



Firm Energy Reliability Mechanism

Stage Two Consultation Paper



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Acknowledgement of Country

As guests here on Kurna land, we acknowledge everything this Department does impacts on Aboriginal country, the sea, the sky, its people and their spiritual and cultural connection which have existed since the first sunrise. Our responsibility is to share our collective knowledge, recognise a difficult history, respect the relationships made over time, and create a stronger future. We are ready to walk, learn and work together.

Revision History

Version	Release Date	Comment
1.0	16/06/2025	Consultation draft



Executive Summary

The Firm Energy Reliability Mechanism (FERM) seeks to promote secure, reliable and affordable electricity supply for South Australia, through ensuring there is sufficient long-duration firm capacity in the electricity system.

Key Findings from Stage 1 Consultation

The Department for Energy and Mining (the Department) undertook consultation in late 2024 on a concept design for the Firm Energy Reliability Mechanism (FERM or scheme) (Stage 1 consultation). Stakeholder feedback received during the Stage 1 consultation was predominantly positive, however, there was significant feedback related to detailed aspects of scheme design and their impact on achieving scheme objectives. Three significant themes emerged through the stakeholder consultation:

1	Reliability and resilience at least-cost	↓	Minimising scheme costs and possible cost impacts, particularly on disadvantaged consumers.
2	Liquidity and competition	✳	Concerns that the FERM’s revenue underwriting mechanism and net revenue calculation may negatively impact liquidity by disincentivising market contracting.
3	External environment	↔	The need to clarify the interface between the FERM and other broader market changes such as the Wholesale NEM Review and the Orderly Exit Management Framework (OEMF).

Updated Key Design Features of the FERM

Following the Stage 1 consultation, the Department has progressed detailed design to refine the scheme using the stakeholder feedback received and prepare draft regulations. Key proposed design features, as reflected in the draft regulations, Minister’s guidelines and term-sheets provided with this paper, are summarised below.

Design element	Summary
Target Setting (see Section 3.1)	- The Firm Energy Target (FET) is a five-year target (expressed in MW) for long duration firm capacity in South Australia. - The FET will be declared by the Minister for Energy and Mining (the Minister) and will be informed by the Electricity Development Plan (EDP) and other relevant inputs.

Design element	Summary
	The FET can be declared and revised by the Minister as required but is indicatively proposed to be declared in July of each year.
Notice of Intention process for existing generators (see Section 3.3.2)	- Existing long duration capacity providers (30MW/8hour continuous dispatch capacity) generators (referred to as recognised electricity entities in the regulations) must respond to a 'Notice of Intention' (NOI) upon issue from the Scheme Administrator. - The Notice of Intention provides for a capacity commitment to be made for a particular period (anticipated to be a one-year period) to: - Be available to provide long duration dispatchable capacity to the South Australian electricity energy market during the commitment period; and - The provider's long duration firm capacity to be in the market, considering weather de-ratings and other relevant factors.
Tender process for new generators (see Section 3.3.3)	- Eligible new long duration firm capacity providers (30MW/8hour continuous dispatch capacity) will be invited to submit a bid for contract in response to a tender in accordance with any requirements specified in the Minister's guidelines. - Providers will be assessed on their compliance against eligibility criteria and specified bid assessment criteria.
Contracting (see Section 3.4)	Existing generators - The Financial Vehicle is able to directly contract with existing generators that have indicated an intention to withdraw / exit the NEM in accordance with requirements in the Minister's guidelines. - The Scheme also allows for contracts made between the Minister and long duration capacity providers for the purposes of meeting the Firm Energy Target prior to scheme commencement or within an initial transitional period, to be deemed into the scheme and novated to the Financial Vehicle. New generators - The Financial Vehicle will contract with successful new provider(s) as recommended by the Scheme Administrator following the completion of a tender process. - New generators are able to tender for a 15-year contract, based on a cap and collar commercial model.

Design element	Summary
	A long duration capacity provider who is a party to a FERM contract must comply with a capacity commitment to provide long duration dispatchable electricity capacity at a specified level under the contract.
Eligibility and bid assessment criteria (see Section 3.3.1.2)	- Eligibility criteria, prescribed in the Minister's guidelines, are used to identify new and existing generators that can participate in a FERM tender process and NOI process respectively. - Bid assessment criteria, prescribed in the Minister's guidelines, are used to assess new generators during a tender process.
Liquidity Obligations (see Section 3.5)	- To ensure the FERM promotes a liquid and competitive energy market in South Australia, market liquidity obligations will apply to long duration capacity providers as well as retailers and larger market customers. - Generators will be required to post bids for a specified amount of nominated capacity in eligible contract markets or on a specified exchange, to be outlined in the Minister's guidelines. - Retailers and large market customers will be required to hold a specified amount of contracts to cover its supply obligations. The amount to be outlined in the Minister's guidelines. - The Scheme Regulator will monitor long duration capacity provider, and retailer/large customer compliance with their liquidity obligations and penalties may apply for non-compliance.
Performance obligations and compliance (see Section 3.6)	- Eligible long duration capacity providers must: - Provide a complete and accurate response to an NOI request; - Comply with a capacity commitment made either through an NOI process or through a FERM contract; and - Comply with market liquidity obligations. - The Scheme Regulator will monitor compliance against these obligations and penalties may apply for non-compliance.
Cost recovery (see Section 3.8)	- Scheme costs will be recovered through South Australian transmission network service providers (TNSPs), who will be able to pass those costs on so that they are equitably shared by all energy consumers, as the ultimate beneficiaries of the Scheme. - The Scheme Regulator will conduct an annual contribution determination process to determine the amount to be recovered from (or returned to) TNSPs and to make provision for a minimum prudent cash balance for the Scheme Fund.

Design element	Summary
	- On an annual basis, long duration capacity providers with contracts will be required to submit to the Scheme Financial Vehicle: - Evidence of the generating facility’s revenue and costs; and - A notice of payment or repayment, setting out the amount being claimed or owed to the SFV.

Next Steps

The drafting of regulations marks the transition of the FERM from design to implementation. Following this Stage 2 consultation, regulations will be finalised and are proposed to commence operation in August 2025, enabling the first tender to be launched in Q3 2025.

