AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

2023-2024

NEM Connection Scorecard - Sep 2023

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.

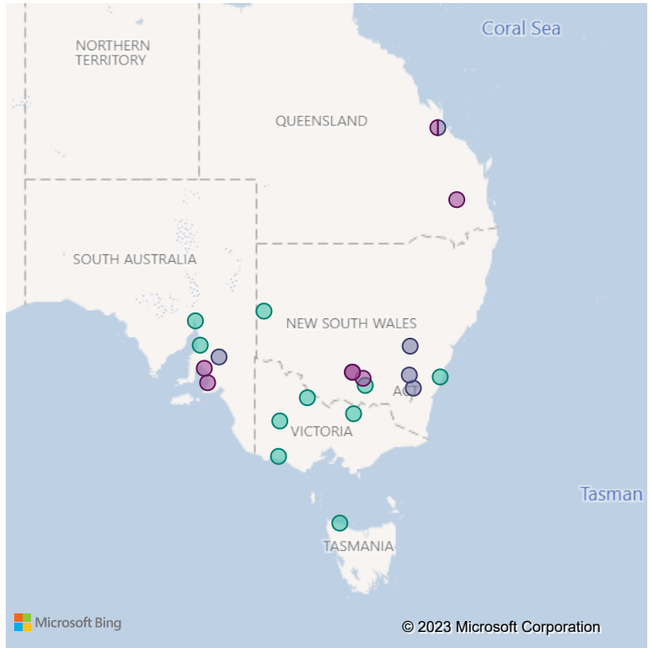
(10) Typical average duration shows complete project stages within the past 12 months, and excludes projects which experienced atypical delays (e.g. construction issues or funding uncertainty), in order to provide an indicative stage duration.

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

Sep 2023 Summary

At the end of September, 6 projects totalling 0.65 gigawatts (GW) received application approval and moved into the pre-registration stage, bringing the FYTD total to 10 projects (0.96 GW).
No projects completed registration, so the FYTD total remained at 5 projects (0.88 GW).
Four projects (0.20 GW) commenced operating at their full output in September, increasing the FYTD total to 8 projects (0.80 GW).

Approved ● Application ● Registration ● Full Output



Approved Applications(2)

Six projects: 3 storage (295 MW), 2 wind (239 MW) and 1 solar (118 MW).

Approved Registrations(5)

No registrations in Sept.

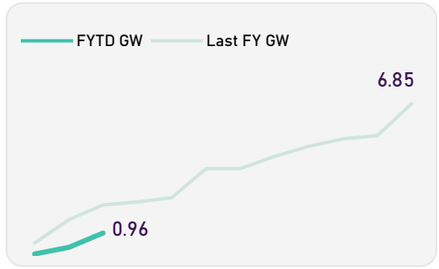
Full Output Achieved(7)

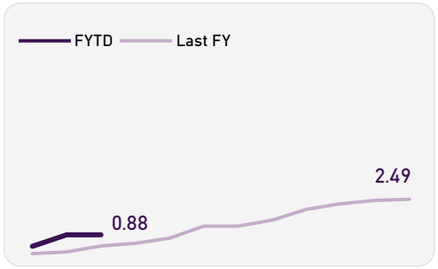
Four batteries reached full output in Sept: Riverina 1 & 2 (125 MW/250 MWh), Darlington Pt (25 MW/50 MWh), Boulder combe (50 MW/100 MWh)

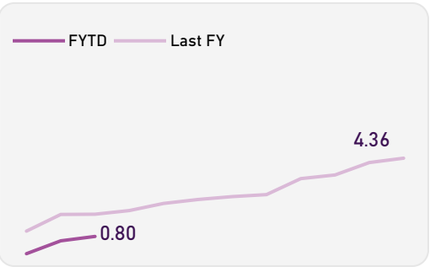
Total Projects (FYTD) and Project Duration (Typical average duration)(10)

10 ▲	9.5	5 ▼	6.0	8 ▲	5.0
No. projects FYTD	Typical avg. duration (months)	No. projects FYTD	Typical avg. duration (months)	No. projects FYTD	Typical avg. duration (months)

