AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

2023-2024

NEM Connection Scorecard - Jun 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))Proponent Implementation stage: AEMO has no involvement. Proponent and NSP execute connection agreement. NSP constructs network interface. Proponent constructs plant and prepares registration application. Completion milestone is when registration package (R1) is submitted to AEMO.

(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.

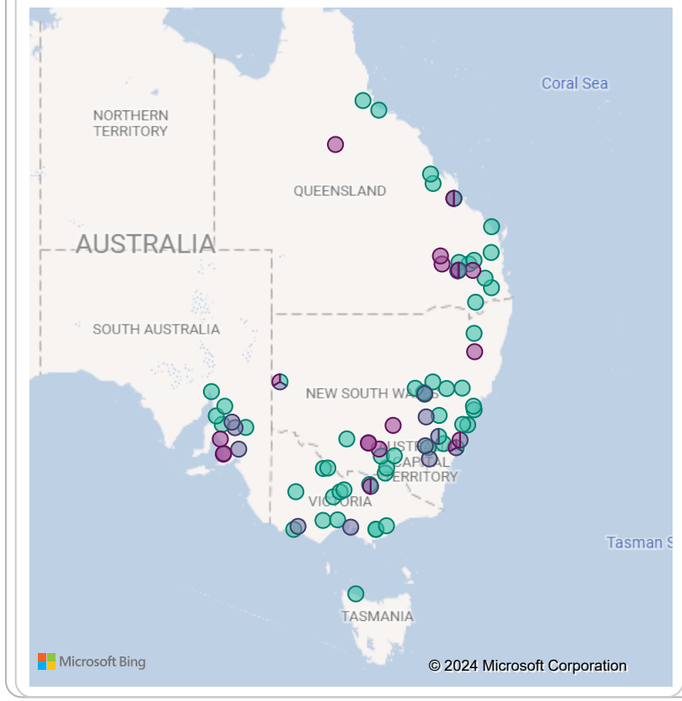
Key — This value is:
- Lower than at the same time last year.
- Higher than at the same time last year.

Jun 2024 Summary

View Chart Data (Excel)

During June, 4 projects totalling 0.72 gigawatts (GW) received application approval and moved into the proponent implementation stage, bringing the FYTD total to 56 projects (12.0 GW).
One project completed registration bringing the FYTD total to 17 projects (2.4 GW).
No projects commenced operating at full output in June, so the FYTD total remained at 19 projects (2.2 GW).

Approved Application Registration Full Output



Approved Applications(2)

Four projects: Solar + B (80MW), Wind (276MW), Battery (300MW, 65MW)

Approved Registrations(5)

One project registered: Hastings Generation Site (43MW)

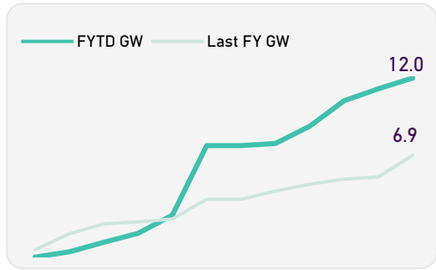
Full Output Achieved(7)

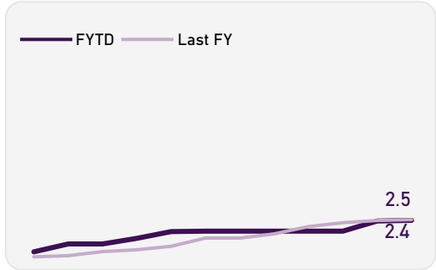
No projects reached full output in June

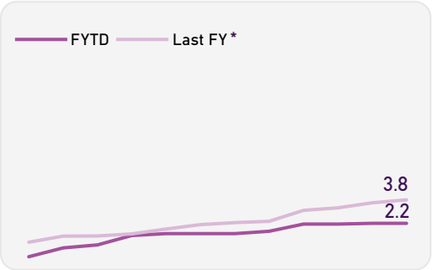
Total Projects (FYTD) and Project Duration (Typical average duration)

56 ▲	9.7	17 ▼	5.3	19 ▼	4.9
No. projects FYTD	Typical avg. duration (months)	No. projects FYTD	Typical avg. duration (months)	No. projects FYTD	Typical avg. duration (months)