Glossary

Abbreviation or Term	Description
Additional capacity	The amount (in MW) of additional long duration dispatchable electricity capacity (if any) that is required to meet the FET for a specified period.
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator also referred to as the Regulator
ASL	AEMO Services Limited
Auditor	Scheme auditor that will assess compliance of people/ bodies with scheme regulations and guidelines
Capacity Commitment	As defined in the Regulations, means – (a) an indication by a recognised electricity entity in an NOI to provide long duration dispatchable electricity capacity at a specified level over a commitment period; or (b) a commitment by a long duration capacity provider to provide long duration dispatchable electricity capacity at a specified level under a FERM contract.
Commitment period	The period during which: (a) a recognised electricity entity must provide long duration dispatchable electricity capacity in accordance with a Capacity Commitment made through the NOI process; or (b) a long duration capacity provider must provide long duration dispatchable electricity capacity in accordance with a Capacity Commitment made under a FERM contract (i.e. for the term of the FERM contract).
CCGT	Combined Cycle Gas Turbines
CIS	Capacity Investment Scheme: the Australian Government’s framework to encourage new investment in renewable capacity, such as wind and solar, as well as clean dispatchable capacity, such as battery storage (up to 4 hrs)
Commitment period	The contract period during which a contracted long duration capacity provider must make available its nominated capacity commitment

Abbreviation or Term	Description
DEM and Department	Department for Energy and Mining
DUID	Dispatchable Unit Identifier
EDP	Electricity Development Plan
Existing designated electricity entity	As defined in the Regulations, a person who is registered by AEMO as a Generator or Integrated Resource Provider. Also referred to as 'existing generators'.
FERA	Firm Energy Requirements Assessment: the Government of South Australia's proposed annual process to assess the South Australia's requirements for on-going long duration firm capacity.
FERM	Firm Energy Reliability Mechanism: the proposed Scheme established by the Regulations in relation to the provision of long duration dispatchable electricity capacity.
FERM contract	As defined in the Regulations, a contract under Part 5 for the provision of long duration dispatchable electricity capacity (including a deemed FERM contract).
FET	Firm Energy Target: A five-year target (MW) of long duration dispatchable electricity capacity for South Australia for a specified period declared by the Minister.
GW	Gigawatt
LOR	Lack of Reserve (events): LOR events are declared by AEMO under clause 4.8.4(b) of the NER by way of a market notice and refer to a situation where the available reserve capacity (i.e. the surplus capacity beyond the forecasted peak demand) in a jurisdiction falls below a specified threshold.
Long Duration Firm Capacity	Generators > 30MW capacity that is able to dispatch at a rated output for eight hours (or more) of continuous output
Long Duration	As defined in the Regulations, a person – (a) who is –

Abbreviation or Term	Description
Capacity Provider	(i) an existing designated electricity entity capable of providing long duration dispatchable electricity capacity; or (ii) a new designated electricity entity expected to be capable of providing long duration dispatchable electricity capacity; and (b) who is recognised by the Minister from time to time as being an entity suitable to be a participant in the scheme after taking into account any criteria specified in the Minister's guidelines.
LTESA	Long-Term Energy Service Agreement: An agreement of the NSW gov't to provide revenue certainty for renewable energy projects by guaranteeing a minimum fixed price for the electricity generated, ensuring stable financing of projects promoting sustainable energy development.
Market Customer	Is a term of the NEL and refers to a Market Participant that purchases electricity supplied through a transmission or distribution system and consumes it at a market connection point
Market Participant	Is a term of the NEL and refers to an entity that is registered to participate in the NEM. This includes generators, retailers, and other entities involved in the production, distribution, and sale of electricity
Minister	Refers to the South Australian Minister for Energy and Mining.
Minister's guidelines	Guidelines that will be published, from time to time, detailing scheme elements such as eligibility criteria, bid assessment process, performance obligation and measurement etc
MLO	Market Liquidity Obligation
MW	Megawatt
MW/h	Megawatt hour
NEL	National Electricity Law, contained in Schedule 1 to the <i>National Electricity (South Australia) Act 1996</i>
NEM	National Electricity Market
NER	National Electricity Rules, the rules made under the NEL

Abbreviation or Term	Description
NOI	As defined in the Regulations, means a notice of intention under regulation 20.
OCGT	Open Cycle Gas Turbines
OEMF	Orderly Exit Management Framework – an opt-in framework intended to support an orderly transition through preventing the early exit of a generator that would create a system needs shortfall
OTR	Office of the Technical Regulator
PASA	Project Assessment of System Adequacy. The assessment can be short term (STPASA) or medium term (MTPASA)
(Scheme) Regulator(s)	A person or body appointed to undertake scheme regulation functions
Regulators' guidelines	Guidelines that will be published from time-to-time detailing scheme regulation functions and processes
Reliability	A reliable power system ensures demand is met through sufficient generation capacity, taking into account both seasonal variability and longer-term demand trends
Resilience	A resilient power system can sustain supply and recover from unplanned events including high-impact, low probability 'shocks'
RRO	Retailer Reliability Obligation
SFV	Scheme Financial Vehicle
TNSP's	Transmission Network Service Providers: South Australia has two TNSP's, ElectraNet and Murraylink
VCR	Value of Customer Reliability: the value different customers place on reliable electricity supply.



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1 Introduction

1.1 Purpose of the consultation paper

This consultation paper provides a comprehensive overview of:

- Key findings from the concept design phase consultation undertaken in late 2024 and early 2025.
- Changes and further details of the proposed Firm Energy Reliability Mechanism (FERM or scheme) design, supporting the attached regulations and other documentation.
- Proposed next steps for finalisation and implementation of the scheme.

In providing a comprehensive overview of the Department’s policy rationale, we invite informed and productive discussions and feedback on the proposed draft regulations and supporting materials to enable successful implementation of the scheme.

1.2 Attachments

The following attachments supplement the content addressed in this consultation paper:

- **Attachment 1:** Draft regulations
- **Attachment 2:** Draft Minister’s guidelines
- **Attachment 3:** Draft FERM contract term-sheet.

1.3 Consultation process

The consultation will follow the below timelines. The timeline supports the Department’s intention to make the scheme regulations by August 2025, to enable the first scheme contracts to be awarded by the end of 2025.