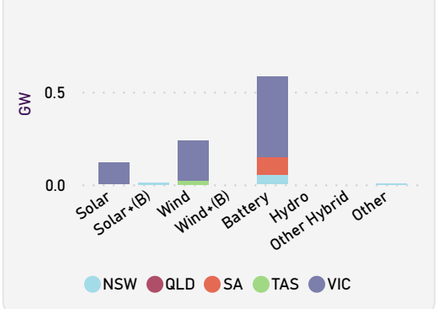
Approved FYTD GW by Stage in relation to last FY

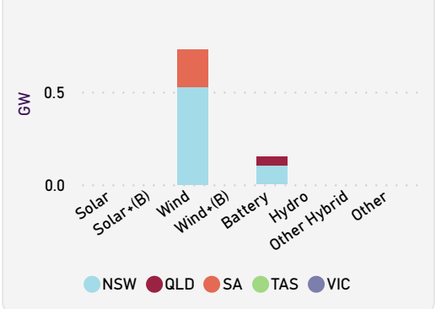


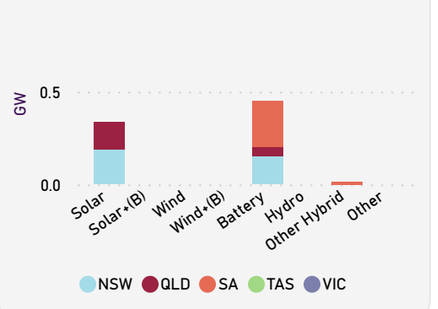




Approved FYTD GW by Technology Type(9) and Stage







Project connections underway - monthly changes

Learn more: Connection Scorecard

Application (1)	Pre-Registration(3)	Registration(4)	Commissioning to full-output(6)
19 GW (57.5%)	11 GW (31.6%)	2 GW (5.2%)	2 GW (5.8%)
Last month: 80 projects	Last month: 63 projects	Last month: 9 projects, 3 ALT	Last month: 17 projects, 1 ALT
5	6	3 / 1	0 / 0	4 / 0
79 projects	66 projects	12 projects / 4 ALT	13 projects / 1 ALT

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

Sep 2023

NEM Connection Scorecard

In-progress

Snapshot of current projects (in-progress) in each stage as of Sep 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 last year.
- Higher than at the same time last year.

Fig. 1 Project connections underway - monthly changes

Enquiries (1)

347

5

Application (2)
19 GW (57.5%)
Last month: 80 projects
Conversion rate: ~ 90% **

79 projects

6

Pre-Registration(3)
11 GW (31.6%)
Last month: 63 projects
Conversion rate: ~99% *

66 projects

3
1

Registration(4)
2 GW (5.2%)
Last month: 9 projects, 3 ALT
Conversion rate: ~100% *

12 projects
4 ALT

0
0

Commissioning to full-output (5)
2 GW (5.8%)
Last month: 17 projects, 1 ALT
Conversion rate: ~100% **

13 projects
1 ALT

4
0

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

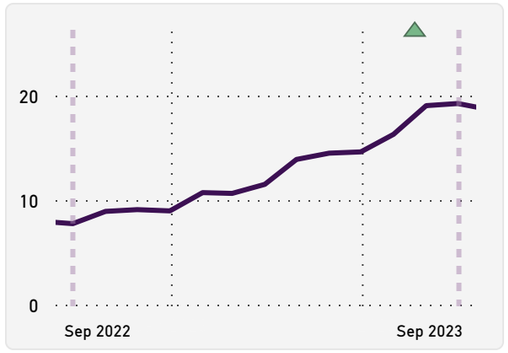
18

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.