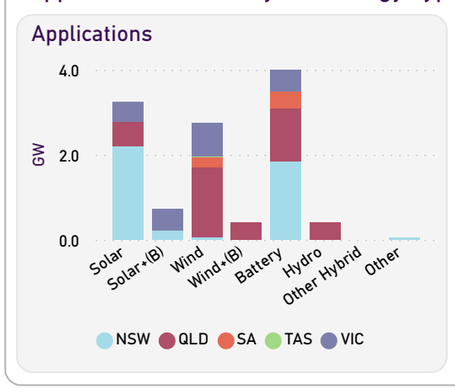
Approved FYTD GW by Stage in relation to last FY

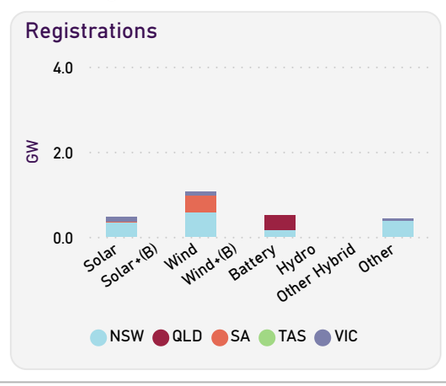


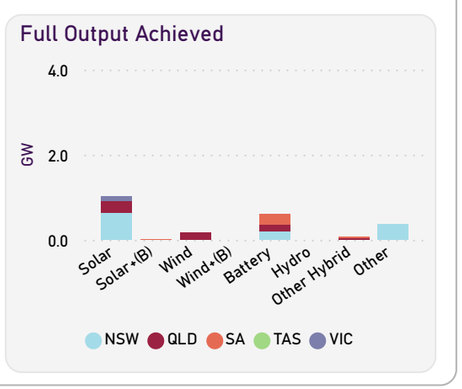




Approved FYTD GW by Technology Type(9) and Stage







Connection projects underway - monthly changes

Learn more: Connection Scorecard

Application (1)
19 GW (44.1%)
Last month: 80 projects

Proponent Implementation(3)
15 GW (34.6%)
Last month: 91 projects

Registration(4)
7 GW (16.2%)
Last month: 18 projects, 7 ALT

Commissioning to full-output(6)
2 GW (5%)
Last month: 13 projects, 1 ALT

5	81 projects	4	91 projects	4 0	21 projects 7 ALT	1 0	14 projects 1 ALT	0 0

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

ALT = Alterations increasing existing plant capacity.(8)

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FY 2023-2024

Month ending

Jun 2024

NEM Connection Scorecard

In-progress

Snapshot of current projects (in-progress) in each stage as of Jun 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) Proponent Implementation stage: AEMO has no involvement. Proponent and NSP execute connection agreement. NSP constructs network interface. Proponent constructs plant and prepares registration application. Completion milestone is when registration package (R1) is submitted to AEMO.

(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

Enquiries (1)

419

5

Application (2)
19 GW (44.1%)
Last month: 80 projects
Conversion rate: ~ 90% **

81 projects

4

Proponent Implementation(3)
15 GW (34.6%)
Last month: 91 projects
Conversion rate: ~99% *

91 projects

4
0

Registration(4)
7 GW (16.2%)
Last month: 18 projects, 7 ALT
Conversion rate: ~100% *

21 projects
7 ALT

1
0

Commissioning to full-output (5)
2 GW (5%)
Last month: 13 projects, 1 ALT
Conversion rate: ~100% **

14 projects
1 ALT

0
0

Alterations / Upgrades(6)
(No change in capacity)

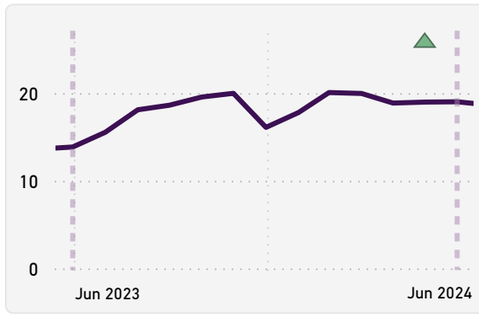
22

ALT = Alterations increasing existing plant capacity(7).

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.

