Office of Energy and Climate Change

energy.nsw.gov.au

South West Renewable Energy Zone Access Scheme

Position Paper

March 2023

Acknowledgment of Country

We acknowledge that Aboriginal and Torres Strait Islander peoples are the First Peoples and Traditional Custodians of Australia, and the oldest continuing culture in human history.

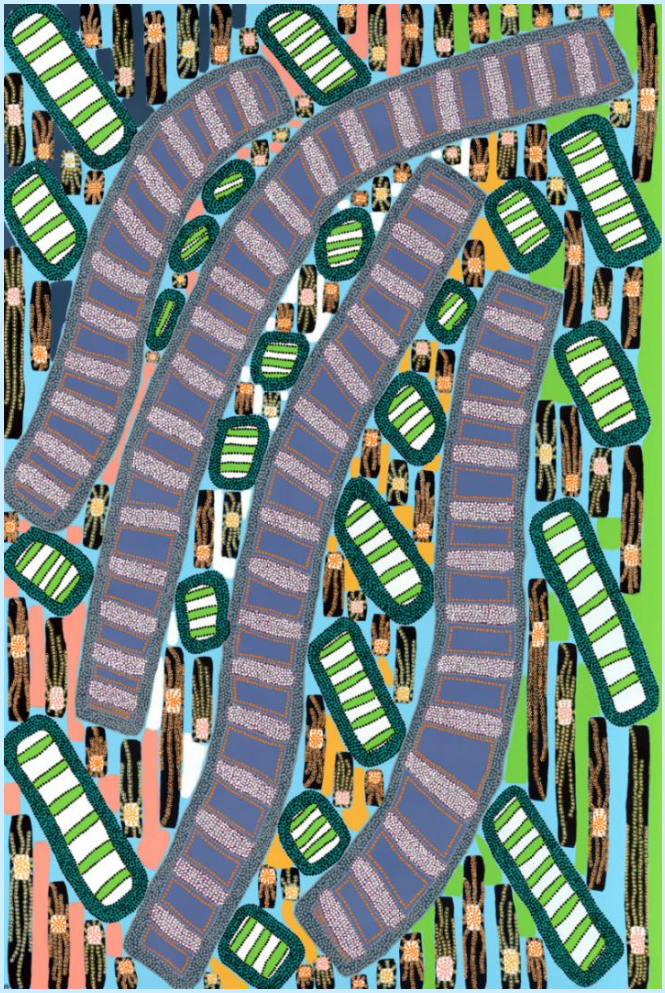
We pay respect to Elders past and present and commit to respecting the lands we walk on, and the communities we walk with.

We celebrate the deep and enduring connection of Aboriginal and Torres Strait Islander peoples to Country and acknowledge their continuing custodianship of the land, seas and sky.

We acknowledge the ongoing stewardship of Aboriginal and Torres Strait Islander peoples, and the important contribution they make to our communities and economies.

We reflect on the continuing impact of government policies and practices, and recognise our responsibility to work together with and for Aboriginal and Torres Strait Islander peoples, families and communities, towards improved economic, social and cultural outcomes.

Artwork:
Regeneration by Josie Rose



Contents

Submissions: Draft South West Renewable Energy Zone Access Scheme Declaration

The *Draft Renewable Energy Zone (South West) Access Scheme Order 2023* (South West REZ Access Scheme Declaration) can be found on the Office of Energy and Climate Change website.

Access scheme Declarations made under Section 24 of the *Electricity Infrastructure Investment Act* 2020 (the Act) are a key mechanism to enable REZs and enliven access schemes. They provide the legislative basis for key components of the REZ delivery and define how an access scheme will operate. At any time after the declaration of a REZ, the Minister for Energy may declare an access scheme that applies in that REZ. The access scheme must be consistent with the objects of the Act.

It is a statutory requirement under Section 24 of the EII Act that before an access scheme declaration is made, a draft must be made available on the office's website for at least 28 days. Under Section 24(6)(c) of the EII Act, the Minister must seek and consider submissions from the public on the draft declaration. Public submissions made as part of this process will be considered and inform the final form of access scheme for the South West REZ, should the Minster decide to make a Final Declaration.

You are invited to provide your feedback on the draft South West REZ Access Scheme Declaration via a free form submission to electricity.roadmap@dpie.nsw.gov.au with '**Your Name – Draft South West REZ Access Scheme Declaration**' in the subject line.

The consultation will be open until **Monday 15 May 2023**.

Please note that providing a submission is voluntary, is not assessable, and does not in any way include, exclude, advance or diminish any entity from any future procurement or competitive process in regard to REZs and/or the long-term energy service agreement (LTESA) under the Roadmap, or any other NSW Government program.

Glossary

Terms used in this paper have the meaning given in the draft South West Renewable Energy Zone (REZ) Access Scheme Declaration and *Electricity Infrastructure Investment Act 2020* (NSW). Key definitions are summarised below for readability.

Term/phrase	Definition
Access rights network	The new transmission network infrastructure for the South West REZ, identified in Schedule 1 of the draft South West REZ Access Scheme Declaration.
AEMO	Australian Energy Market Operator
Aggregate maximum capacity cap	The cap on the aggregate maximum capacity of approved projects during any capacity period, being the initial aggregate maximum capacity cap as amended from time to time.
Aggregated expected capacity profile	The aggregate of the expected capacity profiles of all relevant projects together, as determined by the Infrastructure Planner, less the Infrastructure Planner's forecast profile of any load connected to the access rights network and any existing projects with an offer to connect to the REZ access rights network at the time the South West REZ Access Scheme Declaration is made.
Approved project	An eligible project that has been awarded an access right.
ASL	AEMO Services Limited
Co-located hybrid project	Generation and storage projects co-located behind the same connection point.
DNA	Designated network asset
Consumer Trustee	AEMO Services Limited has been appointed Consumer Trustee
Draft South West REZ Access Scheme Declaration	The Draft Renewable Energy Zone (South West) Access Scheme Order 2023 published on the Climate and Energy Action website 2 March 2023 in accordance with the requirements under Section 24 of the EII Act.
EII Act	*Electricity Infrastructure Investment Act 2020* (NSW)
Eligible operator	A person that owns or operates an eligible project or approved project or proposes to own or operate an eligible project or approved project.

Term/phrase	Definition
Eligible project	A proposed generation or storage project or co-located hybrid infrastructure project that is to be located within the South West REZ geographical area, that meets the eligibility requirements specified in Schedule 2 of the draft South West REZ Access Scheme Declaration.
EnergyCo	Energy Corporation of NSW
ESB	Energy Security Board
Forecast curtailment	Forecast curtailment on the access rights network or a network element (as relevant) determined by the Infrastructure Planner in accordance with the draft South West REZ Access Scheme Declaration.
Infrastructure Planner	Energy Corporation of NSW appointed as Infrastructure Planner for the South West REZ under the South West REZ Declaration.
LTESA(s)	Long-term energy service agreement(s)
NEMDE	National Electricity Market Dispatch Engine
NER	National Electricity Rules
PEC	Project EnergyConnect
REZ	Renewable energy zone
SDSS	Short duration storage systems
South West REZ Access Scheme	The access scheme that will be created under the South West REZ Access Scheme Declaration.
South West REZ Declaration	The *Renewable Energy Zone (South West) Order 2022* made by the Minister on 4 November 2022.
The office	NSW Office of Energy and Climate Change
TNSP	Transmission network service provider
TTCL	Target transmission curtailment level

About this document

Purpose of this Positions Paper

The Draft South West REZ Access Scheme Declaration will be made publicly available for a minimum period of 28 days in line with the requirement of Section 24(6)(b) of the Act. Submissions on the draft will be considered in the making of a final access scheme declaration.

The purpose of this Positions Paper is to provide guidance to stakeholders seeking to comment on the Draft South West REZ Access Scheme Declaration. It outlines the intent of key elements of the access scheme, details how this was reflected in the Draft South West REZ Declaration, and explains the rationale behind key positions.

A final declaration (should the Minister decide to declare one) will be the primary statutory instrument for delivering the South West REZ Access Scheme. The draft declaration was developed in accordance with the *Ministerial Guidelines for Access Scheme Declarations* and published by the Minister on the exercise of functions related to the declaration of access scheme under Section 25 of the EII Act.

Consultation timeline

- 2 March 2023 – Publication of the draft declaration and invitation to stakeholders to make submissions
- April 2023 – Public webinar, further details will be provided on the Office of Energy and Climate Change website
- 15 May 2023 – Consultation closes

From 15 May 2023 public submissions and other feedback will be considered.

In accordance with the requirements of EII Act, the Minister may then decide to make a final declaration for an access scheme in the South West REZ. If the Minister declares a final access scheme, an order will be published in the NSW Gazette and on the Climate and Energy Action website.

Navigating this paper

Specific clauses from the draft South West REZ Access Scheme Declaration are replicated in this paper to help readers interpret these passages and understand the policy intent behind them. This paper focusses on positions on clauses that the department considers of material significance to stakeholders, including project developers, consumers and residents of the South West REZ geographical area. For this reason, not all clauses are individually addressed in this paper. This

paper should be read in conjunction with the full draft of the South West REZ Draft Access Scheme Declaration.

Section	Details
1. An access scheme for the South West REZ	Provides an overview of key considerations regarding the application of an access scheme for the South West REZ.
2. Overview of the South West REZ	Provides some background to the South West REZ to help readers understand the context in which the draft declaration has been developed. As well as an overview of the South West REZ Declaration, its geographic area and its declared network infrastructure, it outlines the REZ's dependencies on network infrastructure projects progressing under the national framework.
3. Design of the South West REZ Access Scheme	Outlines the policy intent and objectives of the draft South West REZ Access Scheme, as well as explaining how it leverages the access scheme design of the Central West Orana REZ.
4. South West REZ Access Scheme description	Describes the South West REZ Access Scheme and explains what an access right is.
5. Applying limited physical connection	Details the important features of the access scheme, including how access to the REZ is controlled and how the volume of rights is set and modified.
6. Managing the South West REZ Access Scheme	Outlines the management and administration of the access scheme, including conditions for the amendment of the access scheme.
7. Implementing the South West REZ Access Scheme	Deals with the implementation of the access scheme, including how rights are allocated through competitive tender and the application of access fees.

1. An access scheme for the South West REZ

This section provides an overview of key considerations regarding the application of an access scheme for the South West REZ. This positions paper seeks feedback not only on the proposed design of the access scheme (as outlined in the Draft South West REZ Access Scheme) but also the overall value of an access scheme being made for the South West REZ. Stakeholders and encouraged to consider, and outline in their submissions:

- Whether an access scheme has the potential to deliver benefits to host communities, energy consumers and investors when compared to current open access arrangements.
- Whether an access scheme is the most appropriate and efficient mechanism for managing congestion in the south west (including interactions with the Energy Security Board's proposed Transmission Access Reform).
- Whether the defining features of the South West REZ (including the impact of interconnector flows through Project EnergyConnect) have been adequately accounted for in the proposed scheme design.
- Whether, on balance, an access scheme should be applied to the South West REZ.

An access scheme can be applied to a declared REZ

Access schemes are a key part of the NSW Government's plan to coordinate and encourage renewable energy and storage investment in renewable energy zones (REZs) and realise the objectives of the Electricity Infrastructure Roadmap and the *Electricity Infrastructure Investment Act 2020* (EII Act).

Under Section 24 of the EII Act, the Minister may, by order published in the Gazette, declare an access scheme (or schemes) that is to apply to a REZ or part of a REZ. An access scheme is not an inherent element of a REZ. It is a mechanism for enabling efficient investment in generation, storage and transmission infrastructure in the long-term interest of consumers while delivering positive outcomes for local host and First Nations communities.

An access scheme provides an opportunity to control the connection of projects to the REZ. In the case of the South West, the proposed access scheme triggers the application of modifications to the National Electricity Rules (NER) open access arrangements as they apply to the access right network. This includes "turning off" open access to a portion of Project EnergyConnect (PEC) being delivered by Transgrid. An access scheme sets out how generation and storage projects can receive access rights to this and other access rights network within the South West REZ.

Access scheme could deliver a number of important positive outcomes for the South West REZ

An access scheme has the potential to delivery benefits to host communities, energy consumers and investors when compared to current open access arrangements. Key advantages to applying an access scheme to the South West REZ are discussed below.

Social licence – host community outcomes

Promoting social licence within REZs is an important pillar of the Electricity Infrastructure Roadmap (the Roadmap). A South West REZ access scheme would provide an avenue for collecting and distributing employment and community purpose funds through access fees, delivering important host community benefits. Access fees cannot be collected in the absence of an access scheme.

The access scheme is also the only mechanism through which the orderly connection of generation and storage can be managed through the EII Act. Tender criteria for the Consumer Trustee's recommendation of access rights, for example, may consider community outcomes and consultation related to the project. In addition, the boundary of the South West REZ has been drawn after close consultation with stakeholders in host communities. For example, in conjunction with an access scheme, this boundary is a means through which connections can be prevented for projects located in sensitive agricultural land at the eastern end of PEC outside of the geographical area of the REZ, an outcome that can otherwise not be achieved.

Efficient utilisation – consumer outcomes

Access schemes are the primary mechanism under the EII Act framework through which curtailment and congestion outcomes in the South West can be influenced. Absent a scheme, it is possible that the South West (already heavily congested) is rapidly subscribed beyond reasonable hosting capacity, exacerbating existing congestion. There is significant risk that without a scheme, a legislated and declared REZ may become oversubscribed, with impacts on both the efficiency of network utilisation and land-use.

While it is possible that the application of an access scheme delays proposed projects, this is likely to represent a more efficient overall outcome than open access by providing the opportunity to better align project connections with the delivery of planned network infrastructure projects, such as HumeLink. This is because it would prevent rapid oversubscription that could occur if projects are allowed to compete for first-mover advantage under open access arrangements.

In addition, without an access scheme, there is greater risk that imports from existing low cost, renewable generation from South Australia are displaced by new generation in NSW. The application of an access scheme allows modelling to be undertaken to determine the optimal scale of REZ generation, accounting for interconnector flows and state-wide network conditions. This can be used to determine the amount of generation that should be allowed to connect under the scheme, applied through a target transmission curtailment level and aggregate maximum capacity cap (further described in section 5 of this paper).