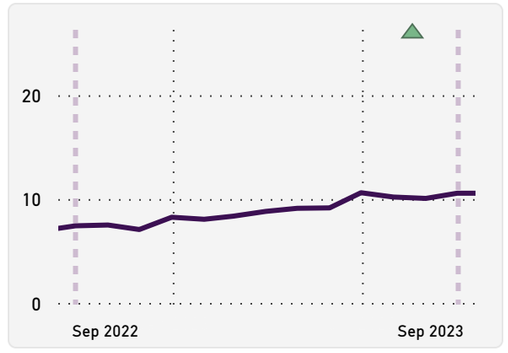
Fig. 2 - Connection Volume (GW) Trend Analysis by Stage

Application GW per Month



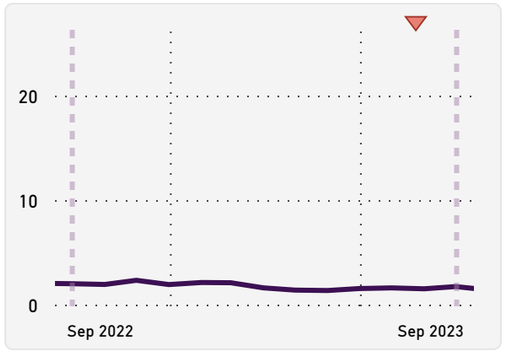
GW capacity in this stage is currently 148% more than 12 months ago

Pre-Registration GW per month



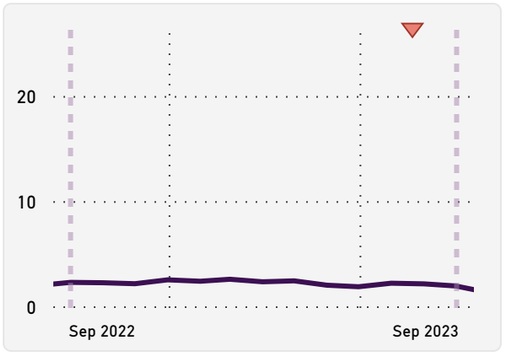
GW capacity in this stage is currently 42% more than 12 months ago

Registration GW per month



GW capacity in this stage is currently 14% less than 12 months ago

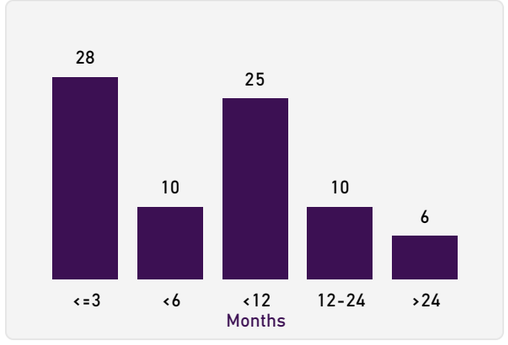
Commissioning to full-output GW per month



GW capacity in this stage is currently 15% less than 12 months ago

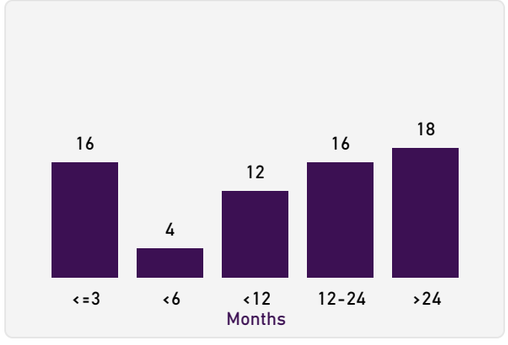
Fig. 3 - Current number of projects in each Stage by Duration

Application



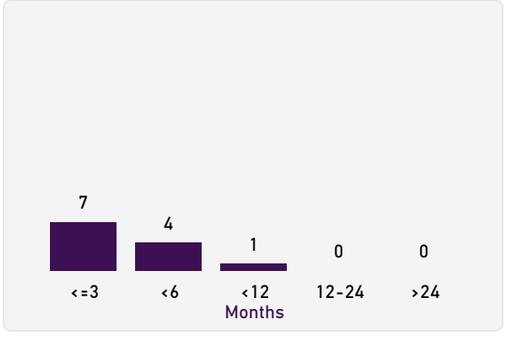
20% of projects have been in this stage for more than 12 months.

