

2023-2024

## NEM Connection Scorecard - Mar 2024

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

#### Notes

- (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:

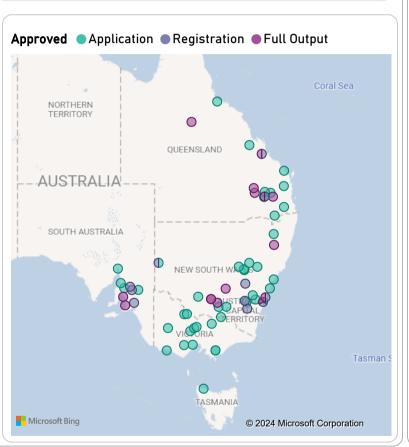
- Lower than at the same time last year.
- Higher than at the same time last year.

#### Mar 2024 Summary

During March, 3 projects totalling 1.16 gigawatts (GW) received application approval and moved into the pre-registration stage, bringing the FYTD total to 43 projects (8.8 GW).

No projects completed registration, so the FYTD total remained at

12 projects (1.7 GW).
Three projects (0.47 GW) commenced operating at full output in March, increasing the FYTD total to 17 projects (2.2 GW).



Three projects: 2 wind farms (310 MW) and 1 BESS (850 MW)

Approved Applications(2)

No registrations in March

Approved Registrations(5)

Three projects reached full output, including Chinchilla BESS (100 MW) which reached full output in 2 weeks

Full Output Achieved(7)

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



9.9
Typical avg. duration (months)

12 V

5.5
Typical avg. duration (months)

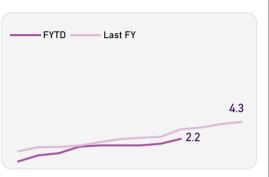
17 ▼
No. projects FYTD

4.8
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

Mar 2024

**In-progress** 

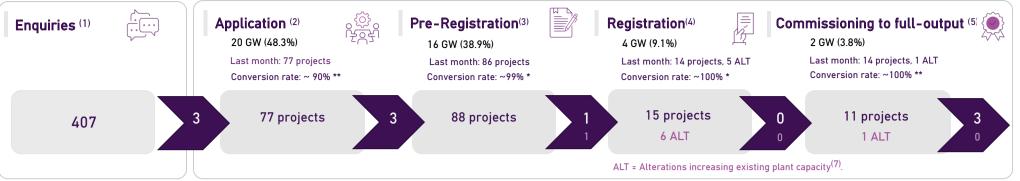
### NEM Connection Scorecard

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



#### 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.

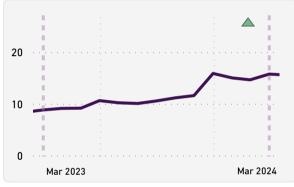
#### Fig. 2 - Connection Volume (GW) Trend Analysis by Stage

# Application GW per Month

GW capacity in this stage is currently 74% more than 12 months ago

Mar 2023

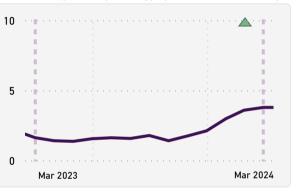
#### Pre-Registration GW per month



GW capacity in this stage is currently 79% more than 12 months ago

#### Registration GW per month

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



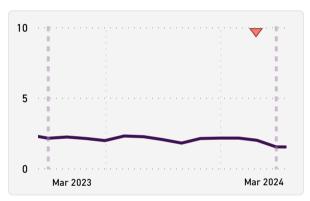
GW capacity in this stage is currently 133% more than 12 months ago

## Commissioning to full-output GW per month

Alterations / Upgrades(6)

21

(No change in capacity)



GW capacity in this stage is currently 29% less than 12 months ago

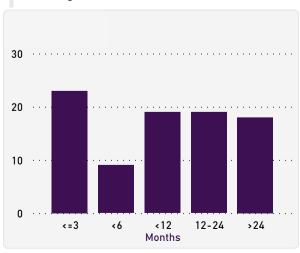
#### Fig. 3 - Current number of projects in each Stage by Duration

Mar 2024

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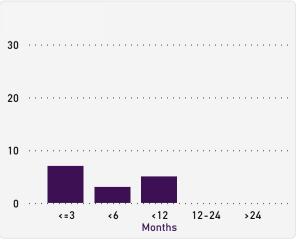
13% of projects have extended duration due to factors outside the connections process, with the remaining 10% of projects in this stage for >12 months experiencing complex design, design changes and higher need for resubmissions.

#### Pre-Registration



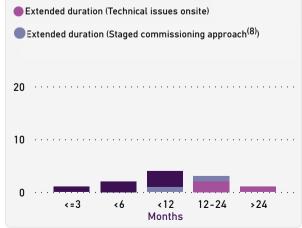
42% of projects have been in this stage for more than 12 months.

#### Registration



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

#### Commissioning to full-output



27% of projects have extended duration due to technical issues onsite. 18% are due to staged commissioning approach.



FY 2023-2024

Month ending

Mar 2024

#### NEM Connection Scorecard

#### **In-progress**

Snapshot of current projects (in-progress) in each stage as of Mar 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.