The ultimate benefit of optimising the delivery of the REZ is to improve the long-term benefits for NSW consumers by promoting efficient investment.

Congestion and curtailment - developer outcomes

The application of an access scheme will provide increased confidence for successful access right holders regarding the congestion they can expect on the access rights network. This is fundamental to the value proposition of an access right to generators.

Consultation with developers (through the South West REZ Access Scheme Developer Reference Group) has generated mixed responses as to the value of an access scheme. It is noted that hosting capacity within the South West is severely limited by constraints between the south west and major load centres. Minimal new hosting capacity is unlocked by the delivery of PEC alone, with new connections likely to compete with existing and committed generation until Humelink is commissioned and an upgrade to PEC progressed. Despite this, there appears to be significant investor interest in progressing towards connections to PEC, accepting the curtailment risks in advance of clarity on HumeLink and the Victoria to NSW Interconnector West (VNI West) delivery.

Considerations in applying an access scheme to the South West Renewable Energy Zone

Access schemes are capable of delivering certain benefits to communities, investors and consumers. However, the decision to declare (or not) an access scheme is specific to each REZ and should consider the benefits and risks that arise from each REZ's unique characteristics.

There are potentially some risks and disadvantages to applying an access scheme to the South West REZ. These are outlined below.

Managing investment

It is possible that the introduction of an access scheme slows the connection process for PEC proponents . This is because in the absence of an access scheme, NER open access arrangements apply to PEC with projects free to negotiate connection with Transgrid once PEC is sufficiently advanced. The Draft South West REZ Access Scheme proposes to allow only limited initial connections to PEC, reflective of the increase in network capacity PEC delivers in its initial configuration. By controlling curtailment in this manner, it is likely that the scheme will restrict connections to PEC compared to connections that may proceed under open access.

Additional access rights are likely to be made available when the access right network is augmented between Dinawan and Wagga. When this occurs, the Infrastructure Planner can (at its discretion) consider downstream constraints when undertaking calculations to determine how much additional capacity is available.

An alternative approach for consultation would be to set the initial transfer capacity at the full 2.5 GW in place of limited capacity enabled by PEC and apply a corresponding capacity of access rights. If this approach were pursued, the progress of a connections process for any projects

granted access rights in excess of what is available under the initial transfer capacity would be conditional on the completion of the relevant infrastructure projects.

The practical impact of these design options is that projects will be prevented from connecting to the REZ access right network until such time as the relevant network augmentations are committed, and projects have participated in a competitive tender for access rights. For some projects, this may mean a delay to delivery. To others (those that fail to secure access rights) it may mean projects do not proceed.

This could be a necessary outcome in order for an access scheme to perform its function of ensuring efficient utilisation of the network. Modelling suggests it is not in the best interest of consumers that the REZ is subscribed to the point of significant congestion and curtailment (see target transmission curtailment level (TTCL) covered later is the paper).

Staging connections

Inherent in the value proposition of a REZ is a physical limitation on the connection of generation within the REZ. This is crucial to provide increased certainty of curtailment and congestion outcomes for access rights holders. Practically, this is achieved through a cap on connections based on a pre-determined efficient level (see target transmission curtailment level and aggregate maximum capacity cap later in this paper).

In the case of the South West REZ, this physical cap is also important for preventing oversubscription to the REZ beyond an economically efficient level. Without an access scheme, proponents would be free to negotiate connection to PEC infrastructure under NER open access arrangements.

However, there is already significant investor interest in the South West of NSW, as demonstrated by the Registration of Interest (ROI) conducted by the Energy Corporation of NSW in 2021. Accordingly, it is likely that the application of an access scheme prevents willing proponents from progressing projects in the south west where they fail to secure an access right through competitive allocation. It is possible that some project developers and investors would prefer to retain open access arrangements, despite the risk of poorer congestion outcomes. This could be driven by a number of motivations, including seeking first-mover advantage.

Scope of regulatory reach

The ‘backbone’ infrastructure of the South West REZ is being delivered by Transgrid throughPEC . This is different to other REZs, such as the Central-West Orana (CWO), where the network infrastructure is largely being delivered through the EII Act. Some stakeholders may consider that, in the absence of the need to incentivise investment in the South West REZ (ROI data shows significant existing interest), regulating through an access scheme may be a disproportionate approach.

Alternative/complementary approaches to transmission access regulation may emerge over time

The Energy Security Board (ESB) is currently working on the detailed design of a National Electricity Market (NEM)-wide transmission access reform initiative in recognition of the transition underway in the NEM. Similar to access schemes under the EII Act, the initiative aims to better coordinate new generation and network build to make sure the system overall is built and used efficiently, minimising costs for energy consumers. The proposed reforms include locational signals for generation, accounting for network congestion as well as jurisdictional initiatives such as NSW REZs.

If ESB's final detailed reform recommendations are approved by Energy Ministers later in the 2023, the ESB estimates the measures would not be able to be implemented until around 2027. These reforms are expected to be designed to work in conjunction with jurisdictional REZ schemes, rather than replace them.

A South West REZ access regime will provide a mechanism for managing connections to PEC as soon as possible, ensuring the intended benefits for communities, generators and energy consumers of transmission access reform can be realised in advance of reforms at the NEM level. PEC is already under construction and will soon be at the point where connection negotiations are progressed under the NER. Not implementing the access regime for South West REZ may exacerbate congestion in the region, resulting in over capitalisation and stranded capacity. Stakeholders are encouraged to consider the interaction between the ESB's proposal and the Draft South West REZ Access Scheme Declaration.

2. Overview of the South West REZ

This section provides an overview of the South West REZ. It provides context to understanding the design of the South West REZ access scheme, including the network specified in the South West REZ declaration and how this relates to network infrastructure projects progressing under the national framework.

Overview of the South West REZ

The South West REZ is one of five NSW REZs identified in the *Electricity Infrastructure Investment Act 2020 (NSW)*. Delivering the South West REZ is key to the NSW Government's plan for delivering secure, reliable and affordable energy to NSW consumers as outlined in the Electricity Infrastructure Roadmap.

The South West REZ is centred around the towns of Hay and Balranald on the lands of the Wiradjuri, Yorta Yorta, Baraba Baraba, Wemba Wemba, Wadi Wadi, Madi Madi, Nari Nari, Dadi Dadi, Kureinji and Yitha Yitha people. *Figure 1* shows a map of the geographic area of the REZ, as outlined in the South West REZ Declaration. *Figure 1* shows the geographic area of the South West REZ.

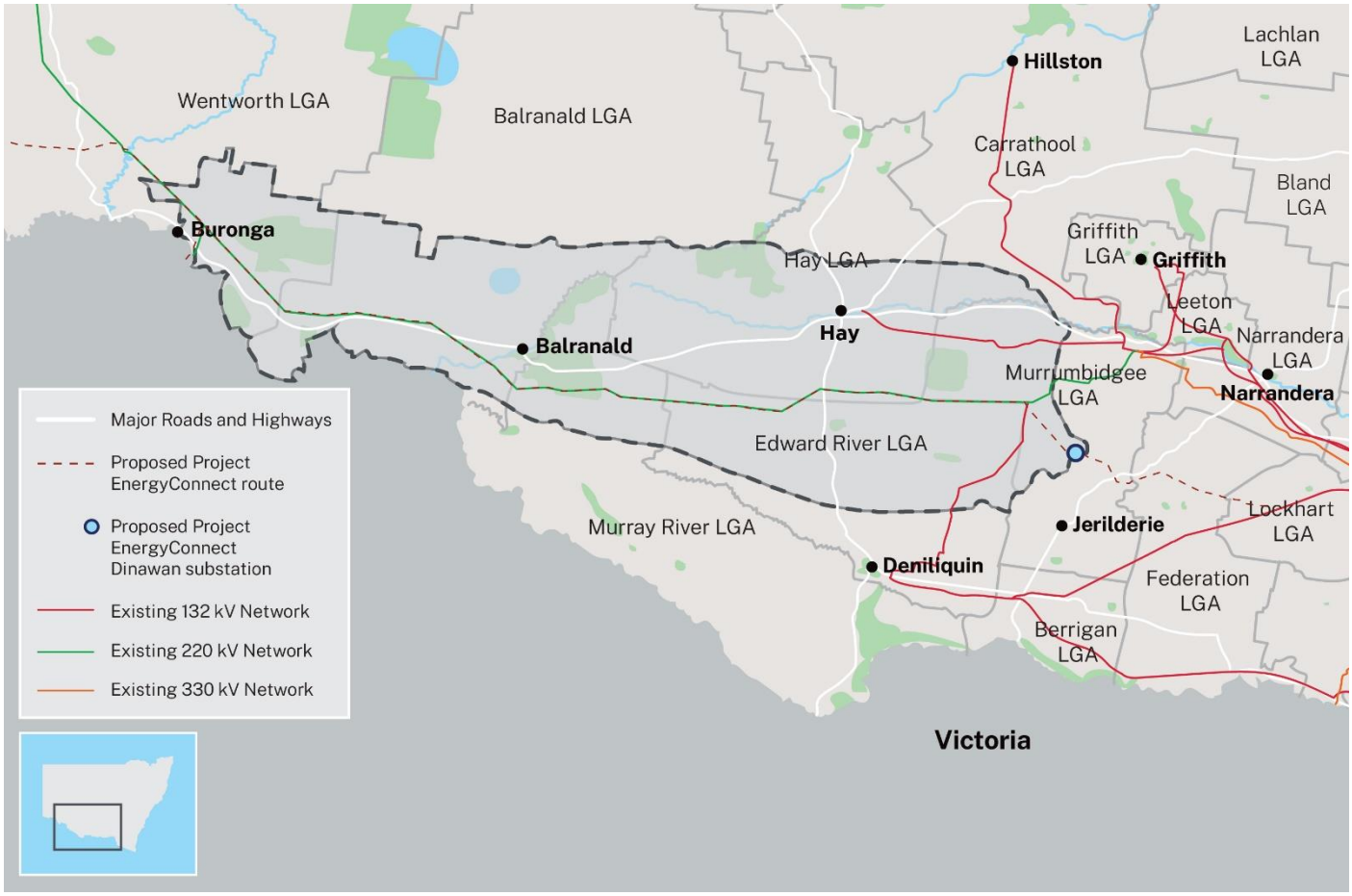


Figure 1: South West REZ specified geographical area

South West REZ Declaration

The Renewable Energy Zone (South West) Order 2022 was made on 31 October 2022, representing the Minister's formal declaration of the South West REZ under Section 19(1) of the EII Act. The declaration marks the first step towards the timely delivery of the South West REZ and Roadmap objectives including consumer savings and investment in regional NSW communities. The declaration sets the intended network capacity of the South West REZ at 2.5 gigawatts and appoints the Energy Corporation of NSW as the infrastructure planner. It also sets out the refined geographic area of the REZ (illustrated in *Figure* 1) and specifies the REZ's network infrastructure.

The network infrastructure defined in the REZ Declaration sets the scope for what network infrastructure could be covered by an access scheme. A scheme (or schemes) can apply different conditions on the infrastructure outlined in the REZ Declaration's specified network infrastructure, namely through an access rights regime or an access control mechanism.

An access scheme may include an access rights regime under which parties such as generation or storage proponents who wish to connect to specified network infrastructure in a REZ or part of a REZ (the access rights network) are required to hold access rights.

Parties connecting to network infrastructure in the REZ (other than the access rights network) could impact access right holders. To safeguard the objectives of an access rights regime, mechanisms for access control may be included in the access scheme. This mechanism may include controlling the access of parties to a specified part of the access scheme network other than the access rights network. No access control mechanism is currently proposed for the South West REZ.

The application of either an access rights regime, or an access control mechanism, are applied with reference to the scope of infrastructure enabled through the specified network infrastructure outlined in the REZ Declaration.

A request has been received to amend the geographical boundary of the South West REZ. This request will be considered separately to the development of the South West REZ Access Scheme, through a South West REZ Declaration amendment process. Any stakeholder wishing to propose any amendment to the South West REZ Declaration, including any proposals for amendment to the geographical area of the REZ, is invited to email south.west@energyco.nsw.gov.au.

Dependent network infrastructure projects

Several key transmission projects outlined in the Australian Energy Market Operator's (AEMO) Integrated System Plan (ISP)[1], are important to realising the full capacity of the South West REZ, namely PEC, HumeLink and the Victoria-NSW Interconnector West (VNI West). While the South West region of NSW is currently at maximum hosting capacity, when commissioned, these projects have the potential to impact the new generation capacity in South West NSW.

[1] Australian Energy Market Operator, *2022 Integrated System Plan*, June 2022, https://www.aemo.com.au/-/media/files/major-publications/isp/2022/2022-documents/2022-integrated-system-plan-isp.pdf?la=en.