Pre-Registration



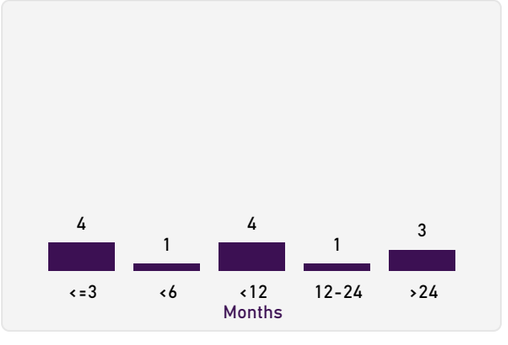
52% of projects have been in this stage for more than 12 months.

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.

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FY 2023-2024

Month ending

Sep 2023

NEM Connection Scorecard

In-progress

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

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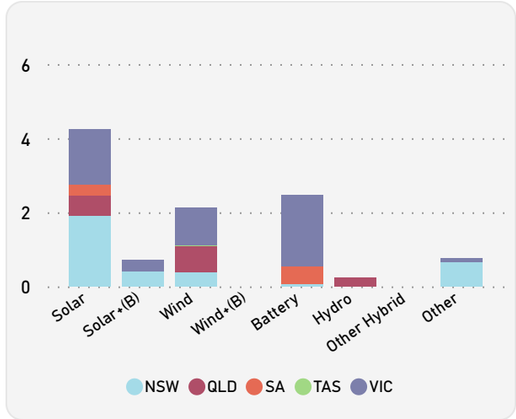
(4) Registration stage: assess registration application, demonstrating performance of "as built" plant.

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

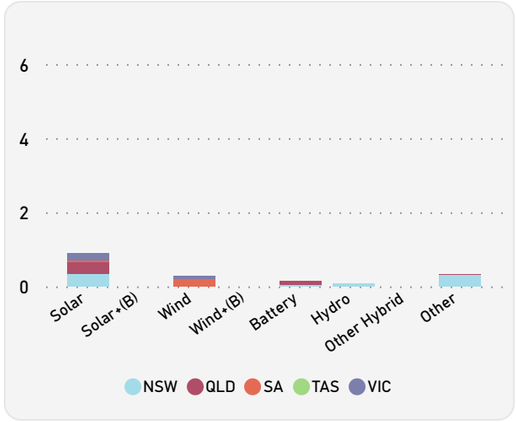
Fig. 4 GW Volume in each Stage by Technology Type(1) and State

Application GW(2)

Pre-Registration GW(3)



Registration GW(4)



Commissioning to full-output GW(5)

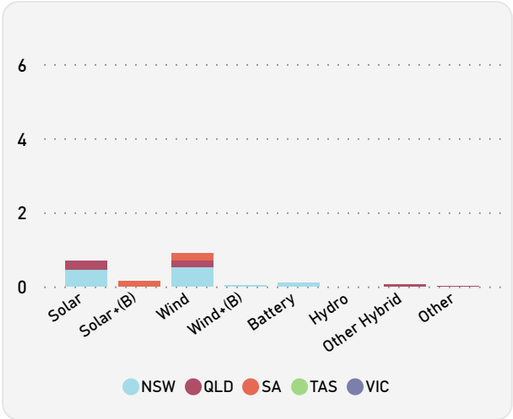
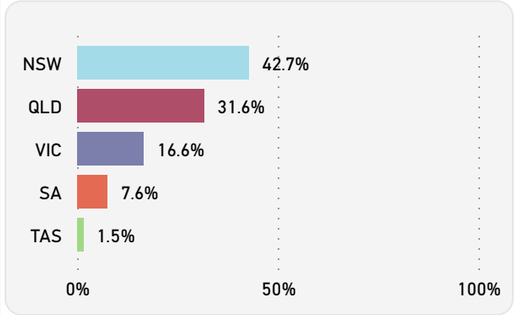
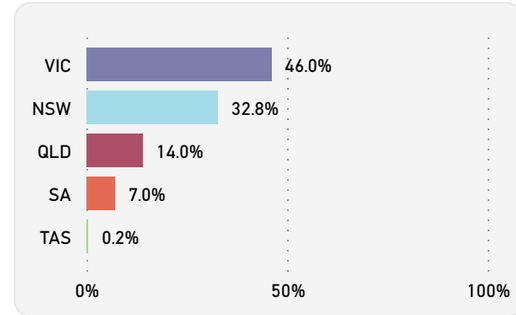