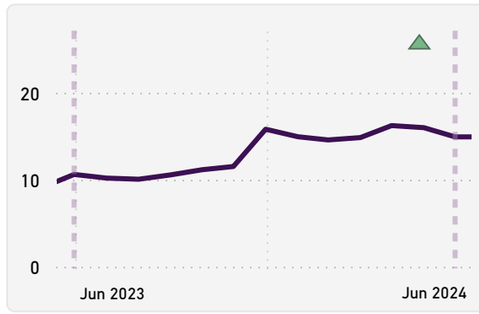
Fig. 2 - Connection Volume (GW) Trend Analysis by Stage

Application GW per Month



GW capacity in this stage is currently 37% more than 12 months ago

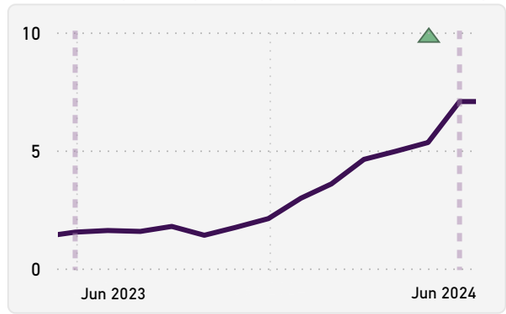
Proponent Implementation GW per month



GW capacity in this stage is currently 41% more than 12 months ago

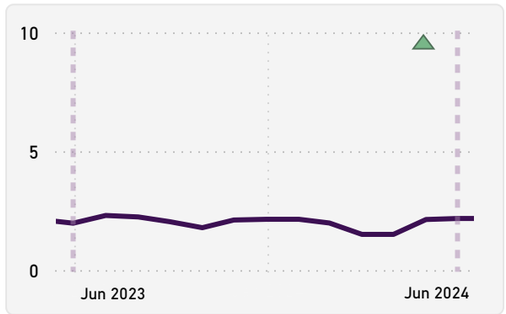
Registration GW per month

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



GW capacity in this stage is currently 360% more than 12 months ago

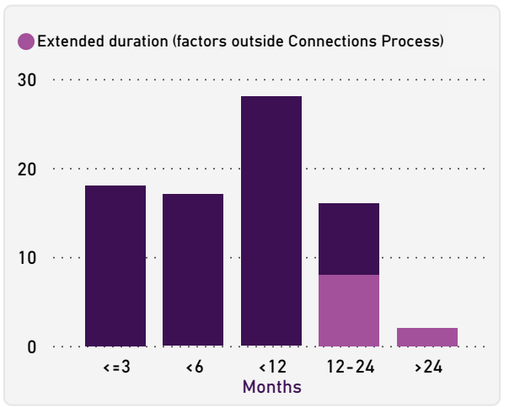
Commissioning to full-output GW per month



GW capacity in this stage is currently 10% more than 12 months ago

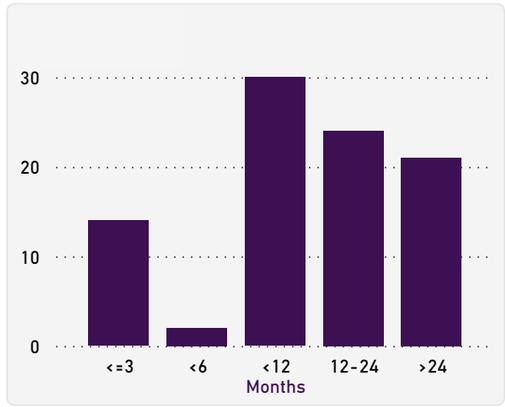
Fig. 3 - Current number of projects in each Stage by Duration

Application



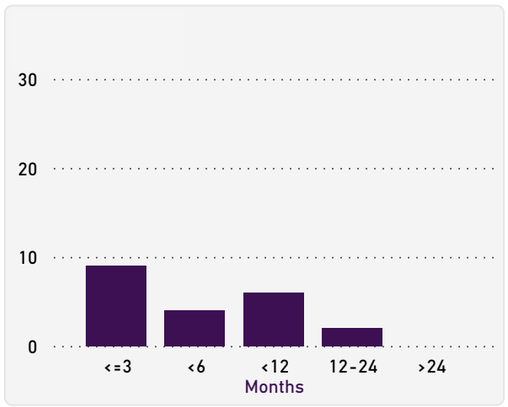
13% of projects have extended duration due to factors outside the connections process, with the remaining projects in this stage for >12 months experiencing complex design, design changes and higher need for resubmissions.

