



AEMC

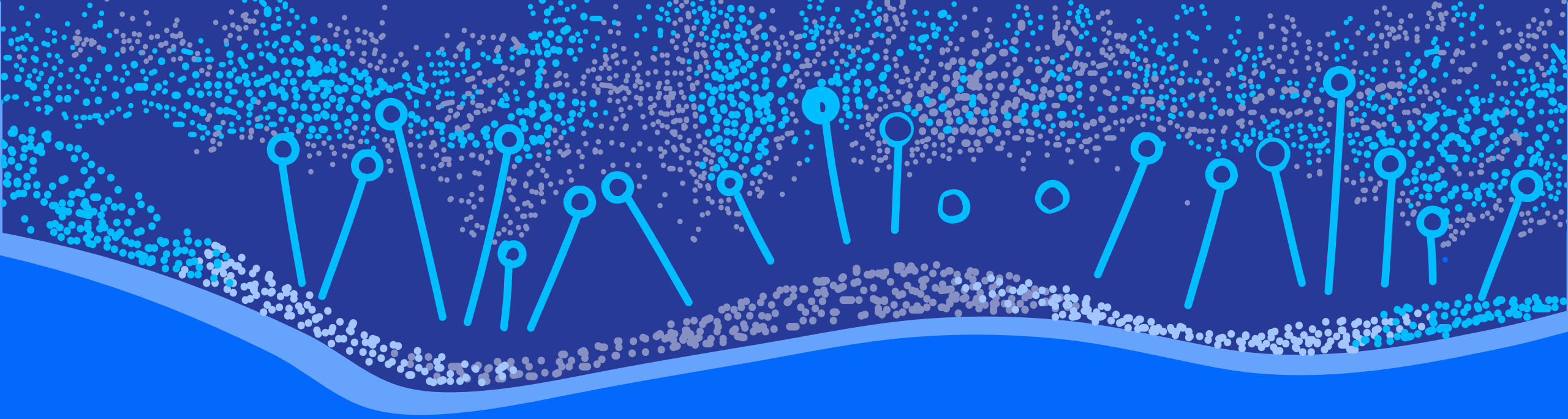
Data centre energy obligation

Advice to Energy and Climate Change Ministers

Detailed policy advice

July 2026





ACKNOWLEDGEMENT OF COUNTRY

The AEMC acknowledges and shows respect for the Traditional Custodians of the many different lands across Australia on which we live and work. The AEMC office is located on the land of the Gadigal people of the Eora Nation. We pay respect to all Elders past and present, and the enduring connection of Aboriginal and Torres Strait Islander peoples to Country.



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Executive summary

The AEMC has developed advice on ways to require data centres to offset their demand



The ECMC has asked the AEMC to provide targeted advice

On 8 May 2026, ECMC asked the AEMC to provide targeted advice on requiring data centres to fully offset their electricity demand by investing in renewable generation and firming, and by providing demand flexibility and locating efficiently. Energy Ministers asked that the advice cover implementation pathways and regulatory design options, with scope, timing, and targeted stakeholder consultation identified.

We understand that the Energy Ministers' key policy objectives include requiring data centres to:

- invest in **new, additional renewable generation** in their jurisdiction
- be **supported by sufficient firming capacity**, so consumers are no worse off
- meet expectations to **operate flexibly**
- **locate efficiently**, minimising network impacts and augmentation costs.

This pack is designed for the ECMC and provides supplementary information to the *Summary for Ministers* to inform decision-making on the policy options and regulatory pathways for requiring data centres to offset their electricity demand by investing in renewable generation and firming.



Why this matters to Energy Ministers now – rapid data centre growth is coinciding with the transition to a net-zero electricity system

- Data centres are becoming an increasingly important part of Australia's digital economy and are connecting to the power system at an unprecedented pace and scale.
- Energy Ministers recognise that this growth presents a significant opportunity. Data centres can underpin investment in new renewable generation and firming through long-term demand, while also supporting power system outcomes through flexible demand and the integration of variable renewable energy.
- However, rapid growth also presents challenges. If this growth is not appropriately coordinated with the energy transition, increasing electricity demand could place pressure on reliability, increase wholesale prices and emissions, and drive inefficient network investment.
- The key policy challenge for Energy Ministers is ensuring that growing data centre demand accelerates investment in the infrastructure needed to support a net-zero electricity system, rather than imposing additional costs on consumers or the power system.



Our approach has been guided by the NEO and extensive stakeholder consultation

- The AEMC's recommendations have been guided by the **National Electricity Objective** (NEO), ensuring that the advice promotes the long-term interests of electricity consumers with respect to price, quality, safety, reliability, security and emissions reduction.
- In developing the advice, we have focused on implementation options that can be delivered through the existing **National Electricity Law** (NEL) and/or **National Electricity Rules** (NER) framework, while also considering other nationally consistent approaches where appropriate.
- The advice has been informed by targeted stakeholder engagement, including **discussions with over 50 stakeholders** and an industry roundtable held on 2 June 2026.
- We considered some additional policies, which we did not recommend. These policies are outlined in Appendix C.

We have made a series of recommendations that are intended to work together

The AEMC has made **four key recommendations** that are intended to work together as a package to achieve the Energy Ministers' objectives. These are designed to be cost-effective and mitigate unintended consequences. Our recommendations are based on our preliminary analysis and views – we recognise that further work is required to further refine these options ahead of implementation.

Recommendation 1 | Drive new renewable investment through the Renewable Electricity Guarantee of Origin (REGO) scheme

Mandate data centres to offset consumption using certificates linked to new renewable generation

Recommendation 2 | Introduce a data centre contract obligation

*Mandate contracting for firming capacity (aligned with Retailer Reliability Obligation (RRO) design)
Future compatibility with recycled firming products if ESEM is implemented*

Recommendation 3 | Introduce market registration requirements

Require data centres to obtain market registration with AEMO to improve visibility, enable voluntary market participation, and provide a regulatory hook to mandate contracting for firming

Recommendation 4 | Support demand flexibility and co-location with generation through connection agreements

Incentivise demand flexibility and co-location with generation and firming through more streamlined connection agreement processes, supported by jurisdictional planning.



We have considered our understanding of energy ministers' policy objectives in developing these recommendations

Offsetting demand and managing supply adequacy – Energy ministers want to see investment in 'additional' renewable generation and firming projects to address the risk that data centre connections result in a supply adequacy problem. There are different ways to achieve additionality, and this should be arrived at in consultation with industry to ensure any requirement can be practically implemented.

Firming – Consistent with the drafting style in the Communique text, we have interpreted firming as a technology-neutral term that is inclusive of Battery Energy Storage Systems (BESS), pumped hydro, demand response, long-duration storage and open-cycle gas turbines (OCGT).

Demand flexibility – Refers to the ability for a load to alter its demand profile by reducing or increasing consumption from the grid. This can include using behind-the-meter generation or storage to adjust energy consumption from the grid. Demand flexibility from data centres can deliver benefits by lowering overall system costs, supporting reliability, and reducing emissions.

State of operation – The Commission's preference is for the most efficient market design, which would not necessarily require REGOs to be sourced from the same jurisdiction as the data centre. However, jurisdictions could choose to include a locational requirement to suit their preferences around state of operation. Further, where interconnector constraints exist, reliance on generation located in another jurisdiction may have implications for operational reliability. Accordingly, we recommend that the AER consider the reliability implications of interstate contract coverage as part of its assessment of firming arrangements. This approach would preserve flexibility for data centres to source renewable generation across jurisdictions, while creating an incentive for generation and firming resources to be located closer to load where this delivers reliability benefits.

REGOs – REGOs are tradable certificates that represent a MWh of physical renewable energy generated and operates in a similar way to how Large-scale Generation Certificates (LGCs) operate under the Large-scale renewable energy target. REGOs can capture information on the unit of electricity generated, such as the specific generator that created the certificate and the time and date when energy was generated. REGOs can be bundled with PPAs in a similar way to LGCs and provide an additional source of revenue for renewable generators.

Implementation pathways require consultation to develop policies that address data centre demand growth

In developing our advice on data centres, we conducted targeted consultation with a wide range of stakeholders. The focus of our consultation was to understand the stakeholder perspectives, rather than testing our proposed recommendations and policy solutions.

Our targeted consultation informed us of the need for a flexible and investment-focused approach. We also consider that further policy development and stakeholder consultation is needed for implementing the proposed policy package.



Our targeted consultation highlighted the need for a flexible and investment-focused approach

- **Data centres are diverse** – enterprise, co-location and hyperscale operators have different capabilities, operational requirements and commercial models.
- **Policy certainty is critical** – investors need clear and durable signals to support long-term investment decisions.
- **Flexibility should be preserved** – data centres should have multiple pathways to meet their obligations, recognising that demand flexibility may not be feasible for all facilities.
- **One-size-fits-all requirements are unlikely to be effective** – obligations should accommodate different business models while delivering the desired policy outcomes.
- **The recommended package responds to these insights** by supporting investment in renewable generation and firming, maintaining flexibility for diverse business models, leveraging existing regulatory frameworks and enabling staged implementation.



The implementation pathways will support consultative policy development that is enduring

- The recommended package will require further policy development and design decisions. This advice outlines implementation pathways to achieve the Minister's objectives, including options for renewable and firming obligations, flexibility for different data centre business models, and appropriate transitional arrangements. We also propose a staged implementation approach, with different elements of the package introduced progressively over the next two and a half years.
- Several elements of our proposed package can be considered for non-NEM jurisdictions. We consulted with WA and NT, and at this stage, they are considering progressing bespoke reforms to address data centre growth to meet their system needs.
- We emphasise that coordination across states and territories and all levels of government is critical to provide investment certainty for data centres and achieve the shared policy objectives.



**We are providing advice to
Ministers on data centres**

Energy ministers have asked the AEMC to provide advice on requiring data centres to offset their demand

On 8 May 2026, ECMC asked the AEMC to provide targeted advice on regulatory pathways to require data centres to fully offset their demand by investing in renewable generation and firming, and by providing demand flexibility. ECMC asked that the advice cover implementation pathways and regulatory design options, with scope, timing, and targeted stakeholder consultation agreed upfront. This pack provides further detail on the *Summary for Ministers*.

The scope of the advice

While data centres are considered critical to the Australian economy, we understand that Ministers hold concerns that an influx of them, in the midst of the energy transition, could drive up prices, emissions and impact reliability. Based on our understanding, the AEMC has explored policy options that meet four key objectives:

1. Ensure data centres **invest in new, additional renewable generation** in their state of operation
2. Ensure there is sufficient **firming capacity to support data centre operation**, so the grid and consumers are no worse off as data centre load grows
3. Encourage **flexible operation of data centres** to respond to system conditions, price signals and network constraints
4. Locate data centres more efficiently based on **location signals** to minimise network impacts and mitigate inefficient network augmentations.

To guide our assessment of policies and objectives, we developed assessment criteria and considered the overarching principles in the NEO: the long-term interests of consumers of electricity with respect to price, quality, safety, reliability, security and emissions reduction.

The policy options we considered focused primarily on reforms that can be implemented through changes to the NEL and/or NER, with some consideration of national emissions and environmental frameworks. We have not explored jurisdictional planning, environmental approvals or other jurisdictional policy options.

Since our advice focuses on the NEM, Western Australia and the Northern Territory should consider the suitability of our recommendations for their electricity systems. In particular, Western Australia has advised that it is also considering how objectives can be met and is monitoring and investigating the suitability of the proposed options in the South West Interconnected System (SWIS) and other networks in Western Australia, including additional considerations such as impacts on system strength and stability.



Addressing the supply adequacy gap with offsetting is the key objective

Energy Ministers are seeking investment in 'additional' renewable generation and firming projects to address risks that data centre connections result in a supply adequacy problem and put upward pressure on consumer costs. There are different ways to achieve this, and new policies should be developed in consultation with industry to ensure they can be practically implemented.



The objectives of this advice require clear service definitions

- **Firming** is a technology-neutral term that is inclusive of Battery Energy Storage Systems (BESS), pumped hydro, long-duration storage and open-cycle gas turbines (OCGT). We also consider it can include demand response, which is consistent with the approach currently used for firming contracts in the RRO.
- **Demand flexibility** refers to the ability for a load to alter its demand profile by reducing or increasing consumption from the grid. This can include using behind-the-meter generation or storage, which can be used to adjust energy consumption from the grid.



Efficient market design should recognise locational benefits

The Commission's preference is for a market-based approach that allows data centres to source renewable generation and firming from the most efficient locations. Furthermore, network congestion may affect the extent to which supporting resources contribute to reliability outcomes. Therefore, any framework should recognise these locational considerations and provide incentives for investment that support both efficient generation and transmission investment and reliability.

The energy system enables data centre growth, but speed and scale create opportunities and challenges



SO WHAT?

As the AEMC recognised through its *strategic narrative*, Australia's economic growth and prosperity depend on a successful energy transition. Data centres can make an important contribution towards this success



Data centres are important for enabling Australia's digital economy

- The energy transition is central to decarbonising the economy and supporting Australia's long-term prosperity.
- Consistent with the Australian Government's *National AI Plan*, Energy Ministers consider that investment in data centres supports digital sovereignty, attracts high-value investment, enables innovation and strengthens Australia's competitiveness in the global digital economy.
- Data centres are also increasingly recognised as critical infrastructure due to their essential role in supporting economic activity, the delivery of critical services and national security.
- As the digital economy expands and the adoption of artificial intelligence accelerates, access to reliable and efficient data centre infrastructure will become increasingly important to Australia's productivity, economic resilience and future prosperity.