Fig. 5 GW Volume percentage by State

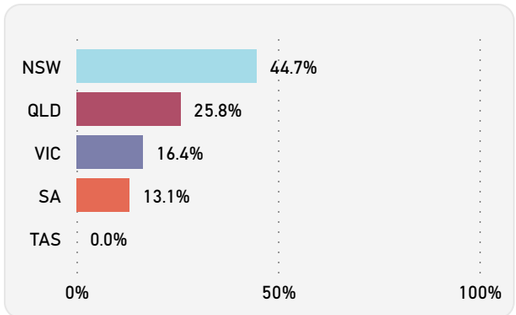
Application % of GW



Pre-Registration % of GW



Registration % of GW



Commissioning to full-output % of GW

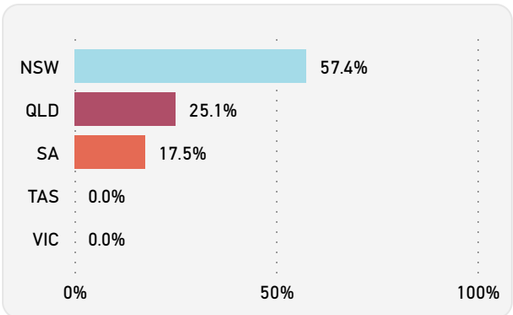
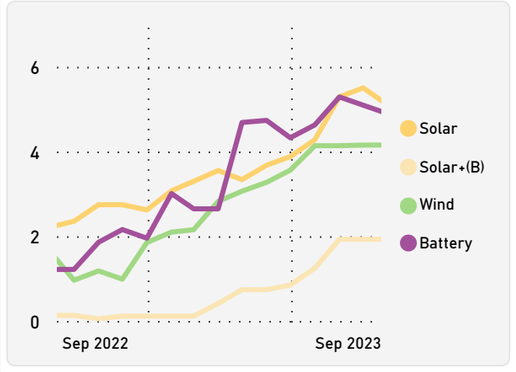
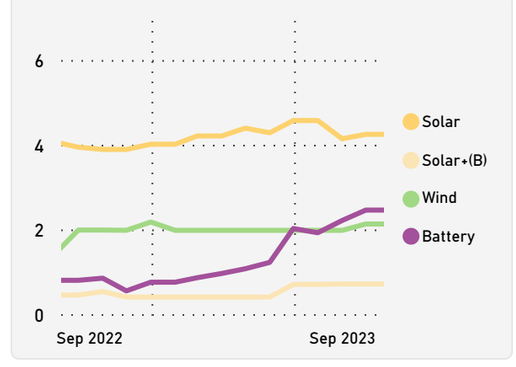