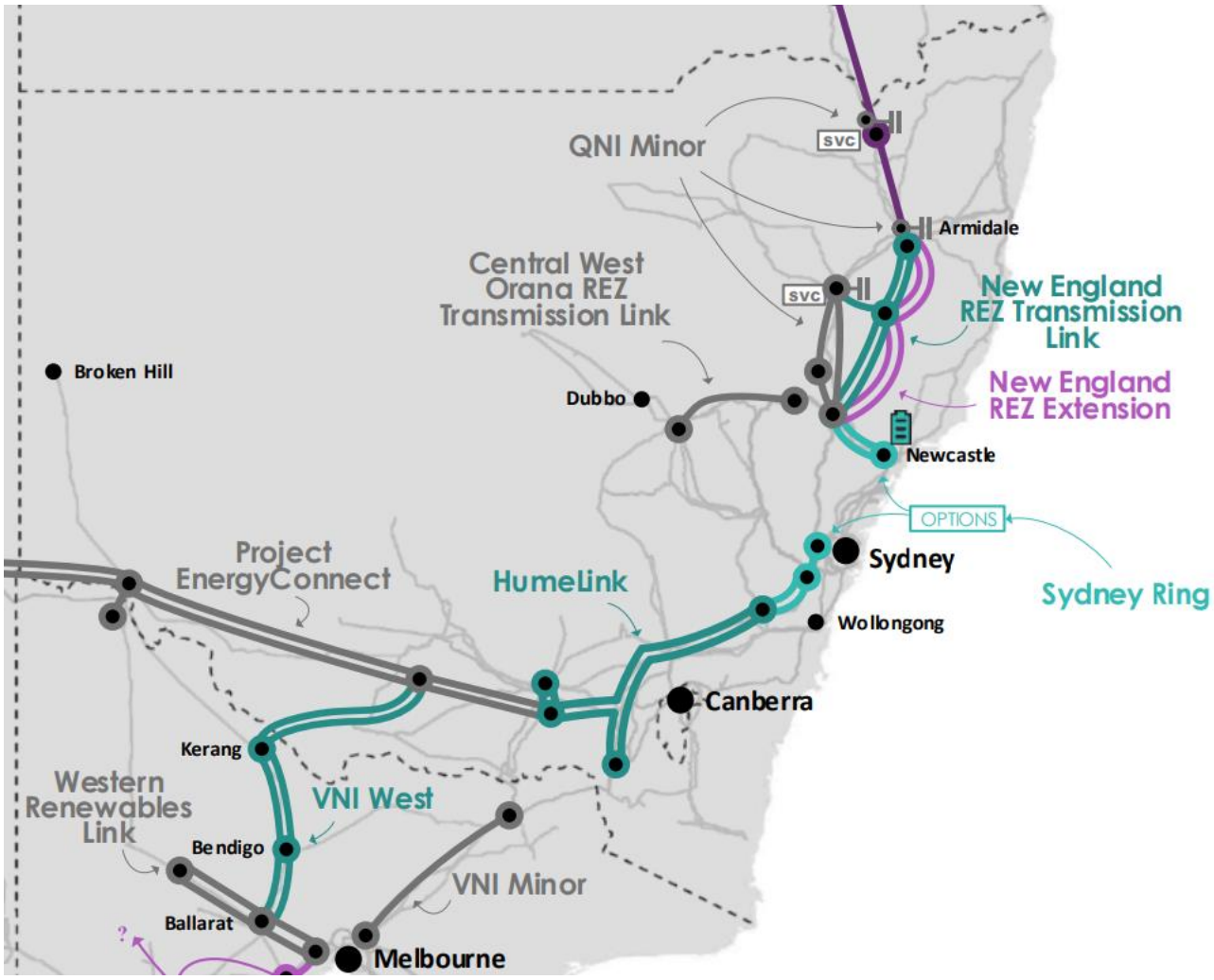


Figure 2: Map of network investments on AEMO's optimal development path (Adapted from AEMO's 2022 Integrated System Plan, p 62)

Project Energy Connect

PEC is a new 900km interconnector under development between Wagga Wagga in NSW and Robertstown in South Australia, roughly bisecting the South West REZ[2]. It is being jointly delivered by TransGrid and Electranet, with Transgrid delivering the NSW-side works under the National Electricity Market's regulatory framework. The project has already received regulatory and NSW environmental approvals.

PEC includes a section of transmission line between Wagga Wagga and Dinawan that will be constructed so that it can operate at 500 kV (subject to substation upgrades) and link to the eastern edge of the South West REZ. In recognition of limitations in other parts of the network that prevent the line operating at 500 kV, this transmission line will initially be operated at 330 kV, until augmented as discussed below. It is expected that this configuration would enable 800 MW of transfer capacity from the South West REZ, which represents the difference between the new

[2] Project Energy Connect also has a connection to Red Cliffs in Victoria.

network capacity provided by PEC and the existing network capacity already flowing out of the south west through Wagga Wagga.

Hosting capacity within the south west is currently severely limited by constraints between Wagga Wagga and major load centres, with PEC in either its initial or upgraded configuration. Regardless of the delivery of PEC, the region is likely to be subject to significant constraints until the delivery of HumeLink (ISP optimal timing of 2028/2029) with new connections likely to compete with existing and committed generation in proximity to Wagga Wagga, potentially causing further curtailment.

Early consultation, including through a South West REZ ROI indicates a high level of developer interest in the South West REZ (including connections to PEC) notwithstanding that HumeLink is not a committed project. Accordingly, the Draft South West REZ Access Scheme proposes to allow connections that correspond to PEC's initial configuration (800 MW of transfer capacity) with the risk of downstream constraint borne by projects. This allows the allocation of rights in advance of HumeLink's commitment, providing a pathway for the earliest possible connection of projects after the commissioning of PEC. The allocation of access rights that would correspond with the full 2.5 GW intended network capacity of the South West REZ, would be made in consideration of HumeLink's status at the time. This is further discussed under *Transfer Capacity* in section 4 of this paper.

Potential upgrade to Project EnergyConnect

To unlock the full 2.5 GW intended transfer capacity of the South West REZ, upgrades are required so that the Wagga Wagga to Dinawan section of PEC can be operated at 500 kV. These upgrades could be delivered through either VNI West, discussed below, or through the EII Act as a network infrastructure project under Part 5. While the upgrades would bring the South West REZ's transfer capacity to 2.5 GW, the same curtailment risks outlined above would apply until constraints downstream of the South West REZ are alleviated. HumeLink is thus critical to unlocking new generation hosting capacity in the South West REZ by allowing it to reach major load centres.

HumeLink

HumeLink is required to alleviate constraints on other parts of the network to enable the full 2.5 GW intended network capacity to be utilised. HumeLink consists of a 500 kV transmission line connecting the new Wagga Wagga 500kV substation to the Snowy Mountains Hydroelectric Scheme to Bannaby.

Proponents connecting to PEC would assume the risk of curtailment arising from constraints beyond the boundaries of the access rights network, notably those between Wagga Wagga and Sydney. This curtailment risk is expected to be lowered with the completion of HumeLink. Upgrades of the eastern end of PEC to facilitate the REZ's 2.5 GW transfer capacity will trigger an assessment of the aggregate maximum capacity of the REZ by the Infrastructure Planner (see headroom assessment and aggregate maximum capacity cap in Section 5). In setting a new aggregate maximum capacity, the Infrastructure Planner has the discretion to account for downstream constraints, including whether HumeLink is a committed project at this time. Notwithstanding this discretion, projects will always take the risk of curtailment beyond the access right network.

Although HumeLink is an ISP actionable project with regulatory approval, it has yet to receive NSW environmental approval. The Australian Energy Market Operator's (AEMO) Integrated System Plan (ISP) indicates the optimal timing for HumeLink is 2028/2029.

Victoria-NSW Interconnector West

A proposed new Victoria-NSW interconnector (VNI West) is a key project progressing under the NER. VNI West's scope includes an augmentation that would increase the capacity of the South West REZ, required to achieve the intended 2.5 GW network capacity set out in the REZ Declaration. VNI West currently comprises of a 500kV transmission line from Victoria to Dinawan substation, as well as upgrading the Dinawan – Wagga Wagga section of PEC to 500kV – unlocking the full 2.5GW of network capacity in the South West REZ.

VNI West is currently progressing through the Regulatory Investment Test for Transmission (RIT-T) process under the national framework. The Project Assessment Draft Report was published in July 2022, the second of three reports in the RIT-T process, and an Additional Consultation Report - Options Assessment was released in February 2023. Its technical and economic feasibility are still being investigated and no design or route has been confirmed. The 2022 ISP identified VNI West as an ISP actionable project with the optimal timing for stage 1 to complete early works, including the Dinawan – Wagga Wagga upgrade, by 2026 and stage 2 completion by 2031, or earlier with additional support.

Alternatively, should this augmentation not be completed through this project, or should it be needed sooner, it could be undertaken through the EII Act.

Improving stability in south western NSW

Improving Stability in South Western NSW is a project aimed at alleviating increasing risk of system instability in South Western NSW that has come about due to significant growth in renewable generation connection in the region. Transgrid has published the Project Assessment Conclusions Report (PACR) for the project, finding that the preferred solution is a new 330 kV transmission line from Darlington Point to the Dinawan substation delivered as part of PEC coupled with an interim 3-year network support contract with a battery energy storage system (BESS). Should it be delivered, the proposed 330 kV line could be captured by the South West REZ access rights network, meaning projects would require an access right to connect to this infrastructure.

Project pipeline in the south west

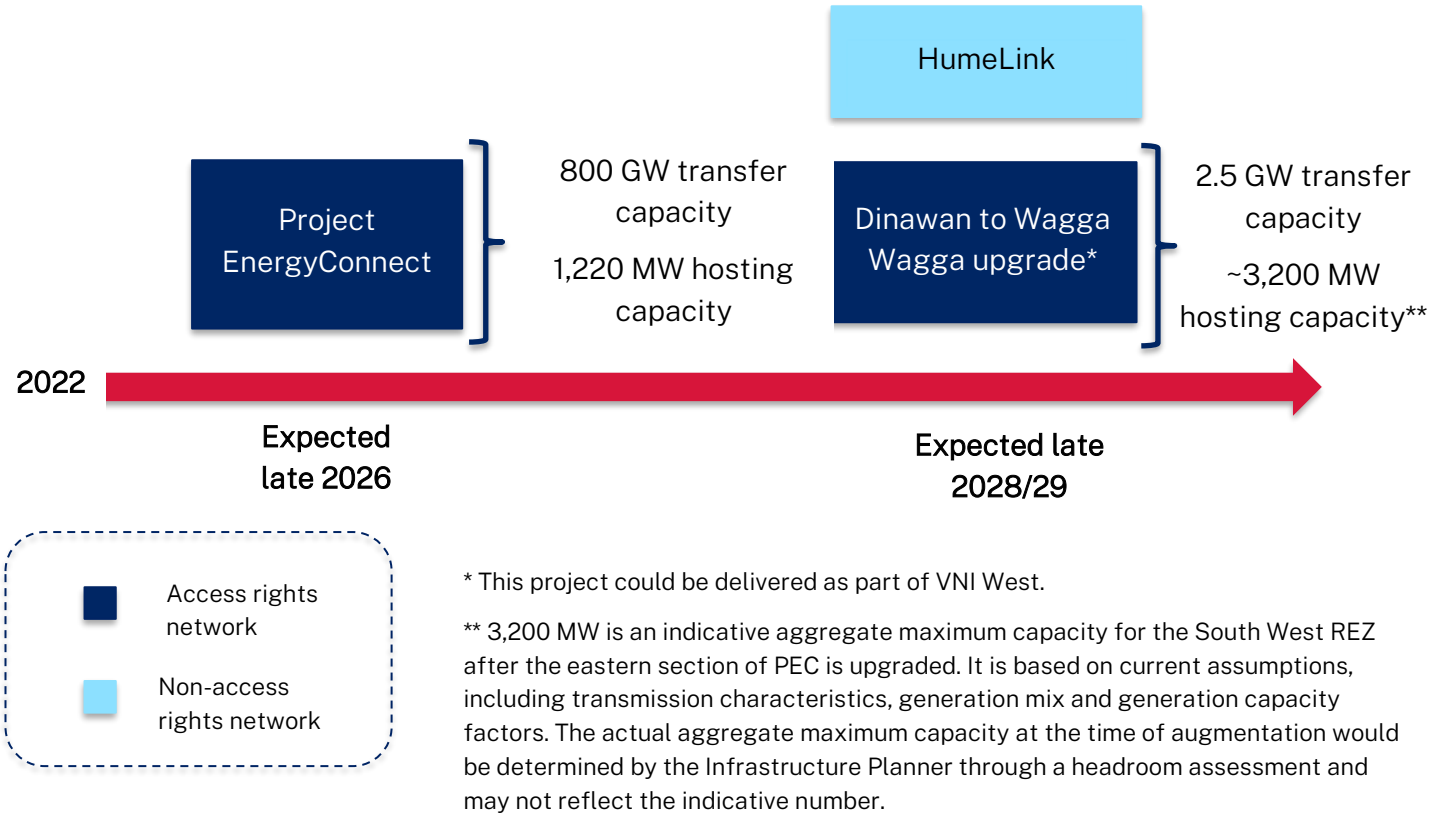
South West NSW is currently at maximum generation hosting capacity, limited by voltage stability restrictions. Despite this, there is a large number of proposed projects within the geographical area of the South West REZ at varying stages of development.

EnergyCo conducted a ROI process for the South West REZ in late 2021. EnergyCo received 49 registrations of interest totalling 34 GW from potential generation and storage projects. These registrations coupled with the current maximum hosting capacity of the south west demonstrate both the strong level of interest in renewable energy investment in the South West region and need

to manage network utilisation efficiently, to ultimately ensure financial value for NSW electricity consumers.

Project timeline

PEC is expected to be complete in late 2026, providing the initial 800 GW of transfer capacity and 1,220 MW of hosting capacity for the access right network. The delivery of HumeLink and the Dinawan to Wagga Wagga upgrade, which could be delivered as part of VNI West, would increase the transfer capacity to 2.5 GW and the hosting capacity to a potential hosting capacity of 3,200 MW**. The indicative timeline of these projects is shown below in Figure 3.



* This project could be delivered as part of VNI West.

** 3,200 MW is an indicative aggregate maximum capacity for the South West REZ after the eastern section of PEC is upgraded. It is based on current assumptions, including transmission characteristics, generation mix and generation capacity factors. The actual aggregate maximum capacity at the time of augmentation would be determined by the Infrastructure Planner through a headroom assessment and may not reflect the indicative number.

Figure 3: indicative timeline

3. Design of the South West REZ access scheme

Purpose

The Draft South West REZ Access Scheme Declaration sets out:

- eligibility requirements for connecting to the access rights network; and
- the initial capacity of access rights (in MW) that may be granted to generation, storage, and co-located hybrid projects.

The Draft Access Scheme Declaration also outlines the procedures for granting access rights, how and when the amount of capacity granted may be increased, as well as setting the duration of access rights.

Access schemes are intended to provide investment confidence for generation and storage projects, while promoting efficient utilisation of REZ infrastructure, improving competition, supporting community benefits and keeping downward pressure on energy prices for consumers.