Data centres represent an opportunity for the energy market during the transition

- Demand growth from data centres is occurring at the same time as the energy sector is transitioning towards a net-zero emissions electricity system.
- This presents a significant opportunity. Data centres can provide the long-term demand and revenue certainty needed to support investment in new renewable generation and firming capacity, helping to accelerate the energy transition.
- Data centres may also be able to support power system operation through flexible demand and other services that assist with managing system conditions. Demand flexibility can also support efficient network utilisation and investment.
- Harnessing these opportunities will be important to ensuring that growing data centre demand supports, rather than hinders, an efficient, reliable and secure energy transition.



Their speed and scale mean we need to think about them differently

- Data centre growth also presents challenges.
- How effectively this growth is coordinated with the energy transition will determine whether it accelerates investment in the infrastructure needed to support a net-zero electricity system or places additional pressure on the power system. It will also influence whether consumers share in the benefits of this investment or bear additional costs.
- While the NEM has successfully accommodated large loads and periods of significant demand growth in the past, data centres present a distinct challenge due to the speed, scale and concentration of new connections.
- As a result, their impact on the power system warrants careful consideration. To support an efficient, reliable and secure energy transition, data centres must be planned, connected and operated as part of an integrated energy system.

See Appendix A for more details on data centre growth.



**We consulted with data centres
and industry**

We conducted stakeholder consultation to support and develop our advice



SO WHAT?

Data centres are not a homogeneous customer group. They have varying commercial models and technical capabilities that must be considered for designing regulations. The AEMC hosted a roundtable with data centre representatives on 2 June 2026 to better understand current industry practices and gather feedback on potential regulatory approaches.

The AEMC conducted targeted **consultation with over 50 stakeholders** to take their views into account in developing our advice. We consulted with a wide range of **data centre representatives**, including at a roundtable, **government bodies** across all jurisdictions, **market bodies**, **consultants**, network services providers (**NSPs**), **international regulators**, **industry groups**, and **NEM participants**. The focus of our consultation was to understand the stakeholder perspectives, rather than testing our proposed recommendations and policy solutions.



Key takeaways from stakeholders

Data centres understand policy goals, but prefer incentives over prescriptive regulation

- They emphasised reliability, decarbonisation and efficiency, with a clear preference for incentive-based approaches.

Data centres are not a uniform group of customers

- Differences in business models and operations affect their ability to meet obligations and provide flexibility.

Flexibility varies widely across data centres

- Some can shift demand, but many face limits due to customer control and operational needs.

Policy certainty is critical for investment

- Prescriptive regulation or uncertainty could increase risk and reduce Australia's attractiveness.



Key takeaways from the AEMC's consultation with international regulators

Early, coordinated action across state and federal levels is essential

- Planning across all levels of government supports clearer, more consistent data centre regulation.

International regulators favour risk exposure or incentives over prescriptive mandates

- With speed to market a priority for data centres, regulators like ERCOT use it as a compliance incentive, while others apply curtailment risk, non-firm access, and cost exposure to shape behaviour.

Frameworks need to reflect the diversity of data centre operations

- Moving away from one-size-fits-all, regulators recognise that data centres vary in size, location, and capabilities, so uniform demand-flexibility requirements don't fit.

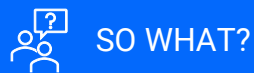
New large loads are increasingly expected to contribute to capacity

- 'Bring your own capacity' and offset models match new loads with new generation or firming, supporting reliability as demand grows.

Unprecedented growth is driving interim measures

- Rapid expansion is creating immediate reliability concern around capacity shortfalls and system instability, which is prompting interim approaches while long-term solutions are settled.

Data centre business models differ and influence demand flexibility capabilities



A one-size fits all demand flexibility mandate is not appropriate given the differing business models. This is why we are recommending using incentives for demand centres to provide demand flexibility services to meet their business model and customer needs.

Consultation with data centre representatives highlighted that **a facility's ability to provide demand flexibility depends largely on its underlying business model**, the types of workloads it hosts, and who controls those workloads. Enterprise, co-location and hyperscale facilities have distinct operating models, customer relationships and operational requirements, which influence the extent to which they can shift demand, respond to system needs and participate in flexibility arrangements.

	Enterprise data centres	Co-location providers	Hyperscale operators
Typical use cases	Banks, telecommunications, government agencies, healthcare providers, and large corporate offices	Operators that lease space, power and cooling to multiple customers (e.g. NEXTDC, Equinix, CDC Data Centres) They represent a significant portion of Australia’s existing data centre market	Large cloud and AI providers developing dedicated facilities at scale (e.g. AWS, Microsoft, Google) They represent the fastest growing segment of future demand
How the model works	The organisation owns or leases a dedicated facility to support its own business operations and critical services	The data centre operator provides physical infrastructure (space, power), and customers install and manage their own servers and applications	The operator owns and manages both the physical infrastructure and the computing workloads, often servicing cloud, AI and digital platform services
Who controls the workload?	The organisation operating the data centre controls the workload	Customers control workloads, not the data centre operator	Hyperscale operator controls both infrastructure and workloads
Flexibility capability	Low – some internal workloads may be shifted, but critical business functions often require continuous operation	Low – operators have limited ability to curtail or shift demand because they do not control customer computing activities	Moderate – some workloads, such as AI training or batch processing, may be shifted or scheduled



Some data centres support critical services such as telecommunications, banking, healthcare and government functions. Their uptime requirements may significantly constrain flexibility (see Appendix A).



Jurisdictional planning permitting conditions applicable to data centres may also limit a data centre’s use of back-up generation, which means a data centre may be further limited in reverting to its back-up generation to provide demand flexibility.

Data centres support renewable generation and firming investment through different pathways



SO WHAT?

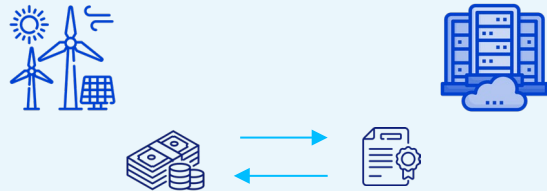
Policy frameworks should focus on supporting investment outcomes while recognising the diverse pathways available to different types of data centres.

Data centres are supporting investment in renewable generation and firming through a range of procurement and contracting arrangements.

Consultation with industry representatives highlighted that the approach adopted varies significantly across facilities, reflecting differences in scale, business models, customer arrangements and risk appetite. While larger operators and hyperscalers are often able to enter direct renewable Power Purchase Agreement (PPAs) and firming contracts, smaller operators may rely on retailer-managed renewable products, LGCs/REGOs or other procurement mechanisms.

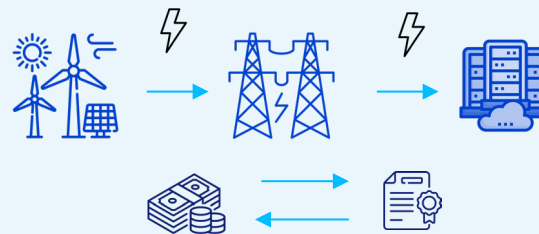
Below, we provide a simple explanation of some of the contracting mechanisms data centres use to offset their demand by investing in renewable generation.

REGOs



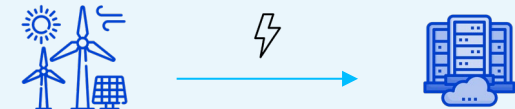
Data centres can currently procure a REGO certificate directly from a producer or from the market. These certify that the bearer owns one MWh of electricity generated from renewable sources.

Additional PPA



Data centres can sign onto multi-year PPA contracts with a producer, whereby the PPA underwrites new generation by delivering an agreed volume of electricity at a pre-agreed price. The PPA can be direct with a generator or via a retailer, depending on commercial arrangements.

On-site/ local generation



On-site or near-site renewable energy generation can be installed and owned by the data centre. This option is feasible when there is space availability and conditions that support proximity.

International jurisdictions also face data centre growth and are considering how to manage system outcomes



SO WHAT?

A clear theme across jurisdictions is that data centres are increasingly expected to contribute to system outcomes, rather than simply consume electricity. While the mechanisms differ, most approaches require or incentivise data centres to support the energy transition through a combination of renewable energy procurement, firming capacity, on-site generation/storage, or demand flexibility



Renewable generation



The Republic of Ireland

The Commission for Regulation of Utilities (CRU) mandates new data centre connections with a Maximum Import Capacity (MIC) equal to or above a de-minimis level will be required to meet at least 80 per cent of their annual demand with renewable electricity generated in the Republic of Ireland. Data centres have a six-year glide path to meet this requirement. Applicants must submit a credible delivery plan and report annually, and non-compliance could result in a reduction of contracted MIC by system operators.



Singapore

In Singapore, the DC-CFA2 program and Green Data Centre Roadmap requires new data centres to source at least 50 per cent of their annual demand from approved low-carbon or green energy sources, such as biomethane, low-carbon ammonia, low-carbon hydrogen, and novel fuel cells.



Spain

In Spain, a Draft Royal Decree proposes to incentivise renewable energy use among data centres by prioritising data centre connection requests that demonstrate renewable energy integration.



Germany

Under the German Energy Efficiency Act, data centres are required to source at least 50 per cent of their annual demand from unsubsidised renewable energy sources. This requirement will increase to 100 per cent from 2027.



Firming capacity and demand flexibility



The Republic of Ireland

CRU requires data centres to provide on-site or proximate generation (or storage) capacity that matches their MIC on a de-rated basis. Renewable contributions (up to 80 per cent of annual demand) can offset the requirement on a de-rated basis, and compliance removes the need for Mandatory Demand Curtailment (MDC). The CRU also incentivises demand flexibility by offering economic compensation to data centres that modulate their consumption during periods of system stress.



United States, PJM

Under PJM's "Connect and Manage" proposal, data centres above 50MW will be incentivised to bring new generation or offer demand flexibility to avoid early curtailment during periods of system stress.



United States, ERCOT

In Texas, ERCOT mandates demand flexibility by requiring new data centres that are equal to or above 75MW to accept mandatory curtailment or use backup generation during periods of system stress. This mandate is applied categorically, rather than on a case-by-case basis.



The United Kingdom (UK)

The UK is considering whether data centres should be required to provide a minimum level of demand flexibility as a condition of connection, enabling the system operator to curtail or limit demand during periods of system stress. This would assist in managing the rapid growth in data centre connection requests.



**We recommend a suite of policies
to achieve objectives**

We recommend a suite of complementary policies to collectively and efficiently meet the stated objectives

SO WHAT?

The Commission recommends a package of four policies to ensure Ministers’ objectives are met. These policies could be applied to all types of data centres connected to the grid that are above a certain threshold size and implemented in stages.

The AEMC notes that more work is needed through the proposed implementation pathways, in consultation with industry, to develop enduring policies.

Objective	 1 Invest in additional renewable generation	 2 Invest in firming capacity, such as gas or BESS	 3 Provide operational demand flexibility	 4 Locate efficiently across networks
Pathway	Mandate data centres to obtain REGO certificates from new renewable generators to offset their energy consumption. This may include ESEM projects.	Introduce data centre contract obligation (drawing on RRO firmness guidelines) to cover data centre load. When/if ESEM is launched, data centres may purchase recycled firming contracts.	Require market registration for data centres to enable voluntary demand flexibility and improve load visibility. Use connection agreements to enable demand flexibility if data centres locate in congested areas. Incentivise investment in demand flexibility or storage with reduced REGO and firming obligations.	Use the connection agreement process to incentivise data centres to locate with new firming or co-locate with existing renewables and firming. Jurisdictions to develop data centre infrastructure plans to identify optimal locations for data centres.
How it will meet the objective	This will drive investment in new renewable generation and improve investment attractiveness of renewables.	This ensures there is sufficient firming capacity to cover the load of the data centre. Provides incentives for data centres to invest in storage and demand flexibility directly.	Enables data centres to voluntarily opt in to actively participate in the market and provide demand flexibility. Improves visibility of load to the market and provides the regulatory gateway for other policies to be enacted.	This will drive efficient locational signals by improving the connection agreement process so that data centres co-locate with renewable generation, and by ensuring information is provided on efficient connection locations.

The proposed package would address key implementation considerations raised by stakeholders



SO WHAT?

The proposed package delivers on Energy Ministers' policy objectives while addressing key implementation considerations. It reflects stakeholder feedback that the framework must avoid unnecessary complexity and recognise that a one-size-fits-all approach could undermine investment in both data centres and renewable energy projects.



Allows flexible regulation for data centres

What we heard: Regulatory requirements should reflect the diversity of data centres.

How this is addressed: Implementing regulations using a flexible framework will support its application to all data centres. For instance, fungible certificates and contracts would allow the proposed policies to apply to all types of data centres, including hyperscalers, co-locators, and smaller data centres. Moreover, our recommended incentives approach for demand flexibility enables bespoke application for all data centres.



Addresses revenue gap for renewable generators

What we heard: There is a revenue sufficiency problem for new renewable generation.

How this is addressed: Analysis in the *AEMC's submission to the NEM Review* identified a revenue sufficiency problem for new renewable generators. Even a marginal increase in REGO demand may be sufficient to improve the viability of some renewable projects without additional government or consumer funding.