In addition to seeking feedback through this consultation paper, we will be conducting an in-person and online consultation meeting. To be involved in these discussions please email dem.ferm@sa.gov.au.

Consultation launch	16/06/2025
In-person industry forum	25/06/2025
Online industry briefing	27/06/25
Written feedback due	14/07/2025



The case for action and scheme overview



2 The case for action and scheme overview

2.1 Case for action

2.1.1 Overview

The concept design phase (Stage 1) consultation paper outlined the rationale for the development and implementation of the FERM. Key elements of the case for action are summarised below.

South Australian households and businesses expect a reliable and resilient power system.

1. A **reliable** power system ensures that customer demand is met through sufficient generation capacity, considering seasonal variability and other long-term trends (i.e. demand changes).
2. A **resilient** power system can withstand and recover from unplanned events, including high-impact, low probability ‘shock’ events. These shock events may include extended periods of low renewable generation output, large generator outages or the loss of transmission.

However, there are several factors that pose a challenge to reliability and resilience over the next ten years:

- The **retirement of a significant portion of South Australia’s existing gas generation fleet** and the absence of a pipeline of generators and necessary supporting infrastructure to replace the firm capacity leaving the system.
- Continued **uncertainty relating to National Energy Market (NEM)-wide delivery of transmission and replacement capacity** for coal-fired generators in the eastern states.
- The prospect of **significant demand growth from electrification, industrial and mining loads**.
- Increased power system **exposure to strenuous weather events**, such as heat waves, storms and prolonged wind droughts.

The 2024 Electricity Development Plan (EDP) indicated that 2300MW of long duration firm capacity will be required in the South Australian power system for at-least the next five years. Given the challenges identified, intervention is required to ensure this level of long duration firm capacity is maintained in the South Australian market.

A scheme to ensure secure, reliable and affordable electricity supply for the State will provide confidence for South Australian households, small business and energy intensive industries that a cost-effective power supply will be available to deliver a resilient and reliable electricity network.



2.1.2 What we heard

More than fifty written submissions were received to the concept design consultation from a broad cross section of stakeholders including energy generators and retailers, participants from the broader energy industry, business, industry and consumer representatives, academics and members of the general public.

Many stakeholders expressed support for the implementation of the FERM as a necessary component of a coordinated energy policy for South Australia. However, stakeholders highlighted concerns that the scheme may impact market operations. They also provided specific feedback on a range of design choices and considerations.

Given it was clear that stakeholders by and large agreed with the rationale for the scheme, we have not revisited the case for action, however, we have re-prosecuted and refined many of the design elements as outlined throughout this document.

2.2 Scheme objectives and core principles

The scheme objectives and key design principles have been refined following the Stage 1 consultation, as summarised below. Whilst the objectives have not been materially changed, the design principles have been refined further.

The *‘Promote competitive tension between new and existing generators to enable long-term ‘value for money’ assessment’* principle has been removed from consideration, based on responses to the consultation and changes to the design to focus tendering activities on new generators. Instead, the design principle to *‘manage an orderly transition to new capacity’* has been adopted. This expression more accurately reflects the policy desire to only keep existing non-renewable long duration firm capacity generators in the system beyond their announced closure dates where this is required to meet the FET and is in the best interests of South Australian consumers.

‘Reduce the barriers for long-lead time generators to enter the market’ has been removed as a core design principle. Whilst there are still elements within the scheme design to encourage investment in ‘long-lead time’ projects, this has been downgraded from a core policy intent. Feedback received through consultation indicated that a broad range of issues may need to be considered separately to facilitate projects such as pumped hydro or other long-lead technology types in South Australia, and the type of support required was deemed to be better facilitated through other policy measures. This change seeks to ensure the FERM scheme is focussed on the core objective of ensuring secure, reliable and affordable electricity supply for the State.

The design principle to *‘Provide revenue certainty to firm generators whilst allowing for consumers to share in upside’* has been amended to *‘Provide the necessary, and only the necessary, revenue certainty to firm generators whilst allowing for consumers to share in upside’*, reflecting the strong feedback received around drivers for cost efficiency of the scheme to limit the impacts on consumers.

The design principle of ‘*Support liquid and competitive wholesale and retail electricity markets*’ has been added to reflect stakeholder concerns that a capacity underwriting scheme may further reduce liquidity and competition.

The refined objectives and core design principles are reflected in individual design choices made, outlined in Figure 1 and the remainder of this document.

Figure 1– Refined FERM objectives and core principles

Mission: secure, reliable and affordable electricity supply for South Australia			
Objectives		Core Design Principles	
	Provide confidence to energy users in the resilience and reliability of the power system and reduce the impact of energy price shocks	Operate independently from the Government of South Australia	
	Provide confidence for the state government and industry that the power system will not inhibit economic activity	Manage an orderly transition to new capacity	
	Incentivise investment in long duration firm capacity at the lowest cost to consumers and within emission reduction targets	Provide the necessary, and only the necessary, revenue certainty to firm generators whilst allowing consumers to share in upside	
		Remain agile to market volatility and longer-term market changes	
		Support liquid and competitive wholesale and retail electricity markets	

2.3 Scheme overview

The Stage 1 consultation paper provided an overview of the scheme conceptual design and detail on specific design features such as governance and operational arrangements and the tender process and participation requirements. Importantly, it noted that the proposed underwriting support is intended as a revenue ‘top-up’ when required to ensure long duration capacity providers remain in the market for the relevant commitment period. This support is intended to allow these assets to recover their efficient cost of operation and earn an economic return commensurate with the risks involved with operation. It specified that in exchange, contracted long duration capacity providers must be available for dispatch year-round with performance assessed following actual LOR 2,3 events.

2.3.1 What we heard

Stakeholder feedback was predominantly positive towards the scheme concept design as an approach to managing the identified risks to the South Australian power system. Stakeholders provided a significant amount of feedback related to the detailed aspects of scheme design and how this might influence achieving its objectives. Three key themes emerged across stakeholder segments as summarised in Table 1.