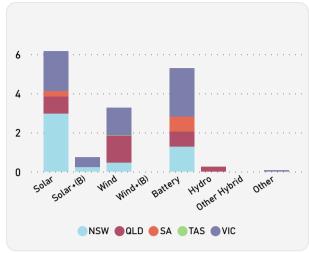
- (2) Application stage: assess the performance of the plant "as designed".
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- (4) Registration stage: assess registration application, demonstrating performance of "as built" plant.
- (5) Commissioning to Full Output stage: assess physical interaction 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



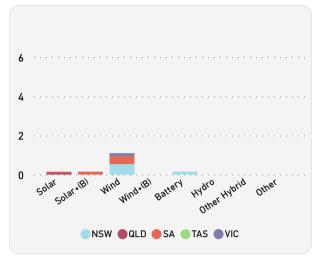
Application GW(2)

0%



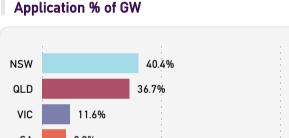
Pre-Registration GW(3)



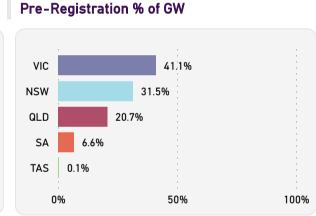


Commissioning to full-output GW(5)

Fig. 5 GW Volume percentage by State



50%





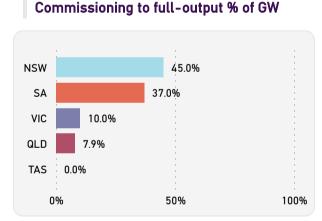
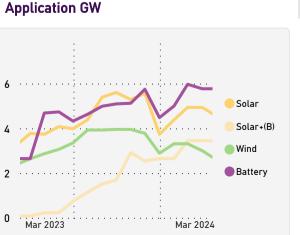
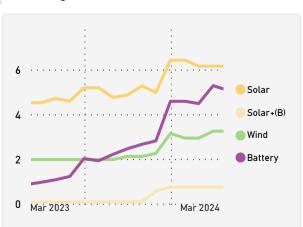


Fig. 6 GW Volume Trend Analysis by Renewable Technology

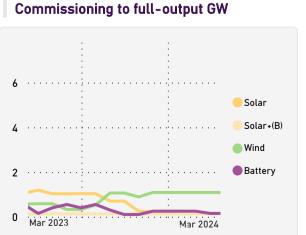
100%





**Pre-Registration GW** 







FY 2023-2024

Month ending

Mar 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)

(<u>Q</u>)

43 No. projects FYTD

8.8 GW FYTD 9.9
Typical avg. duration (months)

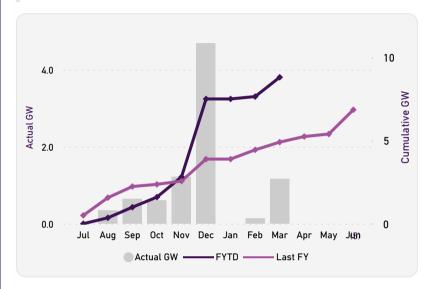
12 No. projects FYTD 1.**7** GW FYTD 5.5
Typical avg. duration (months)

17
No. projects FYTD

4.8
Typical avg. duration (months)

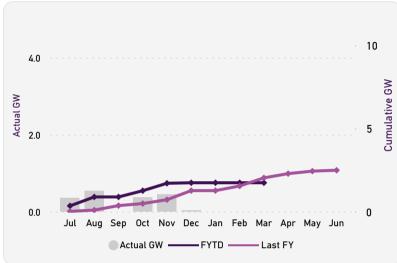
#### Fig. 7 Approved GW by Stage

#### **Approved Application**



The latest cumulative GW capacity for Mar 2024 is 80% more than the same time last year

#### Approved Registration



The latest cumulative GW capacity for Mar 2024 is 14% less than the same time last year

#### **Full Output Achieved**



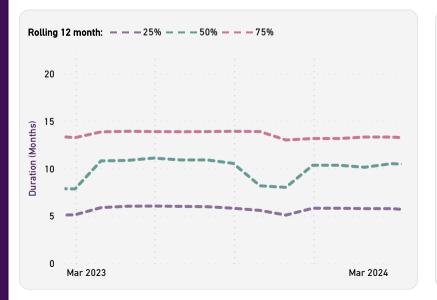
2.2

**GW FYTD** 

The latest cumulative GW capacity for Mar 2024 is 30% less than the same time last year

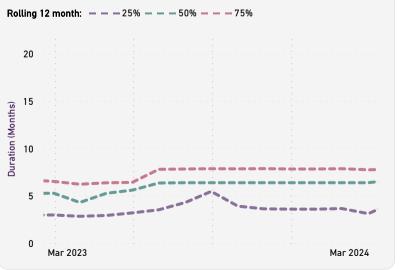
#### Fig. 8 Project Stage Duration (Months) Trend Analysis

#### **Approved Application**



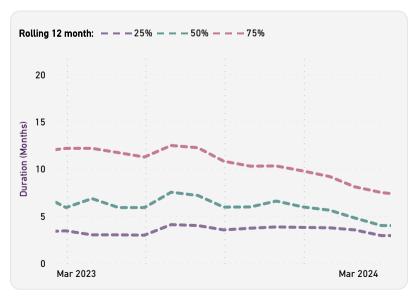
75% of the projects took 13.3 months or less to complete this stage. 25% of projects took 5.7 months or less to complete this stage.

#### Approved Registration



75% of the projects took 7.7 months or less to complete this stage. 25% of projects took 3.1 months or less to complete this stage.

#### Full Output Achieved



75% of the projects took 7.5 months or less to complete this stage. 25% of projects took 2.9 months or less to complete this stage.