Mandates action without negatively impacting investment

What we heard: Data centres should be required to offset load and be registered, but this needs to be implemented in a way that doesn't significantly impact investment.

How this is addressed: The package covers the key objectives by mandating investment in the grid and avoiding additional costs being borne by other consumers. Simultaneously, the package has been designed to accommodate different data centre business models, with flexible options to meet requirements to minimise impacts on investment.



Can be implemented quickly drawing on existing frameworks

What we heard: Regulatory certainty is important for continued investment.

How this is addressed: The policy package leverages existing frameworks which are familiar to participants, such as REGOs, AER's Contracts and Firmness Guidelines for the RRO, the NER chapter 5 connections process, and the market registration framework. Using these frameworks would accelerate the policy's deployment and reduce any difficulty stakeholders face in complying with new regulations.



Lowest net cost obligations

What we heard: Business models for data centres vary and can affect their ability to comply with some regulations.

How this is addressed: The policy package provides data centres with flexibility to find the most cost-effective way to comply with their requirements. For example, this includes data centres finding the lowest cost new renewable generator to source REGOs or investing in the lowest cost behind-the-meter or front-of-meter firming assets.



Policy recommendation 1: Drive new renewables through the REGO scheme

Policy description

New data centres would be **mandated** to purchase REGOs from **new renewable generators** to offset their energy consumption. Liabilities for REGOs would be separated into periods of the day, such as peak, off-peak and potentially shoulder. Each period could have a distinct liability to be matched by REGOs from that period, creating premiums for renewable generation at valuable times without the complexity of hourly load matching. REGO certificates could be bundled with PPAs in a similar way to Large Generation Certificates under the Renewable Energy Target, which has been proven sufficient to underwrite new generation. As only REGOs from new generation would be allowed, the certificate price would automatically adjust to the level required to bring on new generation. Further, this creates a flexible national approach that complements any jurisdiction-specific requirements jurisdictions may choose to introduce for data centres.

Data centre investment in behind-the-meter generation and storage would reduce their REGO obligations. The obligations on data centres could be determined by a proportional coverage obligation, set centrally or by jurisdictions, and could change over time depending on the needs of the jurisdiction. Retailers could also support data centres to meet their obligations. Additionally, interim 'make-good' arrangements could be introduced to enable data centres to better meet their compliance obligations. This scheme could complement jurisdictional and Commonwealth programs, such as requiring REGOs from CIS and/or ESEM projects. Data centres could be required to source REGOs from the same jurisdiction in which they are located. However, this could increase compliance costs for data centres, if the cheapest REGOs are from another jurisdiction. A design option for consideration would be to allow REGOs from existing generators as a temporary transitional arrangement to allow time for new generators to be built and connected.

How does this encourage additional renewable generation?

The policy requires data centres to source REGOs from new renewable generation projects to cover their load, thereby driving investment in renewables, including projects that are yet to reach financial close. Applying time period matching will help ensure renewables are generating when data centres are consuming.

Compliance and enforcement

Who is the obligation on? REGO obligations under the scheme would fall on data centre owners that connect to the grid after the legislation commences. Co-locators would need to establish internal contractual arrangements with tenants to support them in meeting their obligations. Data centres could seek support from retailers in ensuring these obligations are met

Who would enforce the policy? Compliance would be managed by the Clean Energy Regulator (CER) if implemented via Commonwealth legislation

Are there penalties for non-compliance? Data centres could have make-good provisions to support intertemporal banking and borrowing. If there is a shortfall, data centres would pay a high penalty price (e.g. double the market price) per unit of shortfall.

Benefits and considerations

Closes the revenue gap for new generators

AEMC analysis for the NEM review identified that new renewable developments may face a revenue gap in reaching financial close on the project. This policy would have the benefit of closing this revenue gap even slightly to improve the business case for new generators.

Flexible approach to meeting obligations

Allows for the market to determine the optimal approach to meet obligations, without requiring data centres to sign PPAs or contract in a particular way. For example, it could invest in behind-the-meter assets or purchase REGOs, depending on preferences. The approach can complement jurisdictional requirements on how data centres contract, including locational requirements

Complements existing policies and builds a new market

Utilises existing policies such as REGOs, lowering transitional costs for developing, understanding, and complying with the new framework, noting that the REGOs market is relatively new and has had limited trading. The policy will also complement existing/proposed programs such as the CIS and ESEM.

Technology neutral

Technology neutrality on the generation side allows the policy to target the lowest cost renewable generation, minimising the overall compliance costs of the policy.

Implementation pathway

Legal implementation

This policy would be best implemented through amendments to existing Commonwealth legislation (such as the *Future made in Australia (Guarantee of Origin) Act 2024*). An alternative may be to implement a more limited solution through amendments to the NEL and NER alone.

Key roles and responsibilities

- **The CER (via Commonwealth legislation)** to translate obligations into offset liabilities and manage REGO surrender, compliance and enforcement.
- **Data centres** to work with retailers, generators, and developers to source required REGOs.
- **Governments** could support data centres by providing a matching service with any proposed new renewable generators or linking relevant jurisdictional or Commonwealth programs. Governments could also set the proportion of DC load to be offset.



Policy recommendation 1: Drive new renewables through the REGO scheme

How would this work for data centres?

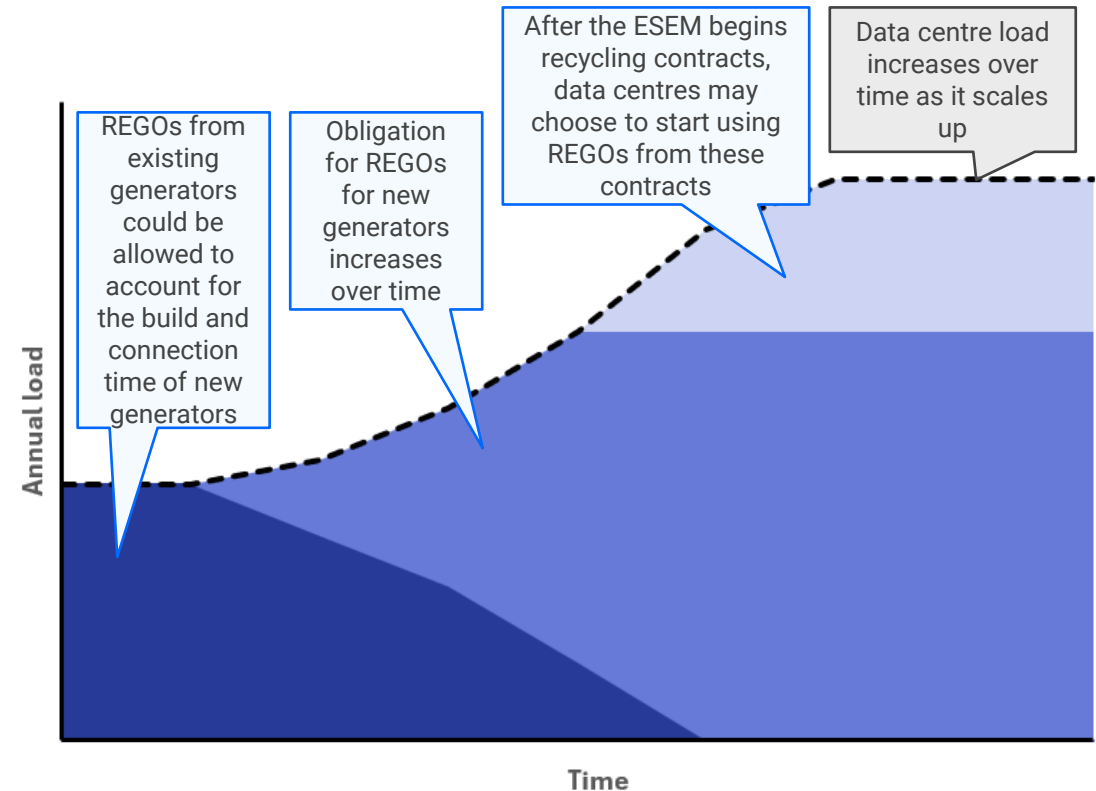
A new data centre preparing to connect to the grid would consider its projected load to understand its possible REGO liability. In preparation for the policy, the data centre may invest in behind-the-meter generation and storage to reduce its overall REGO obligation. Once operational, the data centre could source REGOs through PPAs or other contractual arrangements to offset its load. The data centre could also engage with its retailer to support its obligations.

As a temporary arrangement, in the initial year(s) of the policy the data centre could be able to meet its obligations through purchasing REGOs from existing generators. This may be considered to account for the time required for new generators to be built and connected. If the data centre already has plans to invest in new generators prior to the policy being launched, it may also meet its obligation from new generator REGOs and possibly take advantage of ‘make good’ provisions.¹

Compliance under the scheme would be annual ex-post, so a data centre would surrender REGO certificates for the load it has consumed in the past year, avoiding any need for true-up provisions. Additionally, depending on the final policy design, the REGO obligations may differentiate between the period of day which load is consumed/renewable energy is generated (e.g. peak and off-peak).

As the data centre’s load increase over time, so would its REGO obligations. Each year, the data centre would surrender REGOs for its consumption in the past year. After the initial period, the amount of load the data centre can cover with REGOs from existing generators is reduced, and the data centre must find new renewable generators to provide it with REGOs.

If the ESEM begins operating and recycles renewable contracts to the market, the data centre could purchase recycled renewable contracts with REGOs from the ESEM or continue using its previous source of new REGOs.



Note: This illustrative example does not distinguish between peak and off-peak REGOs, however this could be introduced over time.

¹‘Make good’ provisions refer to the ability for a liable party to delay their obligations to a future point in time, also referred to as inter-temporal borrowing of credits. In this example, a data centre may have the opportunity to delay its liability for one year to account for a new generator coming online then. In this instance, the party will be required to surrender REGOs for year one and two in the second year of compliance.



Policy recommendation 2: Introduce a data centre contract obligation

Policy description

New data centres would be required to prove to the AER that they have sufficient ‘firm’ contracts to cover their load. This could draw on the RRO Contracts and Firmness Guidelines, but would be a continuous, separate mechanism to the RRO. The level of firm contracting required would need to be determined, with intermittent renewable contracts having a low firmness factor. A requirement would be introduced that a portion of these firm contracts is from ‘new’ generators and storage facilities. Jurisdictions could have input into the required coverage proportion, enabling the flexibility from opting out to having a very high proportion of coverage. Additionally, there is the option of introducing ‘tiering’ coverage, where larger data centres face more significant obligations.

In assessing firmness, the AER could account for the contract locations and inter-regional reliability impacts if the contracts are from a different region than the data centre. This may incentivise renewable generation and firming to invest in the same regions as data centres. The AER may exclude or de-rate emergency back-up systems that are not active in the market from firmness assessments. Additionally, AER firming assessments would be technology-neutral, however, Ministers could have discretion to exclude specific technologies. The AER may consider longer contracting periods to strengthen the signal for new investment.

To firm renewable contracts, data centres could explore ‘firmer’ contracts (such as a fixed-profile swap), invest in storage or demand flexibility. Data centres unable to fulfil obligations would be subject to early curtailment during load shedding, in addition to appropriate financial penalties. In the scenario that the ESEM begins recycling contracts from the firming service function, data centres could be encouraged to purchase these contracts.

How does this encourage additional firming and flexibility?

In the short term, data centres would be incentivised to invest in storage and demand flexibility. Data centres would also be required to contract with new generators and storage which would add to existing market signals for firming services.

Compliance and enforcement

Who is the obligation on? The obligation would fall on the data centre owner. Co-locators would need to establish internal contractual arrangements with tenants to support them in meeting their obligations. Data centres could seek support from retailers in ensuring these obligations are met.

Who would enforce the policy? The AER would manage assessments and compliance

Are there penalties for non-compliance? If the AER were to determine that a data centre had insufficient firm contract coverage, it would be provided an opportunity to rectify this. If the data centre remains non-compliant, it would face a civil penalty and be placed on a list for early curtailment in the instance of a reliability event. Financial penalties would need to be appropriately sized to ensure an effective compliance regime.

Benefits and considerations

Market confidence

Provides market participants with confidence to invest in renewables and firming capacity to support data centre load growth.

Flexible approach to contracting

Allows for the market to determine suitable contracts to meet obligations, as data centres are only required to meet their overall obligation. The policy can complement any jurisdiction-specific requirements introduced for how data centres contract.

Fast implementation utilising existing framework

Utilises the existing RRO contract and firmness guidelines, lowering transitional costs for developing, understanding, and complying with the new framework, and allowing learnings from the RRO to be implemented in this new requirement, enabling a faster implementation.

Compliance complexities would need to be worked through

Potential complexities in determining contract firmness, particularly for renewables.

Implementation pathway

Legal implementation

This policy could be implemented through changes to the NEL alone, replicating certain aspects of the existing RRO architecture from the NEL. This may not be entirely fit-for-purpose, however, it would still meet policy objectives under a shorter implementation timeframe. Ideally, changes to the NEL would be used to adjust the existing RRO architecture to incorporate the additional policy objectives. Noting this policy would also require mandatory registration to support it.