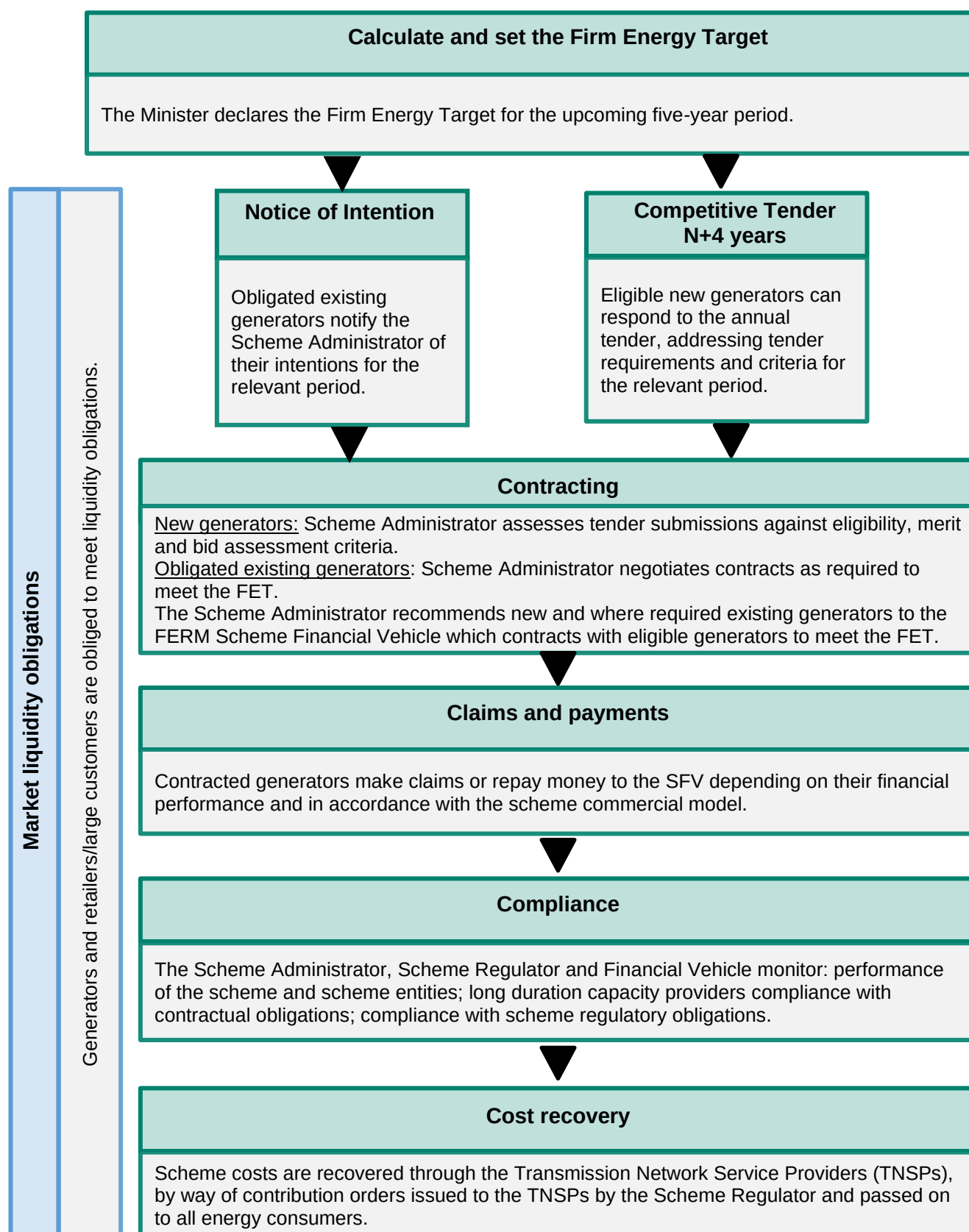
Table 1 – Key themes from concept design phase consultation

1	Reliability and resilience at least-cost	↓	Minimising scheme costs and possible cost impacts, particularly on disadvantaged consumers.
2	Liquidity and competition	⚙️	Concerns that the FERM’s revenue underwriting mechanism and net revenue calculation may negatively impact liquidity by disincentivising market contracting.
3	External environment	↔️	The need to clarify the interface between the FERM and other broader market changes such as the Wholesale NEM Review and the Orderly Exit Management Framework (OEMF).

2.3.2 Design decisions

Figure 1 summarises the updated scheme concept, which has been refined considering the first two key themes above (amongst other more granular feedback). Key changes (highlighted below) include the new ‘Notice of Intention’ process for eligible existing generators and market liquidity obligations which aim to compliment the other scheme elements by ensuring a competitive and liquid South Australian energy market.

Figure 2- FERM overview with key changes highlighted



2.3.3 Integration within broader market reform

In response to the third area of feedback received during the previous consultation, the Department's refined position on the interface between the FERM and other initiatives is provided in **Table 2**.

Table 2 – Refined key interfaces to the FERM

Title	Description	Interface
South Australia Renewable Energy Target	South Australia is targeting 100 per cent net renewable energy generation by 2027	The FERM supports reliability and resilience, alongside the continued growth of, and transition to, renewable energy
Capacity Investment Scheme	The Australian Government's CIS seeks to incentivise the national deployment of 32 GW of renewable capacity and clean dispatchable capacity by 2030	The FERM complements support for the expansion of variable renewables and short duration storage encouraged by the CIS. Projects that are provided with support under the CIS will not be eligible for support from the FERM.
National Electricity Market Wholesale Market Settings review	The Australian Government has commissioned a review which seeks to recommend wholesale market settings to promote investment in firmed, renewable generation and storage capacity in the NEM following the conclusion of Capacity Investment Scheme tenders in 2027	The findings of the Wholesale NEM review are unlikely to be able to be implemented within the timeframes required to support the resolution of the immediate-term reliability and resilience risks faced in South Australia (as outlined in the 2024 EDP). The proposed commercial model for new generators under the FERM considers pool and contract revenue and hence is designed to be inherently resilient with a range of possible outcomes from the review.
Reliability and Emergency Reserve Trader	The Reliability and Emergency Reserve Trader (RERT) is a function conferred on AEMO to maintain power system reliability and system security using reserve contracts	The FERM provides a mechanism that offer enhanced value-for-money and greater longer term consumer certainty and is expected to reduce the need for last resort contacting of emergency capacity under the RERT.
Orderly Exit Management Framework (OEMF)	The OEMF is intended to support an orderly energy transition by establishing a formal, opt-in, process for jurisdictions under the NEL to assess whether the early exit of a generator would create a system needs shortfall and address this by identifying options to meet the shortfall or delay the early exit	As a mechanism to complement the FERM, the OEMF is being enacted within the scheme regulations.