Objectives

The overarching objectives of REZ Access Rights and Access Schemes are to encourage investment in new generation and storage projects and maximise financial value for NSW electricity consumers. REZ Access Schemes seek to

- **Utilise the network efficiently**: through coordinated and optimised delivery of network and generation infrastructure, ultimately benefiting consumers
- **Foster community and regional economic benefits**: by delivering outcomes for local communities, including through access fee distribution, mitigation of cumulative impacts and managing land use considerations
- **Improve certainty in connection timeframes**: by providing an avenue to apply a streamlined connection process
- **Provide sufficient certainty to investors**: through improved protection against congestion and curtailment within the REZ.

Aligned with these objectives, the scheme is expected to provide benefits to consumers, host communities, and project proponents and investors. The primary benefit to consumers comes from mitigating the risk that the network in the south west is over-subscribed by generators under open access, leading to high levels of curtailment. This is expected to represent an overcapitalisation in generation infrastructure that would deliver poor long-term outcomes for consumers. This risk can be mitigated within the South West REZ by setting a target transmission curtailment level and a cap on maximum hosting capacity through the South West REZ Access Scheme Declaration.

Host communities benefit from the distribution of the community and employment components of access fees, which will be used to support high-impact community projects. The access scheme would also provide a mechanism for coordinating the delivery of generation and storage infrastructure in line with community expectations. One way in which the access scheme achieves this by preventing generation and storage projects located outside of the geographical area of the REZ from connecting to the access right network. This serves to preserve agricultural and irrigated lands between Dinawan and Wagga Wagga.

Previous consultation

The design of the South West REZ Access Scheme draws heavily from the CWO REZ Access Scheme, which is the first of its kind in the National Electricity Market (NEM). The NSW Government undertook a lengthy, multi-stage consultation process to formulate policy positions for the CWO REZ Access Scheme as outlined in *Figure 3*, including:

The *CWO REZ Access Scheme Issues Paper*, released in March 2021, canvassing high-level scheme models.

The *REZ access rights and scheme design: Central-West Orana Consultation Paper*, released in December 2021, proposing design concepts and structure and implementation.

The *CWO REZ Access Rights and Scheme Design Positions Paper*, released in July 2022, accompanying the exhibition of a *draft Renewable Energy Zone (Central-West Orana) Access Scheme Order 2022*, explaining its policy positions and enabling regulations.

Figure 4: CWO consultation timeline

Stakeholder feedback from submissions to each of the papers shown in Figure 3 was used to refine and iterate the access scheme design. Through this process, several key design elements were settled on as the foundation of the CWO REZ Access Scheme, including:

The use of a **physical access model** (rather than financial) providing increased certainty of congestion outcomes in exchange for an **access fee**, a portion of which is used for community and employment purposes.

The use of a **flat maximum capacity cap** for each project across a 24-hour period, with flexibility for the Infrastructure Planner to introduce different maximum capacity amounts for different capacity periods within a 24-hour day following a further consultation process.

The use of a **Target Transmission Curtailment Level (TTCL)** that applies to the access rights network and prevents the award of access rights where the addition of a new project would increase forecast curtailment above the stipulated TTCL.

The use of an **initial aggregate maximum capacity cap**, derived from the access right network's **transfer capacity** and TTCL.

The **approach to allocating rights**, including an initial allocation conducted through competitive tenders run by the Consumer Trustee, with eligibility criteria for participation, and a methodology to increase the cap using a headroom assessment both periodically and where augmentations to the network increase the transfer capacity.

Application of existing **EII Act Regulations** to create the 'access gateway' for connections. These are NER modifications which "turn off" open access and require projects to hold an access right in order to receive an offer to connect.

Not applying an **access control mechanism** (by which connections to *existing* network infrastructure in the REZ could be controlled) to network infrastructure within the REZ. The option is retained to put an access control mechanism in place in the future through a new scheme if necessary.

Requirement for the Infrastructure Planner's approval for **directly connected load**.

The circumstances and procedures **for amending the access scheme**.

The **eligibility criteria** for participation.

The office proposes to provide consistency between the South West REZ Access Scheme, and future REZ access schemes where possible. This will reduce complexity and administrative burden for renewable energy project proponents already familiar with one access scheme and active in multiple regions across the state. It will also create conditions for similar opportunities for host communities, regardless of which NSW REZ they are located in.

This document has been designed to explain key policy positions and does not assume the reader is familiar with earlier consultation documents.

Distinctive features of the South West REZ

While the design of the South West REZ Access Scheme will leverage the work undertaken to develop the CWO REZ Access Scheme, the two REZs have key points of difference outlined below.

Delivery of network infrastructure under the national verses NSW frameworks

The vast majority of the network infrastructure that will be required to deliver the South West REZ will be delivered by TransGrid (as NSW's primary transmission network service provider) under existing NEM arrangements. This includes regulatory approval through the Regulatory Investment Test – Transmission (RIT-T), inclusion as an Actionable Project in AEMO's Integrated System Plan (ISP) and the recovery of capital and operating costs from consumers through the framework established in the National Electricity Law (NEL) and National Electricity Rules (NER).

This is in contrast, for example, to the CWO REZ, for which the new REZ network infrastructure will be delivered through the EII Act, including:

- EnergyCo, as the Infrastructure Planner, leading the development of the REZ transmission network and making a recommendation to the Consumer Trustee to authorise the network project required to deliver the REZ.
- EnergyCo, as the Infrastructure Planner, running a competitive tender process to appoint a Network Operator to design, build, finance, operate and maintain the REZ transmission network.
- The Regulator setting the maximum amount payable to the network operator for the development and construction of the REZ network infrastructure project
- The appointed Network Operator, designing, building and operating the REZ transmission network.

Should there be a need for additional network infrastructure, beyond what is delivered under the national framework, network components of the South West REZ may be delivered under the EII Act. This could include any upgrades required to allow the Dinawan-to-Wagga Wagga component of PEC to operate at 500 kV, if they are not completed by planned projects such as VNI West. Similarly, there is an option for spur lines available to multiple generators, system strength assets and economic augmentations to be delivered through the EII Act framework.

However, the vast majority of network required to unlock the 2.5 GW intended transfer capacity of the South West REZ is proposed to be delivered through PEC, HumeLink and VNI West under NEM-wide arrangements.

This does not necessarily impact the value of an access right to projects seeking to connect to the South West REZ. Regardless of the mechanism for delivering the network infrastructure, proponents are still expected to benefit from investment conditions created by limited physical connections and preventing over subscription to the REZ driving inefficient utilisation. It is expected that the intended capacity of 2.5 GW will be achieved through one of these two avenues, ideally with the timing of augmentation aligned with the delivery of HumeLink to relieve downstream constraints.

Host communities will benefit from the access scheme's delivery of local community outcomes. For example, the access scheme will allow for coordinated and controlled connection of generation and storage infrastructure not possible absent a scheme. This includes preventing REZ projects from hosting in high value agricultural and irrigated land surrounding the section of PEC stretching from Dinawan to Wagga Wagga. This was a desired outcome noted during consultation for the declaration of the South West REZ. Local communities will also benefit from the collection and distribution of access fees, a portion of which is to be used for local community and employment purposes.

Process for connecting to access right network

While the South West REZ Draft Declaration includes provisions that provide the Infrastructure Planner with the flexibility to apply a REZ-specific connection process, these provisions are unlikely to be applied to the initial allocation of access rights. The initial 800 MW transfer capacity is

significantly lower than the transfer capacity of the CWO REZ access right network, and the smaller number of generators reduces the benefits of a batched connection process or of a standardised generator performance standard or inverter based resources standard(together known as the REZ Access Standards). However, a REZ-specific connection process may be applied to the REZ connection process for the augmented REZ, up to the 2.5 GW intended network capacity.

A project that secures an access right to the initial 800 MW transfer capacity will progress its connection through the existing NER connection processes.

Trigger for amending the transfer capacity of the access right network

The Draft South West REZ Access Scheme Declaration includes a trigger for the Infrastructure Planner to amend the transfer capacity of the access right network following an addition, extension or augmentation of the access right network that increases its transfer capacity. This will support the staged development of the access right network as projects that are planned, but not yet confirmed, such as HumeLink and VNI West, are completed.

4. South West REZ Access Scheme Description

Summary

An access right authorises an access right holder to submit an application to connect an approved project to the access rights network at a connection point in accordance with the terms of any applicable Access Right Agreement and the NER (as modified by the regulations). The access right holder holds an access right for the maximum capacity of the approved project.

The South West REZ Access Scheme will be a limited physical connections model, with a single tier of access rights, for its duration (which initially is 20 years from the electrification of the first network element of the access rights network). A physical connections model places limitations on the size, and other characteristics of generation and storage projects connecting to the access rights network. This model is designed to provide investor confidence by physically restricting the capacity of eligible projects that can be granted access rights. This restriction is set using a target level of transmission curtailment on the access right network.

Access rights may only be granted to an eligible operator in respect of an approved project for a specified maximum capacity. The maximum capacity of all approved projects cannot exceed an aggregate maximum capacity cap. The Infrastructure Planner may increase the aggregate maximum capacity cap through a headroom assessment in certain circumstances, such as where augmentations increase the transfer capacity of the access right network. The cap cannot be increased where it would cause modelled forecast curtailment of the access rights network to exceed the target transmission curtailment level (see target transmission curtailment level in section 5 of the paper).

The trigger to increase the transfer capacity can accommodate augmentations under different scenarios (such as those progressed through the EII Act or NER arrangements). The Infrastructure Planner's determination of the new transfer capacity is proposed to be based on the scope of the committed network infrastructure project.

Maximum capacities will initially be awarded to projects as a single flat capacity across a 24-hour period. In future, the Infrastructure Planner may introduce different maximum capacities in different time of day periods to improve network utilisation. A consultation process will be conducted before introducing time of day periods, and projects receiving access rights prior to their introduction will continue to hold their relevant maximum capacity across all intra-day periods. Once introduced, different aggregate maximum capacity caps will also apply across different time-of-day periods.

Within the aggregate maximum capacity cap, access rights may only be granted where the eligible project's expected capacity profile does not cause the modelled forecast curtailment of the access rights network to exceed the target transmission curtailment level. If the Infrastructure Planner has

also notified a target network element curtailment level for a specific network element within the access rights network, access rights for an eligible project at that network element may only be granted where the forecast curtailment does not exceed the target network element curtailment level. This allows the Infrastructure Planner to manage curtailment on individual transmission lines or substations if necessary.

Limited physical connection

Position explanation

The South West REZ Access Scheme will be a limited physical connections model, with a single tier of access rights. Physical control of access to the access rights network is derived from Clause 5 of the Draft Declaration that prohibits a person from connecting a project to any part of the South West REZ access rights network unless they hold an access right for an eligible project.

The requirement to hold an access right creates an 'access gateway' for connection to the REZ network infrastructure. The 'access gateway', modifying the existing open access framework, is enable through the Electricity Infrastructure Investment Regulation 2021.

The effect of the modifications is that, once the South West Access Declaration is made:

a) a person must not submit an application to connect to an access rights network under an access scheme unless … for the connection of a generating system — the person is registered as the holder of an access right for the generating system in the access rights register for the access scheme; and

b) a Network Service Provider must not make an offer to connect a person's facilities to an access rights network under an access scheme unless … for the connection of a generating system the person seeking to connect the generating system is registered as the holder of an access right for the generating system in the access rights register for the access scheme.

In doing so, the regulations effectively switch off the NEM open access frameworks for the relevant network. The holding of an access right is evidenced by inclusion on an access rights register, maintained by the Infrastructure Planner. The register includes a description of the project, its maximum capacity, and other information outlined in Clause 22(1) or identified by the Infrastructure Planner under Clause 22(2).

Once connected, the REZ access right holder is entitled to send out generation from the approved project up to its maximum capacity as recorded in the access right register. The access right is a right to connect and to participate in the market, but not a right to dispatch energy. The National Electricity Market Dispatch Engine plays the same role in dispatching REZ access rights holders as it does for generators outside the REZ.

Rationale

The physical connection model was chosen over a financial compensation mechanism as it provided administrative simplicity for generators and a shorter implementation timeframe. It is intended to

provide investor confidence by physically restricting the capacity of eligible projects that can be granted access rights using a target level of transmission curtailment; see 'Target level of transmission curtailment'. The physical model was consistently preferred in stakeholder feedback on the CWO REZ access scheme for its relative simplicity.

The access right has been designed not to interfere with the National Electricity Market Dispatch Engine (NEMDE), or impact on Australian Energy Market Operator's (AEMO) ability to direct generators during lack of reserve conditions. This was done to limit administrative burden and reduce the cost of establishing and administering the access scheme. Where possible, consistency has been maintained with conditions outside of the REZ access scheme, including interactions with market bodies.

Connections process and transitional arrangements for projects holding existing offers to connect

Position explanation

Once an access scheme declaration is made, the application of the 'access gateway' regulations under the EII Act provide that:

- a person must not submit an application to connect to an access rights network unless they hold an access right; and
- a Network Service Provider must not make an offer to connect a person to an access rights network unless they hold an access right.

The holding of a South West REZ access right entitles the holder to submit an application to connect to the REZ access right network. The project will then progress connection under the NER connection process. Although the Draft Declaration provides the option for the Infrastructure Planner to apply a REZ-specific connection process, including batched connection and REZ-specific access standards, this will not be applied to the initial 800 MW transfer capacity.

If a project has received an offer to connect at the time the final declaration is made the project:

- may connect to PEC without holding an access right
- is not required to pay access fees or enter into access right agreements.
- will have its MW capacity taken into account (deducted from) the aggregate maximum capacity cap when access rights are awarded
- will have its expected generation profile taken into account in assessing whether forecast curtailment on the REZ exceeds the TTCL

In taking the project in to account, the Infrastructure Planner will also assess whether the project is likely to proceed. This is proposed to avoid an underutilisation of REZ capacity where projects do not progress following receipt of an offer to connect.

Any increase to the project's capacity from the initial capacity to which the offer to connect relates at the time the final declaration is made requires an access right.