Proponent Implementation



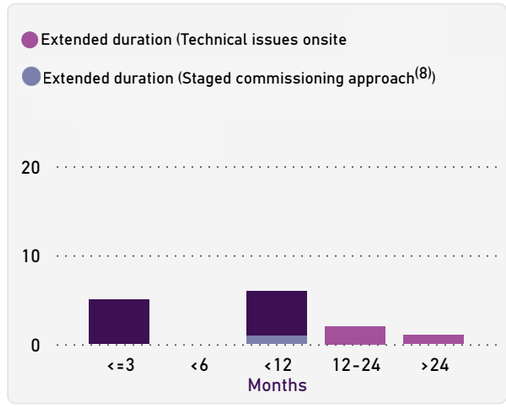
49% of projects have been in this stage for more than 12 months.

Registration



10% 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.
7% of projects are undergoing a staged commissioning approach.

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FY 2023-2024

Month ending

Jun 2024

NEM Connection Scorecard

In-progress

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

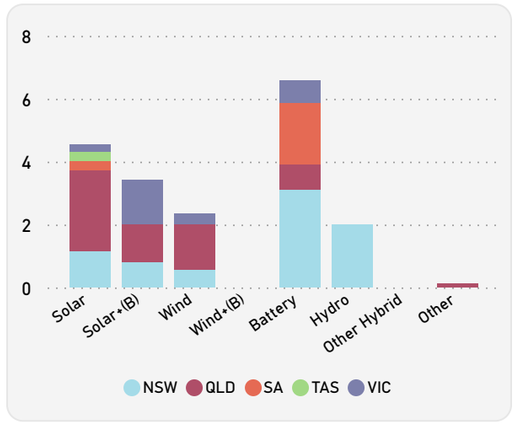
(3) Proponent Implementation stage: AEMO has no involvement. Proponent and NSP execute connection agreement. NSP constructs network interface. Proponent constructs plant and prepares registration application. Completion milestone is when registration package (R1) is submitted to AEMO.

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

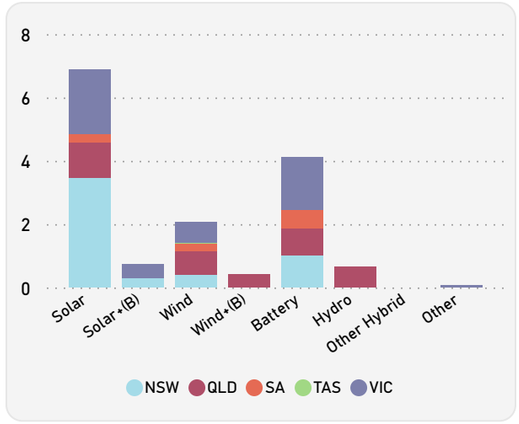
(5) Commissioning to Full Output stage: assess physical interaction of the plant at successive hold points to confirm alignment between modelled and tested performance.

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

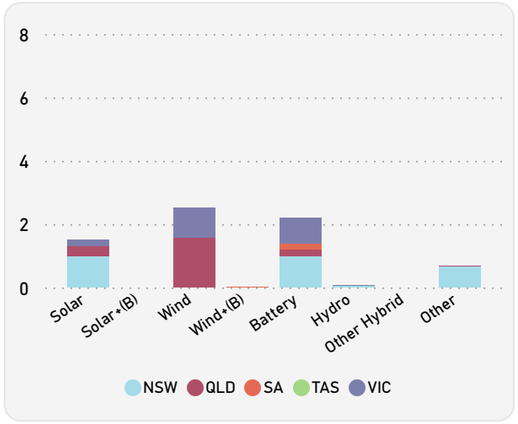
Application GW(2)



Proponent Implementation GW(3)



Registration GW(4)



Commissioning to full-output GW(5)

