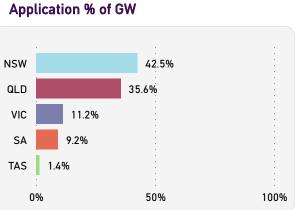


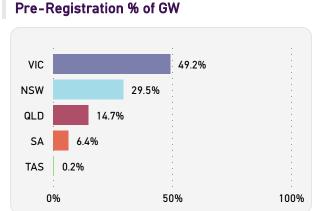


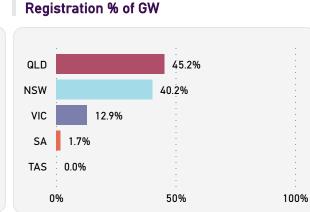


Commissioning to full-output GW(5)

Fig. 5 GW Volume percentage by State







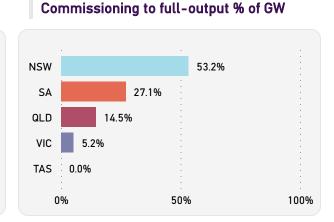
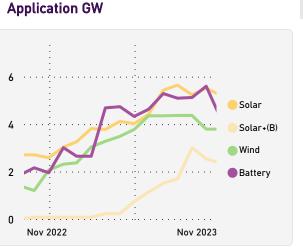
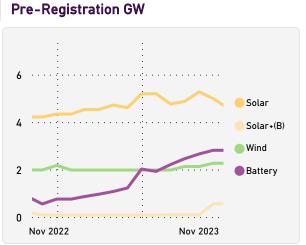
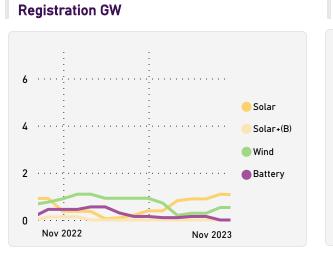
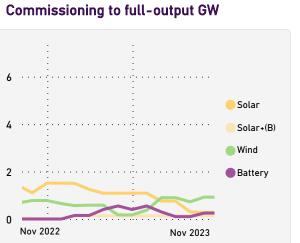


Fig. 6 GW Volume Trend Analysis by Renewable Technology











FY 2023-2024

Month ending

Nov 2023

# NEM Connection Scorecard

**Performance** 

Completed milestones in AEMO Connections process, by Stage.

#### Notes

(1) Application stage assesses the performance of the plant as designed. Applications are approved when the 5.3.4A letter is issued.

- (2) Registration stage: assess registration application, demonstrating performance of "as built" plant. Approved Registrations" have received NEM registration approval from AEMO
- 3) 'Full Output Achieved' means plant has commenced operating at maximum rated capacity in the NEM.
- (4) Typical average duration shows complete project stages within the past 12 months, and excludes projects which experienced atypical delays (e.g. construction issues or funding uncertainty), in order to provide an indicative stage duration.

#### Approved Applications(1)



#### Approved Registrations (2)



#### Full Output Achieved (3)



19 No. projects FYTD

2.8 GW FYTD 9.0
Typical avg. duration (months)

**11**No. projects FYTD

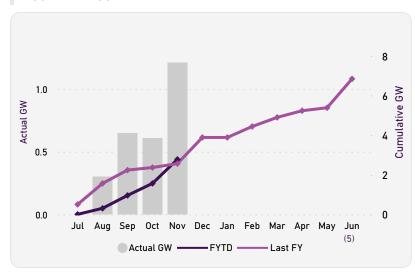
1.6 GW FYTD 5.5 Typical avg. duration (months)

12 No. projects FYTD

1.6 GW FYTD 5.5
Typical avg. duration (months)

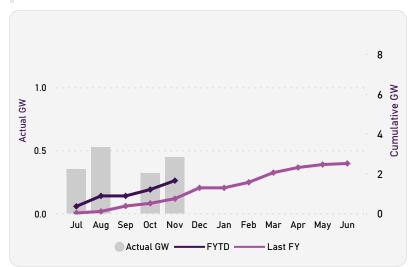
#### Fig. 7 Approved GW by Stage

#### **Approved Application**



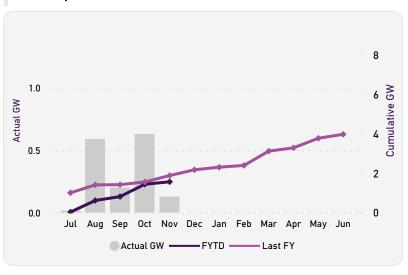
The latest cumulative GW capacity for Nov 2023 is 8% more than the same time last year

#### **Approved Registration**



The latest cumulative GW capacity for Nov 2023 is 124% more than the same time last year

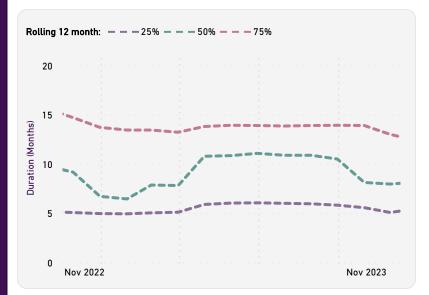
#### **Full Output Achieved**



The latest cumulative GW capacity for Nov 2023 is 17% less than the same time last year

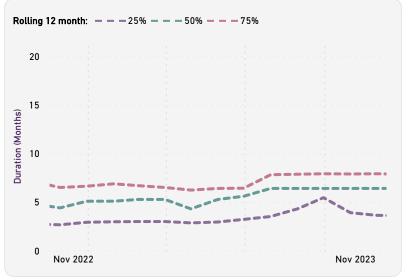
#### Fig. 8 Project Stage Duration (Months) Trend Analysis

#### **Approved Application**



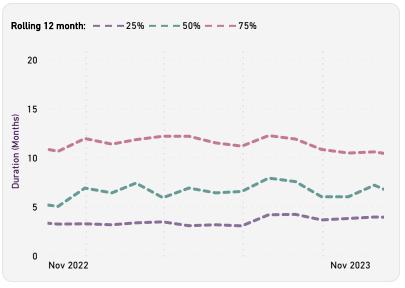
75% of the projects took 13 months or less to complete this stage. 25% of projects took 5.1 months or less to complete this stage.

#### Approved Registration



75% of the projects took 7.9 months or less to complete this stage. 25% of projects took 3.6 months or less to complete this stage.

#### Full Output Achieved



75% of the projects took 10.6 months or less to complete this stage. 25% of projects took 3.9 months or less to complete this stage.