Fig. 6 GW Volume Trend Analysis by Renewable Technology

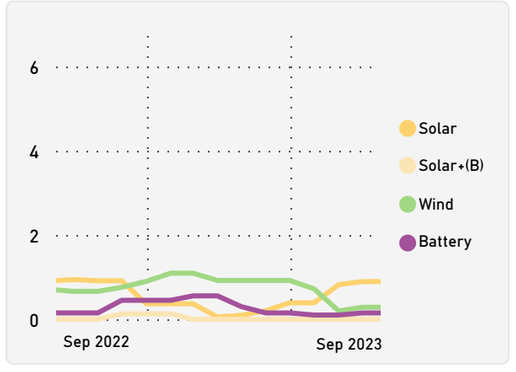
Application GW



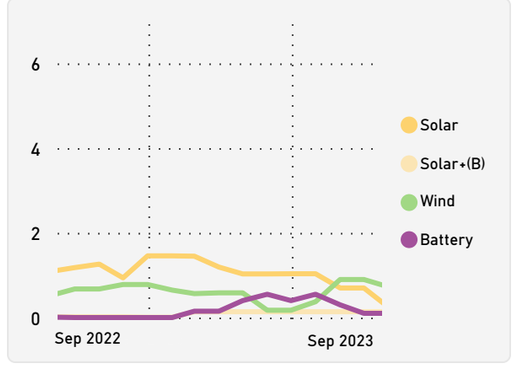
Pre-Registration GW



Registration GW



Commissioning to full-output GW



FY 2023-2024

Month ending

Sep 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)

10	0.96	9.5
No. projects FYTD	GW FYTD	Typical avg. duration (months)

Approved Registrations (2)

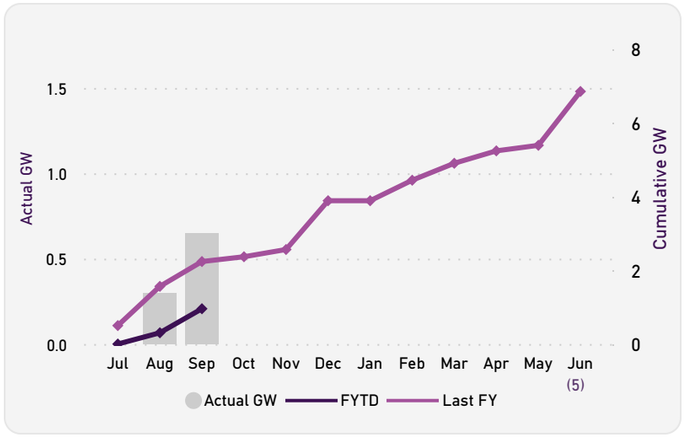
5	0.88	6.0
No. projects FYTD	GW FYTD	Typical avg. duration (months)

Full Output Achieved (3)

8	0.80	5.0
No. projects FYTD	GW FYTD	Typical avg. duration (months)

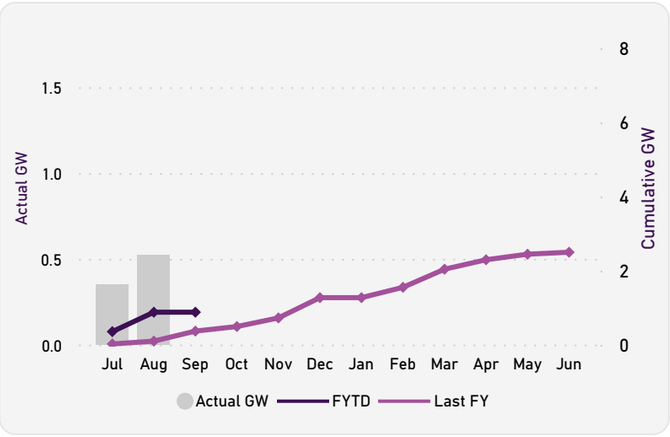
Fig. 7 Approved GW by Stage

Approved Application



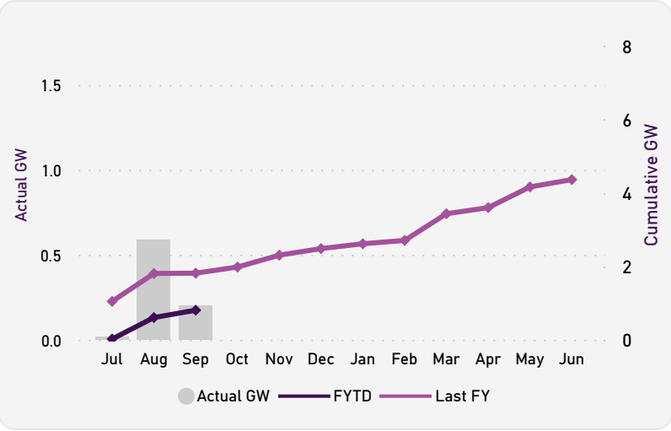
The latest cumulative GW capacity for Sep 2023 is 57% less than the same time last year