Key roles and responsibilities

- **The AER** could determine and assess contract coverage requirements and positions under the scheme. The AER would also need to develop firmness methodologies and update guidelines.
- **Data centres** to work with retailers and generators to ensure sufficient firm contract coverage.
- **Governments** Jurisdictions input into setting the required coverage proportion, enabling the flexibility from opting out through to having a very high proportion of coverage, depending on the needs of the jurisdiction.



Policy recommendation 2: Introduce a data centre contract obligation

How would this work for data centres?

Under this policy, a new data centre would be required to cover a proportion of its load with firm contracts. In the design phase of the new data centre, it may consider opportunities to invest in BTM solar, storage and flexible capacity to reduce its firm capacity requirements once it begins operation. Additionally, the data centre may consider developing arrangements with other storage assets behind the same transmission node.

As the data centre is in this pre-connection phase, it may also begin sourcing its electricity contracts for operation. As the data centre sources its contracts, it may consider opportunities to maximise firmness, including purchasing cap contracts, entering into virtual tolling agreements or entering into a 'firmer' variety of renewable contract (e.g. indexed swap). The data centre would need to consider the proportion of 'new' assets required in deciding on the contracting position, and hence could not solely purchase exchange-traded cap contracts, which cannot be attributed to a single new generator. Additionally, it may prefer generation in the same jurisdiction as it is located, which would have a higher firmness factor.

Ahead of its first year of operation, the data centre estimates its load for the next period and verifies with the AER that it has sufficient 'firm' contracts to cover their projected load. The AER would reduce firming requirements if the data centre has invested in demand flexibility capabilities or BTM storage. Depending on the final design of the policy, this could be done annually for the year ahead or every few years for multiple years ahead (e.g. 3 years at a time). If a data centre's load increases over a certain threshold percentage, through either planned scale up or a co-locator taking on a new client, it would need to resubmit its contract position for reassessment with the AER.

In this scenario, the ESEM begins to operate and recycle firming contracts. The data centre can opt in to using these firming contracts to help meet its obligation, if appropriate.

Renewables

Example approaches to meeting obligation:

- Long-term (e.g. 15-year) run-of-plant PPA with REGOs included between data centre and renewable generator. No physical firming (such as storage).
- Data centre buys a long-term fixed volume or index swap from a renewable generator with REGOs (this is a firm contract).
- Data centre invests in BTM renewable generation to reduce REGO obligation.

Firming

Example approaches to meeting obligation:

- Data centre buys sufficient firming contracts, such as swaps or \$300 caps, to meet firming requirement.
- Data centre enters into a virtual tolling agreement with a storage asset to firm the existing PPA it has signed with a solar farm.
- Data centre firms its supply with BTM storage or demand flexibility capabilities to physically firm assets.

AER conducts assessment of firmness of contracts and physical assets, and approves these offset approaches



Policy recommendation 3: Introduce market registration requirements

Policy description

Data centres would be required to be registered with AEMO if it is larger than a defined threshold. This registration requirement could also act as a means through which the contract coverage obligation (recommendation 2) is implemented in the NER and possibly NEL. It would also provide increased visibility of data centre load in the NEM to support AEMO in making accurate demand forecasts and operational decisions.

Data centres could register under existing participant categories or under a new participant category developed specifically to cater for large inverter-based loads. The registration requirements for data centres should be relatively light touch compared to scheduled generators or market customers, reflecting their different contributions to the NEM. There may be value in requiring registered data centres to be able to comply with directions from AEMO to maintain or restore the security or reliability of the power system.

Data centres would have the option, but would not be obliged, to actively participate in the market. While registration would be mandatory, market participation would be voluntary and incentivised through existing market signals, recognising the differing capabilities of data centres. Data centres would still be able to engage a retailer through normal processes.

If possible and appropriate, this reform should align with other processes being developed, such as the Market Visibility Framework.

How does this encourage flexibility and improve visibility?

Adding a market registration requirement would provide the regulatory hook for the firm contracting requirement, which incentivises demand flexibility. It could also enable data centres that want to participate more actively in the market as VSRs to do so. Finally, it would provide AEMO with greater visibility of data centre operations.

Compliance and enforcement

Who is the obligation on? The obligation would fall on data centres that are larger than a threshold size.

Who would enforce the policy? AEMO would manage the market registration process, and the AER would deal with non-compliance.

Are there penalties for non-compliance? Civil penalties would apply if a data centre was found to be non-compliant with market registration requirements.

Benefits and considerations

Supports other regulatory reforms

Facilitates implementation and practicality of other regulatory reforms that deliver objectives, as obligations can be imposed through the NER on registered participants.

Provides operational visibility of data centres

Registration requirements have obligations to provide telemetry data to AEMO in real-time, allowing accurate demand forecasts and effective power system management.

Enables data centres to provide demand flexibility to the market

Market registered data centres would have the option to provide demand flexibility in response to existing incentives (primarily spot prices). If they are registered, AEMO's operational intervention powers (such as directions) could be applied to require demand flexibility in response to periods of market or system stress.

Utilises existing and/or proposed frameworks

Existing participant categories could be utilised for data centre registration, however other proposed frameworks should also be considered (such as AEMO's Market Visibility Framework or Operational integration and visibility rule change). In either case, registration would occur through the existing market registration framework.

Implementation pathway

Legal implementation

This policy could be implemented through changes to the NER.

Key roles and responsibilities

- **AEMO** to manage the registration process and register for data centres and update relevant guidelines to enable participation under any existing or new categories.
- **Data centres** to meet any registration requirements.
- **AER** would be responsible for monitoring, compliance and enforcement for data centres that are registered participants, with respect to their agreed performance standards in the connection agreement.



Policy recommendation 3: Introduce market registration requirements

How would this work for data centres?

Under this policy, a data centre over a certain import MW threshold would be required to register with AEMO. Depending on the final policy design, registration could be under a new specific registration category for large inverter-based loads.

Data centres may opt to go further and choose to classify its load under one of the existing classification categories, including:

- voluntary scheduled resource
- integrated resource provider or scheduled load
- other new category (e.g. AEMO's Market Visibility Framework)

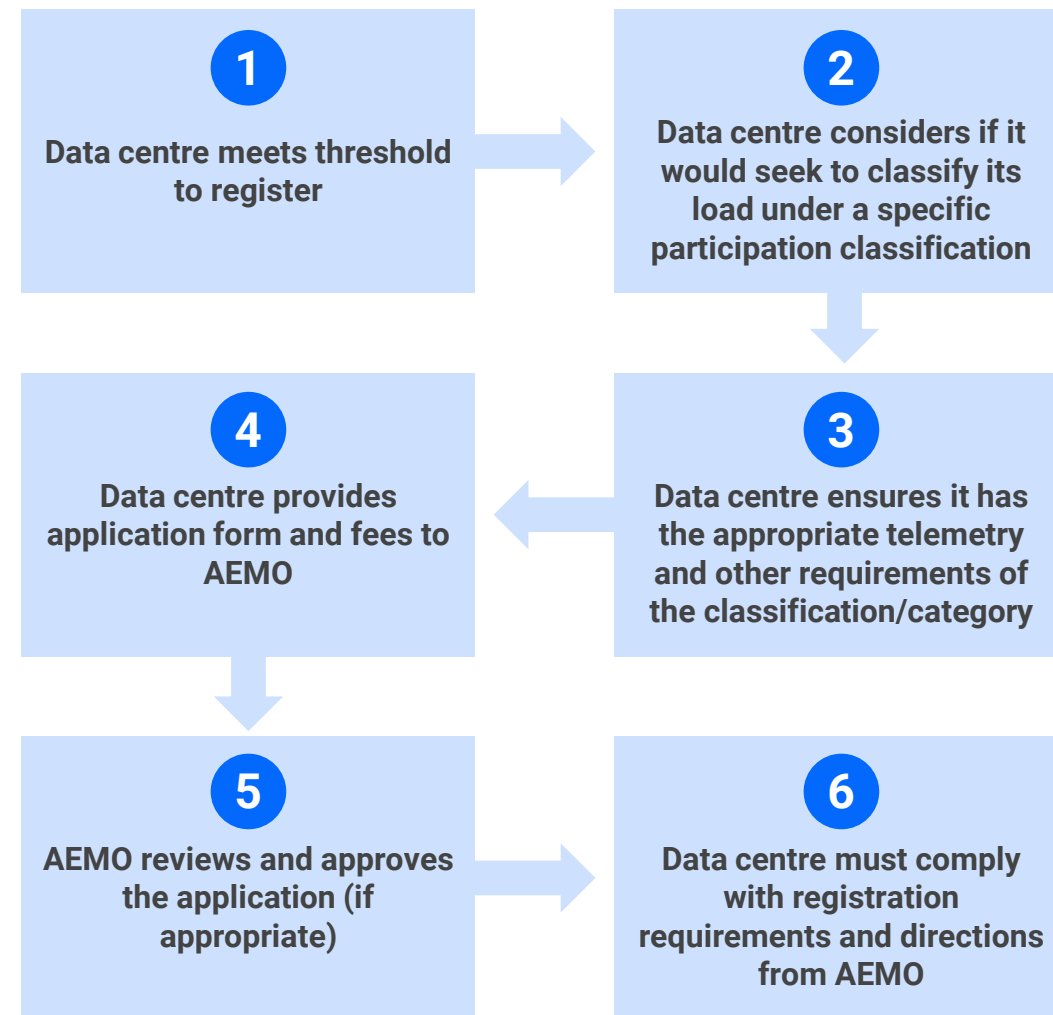
To be a registered participant, the data centre may need to comply with technical standards, such as:

- telemetry requirements
- having access to AEMO IT systems
- the ability to meet any ongoing compliance obligations
- the ability to comply with directions or clause 4.8.9 instructions from AEMO.

If the data centre classifies its load into one of the existing categories, it may need to comply with different technical standards.

While the data centre would be registered, it could still have relationships with retailers and other parties to support its operational needs and regulatory obligations.

Illustrative registration process





Policy recommendation 4: Support demand flexibility and co-location with generation through the connection agreement process

Policy description

The connection framework under the NER can provide a pathway for data centres to offset the impact of their electricity demand. We recommend three key reforms to the NER:

1. **Co-locating with existing renewable generation or firming:** Incentivise co-location of data centres with existing generation and storage assets that currently experience curtailment by introducing a streamlined connection pathway under the NER. The connection process could, for instance, rely on existing network studies and standardised assessment requirements, reducing the complexity, cost and time associated with modelling and testing.
2. **Connecting with new firming:** Establish a streamlined connection pathway for data centres located behind a BESS or other firming asset that provides load smoothing under the integrated resource system framework. In these circumstances, only the front-facing plant would be required to comply with the relevant technical access standards, rather than both the front-facing plant and the data centre behind it. This would reduce compliance complexity.
3. **Flexible demand agreement:** Introduce a framework in the NER that allows data centres to voluntarily enter into flexible demand agreements with networks. Data centres could reduce or shift demand in response to network conditions, helping to alleviate congestion and defer the need for network augmentation. In turn, data centres could benefit from a faster connection process, and their behaviour would benefit the grid.

We also recommend that jurisdictions develop and maintain a **data centre infrastructure plan** in consultation with NSPs to identify optimal locations for new developments, taking into account electricity network capacity, water availability and other relevant infrastructure considerations.

How does this encourage additional firming and flexibility?

This approach enables data centres to provide demand flex, where possible, in support of reliability outcomes. It also provides a streamlined connection process with clear requirements where data centres are willing to locate with new or existing firming.

Compliance and enforcement

Who is the obligation on? Data centres, NSPs and AEMO when negotiating the performance standards for the connection agreement under the NER chapter 5 framework.

Who would enforce the policy? The recommended policy would draw on the existing process for enforcing connection agreements.

Are there penalties for non-compliance? There are existing penalties under the NEL, however these could be strengthened with future NEL changes.

Benefits and considerations

Links firming to promote reliability with speed to market for data centres

Provides data centres with confidence to invest in firming capacity to support data centre load growth, by providing a clear regulatory process. Speed to market is critical for data centres, and this approach harnesses that incentive.

Incentivises demand flexibility

Allows data centres the option to agree to demand flexibility in the connection agreement, which could be incentivised through a speedier connection process. Flexibility could also mitigate the need for costly network augmentations needed to support reliability.

Utilises existing NER frameworks that can be supplemented with coordinated planning

The existing connections framework, that is robust and well known across industry, could be utilised. The framework can also be supplemented with requiring jurisdictions to develop and maintain a data centre infrastructure plan, in consultation with NSPs.

Supports other recommended pathways

If a data centre connects with firming, this could contribute to any data centre contract obligations.

Implementation pathway

Legal implementation

This recommendation could be implemented through changes to the NER. No NEL changes are required, other than where an increase in civil penalty amounts was considered appropriate to incentivise compliance, which could be implemented at a later stage.

Key roles and responsibilities

- **NSPs and data centres** would be responsible for negotiating connection agreements for data centres to achieve the three policy objectives listed above.
- **AEMO**, as per its existing responsibilities, would have an advisory function for any accompanying new technical access standard, like AEMO currently has for technical standards that fall under the AEMO Advisory Matters framework
- **Jurisdictions** would be responsible for working with NSPs to develop and maintain a register of optimal and efficient locations for data centres to connect.



This policy would leverage known pain points in the existing NER connection frameworks to enable better demand flexibility and co-location with generation through the connection agreement process. We envisage there are three key changes that would assist.

First, improving the NER 5.3.9 process, which parties must follow when they want to change their plant, to remove barriers to data centres co-locating with existing renewables.

