

2023-2024

NEM Connection Scorecard - May 2024

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

Note:

- (1) 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 last year.
- A Higher than at the same time last year.

May 2024 Summary

During May, 3 projects totalling 0.81 gigawatts (GW) received application approval and moved into the pre-registration stage, bringing the FYTD total to 52 projects (11.3 GW).

Four projects completed registration totalling 0.68 GW, bringing the FYTD total to 16 projects (2.4 GW).

One project (0.05 GW) commenced operating at full output in May,

the FYTD total is now 18 projects (2.2 GW).

Approved Application Registration Full Output Coral Sea NORTHERN TERRITORY QUEENSLAND NEW SOUTH AUSTRALIA NEW SOUTH WARRITORY Tasman S TASMANIA Coral Sea

Approved Applications⁽²⁾ Approved Registrations⁽⁵⁾

Four projects: 2 wind farms (145 MW), 1
Three projects: 2 solar farms and 1 hydro

Solar farm (330 MW) and 1 battery (200

MW)

Broken Hill BESS reached its full output of 50 MW

Full Output Achieved(7)

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



9.7
Typical avg. duration (months)



Typical avg. duration (months)

18 ▼
No. projects FYTD

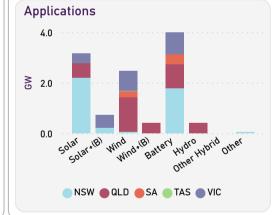
4.5
Typical avg. duration (months)

3.8

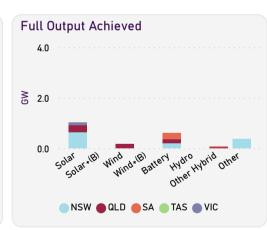
Approved FYTD GW by Stage in relation to last FY



Approved FYTD GW by Technology Type(9) and Stage







Connection projects underway - monthly changes









FY 2023-2024

Month ending

May 2024

In-progress

NEM Connection Scorecard

Snapshot of current projects (in-progress) in each stage as of May 2024

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.
- (8) Staged commissioning approach Proponent has planned commissioning in stages due to staged construction or to manage their resources.
- Higher than at the same time last year.
- Lower than at the same time last year.

Fig. 1 Connection projects underway - monthly changes





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

Application GW per Month

May 2023

20

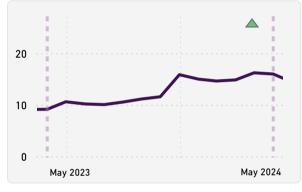


GW capacity in this stage is currently 38% more than 12 months ago

Pre-Registration GW per month

Signifies the number of projects moving from one stage to the next this month.

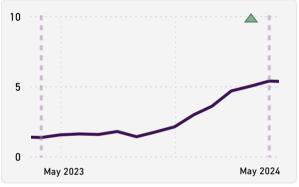
* The conversion rate is an indicative MW % that will proceed through this stage based on historical data.



GW capacity in this stage is currently 75% more than 12 months ago

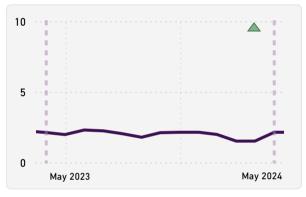
Registration GW per month

Note: Scale updated to provide appropriate detail for trend analysis.



GW capacity in this stage is currently 298% more than 12 months ago

Commissioning to full-output GW per month



GW capacity in this stage is currently 1% more than 12 months ago

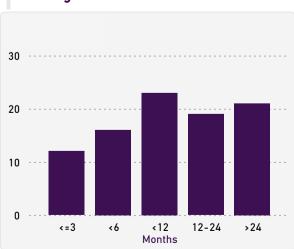
Fig. 3 - Current number of projects in each Stage by Duration

May 2024

Application Extended duration (factors outside Connections Process) 30 20 10 <=3 <6 <12 12-24 >24 Months

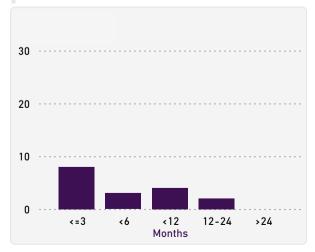
13% of projects have extended duration due to factors outside the connections process, with the remaining projects in this stage for >12 months experiencing complex design, design changes and higher need for resubmissions.

Pre-Registration



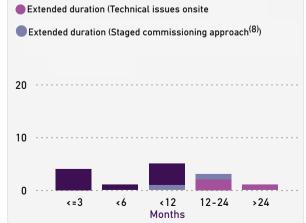
44% of projects have been in this stage for more than 12 months.

Registration



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

Commissioning to full-output



21% of projects have extended duration due to technical issues onsite. 14% of projects are undergoing a staged commissioning approach.



