

Fact sheet | Power purchase and firming agreements under the NSW Data Centre Guidelines



September 2026

The *NSW Data Centre Guidelines* (the Guidelines) set out the NSW Government's expectations for data centre developments. This fact sheet provides further detail regarding **Performance Measure 13** of the Guidelines, which relates to Power Purchase Agreements (PPAs) and firming agreements.

What is Performance Measure 13?

Performance Measure 13 of the Guidelines sets the expectation that data centres enter into power purchase and firming agreements for additional energy generation assets in NSW to meet data centre electricity demand (MWh). This should include the following:

- a. a minimum 40% wind generation component (MWh)
- b. storage capacity (battery or pumped hydro) of at least 25% of generation capacity (MW) for a duration of four hours, which can be part of hybrid assets or separate from generation
- c. from the data centre's fourth year of operation, contracted energy supply is equal to the data centre's annual average energy demand, and that energy supply increases over time in line with ramp up in operations
- d. agreements have a duration of at least ten years
- e. agreements are for energy projects, including expansions of existing assets, that have not reached Final Investment Decision (FID) at the time of contracting
- f. agreements can be entered into on a portfolio basis or contracted to specific data centres, provided the data centre demand is met
- g. for co-location providers, commitments can be demonstrated through a combination of operator and/or major tenant agreements

Note: on-site or proximate storage provided for demand flexibility can be counted towards the fulfilment of this performance measure.

If a generation project is delayed or cancelled for reasons outside the data centre proponent's control, additional time allowance will be considered. The operator or tenant must still demonstrate efforts to enter into new PPAs if the project is cancelled and purchase Renewable Energy Guarantee of Origin (REGO) certificates or the equivalent as an interim solution. Further short-term periods of mismatch between supply and demand in operation can also be supplemented with REGO certificates or the equivalent. REGO certificates must meet the minimum wind generation, storage capacity, and location components of this performance measure.

What is a PPA or a Power Purchase Agreement?

PPAs can take several forms. A data centre developer can decide how best to obtain this service as part of their energy supply. Example contract options include:

- **physical supply of electricity** from a co-located renewable energy generator, such as a solar or wind farm within the same grid connection point as the data centre.
- **a financial derivative arrangement** with a renewable energy generator, for example a swap arrangement that pays the difference between an agreed price and the spot market wholesale electricity price.
- **a retail electricity contract** with a licensed electricity retailer or market intermediary underpinned by contracts with a renewable energy generator.

To meet **Performance Measure 13** under the Guidelines, the PPA must provide for both the electricity produced by the renewable energy generator and any certificates created as a result of the electricity production. These certificates must be surrendered to avoid double counting.

What is a firming agreement?

Firming agreements can also take several forms. A data centre developer can decide how best to obtain this service as part of their electricity supply. Agreements with storage assets can be combined with the renewable energy PPAs or standalone agreements. Example contract options for standalone firming agreements include:

- **a shaping agreement** with a storage operator to charge and discharge the storage asset in a way that matches the renewable generation output to the data centre's load.
- **a tolling agreement** with a storage operator to charge and discharge the storage asset as instructed by the data centre.
- **a cap contract** or another financial derivative that pays a storage operator to make capacity available to discharge at times of high prices in the wholesale electricity spot market.

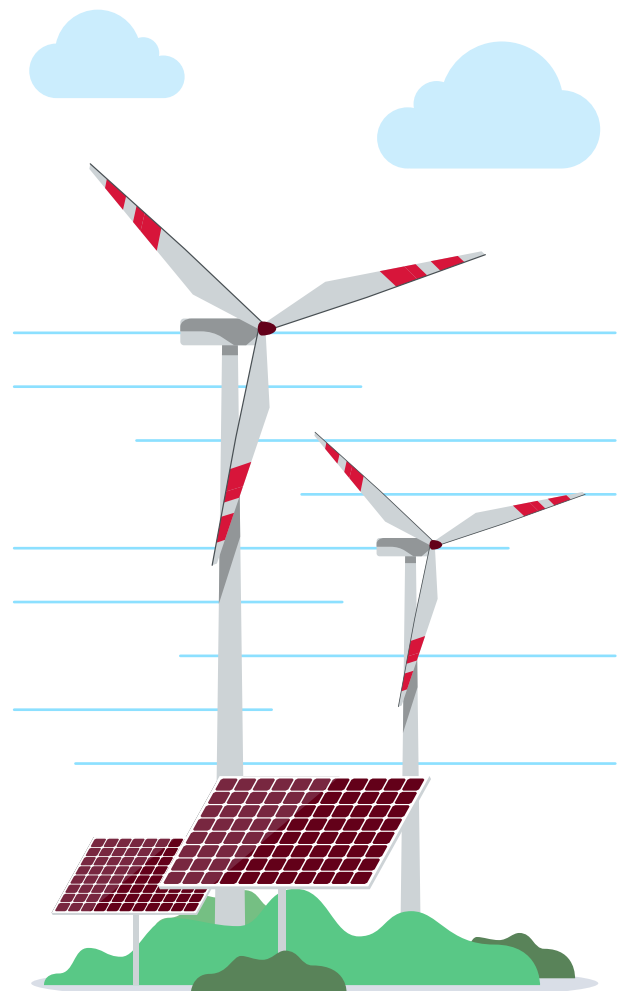
When must contracts be in place to meet the Guidelines?