Second, ensuring that the existing connections process is not unnecessarily onerous for agreeing on the technical standards regarding other hybrids. We want to encourage data centres that locate alongside existing renewable generation experiencing curtailment, or behind new firming assets such as batteries.

Third, any changes to the NER to progress these reforms could also investigate opportunities to ensure data centres that offer demand flex are assessed on their flexible profile rather than nameplate.

This could result in simplified connection assessments for these parties, lowering connection costs and timeframes while encouraging investment in solutions that improve renewable utilisation, reduce congestion and defer network augmentation.

This pathway could be achieved through modifications to the existing NER Chapter 5 connection process

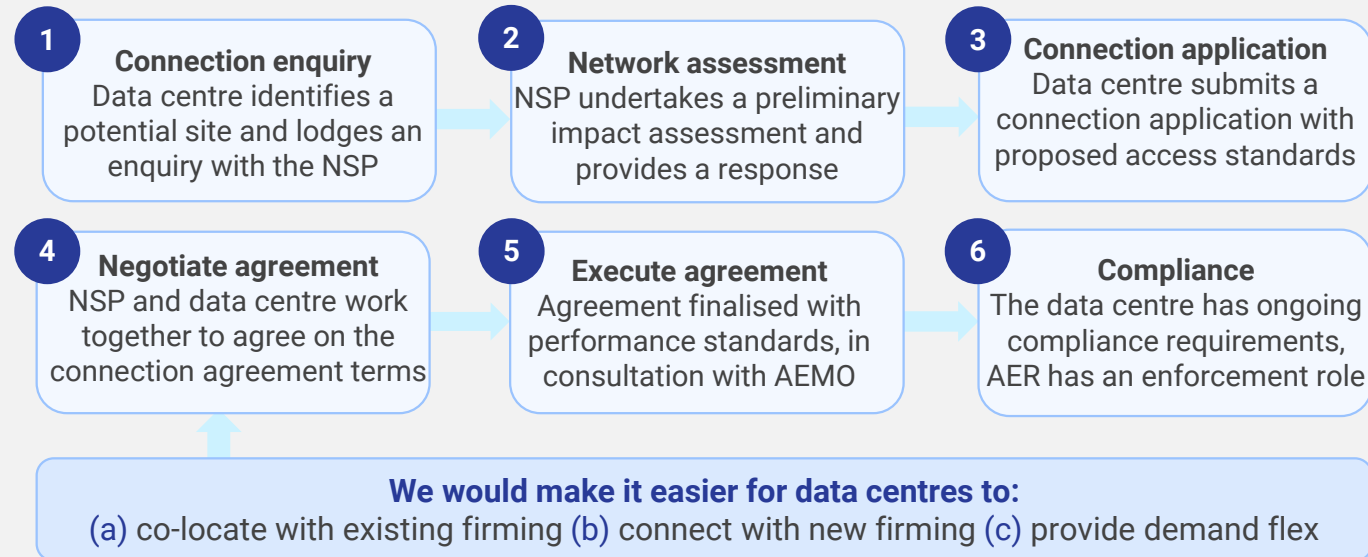
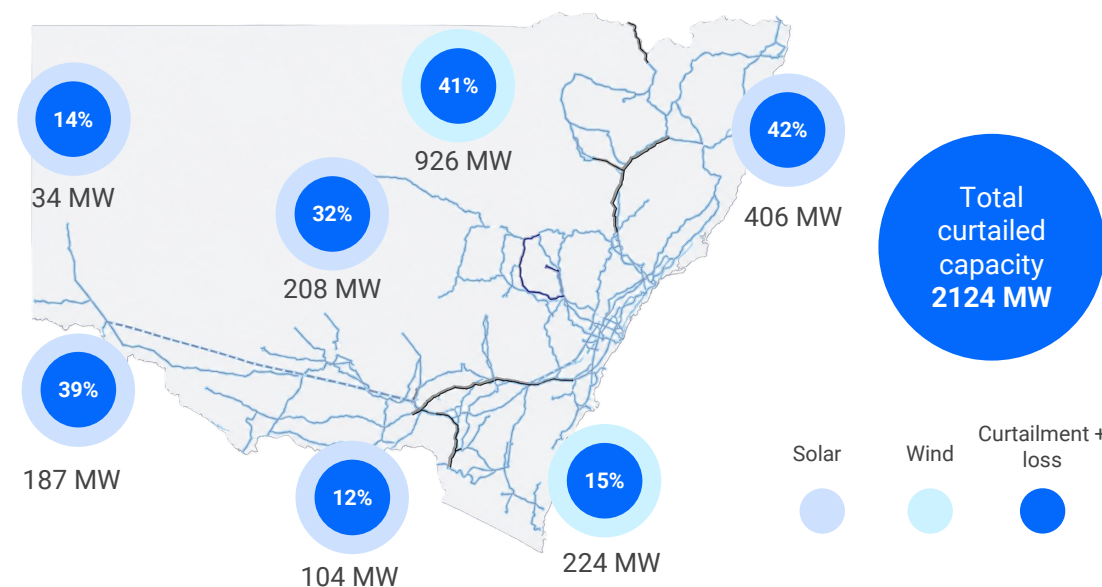


Figure 1: Capacity and curtailment in NSW

Widespread renewable energy curtailment and constraint is a feature of the New South Wales electricity system. In 2025, almost one-third (29 per cent) of installed wind and solar capacity across regional NSW was curtailed or lost due to network constraints, market conditions or marginal losses.

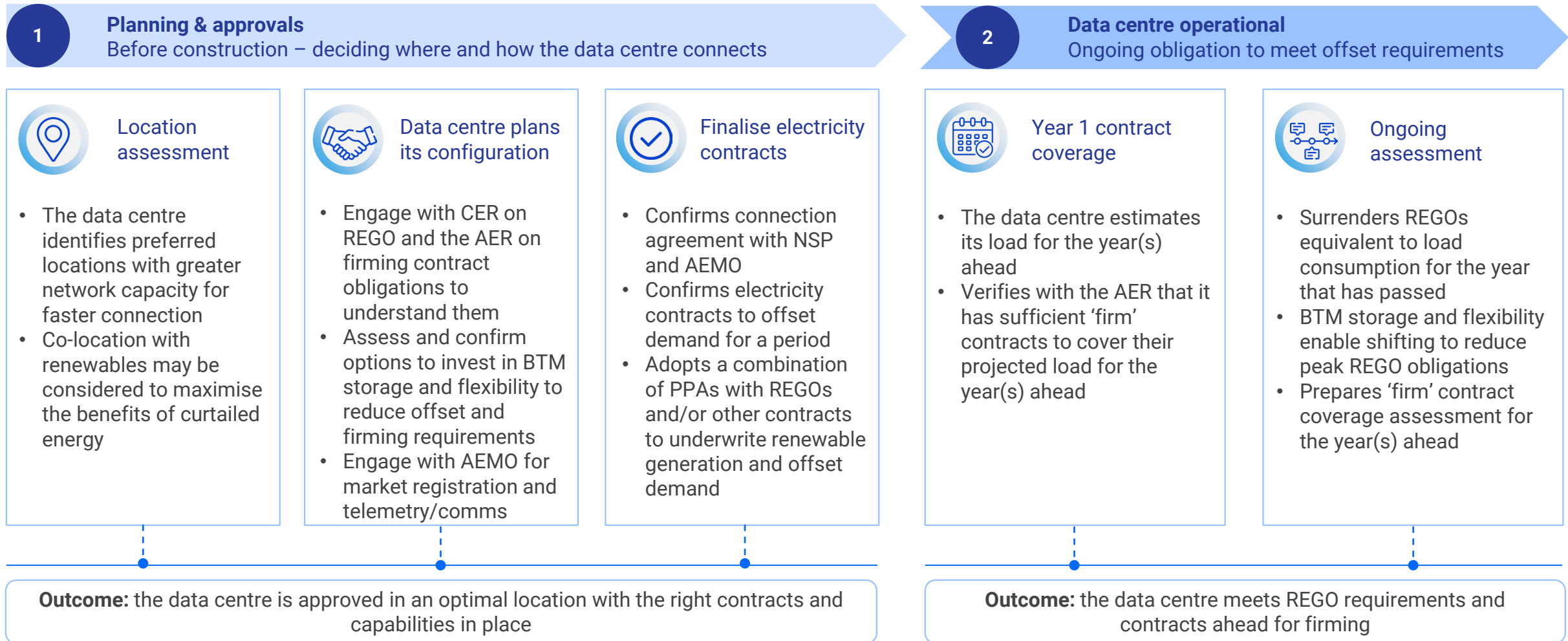
Source: Carbon Zero Initiative, Site it Right: Matching Data Centre Demand with Curtailed Renewable Energy in NSW, June 2026



How would the package of reforms work together?

The policy package is designed to influence data centre decisions throughout the project lifecycle – from site selection and connection planning through to ongoing operation.

The example below illustrates how the different policy measures interact to support investment in additional renewable generation, firming and operational flexibility. The timing and sequencing of activities are indicative and may vary in practice, depending on the policy details developed through the implementation pathways.



Compliance and enforcement will ensure data centres offset their load with new renewable and firming generation

Drive new renewables through the REGO scheme

Data centres surrender REGOs



- Data centre owner demonstrates demand supported by investment in renewable generation via surrendering/retiring REGOs, consistent with additionality requirements.*
- Would have make-good provisions to support intertemporal banking and borrowing.

CER – Monitor compliance*



- Assess REGOs surrendered/retired by data centres against additionality requirements (i.e., certificates for new generation) and match against time-of-use periods,
- Monitor ongoing compliance with reporting and investment obligations.
- Investigate potential breaches and instances of non-compliance.

Enforcement if requirements not met



- The enforcement regime would need to be developed as part of any new legislation to require data centres to surrender/retire certificates.
- Data centres could pay a high penalty price (e.g. double the market price) per unit of shortfall.

Data centre contracting obligation

Data centres submit contract coverage



- Choose a contract approach to suit the business model and/or work with retailer to ensure adequate coverage to meet requirements
- Demonstrate demand is supported by investment in firming, consistent with additionality requirements and AER-guidelines (this may include reducing contracting requirements if investing in demand flex).*

AER – Monitor and enforce



- Assess evidence submitted by data centres.
- Monitor ongoing compliance with reporting and investment obligations.
- Investigate potential breaches and instances of non-compliance.

Enforcement if requirements not met



- Data centres would be provided an opportunity to rectify shortfall.
- If it remains non-compliant, it would face penalties that will be designed appropriately to ensure an effective compliance regime.
- This could include financial penalties, including civil penalties, and/or be added to AEMO's curtailment lists.

*Would not include a requirement for data centres to prove that the new project was dependent on its investment.



**We assessed each element
against assessment criteria**

Assessment criteria for evaluating policy options

To guide consideration of the policy options, we have developed a set of assessment criteria to consider the relative strengths and weaknesses of the policies under consideration. The assessment criteria are presented in the table below.

Assessment Criteria		Description
Effectiveness & additionality	Renewable generation	Will the policy be able to fully offset a data centre's load with additional renewable generation?
	Firming	To what extent will the option deliver additional firming to the grid?
	Demand flexibility	To what extent will the option deliver additional demand flexibility to the grid?
System benefits	System efficiency	- Will the policy have any unintended or distortionary impacts on the operation of the wholesale market? - Does the policy align with parallel reforms?
	Data centre locational signals	- Will the policy create any locational signals for data centres to locate in a more efficient location in the grid? - Does the policy incentivise a more efficient use of existing networks? - Will policy restrict generation to the same jurisdiction as the data centre?
	Data centre investment impacts	- How significant is the regulatory burden and cost impacts on data centres? - Could the policy materially impact investment attractiveness and competitiveness? - Does the policy align with commercial incentives or is it mandated? - Are there particular classes of data centres that are more or less impacted by the policy?
	Consumer outcomes	- Are whole of system costs being incurred efficiently (e.g. is there flexibility to procure services from the most efficient provider)? - What are the cost impacts for the broader consumer base (e.g. risks of costs specific to data centres being borne by consumers)?
Practical Implementation	Flexibility and scalability	- Can the policy ambition be ramped up/down? - Can the policy apply to non-NEM jurisdictions? - Can the policy be applied to non-large inverter-based loads? - Can the policy adapt to evolving operation of a data centre (e.g. as the data centre scales up)?
	Speed and feasibility	- How fast and feasible is implementation (rule vs law change, use of existing frameworks, align with current process for development)? - How complex is the design and administration? - Does the policy require new registration or compliance frameworks?
	Compliance and enforcement	- Does the policy have a means to demonstrate, verify and enforce compliance (e.g. time matching, certification frameworks) - Is there a risk of double-counting or weak additionality outcomes?