Title	Description	Interface
Retailer Reliability Obligations (RRO)	A mechanism to ensure reliability during forecast periods of low reserve by requiring electricity retailers to have sufficient contracts to meet their supply obligations. Triggers a requirement for generators to increase contract offers (MLO). Operation is declared by AEMO or the Minister in response to a forecast reliability gap	The FERM proposes to improve liquidity and competition by requiring contracted long duration capacity providers and retailers/large customers to increase contracting activity and is expected to reduce the need for the RRO to be triggered in South Australia

Consultation Questions:

1. Do you agree with our refined mission, objectives and core principles statements?
2. Have we sufficiently clarified the interface between the FERM and other market reforms?



Scheme design elements





3 Scheme design elements

3.1 Calculating the Firm Energy Target

The FET represents the targeted amount of long duration firm capacity (MW) over a five year forward period, declared by the Minister.

3.1.1 What we heard

Stakeholders highlighted several potential risks associated with the process for calculating the FET. Some stakeholders raised possible challenges associated with setting a target five years in advance and the associated potential to under, or over, procure firm capacity, at the expense of consumers. Stakeholders proposed several mechanisms to address this risk, including:

- capping contracts awarded to long-lead generators to a maximum percent of the FET to minimise impact of project delays;
- issuing a revised FET closer to the delivery year; and
- holding a rebalancing tender round or supporting a secondary market.

Several stakeholders recommended that the scheme be evaluated against its efficiency and effectiveness with a variety of triggers proposed including time lapsed (e.g. after three years of operation), changes in the external environment (e.g. outcome of the NEM Wholesale Market Review) or system conditions (e.g. when a prescribed amount of new capacity has entered the market).

3.1.2 Design decisions

The Department considers that the broader regulatory framework that includes the calculation and subsequent declaration of the FET by the Minister provides a robust framework for determining the level of long-duration firm capacity to be contracted through the FERM. It also considers that the scheme design includes sufficient flexibility to allow FERM tender rounds, and the amount of firm capacity procured through a single contract round, to meet requirements.

Whilst the overarching framework of assessing the long duration firm capacity requirement, setting a target and implementing a mechanism to achieve the target remains, the Department has further clarified the interaction between the Electricity Development Plan (in which the Firm Energy Requirements Assessment (FERA) is made) and the Firm Energy Target (FET) and associated timeframes.

The Electricity Development Plan will act as a technical guidance document, which the Minister can consider in conjunction with a range of other information (for example, including AEMO's Integrated System Plan, and the Electricity and Gas Statements of Opportunities, etc) in declaring the Firm Energy Target (FET). It was the Department's view that it remained

important to distinguish between the EDP as a technical document and a decision by the Minister in relation to the FET that may consider a broader range of technical, social, economic and environmental factors.

The regulations clarify the role of the Scheme Regulator(s) in auditing the scheme broadly and the performance of scheme entities against scheme objectives and prescribed responsibilities. The Scheme Regulator's guidelines will support the regulator(s) with these functions allowing these to be updated or amended as required to ensure effective operation of the scheme.

3.2 Scheme operation and governance

A core design principle is that the scheme must operate independently from the South Australian government. The Stage 1 consultation paper outlined the required governance structure for the scheme at a functional level and identified the need for scheme administration, regulation and financial functions.

3.2.1 What we heard

The Stage 1 consultation paper outlined the required governance structure for the scheme at a functional level only and as such we did not receive significant feedback on this element of the scheme design. We did, however, hear strong feedback more broadly about the need for transparency and cost efficiency in the scheme. One stakeholder noted that the independence of the Scheme Administrator, particularly regarding its role in assessing bids, was an important consideration.

3.2.2 Design decisions

Since the concept phase design, considerable effort has been invested in developing a governance structure that meets scheme objectives while ensuring its ongoing operation is both efficient and effective. Table 3 provides an overview of responsibilities of key functions under the scheme.

The regulations provide that in exercising their functions, each scheme entity will:

- Act independently and in the long-term financial interests of South Australian electricity customers;
- Act in a commercially reasonable and prudent way; and
- Not be subject to the control or direction of the Minister, except as otherwise provided in the regulations.

The regulations also provide for the audit of scheme entities by the Scheme Regulator and enable suspension or removal of a scheme entity on the basis of incompetence, misconduct or incapacity.

The Department notes that the regulations have been drafted to allow some flexibility in how the required functions of the scheme can be delivered (i.e. by one or more scheme entities).

This is intended to facilitate the effective and efficient implementation of the scheme and the potential need for transitional arrangements until the full scheme governance structure is established.

In addition to the scheme entities as described in Table 3, the scheme regulations provide for a Fund to be established to enable the receipt and payment of money in connection with the operation of the scheme, with the Fund to be administered independent from government by the Financial Vehicle.

Table 3 – Refined responsibilities of key entities

Entity	Indicative Responsibilities
Minister for Energy and Mining	• Appoint Scheme Administrator and Scheme Regulator(s). • Set and publish the FET. • Instruct the Scheme Administrator to undertake a FERM scheme tender. • Publish annual guidelines that include scheme eligibility and assessment criteria, tender parameters and market liquidity and competition requirements.
DEM/OTR	• Provide advice to the Minister in relation to the scheme and FET. • Prepare the annual EDP.
Scheme Administrator	• Implement and administer the scheme, including establishment of governance and financial arrangements. • Establishment / appointment of the Financial Vehicle. • Develop tender model, processes and systems. • Prepare tender and contractual documentation. • Conduct FERM scheme tenders. • Develop and maintain a risk management framework for the scheme. • Provide information in connection with the Contribution Determination process. • Provide an annual report to a Scheme Regulator.
Scheme Financial Vehicle	• Enter into FERM contracts with long duration capacity providers. • Administer the scheme fund including managing the receipt and expenditure of funds. • Monitor contractual performance and compliance by long duration capacity providers. • Provide information in connection with the Contribution Determination process, including compiling information / data from other scheme entities for this purpose.
Scheme Regulator(s)	• Prepare and provide to the Minister an annual report on the operation and performance of the scheme and the exercise of functions by scheme entities • Audit the performance of the scheme entities, including upon direction of the Minister • Review and approve any risk management framework prepared by the Scheme Administrator, including upon direction of the Minister

Entity	Indicative Responsibilities
	• Manage compliance by any persons / bodies appointed to undertake scheme functions and impose penalties for non-compliance with the scheme • Monitor compliance of market participants with any scheme obligations • Issue a Contribution Determination, Contribution Order and Initial Contribution Order in accordance with the scheme regulations
Auditor	• Audit the performance of the Scheme Regulator(s).