If a project has made an application to connect but has not yet received an offer to connect when the final declaration is made, the access scheme will apply to the project and it will be required to compete for an access right through the Consumer Trustee's tender process in order to receive an offer to connect; see 'Access rights tender'.

Projects at other stages of the NER connection process, including that have submitted an application to connect but not yet received an offer to connect, will not be subject to transitional or "grandfathering" arrangements and will be required to abide by the conditions set out in the Draft South West REZ Access Scheme Declaration and facilitated by regulations under the EII Act. This includes, for example, the process for the allocation of access rights and payment of access fees.

Should no projects have received an offer to connect at the time a final South West REZ Access Scheme Declaration is made, transitional provisions would be unnecessary and may be removed from the final declaration.

Rationale

Until an access scheme is declared, generator connections to PEC will progress under the existing open access NER framework. However, projects should note that existing NER process will be amended for connections to the access right network and the access gateway will be applied. Consequently, projects that have received an offer to connect prior to final declaration will be considered under the access scheme, while projects that have not reached this stage will need to compete for an access right and if unsuccessful will not be able to connect to the access right network.

Access scheme duration

Position explanation

The initial term of the South West REZ Access Scheme is the period from the date of the South West REZ Access Scheme Declaration to the date that is 20 years from the date of the electrification of the first network element of the access rights network, as notified by the Infrastructure Planner.

All access rights expire at the end of the initial term unless the term of the South West REZ Access Scheme is extended.

The South West REZ Access Scheme Declaration allows for the term of the South West REZ Access Scheme to be extended at any time at the discretion of the Infrastructure Planner.

The Infrastructure Planner will also conduct a review 5 years before the expiry of the term to consider an extension to the term. The Infrastructure Planner must notify the Consumer Trustee and access right holders if the term is extended.

Rationale

Previous Consultation Papers on REZ access schemes proposed an access right duration of 15 years. Feedback from stakeholders shows a general preference for longer duration access scheme and right as this would:

- Provide greater value to proponents given the expected staggering of commissioning dates.
- Benefit communities by delivering a coordinated development of renewable energy and transmission projects in the REZ, as well as a longer-term benefit-sharing model.
- Deliver greater investment certainty in the context of significant uncertainty around the national reform process.

Access right network

Position explanation

A key purpose of an access scheme declaration is to specify the network infrastructure in a REZ that the access scheme applies to.

The following network infrastructure is specified as the access rights network for the South West REZ Access Scheme.

South West REZ below means the South West renewable energy zone declared in the *Renewable Energy Zone (South West) Order 2022*:

1. all planned and new network infrastructure *between, and including, Buronga and Dinawan substations in the 'specified geographical area' defined in Schedule 2 of the South West REZ Declaration and operating at nominal voltages of 220kV, 330kV or 500kV; and*

2. to the extent not specified in paragraph *1, all planned and new network infrastructure directly connecting the Dinawan substation to any other substation or switching station outside the 'specified geographical area' defined in Schedule 2 of the South West REZ Declaration and operating at nominal voltages of 220kV, 330kV or 500kV; and*

3. any *repair, replacement, extension or augmentation of the network infrastructure specified in paragraphs 1 and 2 that is owned or operated by a network operator, including any market-led augmentation.*

The intention of this definition is to apply the access scheme to:

- all NSW-side PEC infrastructure between and including Buronga and Dinawan substations
- the 500 kV (330kV operated) line from Dinawan to Wagga Wagga that largely sits outside the geographic area of the REZ, up to but not including the Wagga Wagga substation
- portions of any NSW transmission line section of VNI West between Dinawan and another substation outside of the geographical area of the REZ. This is expected to include all NSW-side VNI West infrastructure from Dinawan to the NSW/VIC border (or the nearest directly connecting substation in NSW) as part of the South West REZ access right network.
- any future Dinawan to Darlington Point transmission line

Consistent with the South West REZ Declaration, the scheme does not extend to cover any transmission line outside of NSW and for the avoidance of doubt, references to planned network infrastructure includes network infrastructure once constructed.

The access right network also does not include existing transmission infrastructure within the geographical area of REZ. Although existing infrastructure within the REZ would have no access scheme or access control applied to it, any infrastructure that falls under the broader definition of specified network infrastructure in the South West REZ Declaration could be subject to access control in the future. This is further discussed in 'Access control mechanisms'.

While the access rights network extends outside of the geographical area of the REZ, only projects wholly within the geographical area of the REZ will be eligible to connect.

Rationale

As outlined earlier in this paper, the specified network infrastructure described above has been designed to:

- Facilitate the 2.5 GW intended network capacity delivered through PEC, and upgrades to the Dinawan-to-Wagga Wagga line; and
- Retain flexibility to pursue reasonable alternative network options to facilitate the 2.5 GW intended network capacity.

Although the Dinawan to Wagga Wagga component of PEC sits outside the REZ geographic area, including it as access rights network will allow control of connections to this infrastructure through the South West REZ Access Scheme. Projects will only be eligible for access rights where they are located wholly within the geographical area of the REZ. This effectively prevents storage and generation projects from hosting in high value agricultural and irrigated land surrounding the section of PEC stretching from Dinawan to Wagga Wagga.

This was done to optimise land use considerations, including irrigated cropping and agricultural lands, based on feedback received during REZ stakeholder consultation.

The draft South West REZ Access Scheme also applies the same approach to the sections of VNI West from Dinawan to the Victorian border, and any future transmission from Darlington Point to Dinawan, to the extent that these are located outside the geographical area of the REZ.

Transfer capacity

Position explanation

Transfer capacity means the network capacity in MW between the access rights network and the transmission network to which the access rights network is connected. The transfer capacity is used to assess forecast curtailment (see target transmission curtailment level in in section 5 of the paper).

If there is more than one point of connection between the access rights network and another transmission network, the transfer capacity will take into account the combined transfer capacity

across all points of connection. Accordingly, the transfer capacity of the South West REZ access rights network takes into account the access rights network's connection to the east of the access right network, the westerly interconnection with South Australia, the southerly connection to Victoria and the potential northern connection to the existing network. However, the western, northern and southern connections mentioned do not materially alleviate the downstream constraints that bind the South West REZ transfer capacity, as they are intended for interstate power flows or improving stability in the existing network.

As such, the initial intended network capacity for the network infrastructure in the South West REZ will be 800 MW, aligned with the delivery of PEC infrastructure, including the component of line from Dinanwan to Wagga Wagga operating at 330 kV. It is expected that an augmentation to the eastern section of PEC (between Wagga Wagga and Dinawan) will deliver the full intended 2.5 GW transfer capacity outlined in the South West REZ declaration.

The Draft South West REZ Access Scheme Declaration contains a trigger to increase the transfer capacity of the access rights network if the network is augmented, whether this occurs under the national framework or the EII Act.

The Infrastructure Planner must notify access right holders and publish a notice on its website of the access rights network transfer capacity following:

- commissioning of the access rights network
- a headroom assessment
- the commissioning of any augmentation of the access rights network, including a market-led augmentation.
- According to the definition of transfer capacity in clause 10 of Schedule 3,

The trigger to increase transfer capacity can accommodate augmentations under different scenarios (such as those progressed through the EII Act or NER arrangements). In determining the new transfer capacity of the access rights network, the Infrastructure Planner can make its determination when the project is committed, rather than merely when it is commissioned. This means that the aggregate maximum capacity of the REZ access rights network can be increased through a headroom assessment in time for rights to be allocated for project delivery to best align with commissioning of the augmentation to the access rights network.

Transfer capacity of network elements

In relation to a network element[3] transfer capacity means the capacity in MW between that network element and another element on the access rights network. The Infrastructure Planner will initially set any transfer capacity of a network element under the South West REZ Access Scheme Declaration. The Infrastructure Planner may later revise this capacity where the network element is augmented, including through a market-led augmentation.

As with the REZ's transfer capacity, the trigger to increase the transfer capacity of network elements can accommodate augmentations under different scenarios (such as those progressed through the EII Act or NER arrangements). In determining the new transfer capacity of the access

[3] Which means a network element within the meaning given in the *Rules* that comprises part of the *access rights network*

rights network, the Infrastructure Planner can make its determination when the project is committed, rather than merely when it is commissioned.

Rationale

This approach has been adopted to reflect the staged delivery of the access right network and that the time between the commissioning of PEC and HumeLink is uncertain.

PEC, now under construction, is expected to be delivered by 2026, according to AEMO's Integrated System Plan (ISP). The ISP indicates the optimal timing for HumeLink is 2028/2029, through Transgrid has proposed construction could be completed by end-2026.

The same target transmission curtailment level will be applied as the network transfer capacity changes over time to provide market certainty as the transfer capacity is revised. The Draft South West REZ Access Scheme Declaration allows the Infrastructure Planner to consider downstream constraints at its discretion when undertaking calculations related to headroom assessments to increase the aggregate maximum capacity of the REZ.

Access rights in the initial allocation would allow connection to REZ access right network when commissioned as part of Transgrid's delivery of PEC. Proponents would assume the risk of curtailment arising from constraints beyond the boundaries of the access rights network, notably those between Wagga Wagga and Sydney that would be removed with the delivery of HumeLink.

It is important that the South West REZ Access Scheme design enables the creation and allocation of additional access rights as the REZ is developed, and network capacity is unlocked in stages. The aggregate maximum capacity cap may be increased by the Infrastructure Planner following a headroom assessment, including a headroom assessment undertaken as the result of a market-led augmentation. The headroom assessment provides a process for confirming an increase in transfer capacity, as well as the modelling methodology associated with increasing available access rights to promote efficient network utilisation.

5. Applying limited physical connection

Target Transmission Curtailment Level

Position explanation

Applying the Target Transmission Curtailment Level (TTCL)

The proposed target transmission curtailment level for the South West REZ Access Scheme is 0.54%. This figure has been derived from the intended network capacity of 2.5 GW and will be applied to the initial network capacity of 800 MW.

The target transmission curtailment level will apply for the initial term of the South West REZ Access Scheme and any increase to the aggregate maximum capacity cap will not affect the level. If the 20-year initial term is extended, the Infrastructure Planner may apply a revised target transmission curtailment level for the term of any extension. This is to allow the flexibility to provide an appropriate and efficient target transmission curtailment level that reflects market conditions more than 20 years on from when the initial level is set.

The Infrastructure Planner may only grant an access right or grant an increase to the maximum capacity of an access right holder's approved project, where a proposed project's expected capacity profile would not cause the forecast curtailment of the access rights network to exceed the target transmission curtailment level.

The target transmission curtailment level is also the relevant governing limit in a headroom assessment to increase the aggregate maximum capacity cap, described further in 'Headroom assessment' and 'Market-led augmentations' below.

Expected capacity profile

The Infrastructure Planner must determine a project's expected capacity profile. This is the Infrastructure Planner's forecast of that project's available capacity based on a combination of information that represents the project's likely generation profile based on its project characteristics as set in the access rights register and in a project's Access Right Agreements. Initially, this is expected to include the representative information for the relevant plant type from the Australian Energy Market Operator's (AEMO's) Integrated System Plan, and the project's own forecast generation profile, and is later proposed to reflect a project's historical available capacity and sent out generation where appropriate. It is anticipated that the expected capacity profiles for storage projects will be based on market modelling. Where the Infrastructure Planner has introduced maximum capacity profiles, a project's expected capacity profile will reflect any reduced maximum capacity in a capacity period; see 'Maximum capacity profiles'.

Aggregate expected capacity profile

The expected capacity profiles of all approved projects together then inform an aggregate expected capacity profile, determined by the Infrastructure Planner, less the Infrastructure Planner's forecast profile of any load connected to the access rights network. Figure 3 provides an illustrative example of how expected capacity profiles may be formulated over the reference year for solar generation, wind generation, and storage technologies, less load.

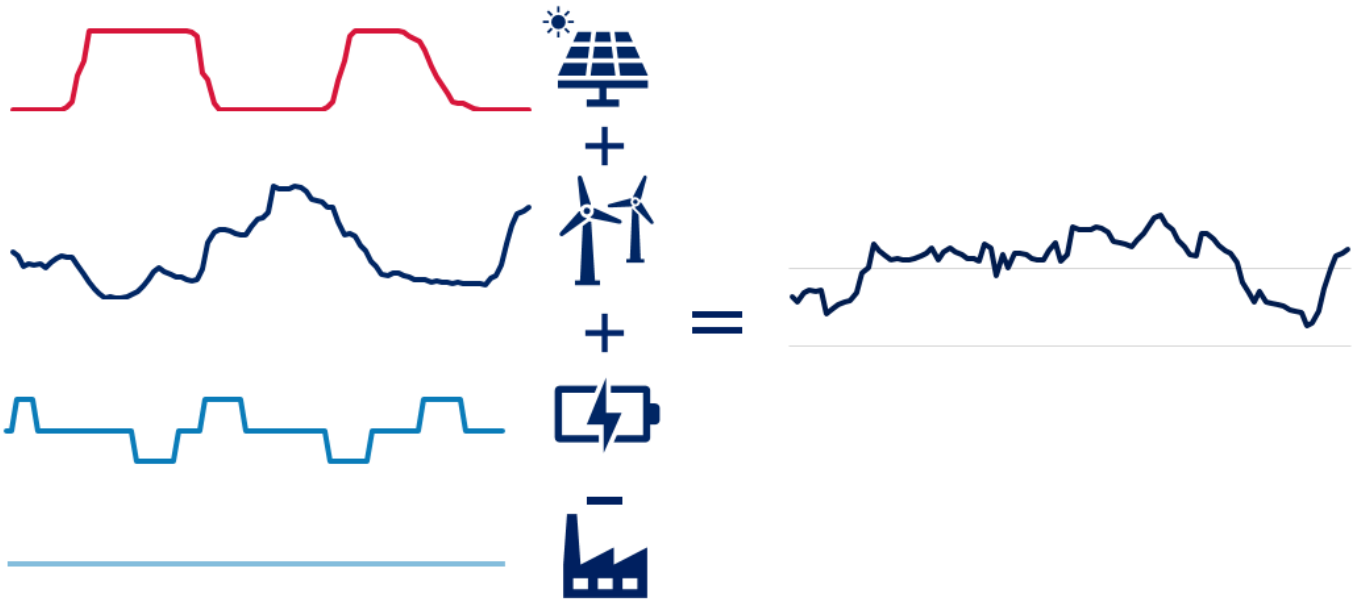


Figure 4: Aggregate expected capacity profile – including indicative solar, wind, storage and load profiles

Forecast curtailment

Forecast curtailment is calculated on the basis of a modelling exercise. It models the generation that would have been produced (in MWh) under the aggregate expected capacity profile across an identified reference year and evaluates the percentage of this generation that cannot be sent out because it exceeds the transfer capacity of the access rights network as depicted in Figure 4 below.