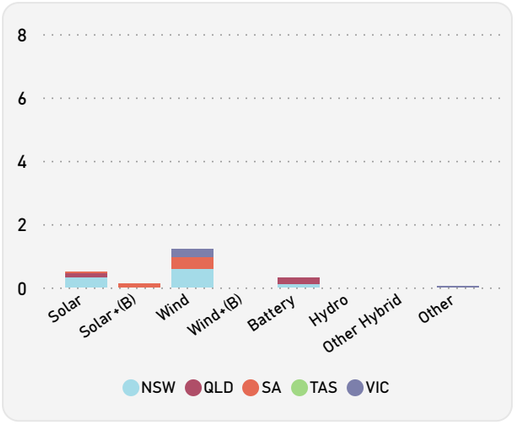
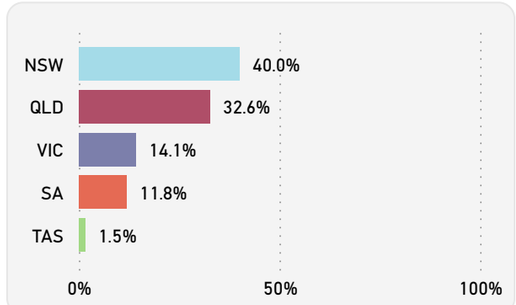
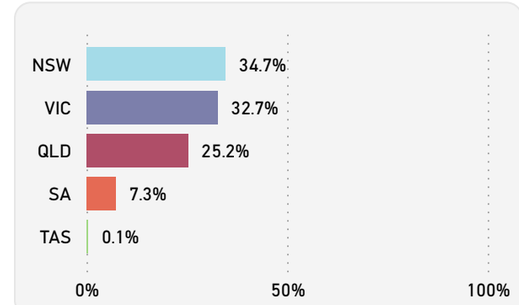


Fig. 5 GW Volume percentage by State

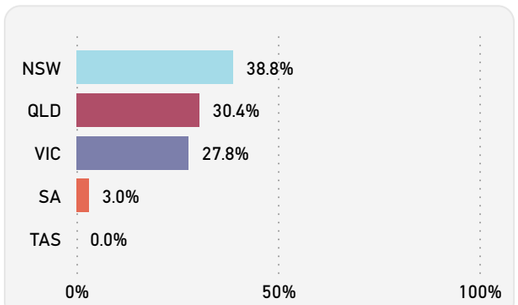
Application % of GW



Proponent Implementation % of GW



Registration % of GW



Commissioning to full-output % of GW

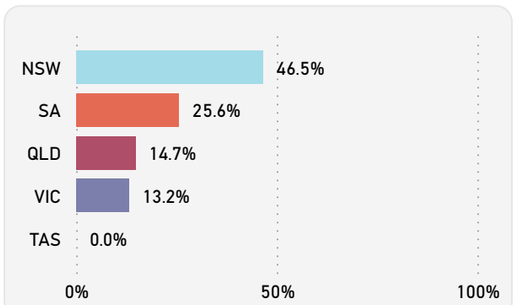
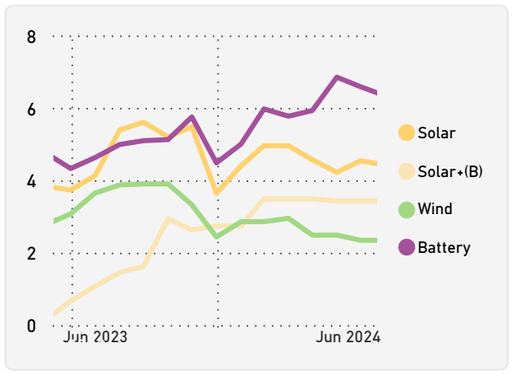
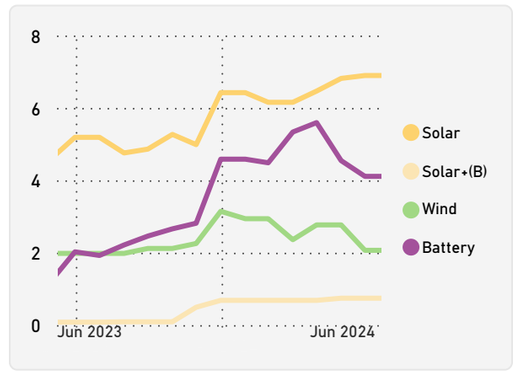