3.3 Meeting the Firm Energy Target

The FERM seeks to enable the Firm Energy Target to be met through capacity commitments made through the following processes:

1. Notice of Intention process, applicable to obligated existing long duration capacity providers;
2. Contracts made following a process, applicable to new long duration capacity providers; and
3. Transitional and deemed contracts, applicable to existing long duration capacity providers through the transitional period.

3.3.1 Eligibility

The concept design phase consultation paper proposed that the Minister will define the FET and the tender parameters, and a Scheme Administrator would manage an annual tender process. Indicative FERM tender eligibility criteria included five standard criteria and provided for these to be modified, including the adoption of additional criteria for individual rounds such as value for money, location, and emissions intensity, to respond to changing needs.

3.3.1.1 What we heard

Almost half of stakeholders which submitted a formal response provided feedback regarding the proposed eligibility criteria. This included a suggestion that the proposed 30MW/ minimum 8 hours' dispatch was too prescriptive and may:

- Bias participation towards specific technologies despite the intention of the scheme to be technologically agnostic.
- Restrict the participation of emerging technologies that could be expected to mature and become more prevalent over the life of the scheme (such as VPP's and demand-response).

- Unnecessarily increase total scheme costs by dis-incentivising the participation of generators that could potentially deliver the firm capacity at a lower cost (for example, a four-hour battery could discharge at a lower rate so as to deliver energy for the 8 hours required).

Several stakeholders recommended the eligibility of thermal (gas and diesel) be reconsidered or progressively phased out to align with the government's net-zero target. Additionally, stakeholders suggested that generators that have received funding under similar schemes (e.g. the CIS) be ineligible to participate.

In addition to the eligibility criteria, stakeholders suggested a range of merit and bid assessment criteria be adopted such as emissions intensity, reliability/ramp rate, provision of non-energy services (e.g. frequency control, etc), and non-energy related community benefits (e.g. regional development, local manufacture, etc).

3.3.1.2 Design Decisions

Whilst acknowledging the issues raised by stakeholders, the Department proposes to largely retain the eligibility criteria outlined in the concept design phase consultation as they most closely align with the scheme objectives. The draft Minister's guidelines provide further clarity of how processes apply to existing (Table 4) and new (Table 5) long duration capacity providers.

The regulations allow for tender specific eligibility criteria to be declared, additional to or instead of, the eligibility criteria listed below. Whilst it is the Department's view that including too many criteria may lead to the inclusion of conflicting objectives that may unnecessarily increase scheme administrative costs for uncertain benefit, following scheme establishment additional criteria may be considered for particular tender rounds.

Table 4 – Existing Asset Identification (EAI) criteria

Category	Criteria
EAI1: Capacity	Generators with at-least 30MW capacity and capability to continually dispatch for at-least 8 hours
EAI2: Connection	Generators connected to the SA region of the NEM
EAI3: Registration	Generators registered and operating as a generator/integrated resource provider in the NEM at the NOI release date

Table 5 – New asset tender Eligibility Criteria (EC)

Category	Criteria
EC1: Technology type	Generator's fuel source is not coal or nuclear
EC2: Capacity	Generators with at-least 30MW capacity and capability to continually dispatch for at-least 8 hours
EC3: Registration	The generator must not be currently registered as a generator/integrated resource provider in the NEM at the tender launch date however must intend to register as a Scheduled Generation Unit or Bi-Directional Resource with AEMO
EC4: Connection	The generator must be proposed to be connected to the SA region of the NEM
EC4: Funding	The generator must not have secured, or intend to secure, concurrent funding through CIS or a similar funding source (e.g. bilateral) for the same facility for the same period
EC5: Operational status during nominated period	The generator must be able to reach full commercial operations by and for the duration of the contracted commitment period
EC6: Project structure	The generator must, or intend to, be contained within a special purpose vehicle (SPV) or equivalent suitably ring-fenced arrangement to establish a clear and transparent structure for the calculation of operational net revenue and provide clarity and safeguard the interests of all parties
EC7: Minimum development status	The generator must have secured land tenure and received development approval*

A list of eligible existing long duration capacity providers will be updated and published by the Minister based on the eligibility criteria and considering the outcomes of Notice of Intention and tender processes:

- Any existing long duration capacity provider that submits an exit bid (see Section 3.3.2.21) are removed as an obligated generator for the purpose of future NOIs; and
- Any new or long-lead generator that receives a contract is added to the list as an obligated generator.
- Any long duration capacity provider that has not been awarded a FERM contract but is a new market entrant is added to the list of obligated generators for the purposes of future NOI's once it has been assessed as meeting the relevant criteria.

3.3.2 Notice of Intention process

An informed understanding of long duration capacity providers' future intentions is critical in managing system reliability in South Australia. Providers' mothballing or exiting the market at short notice prevents an orderly transition for new generation to fill any gaps. Additionally, without an understanding of how much existing (and new) long duration capacity intends to be participating in the market for a given year, there are significant risks of under or over procurement through the FERM. In either case, it is consumers that are exposed to this risk.

The Stage 1 phase consultation paper integrated the capacity commitment within the tender process. Participation in a tender round was mandatory for existing and new long duration capacity providers, however it was silent on the trigger for the participation of new or long-lead projects. The paper provided three participation options: i) a no contract bid; ii) a scheme contract bid; or iii) an exit bid.

3.3.2.1 What we heard

Owners of existing generators (particularly those that would not be seeking FERM contracts) shared concerns that there would be a significant administrative burden associated with participating in a mandatory annual tender process. Several stakeholders requested clarification of the obligations on existing generators that do not seek, or are not awarded, a FERM contract, including how the capacity of such generators is accounted for in the EDP and FET, what performance obligations they may face, and any limitations on their future participation in the scheme.