Assessment: Drive new renewables through the REGO Scheme

	Criteria	Rating	Explanation
Effectiveness & additionality	Renewables		Explicitly targets data centres to source generation from new renewables relative to their consumption. Increased REGO prices from higher demand can drive increased investment in new renewable projects.
	Firming		The policy is not designed for firming.
	Demand flexibility		The policy is not designed for demand flexibility, however this may be used to reduce REGO obligations.
System benefits	System efficiency		If only REGOs from new renewable sources are included, there may be some distortionary market impacts due to price differentials between new and old renewable generators.
	Data centre locational signals		The policy is not designed to provide locational signals.
	Data centre investment impacts		As the policy would be similar to the existing Renewable Energy Target, under which data centre investment has continued, additional impacts would be marginal.
	Consumer outcomes		Data centres would be able to get REGOs from the least cost provider, supporting least cost investment in new renewable generation to meet policy targets and ambitions.
Practical implementation	Flexibility		REGO requirements can be adjusted according to policy targets and ambition and can be scaled relative to data centre consumption over time. Obligations could also be applied to non-NEM jurisdictions.
	Speed and feasibility		As the policy would leverage the existing REGO framework, it could be implemented relatively quickly through Commonwealth legislation. If implemented through NEL and NER changes it may take slightly longer to progress.
	Compliance and enforcement		The policy architecture has already established audit, assurance and verification protocols.

 Strong/positive

 Neutral/mixed

 Weak/negative

 Not designed to meet outcome

Assessment: Introduce a data centre contract obligation

	Criteria	Rating	Explanation
Effectiveness & additionality	Renewables		The policy is not designed for renewables.
	Firming		Data centres would have obligations to contract to offset their load, with firmer contracts contributing more than less firm contracts and a portion coming from new units. Could be designed to focus on additional firm capacity through the ESEM.
	Demand flexibility		Data centres would have incentives to provide demand flexibility through reduced obligations.
System benefits	System efficiency		Minimal distortion to contract signals, as data centres can source suitable contracts and support contract liquidity. Can be linked to contracts recycled through the ESEM, further supporting contract liquidity.
	Data centre locational signals		Data centres would be incentivised to locate in regions with firmed capacity and purchase firm contracts in their state of operation to minimise unnecessary basis risk and AER derating for firmness for generators in other jurisdictions.
	Data centre investment impacts		Overall low impacts as most already contract for supply or outsource risk. However, the requirement is an additional administrative burden that could discourage retailers contracting with data centres or incentivise over-contracting.
	Consumer outcomes		Minimal costs to broader consumer base, as data centres bear the cost of compliance and contract coverage.
Practical implementation	Flexibility		Data centres can match contract coverage as load increases over time, as compliance would be on an annual basis. Data centres could choose optimal contract types to meet obligations. Could also be applied to non-NEM jurisdictions.
	Speed and feasibility		Could be implemented through NER changes, but ideally NEL changes are required to make existing architecture more fit for purpose. AER would need to review and develop firmness and compliance procedures and guidelines.
	Compliance and enforcement		Could utilise existing compliance frameworks, such as for the RRO which has a strong compliance framework. AER would have visibility to assess compliance, with a significant financial penalty as an enforcement mechanism.

 Strong/positive

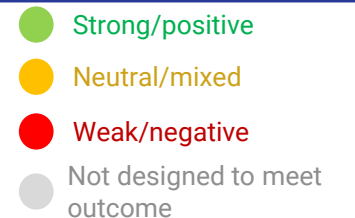
 Neutral/mixed

 Weak/negative

 Not designed to meet outcome

Assessment: Introduce market registration requirements

	Criteria	Rating	Explanation
Effectiveness & additionality	Renewables		While not directly contributing to renewables objectives, supports regulatory options that would achieve objectives.
	Firming		While not directly contributing to firming objectives, supports regulatory options that would achieve objectives.
	Demand flexibility		Provides data centres with the option to actively participate in the market and provide demand flexibility in response to existing market incentives (such as spot price signals).
System benefits	System efficiency		Supports more efficient dispatch outcomes, due to any active market participation and through more accurate demand forecasts (achieved through enhanced, real-time visibility of data centre consumption).
	Data centre locational signals		The policy is not designed for locational signals.
	Data centre investment impacts		Data centres are expected to be able to meet registration requirements with marginal cost and regulatory impacts for any additional equipment to comply with registration requirements (such as telemetry equipment).
	Consumer outcomes		Improved system efficiency and support for other regulatory objectives would contribute to improved consumer outcomes.
Practical implementation	Flexibility		All data centres are expected to be able to comply with registration requirements, noting that there are multiple registration categories (including potentially new categories) that can accommodate different data centre types.
	Speed and feasibility		Can utilise the existing market registration options and/or proposed frameworks (such as AEMO's Market Visibility Framework). Could be implemented through NER changes.
	Compliance and enforcement		Enforceable as a condition of energisation. Telemetry data supports compliance with other regulatory options.



Assessment: Support demand flexibility and co-location with generation through the connection agreement process

	Criteria	Rating	Explanation
Effectiveness & additionality	Renewables		While not directly contributing to renewables objectives, co-location of data centres with renewable generation could support further investment in new renewable generation.
	Firming		Data centres would be incentivised to invest in, and locate with, new firming. However, these incentives may not be strong enough to guarantee investment in firming.
	Demand flexibility		Data centres would be incentivised to provide demand flexibility and avoid costs associated with additional network congestion caused by their connection.
System benefits	System efficiency		Incentives for demand flexibility, new firming, and co-location with generation and storage all contribute to more efficient investment and operational outcomes.
	Data centre locational signals		Provides incentives for data centres to co-locate with existing renewable and storage assets.
	Data centre investment impacts		Investing in demand flexibility or new firming, or co-locating with generation and storage, could increase build time and costs for data centres. However, this policy is incentive-based and data centres could ignore incentives if it is critical.
	Consumer outcomes		More efficient system outcomes would support consumer outcomes. Additionally, bespoke connection agreements reduce risks of unnecessary costs being passed onto consumers.
Practical implementation	Flexibility		By utilising connection agreements, there is flexibility for objectives to be achieved in part or in full.
	Speed and feasibility		The existing connection process under the NER should be utilised, meaning that implementation should be fast and simple
	Compliance and enforcement		Compliance and enforcement could be challenging as it would require transparency and coordination among the AER, AEMO and NSPs on what the objectives are and how they can be met

 Strong/positive
 Neutral/mixed
 Weak/negative
 Not designed to meet outcome



**We have considered pathways
to implementing the reforms**

An important consideration is how data centres can fully offset demand with ‘additional’ investment



Transitional arrangements are an important tool to manage unintended consequences of requiring data centres to invest in additional renewables and storage

Energy Ministers are seeking investment in ‘additional’ renewable generation and firming projects to address risks that data centre connections result in a supply adequacy problem and put upward pressure on consumer costs. There are different ways to achieve additionality.

Ideally, there could be an obligation for offsetting demand that identifies the forecast supply adequacy gap that each data centre would create. Under this approach, a portion of the gap would be allocated to the data centre to meet. The benefit of this approach would be to ensure that data centres would not over or under invest in renewables and firming. While theoretically optimal, there would be high costs and complexity in identifying and attributing supply gaps and material uncertainty due to forecast demand and supply, changes from new data centres entering the market (or not), and other assumptions.

A simpler approach could be to determine a nominal percentage, such as data centres need to cover 70 per cent of load with additional renewables and firming. Another option is to allow jurisdictional governments to set the percentage depending on its own reliability and emissions reduction objectives. A fixed percentage would also be simpler and transparent for data centres to plan to meet their obligations. We have highlighted this design choice as one of the key questions for the next design phase.

What constitutes ‘additional’ is another important design choice, which we consider should be set by Ministers. The AEMC recommends flexibility here, with renewable and firming projects that are not yet at financial close able to be counted as additional. This includes projects that have won CIS contract but would benefit from additional financial support from data centres.

One concern for industry is that in developing a project, a data centre may have already entered financial contracts with renewables and find it difficult to find suitable alternative projects that would meet the additionality requirement. Concerns have also been raised about the impact on the viability of existing renewable projects and the inefficiencies of an ‘over requirement’ and overinvestment in renewables.

Transitional arrangements are an important tool for addressing these concerns. Enabling a mix of existing and new projects at the start of a data centre’s life and increasing the proportion of investment in new projects over time, would help to manage timing mismatches (as renewable projects take longer to build compared with data centres).

Transitional arrangements can also help to avoid a data centre having to exit contracts it has already entered into with existing renewables in order to contract with ‘new’ renewable and firming projects.



Fully offsetting involves important design choices

Ministers also wanted to avoid the risk of a supply adequacy gap by ensuring data centres fully offset their demand with renewables and firming.

We recommend a flexible approach where fully offsetting can be achieved through a combination of investing in renewables and firming, as well as response or BTM storage.

We also note there are important temporal aspects of what fully offsetting means. The most comprehensive approach would be to require time matching, where the data centre must demonstrate coverage on an hourly basis. However, the Commission consider this would be unnecessarily complex and costly and would hold up the implementation of this policy.

A simpler approach, that we recommend, is for the data centre to show it has offset arrangements for peak, off-peak and potentially shoulder periods. This can be achieved through having a combination of peak and off-peak REGOs.

A strong regulatory architecture would support compliance

In considering the proposed policy package, the Commission is conscious that a robust regulatory architecture is important to ensure overarching compliance. Some principles to guide this architecture are provided below.

Core regulatory principles that contribute to a strong regulatory architecture



Legislative placement of obligations

This supports a rationale for placing certain aspects of the framework in the NEL rather than the NER, to allow for a fit-for-purpose civil penalty regime and more enduring aspects of the framework, where appropriate.



Clear allocation of liability to data centre owners

We recommend the data centre owner as the liable entity, providing a simple and enforceable foundation for compliance. While obligations could be met through contracts and/or other parties, the data centre owner would be responsible for meeting all obligations. Obligations should not apply retrospectively.



Role of penalties in driving compliance

Obligations must have credible, proportionate penalties that act as a deterrent and are not simply treated as a cost of doing business. The intention and application of penalties should also be clear and transparent to support compliance.



Flexibility to manage complex operating models

We recognise that data centres operate under diverse commercial arrangements. The framework allows data centre owners to meet obligations through contractual arrangements with various parties (such as customers or retailers), ensuring flexibility without weakening accountability.



Regulator roles in assurance and administration

The AER would play a role in checking compliance with firming obligations, including reviewing contract coverage on an annual to three-yearly basis. The CER (via Commonwealth legislation) or the AER (via NEL and NER amendments) would oversee REGO obligations.



Compatibility with other reforms and jurisdictional schemes

We have been conscious to design our policy package to be flexible and compatible with other reforms and jurisdictional schemes, such as the ESEM, CIS, FERM, and NSW Roadmap, and AEMO's proposed Market Visibility Framework. However, future reforms will need to consider alignment given the risks of uncoordinated obligations.

We propose to work with industry and market bodies to further develop the recommended policy package

The Commission recognises that further detailed consideration and policy design would be required to progress this package of policies, *including a more fulsome consideration of the relative costs, benefits and risks of each recommendation*. If Ministers endorse the proposed policy package, we will work with industry, market bodies and governments to develop the detailed design of the policy package. Several outstanding questions for the detailed policy development are outlined below.

Key questions for the next stage of policy development

 Recommendation 1: Drive new renewables through the REGO scheme	 Recommendation 2: Introduce a data centre contract obligation	 Recommendation 3: Introduce market registration	 Recommendation 4: Support demand flexibility and co-location with generation through the connection agreement process
• To what degree should data centres offset their load with REGOs? How would the offset obligation be determined? • Can the NGER framework be leveraged to determine liabilities? • To what degree should demand flexibility and BTM storage reduce REGO obligations? • Should REGO obligations be based on time periods of energy consumption? If so, how should the periods be defined? • How extensive and flexible should make-good arrangements be? • What should the timing around REGO surrender and verification be? • What level of auditing and compliance would be required for the proposed scheme? • How could this policy be refined to improve bankability for new renewable generators? • Should inter-regional REGOs be allowed to meet obligations?	• How do we define who is the liable entity to meet the contracting requirement? • What approach should be adopted to determine the level of firm contract requirements? • What approach should be considered to determine the level of new assets underwriting contracts? • To what degree should demand response and BTM storage reduce firmness requirements? • How often should data centres verify firm contracts with the AER? How should demand forecasts be conducted? • Should the requirements of the policy be tiered based on the size of the load? How should portfolios of data centres be accounted for? • How should ESEM contracts be included? • How will this interact with recommendation 1?	• What is the threshold size for data centres to be registered? • What are the appropriate participant categories? Are new categories needed? Could this integrate with market visibility reforms being progressed by AEMO? • What changes are needed to support inclusion in multiple classifications? • What arrangements are required to ensure the relationship between data centres and retailers is not impacted? • How could data centres best be incentivised through the market to provide demand flexibility? • What requirements should form part of the registration (e.g. telemetry, forecasting)?	• How can incentives deliver efficient and preferred outcomes, such as demand flexibility, without stifling data centre investment? • What regulatory changes are needed in the NER to align connection agreement negotiations with the policy objectives? Are any changes to NSP incentives or requirements needed? • How could existing compliance and enforcement arrangements be leveraged to support this approach, particularly if data centres breach contractual requirements? • What steps are needed for jurisdictions to develop data infrastructure plans? Could data centres be incentivised or required to locate according to these plans? Could these plans leverage work being conducted by AEMO on the Demand Side Statement of Opportunities?

This is not an exhaustive list of questions to consider for the next stage of policy development, we recognise that there are many detailed policy decisions that need consideration. Further policy decisions common across all recommendations include: consideration of transitional arrangements, potential for stronger obligations based on data centre size, whether obligations should apply only to data centres or to large inverter-based loads in general, and consideration of other jurisdiction-specific policies.