Fig. 6 GW Volume Trend Analysis by Renewable Technology

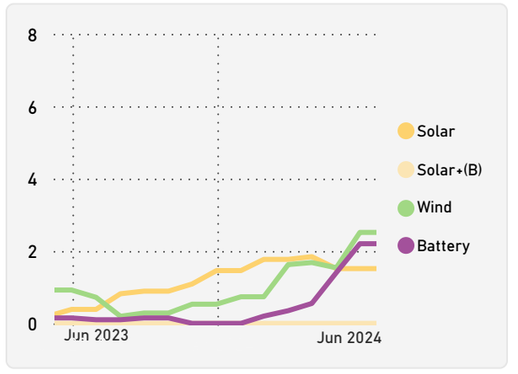
Application GW



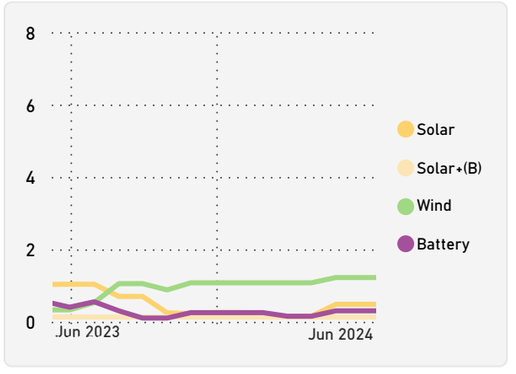
Proponent Implementation GW



Registration GW



Commissioning to full-output GW



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FY 2023-2024

Month ending

Jun 2024

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) Proponent Implementation stage: AEMO has no involvement. Proponent and NSP execute connection agreement. NSP constructs network interface. Proponent constructs plant and prepares registration application. Completion milestone is when registration package (R1) is submitted to AEMO.

(4) 'Full Output Achieved' means plant has commenced operating at maximum rated capacity in the NEM.

(5) 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)

No. projects FYTD	GW FYTD	Typical avg. duration (months)
56	12.0	9.7

Approved Registrations (2)

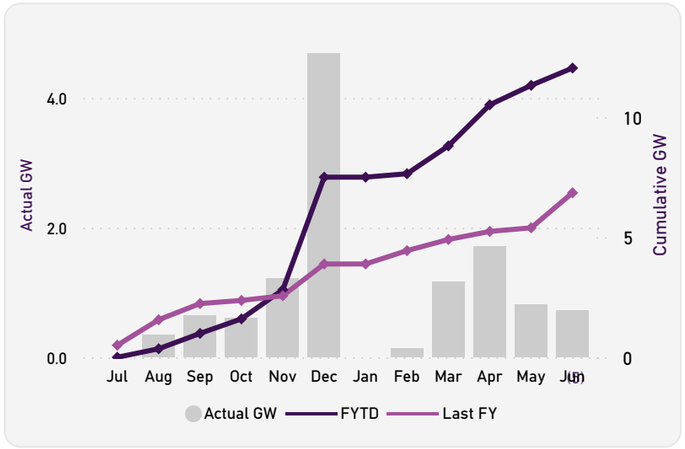
No. projects FYTD	GW FYTD	Typical avg. duration (months)
17	2.4	5.3

Full Output Achieved (4)

No. projects FYTD	GW FYTD	Typical avg. duration (months)
19	2.2	4.9

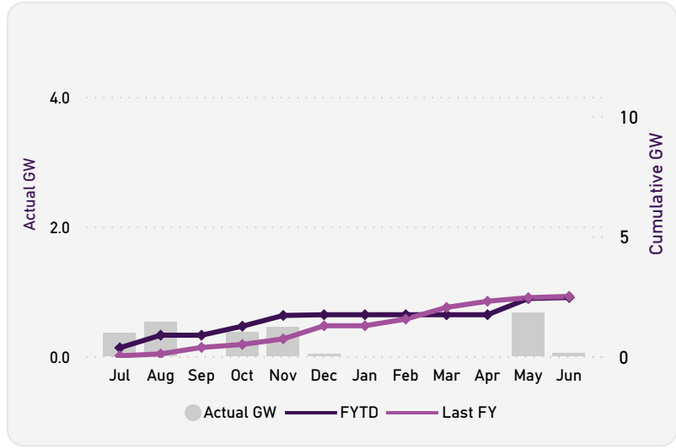
Fig. 7 Approved GW by Stage

Approved Application



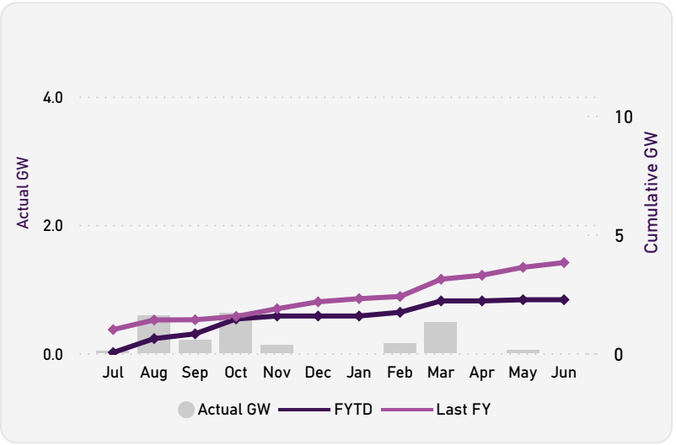
The latest cumulative GW capacity for Jun 2024 is 76% more than the same time last year