3.3.2.2 Design decisions

Considering both stakeholder feedback and other design features that have been adopted in the final design, we have elected to design separate annual processes for existing and new generators.

Under the refined approach, as outlined in the draft Minister's guidelines, existing generators that meet the scheme eligibility criteria will be obligated to respond to a 'Notice of Intention' (NOI), representing the mandatory participation of these generators. The use of a Notice of Intention seeks to simplify scheme participation for existing generators.

Existing generators that are obligated to participate in the NOI will be required to respond to up to two questions:

Question One: Do you commit to be operating in the market during the commitment period?	(Y/N)
<i>If an existing generator answer 'Yes' to the first question they will be prompted to answer a second question,</i> Question Two: Please confirm your nominated capacity at 8 hours continuous output.	(XX MW)

A generator's 'nominated capacity' is the de-rated capacity that the asset will deliver during anticipated LOR 2, 3 events considering factors such as weather-related impacts on performance, age-related degradation, etc.

Together, these responses form an existing generator's 'Capacity Commitment' for monitoring and compliance purposes.

Failure to submit a response to the NOI, or non-compliance with a Capacity Commitment made by a generator through the NOI process, may result in a penalty (see section 3.7.2).

Further information about the NOI process is provided in the draft Minister's guidelines.

3.3.3 Competitive Tender

The Stage 1 consultation paper proposed that the Scheme Administrator would undertake a single annual tender process (as required and on the direction of the Minister) involving existing, new and long-lead generators.

The concept design anticipated the commencement of the inaugural FERM tender round in 2025 and for subsequent annual tender rounds. The paper also provided for bids from long-lead generators from 2026, noting that while these projects may be unable to successfully bid for a standard contract, they will be critical to meeting the state's long duration capacity needs in the longer term.

3.3.3.1 What we heard

Several stakeholders suggested that aligning tender processes with the LTESA and CIS schemes would reduce the administrative burden on participants. Several stakeholders shared concerns regarding the complexities (and cost) that would be introduced into the scheme as a result of comparatively assessing existing and new long duration capacity providers.

Stakeholders highlighted the risk to system reliability of synchronised contract dates that may result in concentrated, rather than staggered, capacity withdrawal on contract conclusion.

3.3.3.2 Design decisions

As outlined in Section 3.2.2, eligible existing and new long duration capacity providers will participate in two complementary processes rather than a single competitive process. The process for existing assets is outlined in section 3.3.2.2. This section relates to new assets.

Eligible new long duration capacity providers that seek a FERM contract will participate in a competitive tender process in accordance with any requirements specified in the Minister's guidelines.

Tender responses are envisaged to include provision of standardised project information, as well as attachments for assessment and verification. In line with feedback received, the information requested is intended to be similar to requirements for LTESA and CIS submissions. Tender response requirements and schedules will be prescribed in the 2025 tender documents and Minister's guidelines, however, for guidance it is anticipated to include the documents as outlined in Table 6.

Table 6 - Indicative schedules to be provided with FERM tender response

Project plan	Delivery plan including schedule, budget, resourcing, risk management etc
Organisational capability	Overview of project participants and their capabilities
Commercial offer	Proposed commercial terms, including Cap and Collar metrics (with justification) and any departures from FERM contract
Land tenure	Evidence of land tenure
Development and other regulatory approvals	Evidence of development approval and relevant environmental approvals e.g. EPBC, NVC granted
Grid connection	Evidence of progression through grid connection pathway, including obtaining relevant certificates, licences and approvals
Capital equipment/ supply chain risks	Evidence of pathway to securing construction and operational contracts (e.g. EPC, O&M etc) and address supply chain risks etc
Funding	Evidence of project funding pathway(s)
Revenue	Evidence of plant contracting/off-take pathways identified and forecast contracted and pool revenue
Financial model	Evidence of financial model reflecting market positions for pool and contract revenue to inform financial thresholds (floor, ceiling and threshold) including commitment to establish the asset in a SPV or ring-fenced etc
Project proponent financial information	Project proponents must demonstrate that they meet minimum financial standards. This may include outlining their funding and financing plans, detailing the sources of capital (equity, debt, and any public funding). Advise any counter-party financial parameters or restrictions that could impact their ability to sign a FERM contract (e.g. a counter-party minimum credit rating)
Tender process deed	Executed tender process deed



3.3.3.3 Tender Bid assessment

A robust and rigorous bid assessment process will be critical to ensure the selection of high value, least risk projects for support.

It is anticipated that the process outlined in the draft Minister's guidelines for bid assessment will include:

1. Assessing whether the project conforms to eligibility criteria and the tender response conforms to the Minister's guidelines.
2. Assessing the project against bid assessment criteria (published in the Minister's guidelines).
3. Due-diligence activities as required.

Bid assessment criteria are intended to be streamlined towards the project's ability to meet scheme objectives. The proposed bid assessment criteria for the 2025 tender process are summarised in Table 7.

Noting the other approval processes that generators already progress through in South Australia (development and environmental approvals, generator connection, registration and licencing) the bid assessment criteria have been designed to minimise duplication of these assessments. It is the Department's view that matters such as social licence, technical capability and corporate credentials are addressed adequately through these other processes and from the scheme's perspective, demonstration of successful completion of these processes pre-qualifies a project against these criteria. We also note that in comparison to LTESA and CIS processes, the FERM is targeted at a significantly smaller amount of contracted capacity and hence the rationale for adding extensive due diligence is less clear.

For administrative ease, the scheme regulations provide for the tender and bid assessment process and parameters to be specified in the Minister's guidelines, which can be updated as required. It is proposed that tender responses that score most highly will progress through to a clarifications, finalisation and completion process.