The electricity services and certificates must be available to meet the data centre's load from the beginning of their fourth year of operation. This time period is to allow for construction of new renewable energy and storage projects.

To comply with this performance measure, data centre proponents should procure PPAs and firming agreements as soon as possible after obtaining planning consent.

After the fourth year of operations, the elements of PPAs following **Performance Measure 13** will need to be adjusted to account for changes in a data centre's demand. If annual electricity use ramps up (or down) after the fourth year of operations, the volume of renewable energy and capacity of storage required will increase (or decrease) accordingly.

The Guidelines, and this fact sheet, do not specify the full suite of electricity supply arrangements that a data centre may enter into.



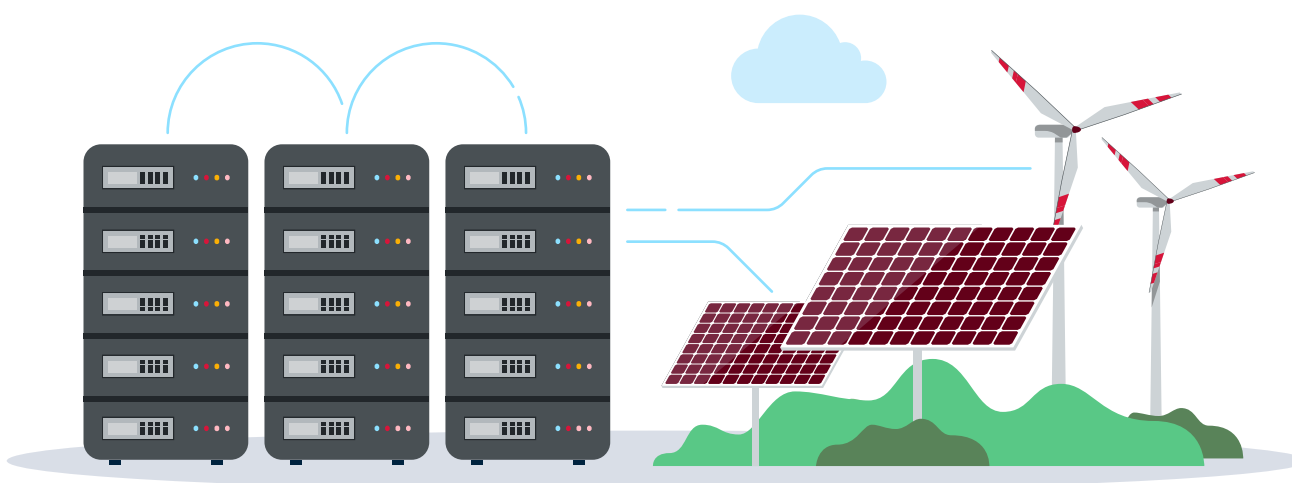
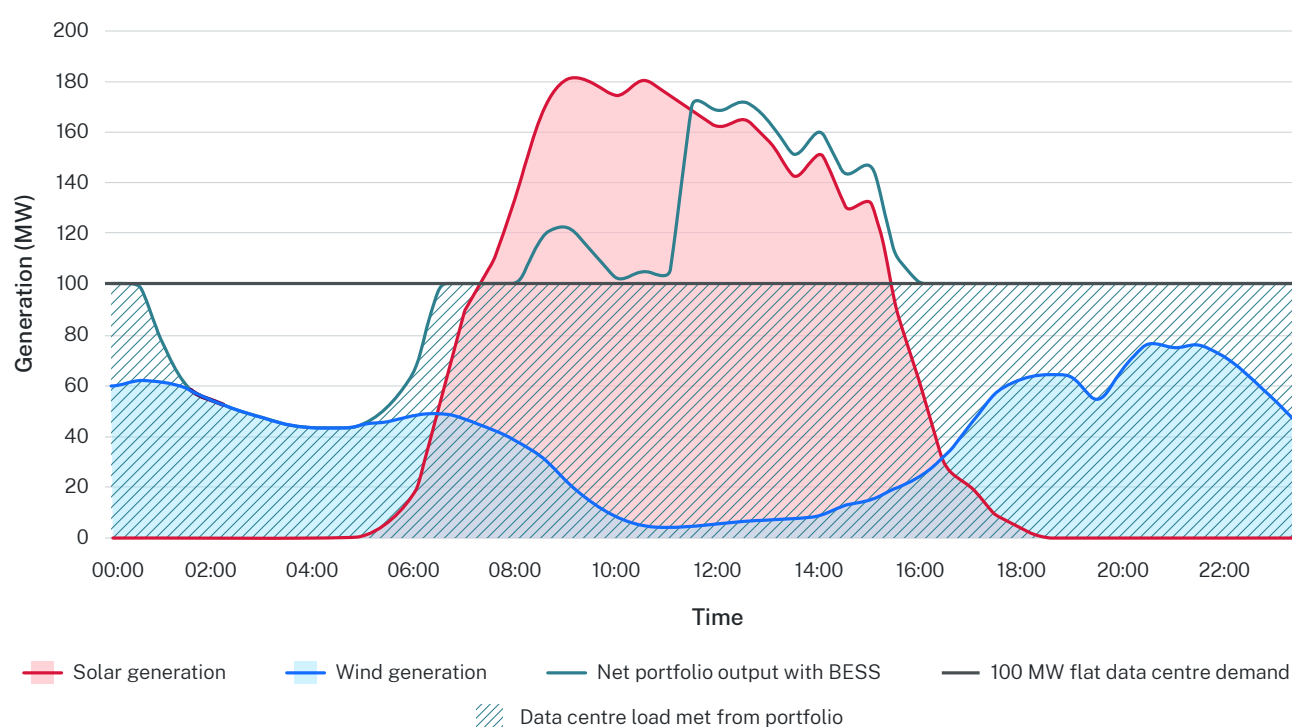
How do the wind, solar and storage components of Performance Measure 13 meet the energy supply needs of a data centre?