FY 2023-2024

Month ending

May 2024

NEM Connection Scorecard

In-progress

Snapshot of current projects (in-progress) in each stage as of May 2024

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".
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- (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



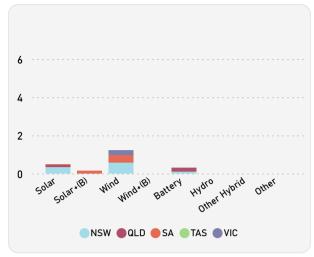
Application GW(2)



Pre-Registration GW(3)

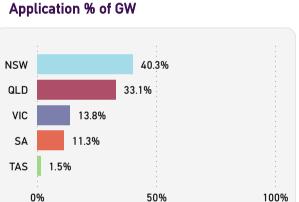


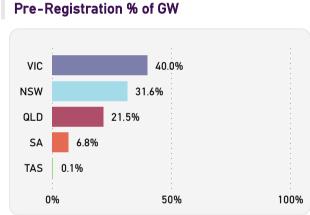
Registration GW(4)



Commissioning to full-output GW(5)

Fig. 5 GW Volume percentage by State







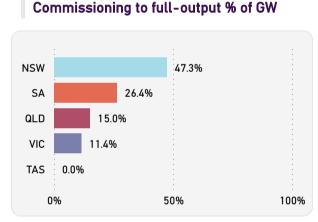
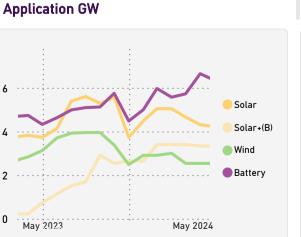
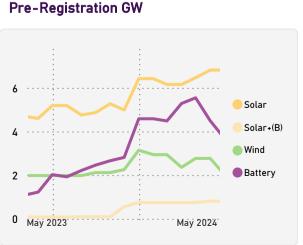
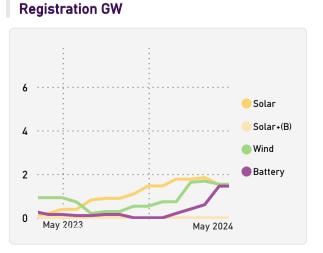
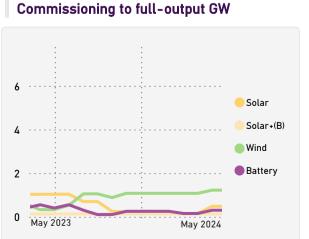


Fig. 6 GW Volume Trend Analysis by Renewable Technology











FY 2023-2024

Month ending

May 2024

NEM Connection Scorecard Performance

Completed milestones in AEMO Connections process, by Stage.

Note:

- (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)



52 No. projects FYTD

11.3
GW FYTD

9.7
Typical avg. duration (months)

16
No. projects FYTD

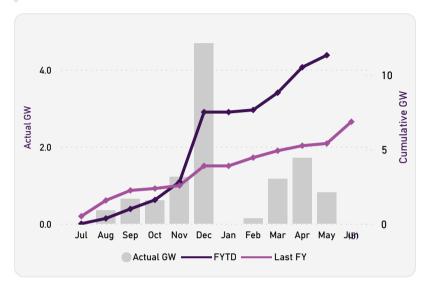
2.4 GW FYTD 5.4
Typical avg. duration (months)

18
No. projects FYTD

4.5
Typical avg. duration (months)

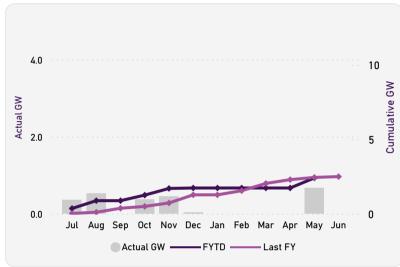
Fig. 7 Approved GW by Stage

Approved Application



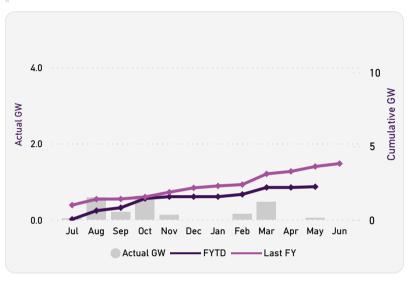
The latest cumulative GW capacity for May 2024 is 110% more than the same time last year

Approved Registration



The latest cumulative GW capacity for May 2024 is 1% less than the same time last year

Full Output Achieved



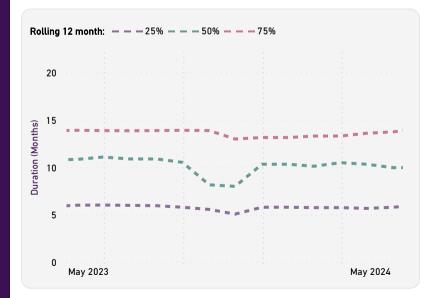
2.2

GW FYTD

The latest cumulative GW capacity for May 2024 is 38% less than the same time last year

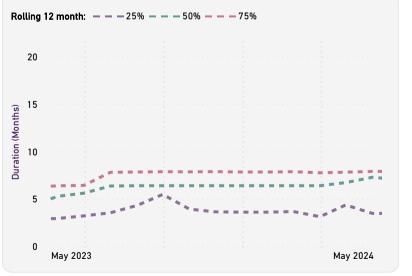
Fig. 8 Project Stage Duration (Months) Trend Analysis

Approved Application



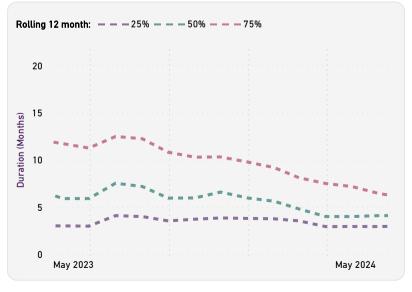
75% of the projects took 13.7 months or less to complete this stage. 25% of projects took 5.8 months or less to complete this stage.

Approved Registration



75% of the projects took 7.9 months or less to complete this stage. 25% of projects took 3.4 months or less to complete this stage.

Full Output Achieved



75% of the projects took 6.4 months or less to complete this stage. 25% of projects took 2.9 months or less to complete this stage.