Forecast curtailment for a reference year can be calculated with the following formula:

$$\textit{forecast curtailment (\%)} = \frac{\textit{forecast Curtailed electricity}}{\textit{forecast potential sent out generation}}$$

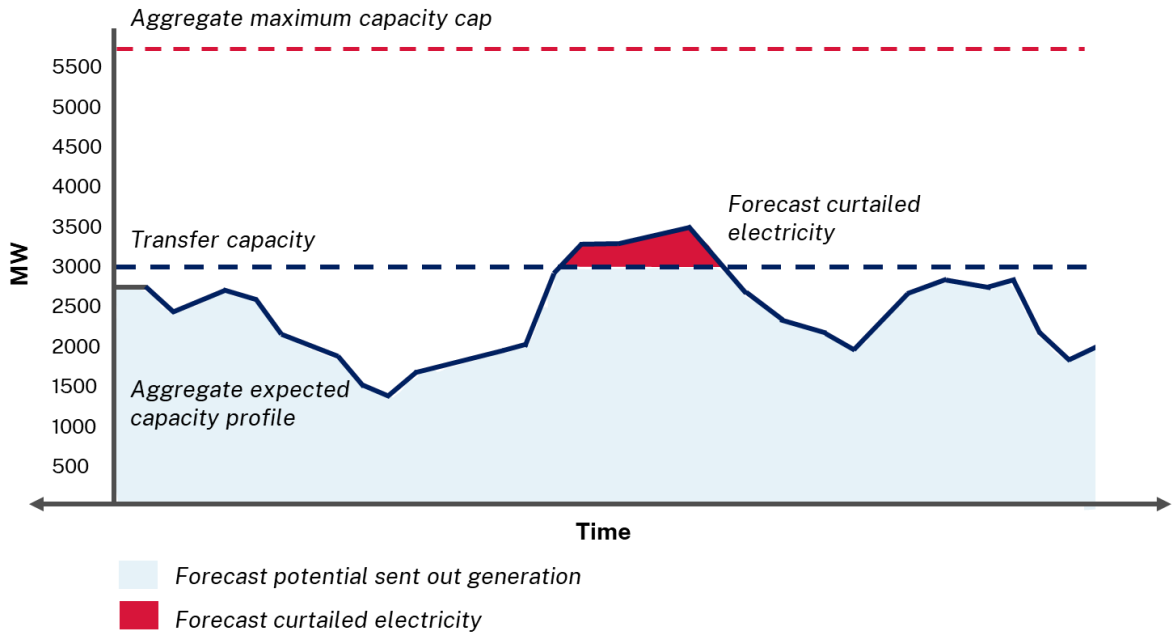


Figure 5: Forecast curtailment

Forecast curtailment can change if (a) the aggregate expected capacity profile is amended to reflect updates in the expected capacity profiles of approved projects and the impacts of load connections, and (b) the transfer capacity of the network increases.

The Infrastructure Planner may notify the Consumer Trustee and access right holders, and publish a notice on its website, of a target network element transmission level for an individual network element.

Modelling used to derive the South West REZ TTCL

The TTCL is a key component of the value proposition for generators provided by the access scheme, representing the model's economically efficient planting of generation in the REZ.

AEMO Services Limited (ASL) as the Consumer Trustee has conducted market modelling to inform a decision on the TTCL and initial aggregate maximum capacity cap for the South West REZ Access Scheme. This used AEMO's existing in-house models for generation and transmission co-optimisation, combined with the Central and Hydrogen Super Power (or *All Coal Exit)* scenarios from the Infrastructure Planner's Draft Network Infrastructure Strategy. The model is used to determine the economic optimal size of generation planting in the south west over the staged delivery of transmission projects proposed in AEMO's Integrated System Plan through to 2044.

The approach used to derive the TTCL for South West REZ involved the following steps:

1. Identification of the economically optimal amount of generation capacity in the model in South West REZ once PEC, HumeLink and the Dinawan to Wagga upgrade are completed (when the network capacity will be 2.5 GW) and the amount of generation planted in the model at this point. Based on current modelling, this could see approximately 3,230 MW of generation capacity in 2037/38 in the south west.
2. Applying the generation year and amount of generation capacity from step 1 above, take the transmission curtailment of this economically optimal planted generation in 20237/38 to derive a TTCL. Based on this process and ASL's modelling results, the TTCL for a South West REZ Access Scheme is 0.54%.

Consideration of interconnector flows

The objective of PEC is to connect the South Australian and NSW regions of the National Electricity Market (NEM). It will provide a means for electricity to travel between the states, leveraging the diversity of energy sources that can be found in each region, with economic and energy reliability benefits for consumers on both sides of the interconnector.

The modelling used to generate a target transmission curtailment level (TTCL) for the South West REZ has considered this. It accounts for conditions across the State, including inflows through interconnectors such as PEC. The TTCL provides assurance of the level of curtailment generators can expect on the REZ access rights network. The South West REZ TTCL is set at a very low level compared to the CWO REZ (0.54% compared to 4.37%). The application of an access scheme with a TTCL at this level is designed to prevent excessive planting of new generation along PEC that would increase curtailment in the region and displace imports from existing, lower cost, South Australian renewables. This is in the long-term interest of consumers as it prevents overcapitalisation and unnecessary curtailment. Additional sensitivity testing of the TTCL modelling assumptions will be conducted during the exhibition period to further validate the 0.54% TTCL.

Rationale

The target transmission curtailment level does not represent a firm curtailment promise but governs the Infrastructure Planner's power to grant access rights through a process that models transmission curtailment on the access rights network at a point in time. It does not reflect the expected curtailment of any individual project connecting to the REZ, which will also be subject to any technical curtailment driven by factors outside of the REZ as well as economic curtailment.

The access right is not intended to remove locational price signals for generators, but rather to give projects enough information to accurately assess these risks. This will better support proponents to engage in lender due diligence processes and achieve financial close for their projects.

The Infrastructure Planner's option to apply a target transmission curtailment level to a network element is intended to protect the value of the access right and provide investor certainty that curtailment is assessed relative to the main network elements of the REZ access rights network. This means that the Infrastructure Planner could nominate a target to prevent certain access right holders from experiencing significantly higher curtailment than the REZ-wide average.

The proposed 0.54% TTCL for the South West REZ is significantly lower than the 4.37% applied to the CWO REZ, despite applying a consistent modelling approach. This is likely due to:

- The low capacity factors for wind energy resources in the south west currently used in AEMO's ISP modelling assumptions, when compared to CWO and New England REZs.
- Proportionally lower solar generation, compared to wind, planted in the model by the year that the TTCL is calculated (2037/38).
- The role of PEC (and later, VNI West) as interconnectors to adjacent jurisdictions.

Aggregate maximum capacity cap

Position explanation

The aggregate maximum capacity cap is the limit on the aggregate maximum capacity of approved projects that may hold an access right at any point in time. An initial aggregate maximum capacity cap of 1,220 MW will apply to the South West REZ based on an initial 800 MW transfer capacity and TTCL of 0.54%.

The aggregate maximum capacity cap may be increased by the Infrastructure Planner from time to time following a headroom assessment, including a headroom assessment undertaken as part of a market-led augmentation; see 'Headroom assessment' and 'Market-led augmentations'.

The initial capacity cap is a flat capacity cap across a 24-hour period. Where maximum capacity profiles are introduced, the aggregate maximum capacity cap may differ across different capacity periods.

The Infrastructure Planner must notify the Consumer Trustee and access right holders, and publish a notice on its website of any increase to the aggregate maximum capacity cap.

Rationale

An initial aggregate maximum capacity cap supports:

- certainty for investors – by providing a clear aggregate maximum capacity, and a process, including consultation, where headroom assessments or market-led augmentations can increase this capacity
- clear market information – as to the MW volume of access available at any point in time
- flexibility for the Infrastructure Planner – to nominate at its discretion a lower aggregate maximum capacity cap than calculated through a headroom assessment, reserving capacity for future substation expansions and a coordinated staged network build out

An alternative approach for consultation would be to set the initial transfer capacity at 2.5 GW in place of the 800MW and apply a corresponding aggregate maximum capacity cap of 3 200 MW (noting that is only an indicative number based on current assumptions). If this approach were pursued, the progress of a connections process for any projects granted access rights in excess of the initial 1,220 MW would be conditional on the completion of the relevant infrastructure projects.

Headroom assessment

Position explanation

The headroom assessment will determine the extent to which the aggregate maximum capacity can be increased to allow the Infrastructure Planner to grant additional access rights, or additional maximum capacity under existing access rights. The Infrastructure Planner must determine whether access rights could be granted without forecast curtailment on the access rights network exceeding the target transmission curtailment level.

The Infrastructure Planner will undertake a headroom assessment as soon as practicable following the completion of the initial allocation. Following this initial assessment, a headroom assessment will be conducted once every 2 calendar years for the following 6 years.

The Infrastructure Planner may also determine to undertake an additional headroom assessment at any time if there is likely to be material headroom such as at the completion of HumeLink or VNI West.

The Infrastructure Planner also has the discretion to notify stakeholders that a headroom assessment is not required in a given year.

If, when conducting a headroom assessment, the Infrastructure Planner finds that forecast curtailment exceeds the target transmission curtailment rate of 0.54%, no headroom will be identified.

If forecast curtailment is found to be less than the target transmission curtailment level, the Infrastructure Planner will:

- identify an indicative technology mix of potential future projects (including potential ratios of types of generation and storage) and create expected capacity profiles for the potential future projects with reference to their technology types
- create a new potential profile that combines the aggregate expected capacity profile of approved projects, together with the aggregate expected capacity profile of potential future projects
- identify the maximum aggregate expected capacity profile of potential future projects that could be granted access rights without the new profile causing forecast curtailment on the access rights network to exceed the target transmission curtailment level

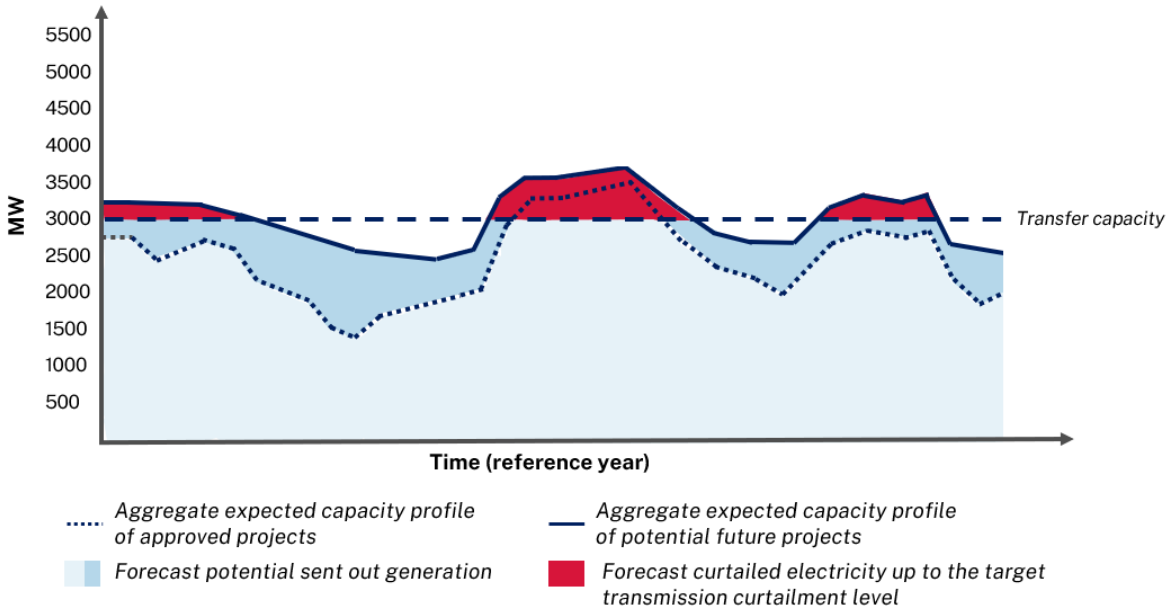


Figure 6: Headroom assessment – identifying the maximum available capacity profile

- identify the aggregate maximum capacity of the relevant potential future projects that could be granted access rights without causing forecast curtailment to exceed the target transmission curtailment level
- calculate headroom as the sum of the aggregate maximum capacity of relevant potential future projects and the aggregate maximum capacity of approved projects, minus the aggregate maximum capacity cap;

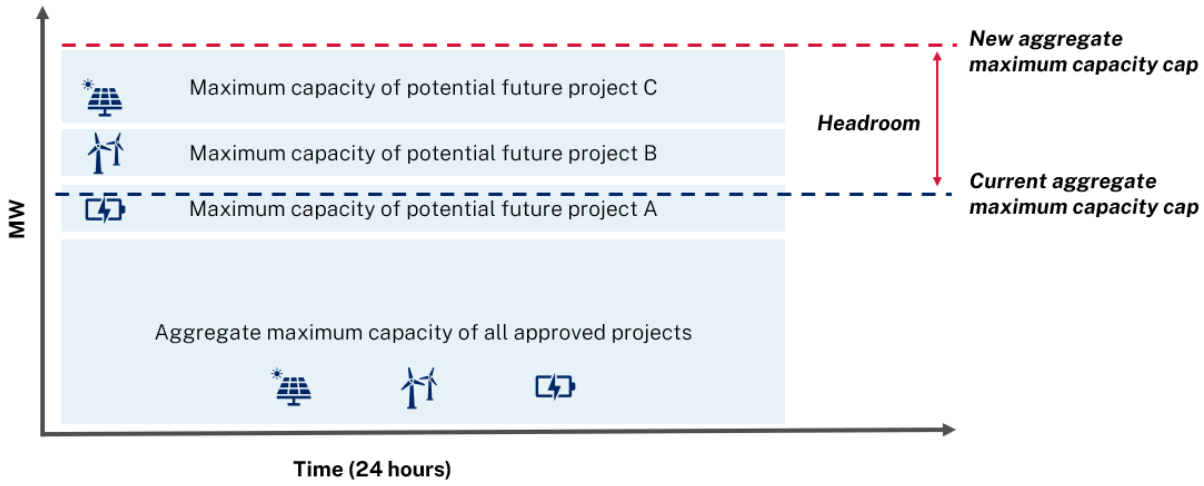


Figure 7: Calculating the new aggregate maximum capacity cap

- where the Infrastructure Planner has introduced maximum capacity profiles, the headroom assessment may identify different quantities of headroom in different capacity periods; see 'Maximum capacity profiles' and Figure 8. This may result where either approved projects hold access rights with different maximum capacities across different capacity periods, or where the Infrastructure Planner identifies potential future projects with different maximum capacities across different capacity periods. This is expected to arise where the access rights network is close to full, and only projects with reduced maximum capacities in times of peak supply could be granted access rights without causing forecast curtailment to exceed the target transmission curtailment level.