Approved Registration



The latest cumulative GW capacity for Jun 2024 is 2% less than the same time last year

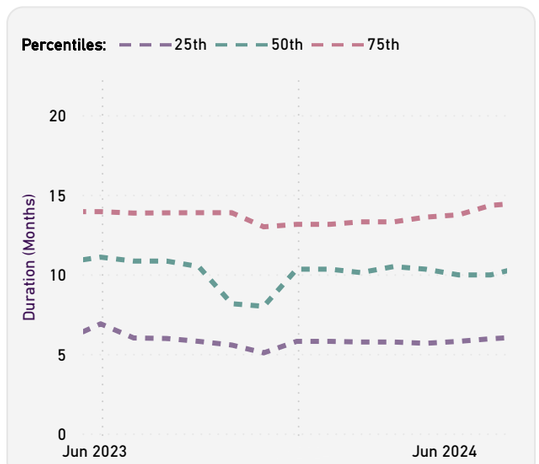
Full Output Achieved



The latest cumulative GW capacity for Jun 2024 is 41% less than the same time last year

Fig. 8 Project Stage Duration (Months) Trend Analysis

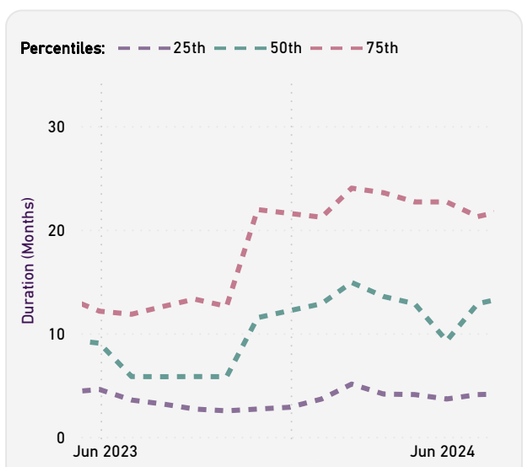
Approved Application



75% of the projects took 14.3 months or less to complete this stage. 25% of projects took 5.9 months or less to complete this stage.

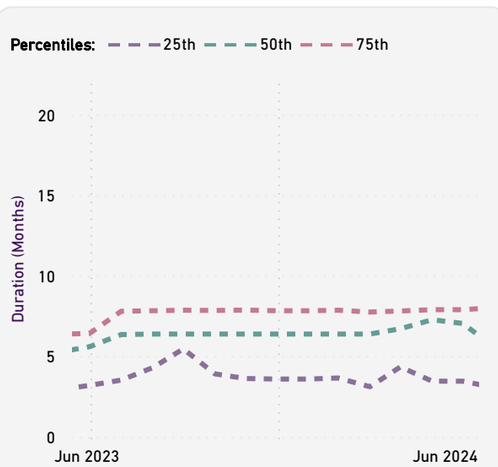
Proponent Implementation(3)

AEMO has no involvement in this stage



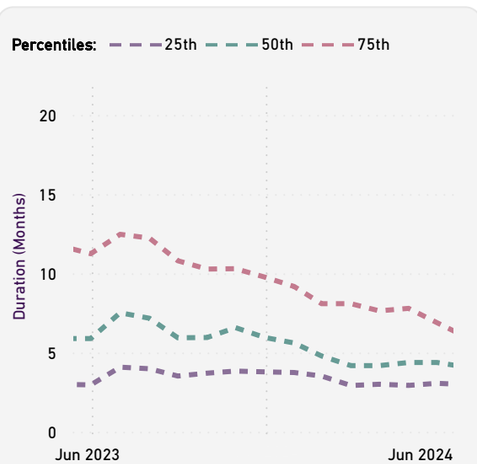
75% of the projects took 21.3 months or less to complete this stage. 25% of projects took 4.1 months or less to complete this stage.

Approved Registration



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

Full Output Achieved



75% of the projects took 6.9 months or less to complete this stage. 25% of projects took 3.1 months or less to complete this stage.