Approved Registration



The latest cumulative GW capacity for Sep 2023 is 139% more than the same time last year

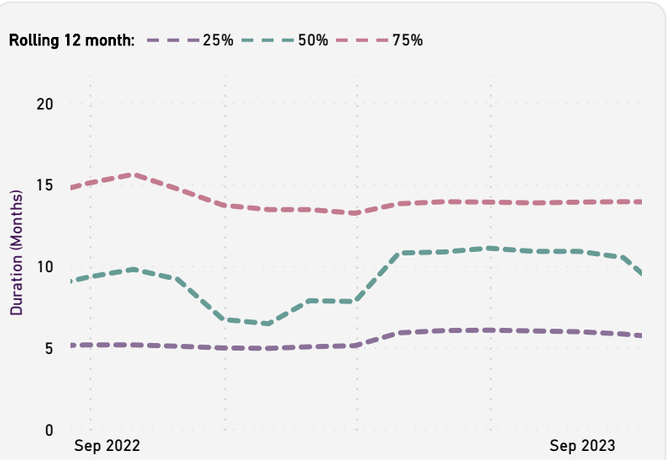
Full Output Achieved



The latest cumulative GW capacity for Sep 2023 is 56% less than the same time last year

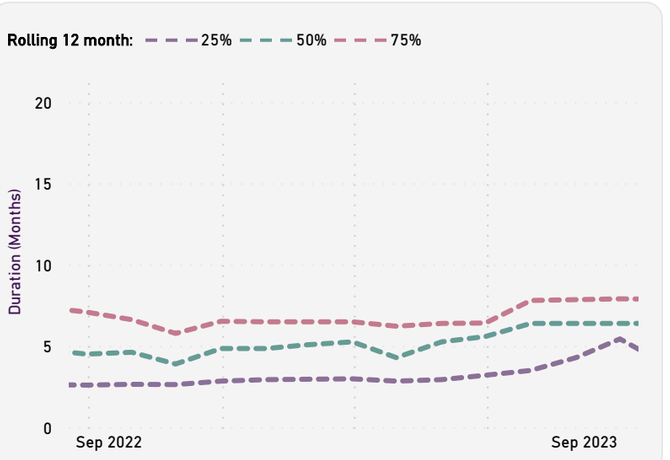
Fig. 8 Project Stage Duration (Months) Trend Analysis

Approved Application



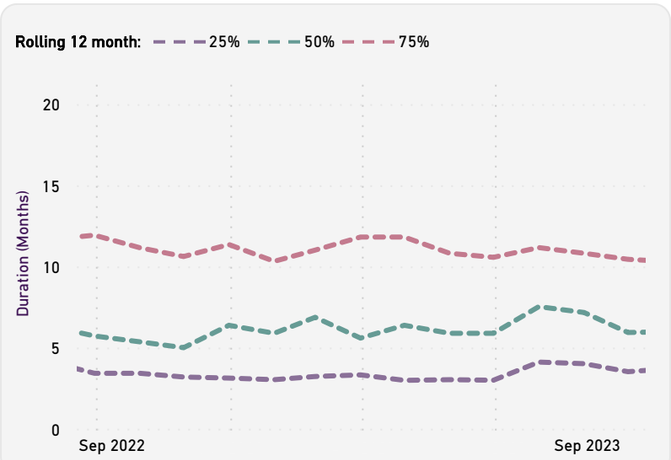
75% of the projects took 13.9 months or less to complete this stage.
25% of projects took 5.8 months or less to complete this stage.

Approved Registration



75% of the projects took 7.9 months or less to complete this stage.
25% of projects took 5.4 months or less to complete this stage.

Full Output Achieved



75% of the projects took 10.4 months or less to complete this stage.
25% of projects took 3.5 months or less to complete this stage.