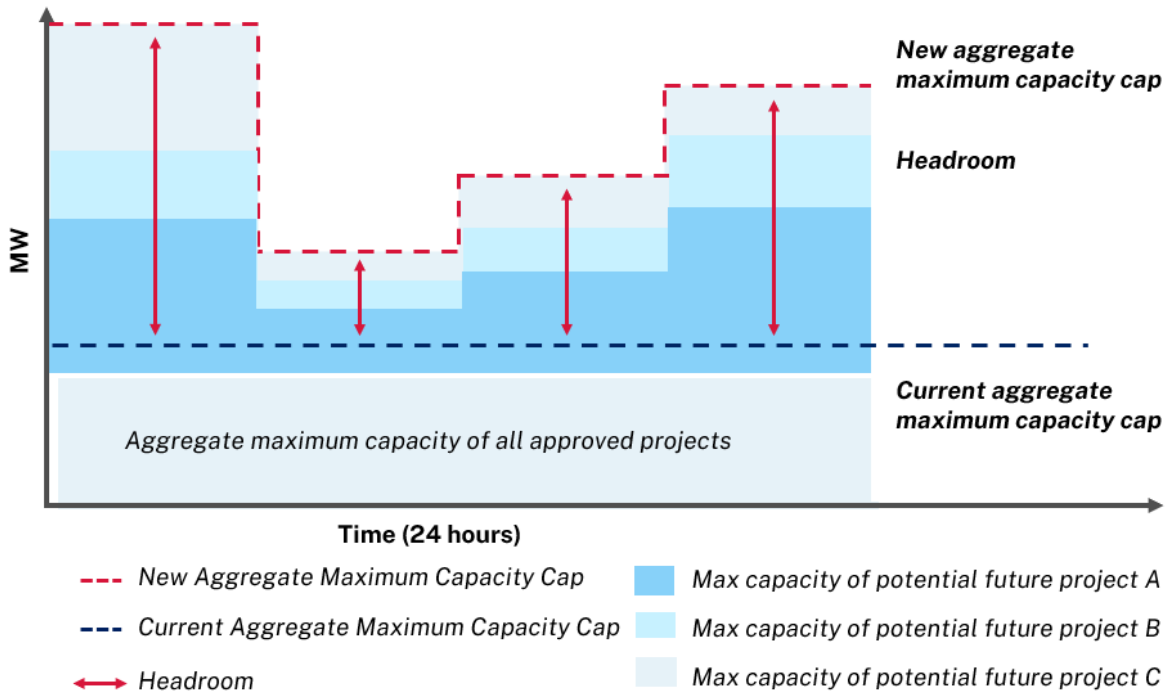


Figure 8: Calculating the new aggregate maximum capacity cap after introduction of maximum capacity profiles

The Infrastructure Planner has discretion to determine a headroom value lower than that identified in the headroom calculation.

Following a headroom assessment, the Infrastructure Planner will consult with stakeholders on its draft determination. The Infrastructure Planner must notify the Consumer Trustee, access right holders and the public of its determined headroom, including the proposed increased aggregated maximum capacity cap (in each capacity period where relevant), the forecast curtailment level, any increase in the transfer capacity and any assumptions made about the aggregate expected capacity profiles or the technology mix of the indicative potential future projects.

Stakeholders will be consulted on the draft determination for a 28-day period, and be invited to make submissions. Following this process, the Infrastructure Planner will notify stakeholders of the final determination of headroom.

Rationale

The process outlined in the Draft South West REZ Access Scheme Declaration provides the Infrastructure Planner with the flexibility to conduct a headroom assessment as needed to facilitate efficient utilisation of the access rights network, while also providing bounds on the circumstances in which the Infrastructure Planner may make this determination.

Headroom represents underutilisation of the network relative to the target transmission curtailment level and headroom assessments can help to optimise network utilisation to enable efficient outcomes for NSW consumers.

The Draft South West Access Scheme Declaration provides the market with information on the initial intended frequency of headroom assessments, while giving the Infrastructure Planner flexibility to adapt this as necessary. This can help minimise time and resource expenditure for

parties engaging in the consultation process, where there is not expected to be material headroom available.

The Infrastructure Planner also has flexibility to determine a headroom value that is less than the maximum headroom calculated using the methodology. This discretion could reserve capacity for future substation buildouts or accommodate a substantially lower capacity between the REZ and the load centres. This decision will always remain at the absolute discretion of the Infrastructure Planner, acting in accordance with the objects of the EII Act.

Maximum capacity profiles

Position explanation

Maximum capacity profile relates to the maximum sent out generation in MW across each capacity period for that approved project or eligible project. Initially, access rights will be granted to projects on the basis of a flat maximum capacity profile across a single 24-hour day capacity period.

The Infrastructure Planner may later elect to implement maximum capacity profiles for the South West REZ Access Scheme. Before triggering a change to maximum capacity profiles the Infrastructure Planner will first:

- notify the Consumer Trustee, access right holders and publish a notice on its website of the proposed:
  - (1) commencement date
  - (2) capacity periods (including the times of day, and any seasonal variations) – methodology for applying profiles
- hold a 28-day consultation period for stakeholders to make a submission on the above
- after considering any submissions received, notify the Consumer Trustee and access right holders, and publish a notice on its website of the:
  - (3) final commencement date for applying maximum capacity profiles
  - (4) final capacity periods
  - (5) methodology for applying maximum capacity profiles.

From the notified final commencement date, new grants of access rights, or new allocations of additional generation capacity to existing access right holders, will be made across different capacity profiles. A lower or higher maximum capacity may be allocated in different intra-day periods.

At the final commencement date, existing access right holders will be deemed to have their existing maximum capacity amounts, allocated prior to this date, transitioned across as the same maximum capacity across each of the capacity periods. The diagram below provides an example for a 250 MW project.

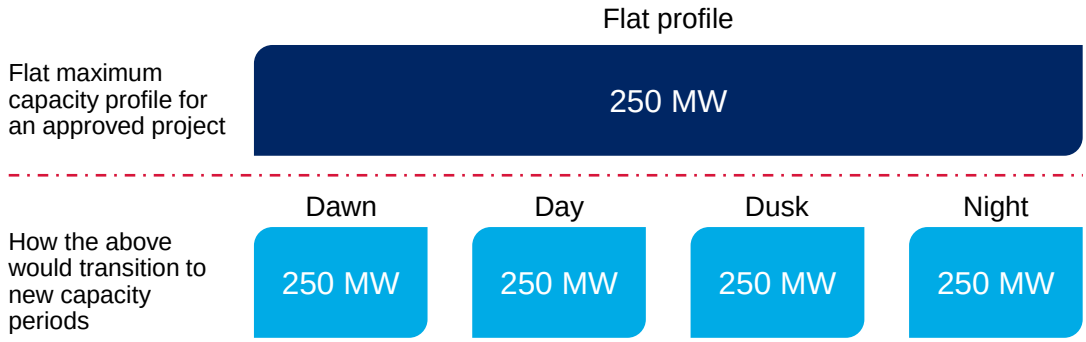


Figure 9: An illustrative example of how an approved project's flat maximum capacity profile would transition to different capacity periods across the day

Where maximum capacity profiles are introduced, proposed regulations limiting the dispatch capacity of access right holders will apply to limit dispatch to a project's highest maximum capacity. It is expected that maximum capacity profiles will be otherwise enforced contractually through an Access Right Agreement.

It is important to note that any project's maximum capacity profile does not limit AEMO's ability to call upon an approved project to dispatch above its maximum capacity when required to support system security and reliability, such as a direction to generate via a lack of reserve process.

Where maximum capacity profiles are introduced, headroom assessments may result in a different aggregate maximum capacity cap across the different intra-day capacity periods; see 'Headroom assessment'.

Rationale

The use of a single flat capacity profile for over a 24 hour period was chosen due largely to consultation responses through the Central West Orana access scheme design in which stakeholders preference simplicity. While there was strong support for seasonal variation in the capacity profiles, largely to reflect variance in solar dispatch, this has not been integrated into the initial access scheme design.

The Infrastructure Planner retains the option to introduce maximum capacity profiles across different capacity periods at a later date, following consultation, to allow for greater utilisation of the access rights network. Should this option be implemented, the capacity profiles will include the number and timing of capacity periods and consideration of any seasonal variations that should apply to these periods.

To provide investor certainty and protect the value of the right for existing access right holders, if maximum capacity profiles across different capacity periods are introduced, any existing flat capacity maximum capacity profiles will be transitioned as the same maximum capacity amount across all new capacity periods.

Access control mechanism

Position explanation

No access control mechanism is proposed for the South West REZ.

An access control mechanism is a mechanism that restricts or places conditions on the connection of load or generation to network infrastructure identified in a REZ declaration under Section 19 of the EII Act, other than the access rights network. Its purpose would be to enable the Infrastructure Planner to manage connections of load or generation to network infrastructure where such connections are expected to have a significant impact on existing or future access right holders.

An access control mechanism could be introduced in the future if required, likely through the declaration of an additional access scheme.

If an access control mechanism were introduced in the future, it would not impact existing connected projects as at the time of its introduction, or projects that have substantially progressed in their development at that time, such as projects that have submitted, or will shortly submit, an application to connect.

Under the EII Act, an access scheme can only apply to infrastructure specified in a REZ declaration under Section 19 so an access control mechanism could not be applied to network infrastructure that is not specified in the declaration.

Rationale

Future connections to some existing network infrastructure in the South West REZ have the potential to impact the curtailment of South West REZ access right holders. It is not proposed to implement an access control mechanism to any network infrastructure forming part of the South West REZ network at this time. Feedback suggests that the introduction of an access control mechanism could introduce significant administrative complexity and investment uncertainty for new projects seeking to connect to existing infrastructure, and, in the absence of compelling drivers to apply an access control mechanism, EnergyCo considers the risks of imposing such a mechanism would outweigh its potential benefits. Instead, the Infrastructure Planner will continue to work collaboratively with Essential Energy and Transgrid on network planning matters to reduce the risks of future detrimental impacts on the access rights network. It is proposed that the parties will share information on future network changes that might result in adverse impacts on access right holders; for example, an augmentation to an existing transmission line that might result in significant new generation connecting in or close to a REZ.

Further protection is provided by the requirement under the draft access scheme and EII Regulations for the Infrastructure Planner to approve any application by a network service provider to connect a transmission network or distribution network to the access rights network. In considering an application the Infrastructure Planner will have regard to the impact of the proposed connection on existing and future access right holders and the objects of the EII Act.

If significant impacts are identified, the Minister may declare an additional access scheme, or amend the South West REZ Access Scheme Declaration, to implement an access control mechanism. Any such scheme or amendment would be consulted on, and it is proposed that the

mechanism would include measures to protect parties that are substantially progressed in their development or in the connection process.

6. Managing the South West Renewable Energy Zone Access Scheme

Roles and responsibilities

Position explanation

The Minister for Energy has the power to declare an access scheme that is to apply in a REZ by order published in the Gazette. Before making the declaration, the Minister must:

- consult with the Infrastructure Planner and relevant operators who may be affected by the declaration
- make a draft declaration publicly available on the Department's website for at least 28 days
- seek and consider submissions from the public on the draft declaration.

Responsibility for managing the South West REZ fall within three primary roles: the Infrastructure Planner, the Consumer Trustee, and Transgrid as the network operator.

The Energy Corporation of NSW has been appointed as the Infrastructure Planner for the South West REZ.

The Consumer Trustee is responsible for conducting competitive tenders in relation to the granting or increasing of access rights under an access scheme and making recommendation to the Infrastructure Planner.

Transgrid is the operator of PEC and is delivering network infrastructure through the National Electricity Rules.

Allocation of access rights

Position explanation

The initial allocation of access rights refers to the grant of access rights, on the recommendation of the Consumer Trustee, up to the initial aggregate maximum cap of 1,220 MW.

The Draft South West REZ Access Scheme Declaration provides that the Infrastructure Planner may determine that the initial allocation has been completed before the full award of 1,220 MW, by notifying the Consumer Trustee and access right holders, and publishing a notice on its website, if:

- the aggregate maximum capacity of approved projects granted access rights under the initial allocation exceeds 90% of the initial aggregate maximum capacity cap; or

- it does not reasonably expect that significant further access rights may be awarded in the initial allocation without forecast curtailment exceeding the target transmission curtailment levels in relation to the access rights network or a network element.

Eligibility requirements

Position explanation

Access rights may only be granted to an eligible operator for a proposed renewable generation, storage, or co-located hybrid infrastructure project that meets the eligibility criteria in Schedule 2 of the draft South West Access Scheme Declaration. All eligible projects must be located within the geographical boundary of the South West REZ. The table below outlines the minimum eligibility requirements for the grant of access rights for the South West Access Scheme Declaration. The Infrastructure Planner may amend or add to these requirements at a later date.