The renewable generation and storage components of this performance measure are set to achieve an average 80% correlation between new electricity supply and a data centre's demand across a year.

They also provide new firm capacity, equivalent to a data centre's average annual demand, to help meet the NSW Energy Security Target.

Figure 1 below illustrates how a combination of wind, solar and storage assets can be combined to meet a data centre's load. A worked example is provided on the following page.

Figure 1 | Illustrative daily profile demonstrating ~80% average load matching



Worked Example: PPA and firming agreements for a 125MW data centre project

A data centre with a 125 MW connection capacity is assumed to consume an average of 80% of its connection capacity across a year. This is equivalent to an average load of 100 MW.

A continuously operating data centre with a 100 MW flat load running 24 hours every day requires 876,000 MWh of electricity over a year.

Under **Performance Measure 13**, the data centre needs at least 40% of this energy to be provided by wind generation, largely to support its overnight load, equivalent to 350,400 MWh. The data centre contracts a PPA for 118 MW of the output from a wind farm, which is expected to produce an average of 34% of its nameplate capacity each year.

The remaining 525,600 MWh of electricity is supplied by solar. The data centre contracts a PPA for 214 MW of the output of a solar farm, which is expected to produce 28% of its nameplate capacity each year.

Taken together, the data centre contracts 332 MW of renewable generation capacity to produce the equivalent amount of electricity it will consume each year.

The data centre also enters a firming agreement for 83 MW / 332 MWh of the output from a battery energy storage system. This is 25% of the generation capacity the data centre has contracted for.

A greater share of wind reduces the storage needed

As wind generally has a higher capacity factor than solar, a greater share of wind in the generation portfolio will reduce the total generation capacity and therefore reduce the capacity of storage required.

For example, if the data centre contracted PPAs for 80% wind and 20% solar, the total generation capacity would be 307 MW. This would reduce the storage needed to 77 MW / 307 MWh.

Storage used for demand flexibility reduces the storage needed under firming agreements

Performance Measure 9 requires data centres to demonstrate the ability to reduce grid-supplied electricity demand by 25% of the data centre forecast average load for up to a 2-hour period. If the data centre installs on-site or proximate storage to provide this demand flexibility, that capacity reduces the storage needed under **Performance Measure 13**.

In this example, the data centre has installed a 25 MW / 50 MWh battery with a duration of two hours on site to meet 25% of its average load. The data centre can reduce the capacity it contracts through a firming agreement by the 4-hour equivalent capacity of the on-site battery, which is 12.5 MW / 50 MWh. The firming agreement is then reduced from 83 MW / 332 MWh to 70.5 MW / 282 MWh.