There are several key steps for Ministers to progress the policy package



Next steps for NEM jurisdictions

If governments endorse the recommended policies, some next steps could include:

- **Engage with data centres, networks, renewable generators, investors, market bodies and market participants** to test and refine the proposed package of policies.
- **Engage the AEMC to further develop the details** of the policy package and understand legislative pathways.
- **Consider any additional powers, responsibilities and resources** required for AEMO, the AER, and the CER to administer this package.



Considerations for non-NEM jurisdictions

Considerations for non-NEM jurisdictions, should they wish to progress similar reforms, include:

- If implemented through Commonwealth legislation, **REGO obligations could be applied at a national level**
- Contract **firming obligations may not be required** in the WEM given the already operating capacity mechanism
- **Market registration should be considered in all jurisdictions** to better equip the system operator with the tools to manage data centres moving forward
- **All jurisdictions should consider options around factoring in network impacts** in the connection process

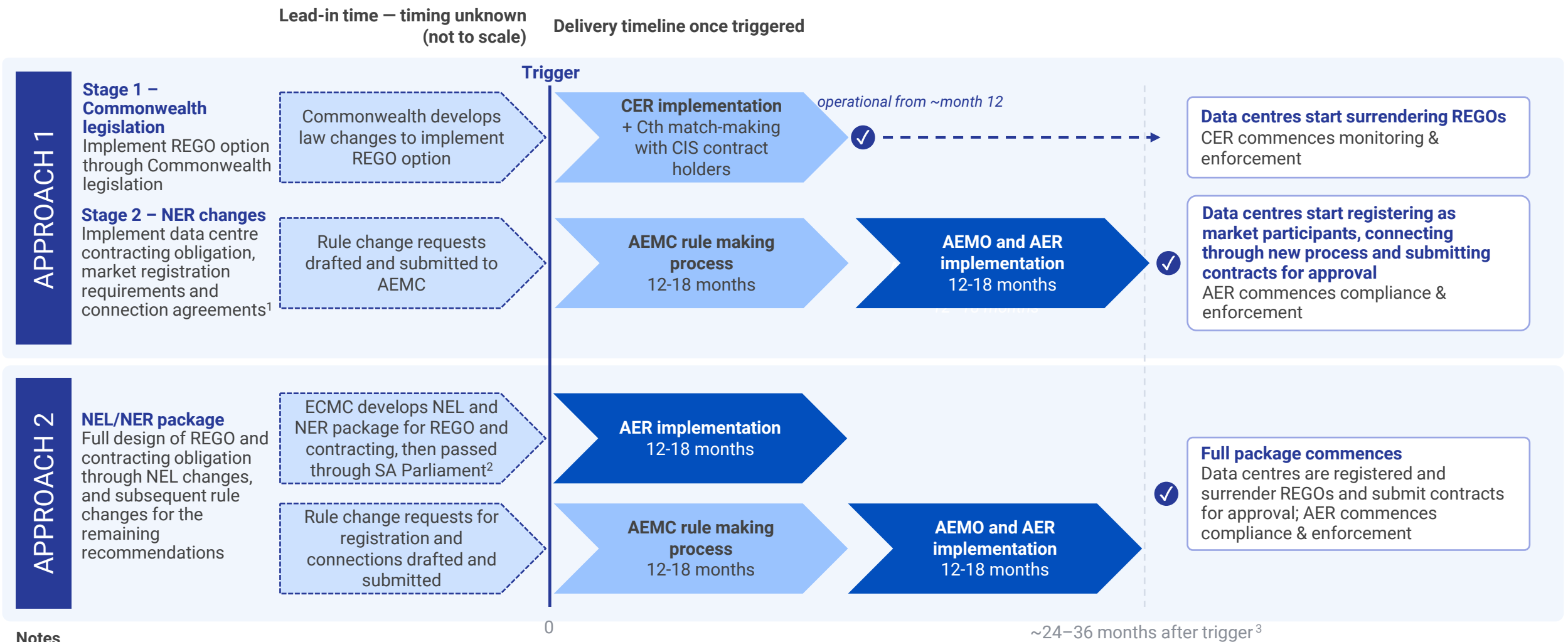
There are options to stage the implementation of the reforms

The Commission is conscious that while there are multiple elements to the policy package, not all elements need to be implemented on the same trajectory. A possible staged implementation for the policy suite is shown below. Obligations on data centres would commence following the legislation and rule change processes

APPROACH 1	Stage 1: Commonwealth develops REGOs through Commonwealth legislation Benefits: - Likely faster path to implementation. CER would monitor and enforce compliance Considerations: - Creates a disjointed approach between NER requirements for firming and Commonwealth requirements for renewables. - Could be some drafting complexity for mandatory surrendering of REGOs.	Stage 2: Rule changes to develop market registration, data centre contract obligation and connection agreements Benefits: - Utilising the NER could be a faster path to implementation through AEMC rule changes than through approach 2. - Full package of NER requirements implemented concurrently, giving greater certainty to data centres - Jurisdictions may have the ability to opt-out of contract obligations Considerations: - Current RRO NEL framework is not fit for purpose. - Penalties and enforcement would be limited to existing NER civil penalties and curtailment, which may not be adequate. - New role for the AER, which may need additional staffing and funding to develop the necessary guidelines.
	Single package of reforms: NEL and NER changes Benefits: - Would bring stages 1 and 2 together to make a complete, cohesive package. - Avoids disjointed and separate requirements, allowing for any future changes to be easily implemented within a fit-for-purpose architecture. Considerations: - Would take more time than the other approaches, which could create regulatory uncertainty during the interim period. However, this could be mitigated if the overall design is developed together. - REGO option through the NEL would open up a possible role for AER to monitor and enforce REGOs, which is beyond their current role.	

Each approach has different implementation pathways and timelines

Obligations on data centres would commence following the legislation and rule change processes



Notes

¹ Could include the rule change request from AEMO regarding operational visibility of data centres

² Timing dependent on the schedule of the South Australian parliament.

³ Indicative; dates have not been consulted on and would be subject to the complexity of the underlying policy, parliamentary legislative windows, industry preparedness, and statutory timeframes required to develop and consult on rules, procedures and guidelines.

⁴ We recommend that any changes implemented are not applied retroactively or retrospectively. If Ministers are minded to implement the policy retroactively or retrospectively, they would likely require changes to the NEL (depending on how the detailed policy settings may affect existing rights and obligations), which could not be achieved through Approach 1.



Appendices



**Data centre
demand is
increasing**

Data centre demand and utilisation tends to be well below installed and contracted capacity



SO WHAT?

System planning should be based on expected utilisation, not installed capacity, recognising that realised data centre demand may be materially lower than connection and contracting figures suggest.

Data centre demand forecasting has become increasingly important for electricity system planning, as network, generation and storage investments need to be made years before demand materialises. However, forecasting future electricity consumption is inherently challenging because data centre developments are typically connected to the grid based on their maximum potential load rather than their expected day-to-day utilisation.

In practice, electricity demand often increases gradually following commissioning as facilities attract customers, deploy equipment and ramp up computing workloads over time. This means data centre connected capacity may significantly exceed actual electricity consumption for extended periods. Therefore, understanding the relationship between capacity, utilisation and demand is critical to developing accurate forecasts and avoiding over- or under-investment of electricity infrastructure.

AEMO is continuing to improve its forecasts of data centre electricity demand to support more effective system planning. While Oxford Economics' [Data Centre Energy Demand report](#) (2025), commissioned by AEMO, projects that data centres could represent approximately 12 per cent of NEM demand by 2040, forecasting remains somewhat imprecise. This is evidenced by AEMO's updated draft projections presented at the May 2026 Forecasting Reference Group (FRG) meeting (see Figure 1).

We note that factors such as AI adoption, project delivery timelines and technology efficiency improvements could materially affect future demand outcomes. A further challenge is that connection applications and rated capacity do not necessarily translate into realised electricity consumption. AEMO's FRG has identified that current data centre demand and utilisation are well below installed and contracted capacity, highlighting the potential gap between connection requests, operational capacity and actual load. These uncertainties present challenges for forecasting future electricity demand and planning generation, storage and network infrastructure investments.

Figure 1: Draft project-based data centre energy demand forecast, 2026

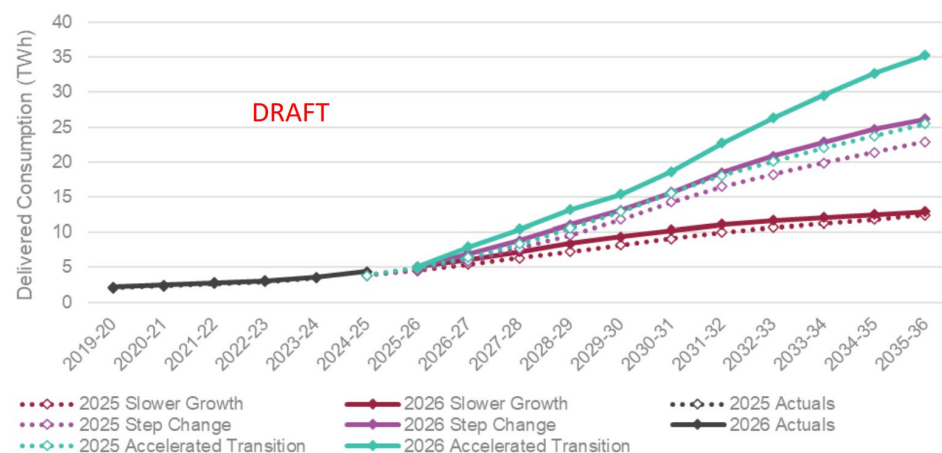
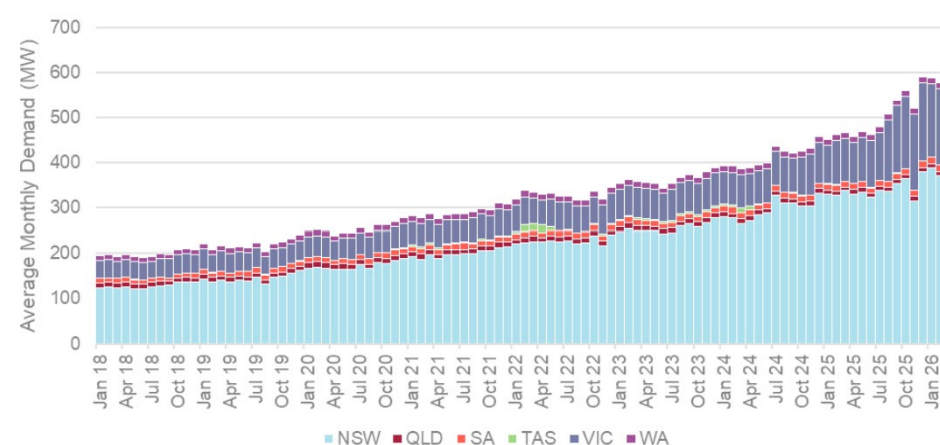


Figure 2: Average monthly data centre demand by region/state

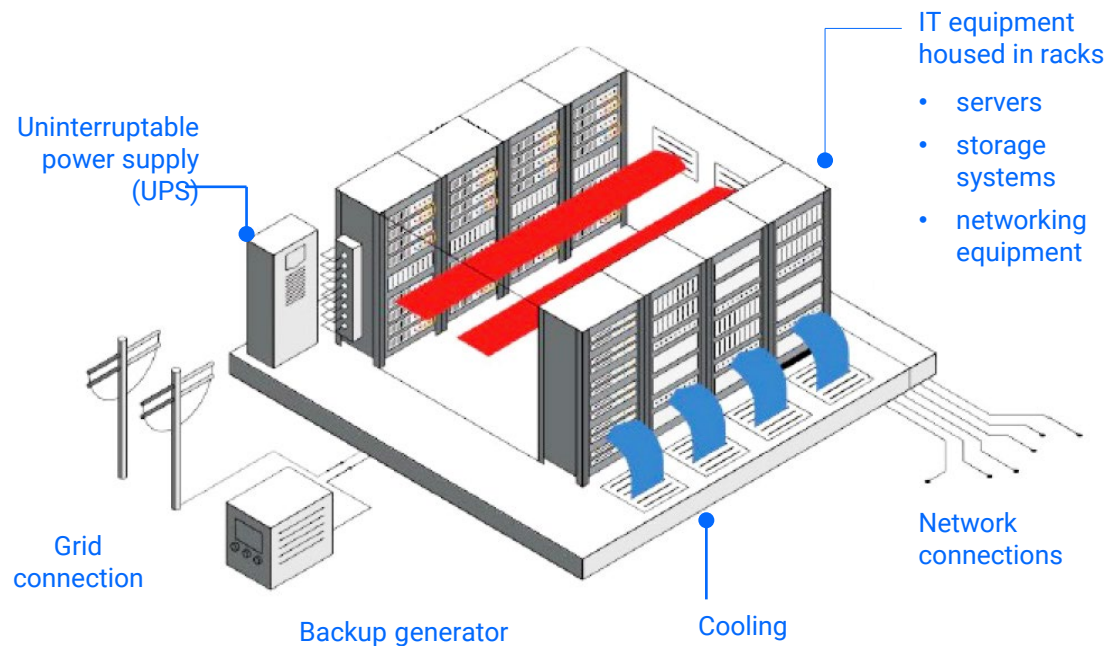


Data centres have significant uptime and reliability requirements

Data centres have extremely high uptime and reliability requirements, with many facilities designed to achieve "five nines" (99.999%) availability. Put simply, uptime refers to how often a system is available and operating as expected, without interruptions or outages. The "five nines" approach means a facility limits its total planned and unplanned downtime to just 5 minutes and 15 seconds per year.