Following the initial allocation, projects from the 3 categories in the table above with any maximum capacity are eligible, providing generation and co-located hybrid projects involve generation from a renewable energy source. However, generation or co-located hybrid projects awarded a firming LTESA will not be bound to involve generation from a renewable energy source.

Project type	Initial allocation eligibility requirements
Generation project	• Projects that involve generation from a renewable energy source with a maximum capacity of 30 MW or above • Multiple projects with a capacity of less than 30 MW may aggregate the capacity of their generating units, if they are connected at the same connection point • Any size of generation infrastructure project awarded a firming infrastructure LTESA
Co-located hybrid infrastructure project	• Projects that involve generation from a renewable energy source, where the sum of the generation and storage components has a maximum capacity of 30 MW or above • Multiple projects with a capacity of less than 30 MW may aggregate the capacity of their generating units, if they are connected at the same connection point • Any size of co-located hybrid infrastructure project awarded a firming infrastructure LTESA
Storage	• Any size of storage plant is eligible to apply, including standalone short duration storage systems (SDSS)

Rationale

Standalone short duration storage projects will be eligible to participate in the initial allocation alongside generation projects, co-located hybrid projects and long duration storage. This allows the value of standalone short duration storage projects to be leveraged across wholesale market and network services sooner than the draft position outlined. This position is consistent with a technology neutral approach and does not introduce competitive distortions between technologies.

Connections by distribution network service providers, transmission network service providers (TNSPs) and load (plant that consumes electricity, other than generation or storage plant), are not eligible for access rights but may be permitted to connect to the access rights network with the written approval of the Infrastructure Planner. This approval will consider the network service provider's or load's impact on access right holders and the objects of the Act.

Project modifications

Position explanation

Maximum capacity

A project may only increase its maximum capacity with the approval of the Infrastructure Planner.

The Infrastructure Planner may only approve and grant an increase in the maximum capacity of an approved project if:

- the increase in maximum capacity will not cause a breach of the aggregate maximum capacity cap
- the increase in maximum capacity will not cause the forecast curtailment to exceed the target transmission curtailment level or, if relevant, a target network element curtailment level.

Where the maximum capacity of an approved project will be increased by less than 5% of its original maximum capacity during the capacity period, the Infrastructure Planner may, in its absolute discretion, grant additional access rights directly to the access right holder in lieu of the project seeking an increase through the Consumer Trustee's tender process.

Project characteristics

Project characteristics refers to a project's plant type (e.g. solar or wind), its location, and any other relevant technical specifications set out in a project's Project Development Agreement.

An access right holder may only make a material change to its project characteristics if the change has been approved by the Infrastructure Planner. The Infrastructure Planner has discretion to determine whether a proposed change to the project characteristics of an approved project will have a material impact on a project's expected capacity profile. The Infrastructure Planner must determine whether the change can be accommodated without causing the forecast curtailment to exceed the target transmission curtailment level.

Access Right Agreements

Access Right Agreements refers to the Project Development Agreement and any other agreements between an eligible operator and the Infrastructure Planner or Scheme Financial Vehicle relating to the development or operation of a project.

While the Draft South West Access Scheme Declaration includes a mechanism for projects to modify project characteristics or maximum capacity, with Infrastructure Planner approval, the Access Right Agreement may provide further details and parameters, in accordance with the process outlined in the declaration. Updates may include either increases or reductions in a project's maximum capacity, in accordance with the terms of the agreement.

Rationale

When projects bid for access rights, they will be required to provide details of the characteristics of their project, including technology composition of the generation or storage plant. These project characteristics will be included in the Access Right Agreement. The treatment of a project modification request will differ depending on the nature of the requested modifications, and at what point in the connections process the request is made. It is important that there are processes in place to accommodate changes and that project modifications are not unnecessarily restricted. Permitting modifications will support innovation and the adoption of emerging technologies over time, as well as improving outcomes for NSW electricity consumers.

Market led augmentations

Position explanation

A market-led augmentation means an augmentation of the access rights network that is funded by one or more eligible proponents. Market-led augmentations may:

- increase the transfer capacity of the access rights network, which following a headroom assessment, may result in an increase to the overall aggregate maximum capacity cap of the REZ, or
- increase the transfer capacity of an individual network element, allowing a project to connect where it would otherwise have caused the network element forecast curtailment on that network element to exceed the target network element curtailment level. An increase in the transfer capacity of a network element will not result in an increase to the overall aggregate maximum capacity cap.

One or more eligible operators may propose a market-led augmentation to the access rights network, or an individual network element, by a written application to the Infrastructure Planner.

Following assessment and consultation, the Infrastructure Planner may determine to grant access rights made available by the augmentation to the proponent of the augmentation.

In assessing the market-led augmentation, the Infrastructure Planner will determine whether the increased aggregate maximum capacity cap is sufficient to allow connection of the proposed

project to the access rights network without causing forecast curtailment to exceed the target transmission curtailment level or target network element curtailment level.

The eligible operator(s) proposing the market-led augmentation must pay the Infrastructure Planner's costs of undertaking the assessment and consultation process.

In assessing the market-led augmentation, the Infrastructure Planner will determine whether the increased aggregate maximum capacity cap is sufficient to allow connection of the proposed project to the access rights network without causing forecast curtailment to exceed the target transmission curtailment level or target network element curtailment level.

The Infrastructure Planner must assess the increased transfer capacity of the access rights network, how the market-led augmentation will be implemented, and how the proposal can be managed with any other proposals to augment the network.

A draft determination will be made publicly available for at least 28 days for consultation, including the increased transfer capacity of the access rights network or a network element, the expected headroom resulting from the augmentation, the revised aggregate maximum capacity cap and any assumptions made about technology mix.

The Infrastructure Planner will notify the eligible operator(s) of the final determination. The Infrastructure Planner has discretion to reject any proposal.

The eligible operator(s) proposing the market-led augmentation must pay the Infrastructure Planner's costs of undertaking the assessment and consultation process.

Rationale

The mechanism provides an opportunity for the market to propose an augmentation to the access rights network to allow the creation of additional access rights whilst protecting existing access right holders.

This protection is provided through an assessment of forecast curtailment to model that it does not exceed the target transmission curtailment level, and through a consultative process.

Any market led augmentation will also require discussion with, and approvals from, the network operator and other entities, however, this is outside of the scope of the access scheme. The access scheme is concerned only with the allocation of access rights made available by the market led augmentation.

Amendments to the Declaration

Position explanation

An access scheme declaration may only be amended in accordance with Section 28 of the EII Act.

The Draft South West REZ Access Scheme provides a process for amendments under Section 28(1)(d) of the EII Act.

A ‘Declaration Change Proposal’ may be made by the Minister after considering any advice from the Infrastructure Planner. The Infrastructure Planner must give notice to access right holders of the Declaration Change Proposal and seek submissions on the proposed amendments over a 28-day exhibition period.

If the Minister wishes to proceed with the Declaration Change Proposal the Minister must:

- take into consideration advice provided by the Infrastructure Planner, including whether the proposal will have an adverse impact on access right holders
- provide notice of the updated Declaration Change Proposal by publishing it on the Infrastructure Planner’s website
- seek and consider submissions from any person on the updated Declaration Change Proposal
- invite access right holders to vote on the final Declaration Change Proposal.

If the Infrastructure Planner considers that the final Declaration Change Proposal will have a material adverse impact on access right holders, the final Declaration Change Proposal will be subject to the approval of access right holders. The Minister may only implement the final change proposal if:

access right holders representing more than 75% of aggregate maximum capacity vote in favour of the final Declaration Change Proposal, or

more than 75% of access right holders voting, vote in favour of the Declaration Change Proposal.

Voting on a final Declaration Change Proposal must be conducted in accordance with voting procedures notified to access right holders by the Infrastructure Planner.

Rationale

The EII Act includes provisions for the amendment of an access scheme declaration. Specifically, Section 28 of the EII Act states that the Minister may amend an access scheme declaration in the following circumstances:

a. to correct a minor error or misdescription
b. to provide further details and specifications about information contained in the declaration
c. if there are no participants in the access scheme immediately before the declaration is amended
d. if the amendment is made in accordance with the terms of the access scheme.

The mechanism included in the Draft South West REZ Access Scheme Declaration is designed to maintain investor confidence by protecting the value of their access right, while future-proofing the scheme. It is important to accommodate amendments to allow the scheme to remain fit for purpose for its duration.

Amendments to the South West REZ Access Scheme Declaration may be required for several reasons, including to:

- enable the introduction of new mechanisms into the South West REZ Access Scheme in the future, if the need arises; for example, because additional controls are required to protect the rights of access right holders
- enable the South West REZ Access Scheme to evolve as necessary where there are changes to the market or regulatory arrangements, such as changes to the access framework in the National Electricity Law/NER.

7. Implementing the South West Renewable Energy Zone Access Scheme

Access right tender

The Consumer Trustee is responsible for conducting competitive tenders to allocate access rights under a declared access scheme, in line with tender rules and guidelines developed in consultation with the Infrastructure Planner.

Projects participating in the competitive tender must first meet eligibility criteria before being competitively assessed against merit and financial criteria. The eligibility criteria are designed to ensure that only projects at an appropriate stage of development progress to a merit assessment.

Following a competitive tender, the Consumer Trustee will make recommendations to the Infrastructure Planner on the granting or increasing of access rights in accordance with an access scheme declaration.

The Consumer Trustee will conduct competitive tenders in line with the development pathway set out in its Infrastructure Investment Objective Report.

The Consumer Trustee will provide tender guidelines in advance of the first South West REZ access right with further information on the tender process.

Access Right Agreements

Access Right Agreements refers to a Project Development Agreement and other agreements to be entered into between an eligible operator and the Infrastructure Planner or Scheme Financial Vehicle relating to the development or operation of a project. Access Right Agreements are proposed to set and monitor the competitive tender bid undertakings, including:

- project development and high-level milestones
- reporting requirements
- security payments/bonds
- social licence commitments.

The agreements may also include information on the characteristics of approved projects, including technical specifications. Material changes to project characteristics require the approval of the Infrastructure Planner under the Draft South West REZ Access Scheme Declaration.

For further information on project modifications see ‘Project modification’.

It is expected that Access Right Agreements will also provide for access fee payments.

It is proposed that the form of the Project Development Agreement will be made available for review by prospective access right bidders ahead of the opening of the first access right tender for the South West REZ.

Access fees

Position explanation

Under the EII Act, the Consumer Trustee is to determine the fees payable by the participants in an access scheme. In determining these fees, the Consumer Trustee must take into account the following principles:

- Maximising financial value for NSW electricity customers
- Recovering the cost of the operation of the access scheme
- Optimal use of the existing and planned network infrastructure in the REZ.

The Consumer Trustee must include components in the access fees that are to be used for community and employment purposes. The purposes are prescribed by regulations and apply consistently for all access schemes across all REZs.

The regulations for community and employment purpose categories are set out below:

Purpose	Proposed regulation
Community purpose	A 'community purpose' includes a program, service or infrastructure that falls within one or more of the following categories: • public or community services or infrastructure • health services or infrastructure • accommodation or housing supply • local or regional energy programs or infrastructure • environmental programs or infrastructure • parks and recreation infrastructure • education programs or research • arts or cultural programs • tourism programs or infrastructure • services, programs or infrastructure for First Nations people • other services or infrastructure that benefit the relevant local community.

Purpose	Proposed regulation
Employment purpose	An 'employment purpose' includes a program, service or facility that falls within one or more of the following categories: • employment programs and associated services and facilities • skills and training programs and associated services and facilities • a program, service or facility that supports the relevant employees to gain employment, skills or experience relevant to employment.

The Consumer Trustee may set access fees that include costs other than the employment and community components, including the costs of REZ scheme administration.

The Consumer Trustee is expected to publish further information on the access fees and their quantum as part of the tender guidelines which will be released in advance of the first SW REZ access right tender.

Rationale

The proposed regulations for community and employment purpose categories were drafted broadly to ensure sufficient flexibility for REZ communities to access funding for a variety of projects. The categories in the regulations will apply to all REZs, and the broad drafting ensures that each REZ community's regional and local needs can be considered.

Community and employment amounts

The EII Act provides that regulations may prescribe the minimum and maximum amounts that are to be used for community and employment purposes. As community and employment amounts are a component of the total access fee determined by the Consumer Trustee, the amount/proportion of funding for community and employment purposes is dependent on the total value of the access fee.

Regulated minimum amounts

The regulations prescribe the minimum amounts that are to be used for community and employment purposes in 2 circumstances.

The first circumstance will apply where the total access fee for a participant in the access scheme is equal to or greater than $2600/MW/year. In this circumstance, the minimum amount of the total access fee that is to be used for community and employment purposes is expected to be:

$1,700/MW/year for community purposes

$600/MW/year for employment purposes.

The second circumstance will apply where the access fee for a participant in the access scheme is less than $2600/MW/year. In this circumstance the minimum proportion of the total access fee that is to be used for community and employment purposes is expected to be:

60% of the annual access fee for community purposes

20% of the annual access fee for employment purposes.

Maximum amount

The regulations do not prescribe a maximum. While regulations set a minimum figure, it remains open to the Consumer Trustee to set a higher community and employment component when setting an access fee for each tender round and for each REZ.

Indexing and access right extension

For both community and employment purposes, the minimum amount of the total access fee may be indexed by the Consumer Trustee when determining the access fee payable under Section 26(1) of the EII Act. As the regulations set the minimum for all future access fees, indexing allows the nominal value to increase over time, in the same manner as the total access fee.

To allow project proponents to accurately estimate project costs, the regulations reflect that where an access right is extended under the terms of the declaration beyond the initial term for a participant in the access scheme, the minimum amount that is to be used for community and employment purposes is $0.

8. Next Steps

You are invited to provide your feedback on the draft South West REZ Access Scheme Declaration via a free form submission to electricity.roadmap@dpie.nsw.gov.au with '**Your Name – Draft South West REZ Access Scheme Declaration**' in the subject line.

Submissions will be accepted until **Monday 15 May 2023**.

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NSW GOVERNMENT