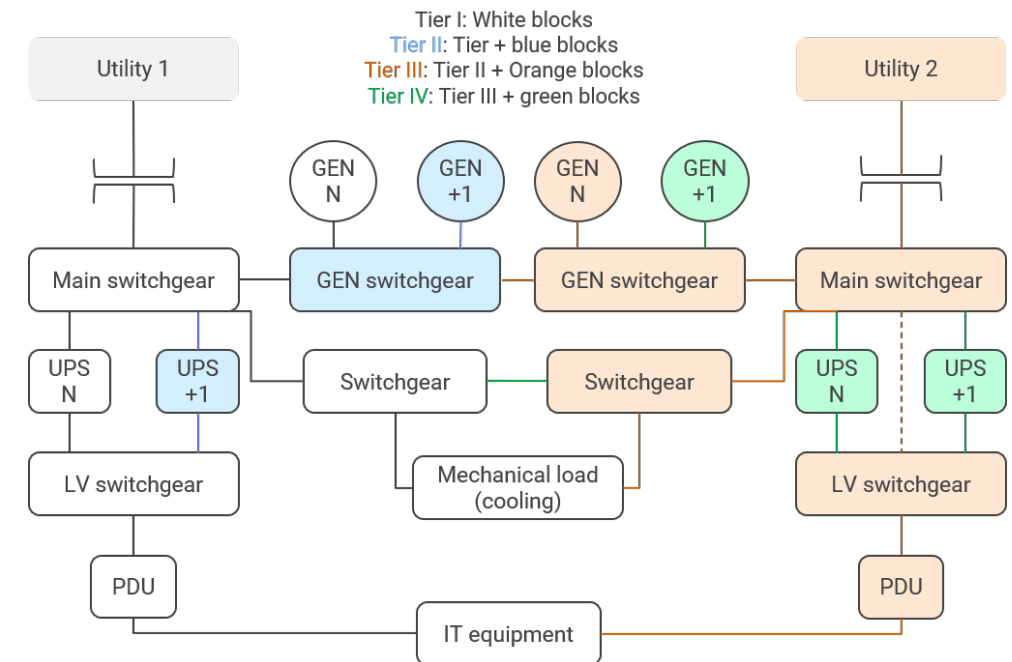
To support these requirements, data centres utilise uninterruptible power supply (UPS) systems that provide instantaneous backup power during disturbances, as well as dedicated backup generation to maintain operations during prolonged outages. The required level of redundancy and backup infrastructure varies according to the facility's uptime classification. We understand that most data centres use diesel or gas for backup generation, but are increasingly considering BESS and behind-the-meter renewable generation.

Typical data centre components



Source: Oxford Economics Data Centre Energy Demand Final Report, July 2025

Levels of electrical redundancy and backup power infrastructure across Tier I–IV data centres



Source: NERC Large Loads Taskforce White Paper, July 2025



**There is a range of
work underway on
data centres**

There are other related workstreams that are being progressed by the jurisdictions and market bodies

When the ECMC met on 8 May 2026, it tasked jurisdictions and the other market bodies to progress work on data centre reforms. We also note that AEMO is progressing related work arising from the NEM wholesale market settings review, and the AEMC is progressing towards a final rule determination for *Improving the NEM access standards – Package 2*, which introduces technical standards for inverter-based loads, such as data centres.

The work programs are identified below. The AEMC's advice does not simultaneously explore them, but recognises that there are inter-dependencies that will need to be considered in future stages of work.



Environmental planning standards

- All jurisdictions (including NT and WA), are exploring options for amending their local environmental / planning approval standards to require data centres to invest in renewable generation and firming.
- This is expected to be submitted in July for the next ECMC meeting.
- We consider that this could result in a disjointed, time-consuming approach to regulating data centres across jurisdictions.



Cost recovery for network augmentations

- NEM jurisdictions are progressing a rule change request to ensure data centres cover the costs of upgrades or augmentation in the transmission and distribution systems resulting from their connection. This would only apply to the NEM.
- The request is expected to be submitted in July for the next ECMC meeting.



Operational integration and visibility

- AEMO is progressing a rule change request that would establish baseline operational visibility requirements for data centres above a specified threshold. It is primarily considering reforms under Chapter 2 of the NER, which may include consideration of the market registration framework.
- The request is expected to be submitted in July for the next ECMC meeting.



AEMO's Market Visibility Framework

- In December 2025, energy ministers (excluding Qld) agreed in principle to the core recommendations put forward in the NEM review. This included implementing a mandatory framework for price-responsive resource visibility and participation in dispatch, known as the Market Visibility Framework (MVF).
- AEMO released an approach paper in early May 2026, with final advice due in December 2026.



AEMC's improvements to technical access standards

- On 12 March 2026, the AEMC published a draft determination that proposes a clear regulatory framework for applying access standards to large inverter-based loads (such as data centres) and introduces disturbance ride through standards.
- Our final rule will be published in October 2026.
- We consider there would be value in aligning these reforms with our recommended policies.

AEMC and AEMO are also progressing related reforms

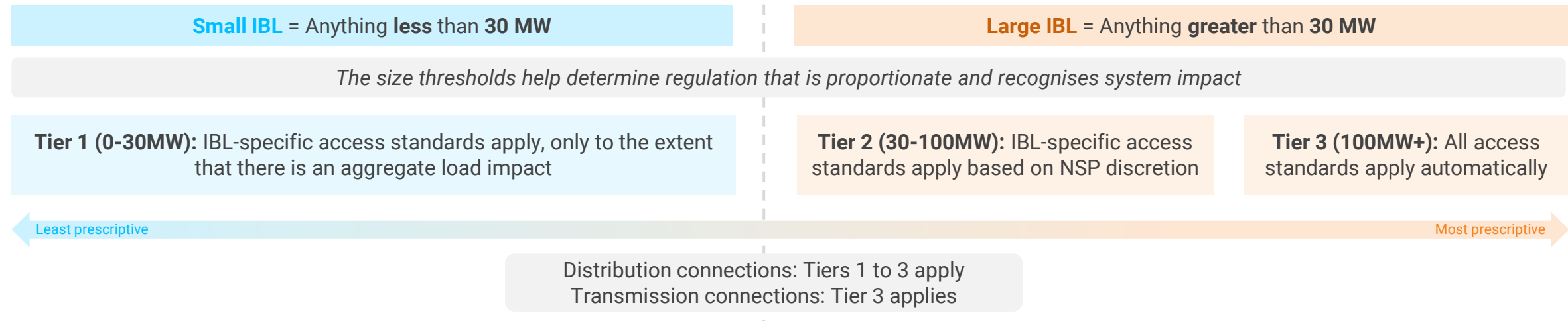
There are related reforms currently underway to apply access standards to inverter-based loads (IBL), including data centres. These reforms would, if implemented, apply different levels of prescription on IBL according to their capacity.

There would be value in aligning these reforms with our recommended suite of policies to proportionately apply obligations to data centres. This would need to be determined through the next stage of work.

There are two key reforms underway that may intersect with the implementation of our recommended suite of policies:

- 1. AEMC’s draft rule determination for *Improving the NEM access standards – Package 2*, which clarifies how the access standards regulatory framework under the NER applies to data centres (which are inverter-based loads or IBL). It provides new size thresholds for defining what is a large IBL to recognise their system impact and level of regulation required. We consider that this could be used as a starting point for considering what threshold size would apply to data centres in this advice under recommendation 3.
- 2. As an interim measure, AEMO are preparing guidelines on how the access standard framework would apply to data centres. This will fill the gap until the Package 2 final rule is made and comes into effect.

One of the key focuses of the Access standards package 2 rule change is to ensure that the technical standards for large loads connecting, including data centres, are fit for purpose.





**We considered
other policies in
developing this
advice**

We considered a range of policies in developing this advice

This slide provides a summary of other policies we considered in developing our recommended policy package. Note that this is not an exhaustive list of other policies considered and we do not recommend the implementation of these policies to deliver the key policy objectives.

Investment in additional renewable and firming capacity through the ESEM

The ESEM framework could be used to require data centres to purchase contracts to demonstrate it has invested in additional capacity. However, the ESEM has not been implemented yet, and its detail design isn't finalised. We understand the Queensland government may choose not to opt into the scheme. Additionally, if an obligation to solely purchase contracts from the ESEM is introduced, this would not start until the mid-2030s when the ESEM starts recycling contracts. Recommendations 1 and 2 could work with the ESEM if it is implemented.

Invest directly in additional renewable and firming capacity

Data centres could be required to invest in additional capacity, such as signing PPAs with new renewable generators or directly investing in new firming capacity, to offset their demand. However, data centres expressed concerns that this would significantly increase costs (particularly for smaller data centres trying to match demand exactly) and slow down build times.

Utilise environmental planning approvals

Jurisdictions could amend local environmental and planning approval standards to require data centres to invest in renewable generation and firming. However, this option would create disjointed approaches for data centres across the NEM with each state having different planning approval processes. It is also likely to be time-consuming to change planning legislation across each jurisdiction.

Utilise the existing Retailer Reliability Obligation framework

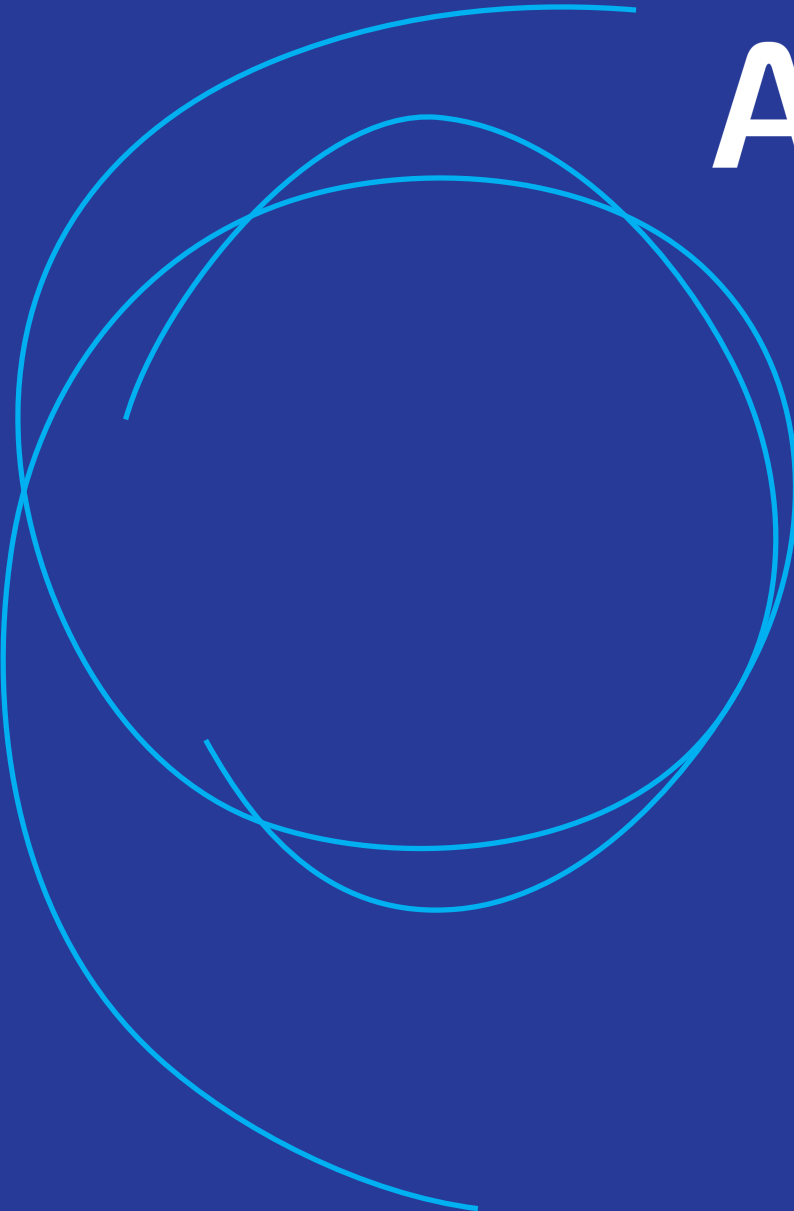
The RRO is an existing framework that places contracting obligations on retailers in the event of a forecast reliability gap. While we have incorporated concepts of the RRO in our recommended data centre contracting obligation, the existing RRO framework is not appropriate for achieving policy objectives for data centres.

Mandate market participation and demand flexibility

Data centres could be required to actively participate in the market and offer demand flexibility. Note that market registration does not require market participation. This option would be difficult to design and enforce actual demand flexibility outcomes, and many data centres have limited demand flexibility capabilities. Instead, we consider that relying on the existing market signals, combined with providing the option to voluntarily participate in the market under policy recommendation 3, is most appropriate.

Maintain the status quo

Under this approach, no reforms would be implemented. The existing frameworks and incentives would be relied upon to deliver policy objectives. For example, standard hedging incentives could lead to data centres supporting investment in new renewable and firming capacity. However, we consider that there is value in progressing our recommended policy package to best achieve Ministers' policy objectives.



AEMC

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