Table 7 – Bid Assessment Criteria (BAC)

Ref	Title	Broad description of assessment
BAC1	Project deliverability and timetable	The Scheme Administrator will assess a project's progress towards achieving key development milestones and feasibility of reaching Financial Close and commercial operations. This includes: • An understanding of key development and construction risks (including mitigation strategies) to achieve commercial operations • Financing strategy and financial capacity to support the development, construction and operation of the Project • Contracting strategy and progress in securing partners and suppliers to deliver the Project
BAC2	Financial value	The Scheme Administrator will assess the value of a bid through: • Set floor, threshold and ceiling values • Projects with a relatively high ability to contribute to reducing wholesale electricity market costs and reduce volatility
BAC3	Commercial departures	The Scheme Administrator will assess the materiality of changes to risk allocation and additional administrative burden or new risks from what is set out in tender documents

3.3.3.4 Tender balancing

The concept of a balancing tender round was proposed by stakeholders in feedback to the Stage 1 consultation. Such a mechanism could address the risk of under supply, either through error in forecasting the FET, an unexpected retirement of an existing asset, or a delay in the full operationalisation of a new asset.

The need for a balancing round may become apparent in future EDP releases. Therefore, while a rebalancing round is not proposed in the initial scheme timetable, the regulations as drafted would allow for such a round on the direction of the Minister.

3.3.3.5 Tender timing

The Department acknowledges there is a risk of reduced system reliability with synchronised contract end dates coinciding with a demand peak. The revised annual scheme timetable that envisages contracts being awarded by late November annually, may still result in concentrated asset withdrawal at the conclusion of contracts. However, this will not be during a demand peak. Additionally, the regulations allow the Financial Vehicle to negotiate

contracts with existing, exiting generators in accordance with the scheme Minister's guidelines. This potentially provides flexibility for staggering contract end dates to mitigate this risk.

Consultation Questions:

3. Do you have any feedback on the proposed governance structure?
4. Are the eligibility requirements for existing and new long duration capacity providers clear? Do you have any concerns with these?
5. Does our proposed Notice of Intention process clarify and reduce the administrative burden on existing long duration capacity providers?
6. Does the tender process for new long duration capacity providers present any challenges or concerns?

3.4 Contracting

The Stage 1 consultation paper outlined one year and 15-year contracts for existing and new long duration capacity providers respectively.

3.4.1 What we heard

Stakeholder feedback in relation to the proposed scheme contracts included that the one-year (existing) and 15-year (new) contracts may be too prescriptive and bias towards specific technology types. Longer-length contracts (e.g. 20 years) were proposed for long-lead generators of certain technology classes and a medium-term contract (5 – 7 years) was proposed to support a ‘refurbished’ generator class. Other feedback included the risk of synchronised contract dates resulting in concentrated, rather than staggered, generator withdrawal on contract conclusion as discussed in section 3.3.3.5.

Many stakeholders provided feedback on the proposed cap and collar commercial model. Concerns were raised that the cap and collar model may be too complex for one-year contracts and suggested several alternative models including annuity and certificate schemes. Submissions also highlighted the importance of the financial model being attractive to project investors.

The frequency of revenue reporting and scheme payments was highlighted as an important consideration including the impact of seasonal fluctuations on revenue calculations. Stakeholders suggested adopting a contract-smoothing mechanism to address this. Many stakeholders also requested further detail on how revenues and costs would be assessed and provided feedback on the concept of revenue sharing.

3.4.2 Design decisions

3.4.2.1 Negotiated contracts with existing generators

The Department has elected to refine the process for existing generators in respect to participation in the scheme. As outlined in Section 3.3.2.2, obligated existing long duration capacity providers must provide a response to a Notice of Intention. The regulations prescribe that the Financial Vehicle may negotiate with existing generator(s) for the provision of capacity services to meet the Firm Energy Target in the following circumstances:

- Where the existing generator has indicated in their NOI that they intend to exit the NEM / mothball / become inactive during the relevant commitment period; or
- Where the existing generator has indicated in their NOI that they intend to provide capacity services in the NEM during the relevant commitment period, but later exits the NEM / mothballs / becomes inactive during that period.

The intent is therefore not to contract *all* existing generation under the FERM, only for the Financial Vehicle to commence direct negotiations with an exiting generator, where required

in order to meet the FET. These negotiations are anticipated to occur following the NOI and receipt of tender responses for a commitment period.

The contract length is notionally retained at one year, however, the Financial Vehicle will have the flexibility to directly contract existing generators in a manner that is most efficient in line with scheme objectives, including regarding contract length, in order to maintain the Firm Energy Target and deliver the scheme at least cost to consumers.

Contracts for existing generators are anticipated to be negotiated on a case-by-case basis by the Scheme Administrator, where an existing generator is deemed to represent greater value to SA consumers than a new generator. As such, a specific commercial model does not apply to existing generators at this stage, however, the regulations contemplate that any contract entered into in these circumstances should be consistent with any relevant requirements or terms that may be specified in the Minister's guidelines from time-to-time.

In the absence of a specific commercial model for existing generators the following design elements have been included in the scheme design to guide implementation:

- The Minister's guidelines may contain guidance on how the Scheme Administrator could assess the merit of contracting an existing generator for assessing reasonableness of underwriting support.
- The Scheme Administrator must consult with the Minister and the Financial Vehicle prior to entering into a FERM contract with an existing generator, ensuring any terms or requirements are consistent with the Minister's guidelines. The guidelines may describe the information that must be provided, to support this consultation. Information could include, but is not limited to, expected maximum charges payable under the contracts to be entered into by the Scheme Financial Vehicle, as well as total capacity to be contracted (in MW).

3.4.2.2 Transitional and novated contracts

The regulations also make provision for the Minister to enter directly into contracts with long duration capacity providers in a specified transition period following commencement of the scheme, in order to assist in meeting the FET or otherwise for the purposes of the scheme. The regulations also enable any contracts entered into prior to scheme commencement to be 'deemed' into the scheme following commencement. In both situations, the relevant contracts would be novated to the Financial Vehicle.

The intent of these provisions is to allow for contracting to occur prior to implementation of the scheme if required.

3.4.2.3 Contracts for new long duration capacity providers

3.4.2.3.1 Contract term

The concept design phase model proposed the adoption of a cap and collar commercial model for both existing and new long duration capacity providers.

The Department considered a range of possible changes to the contract variants. Upon considering the scheme objectives and core design principles, in particular to limit scheme costs, it has refined the approach to contract variants. The intent of the FERM is not to shift all risks associated with project development and operations onto consumers, but for consumers to only bear the minimum amount of risk necessary to ensure sufficient long duration dispatchable electricity to ensure secure, reliable and affordable electricity supply for South Australia.

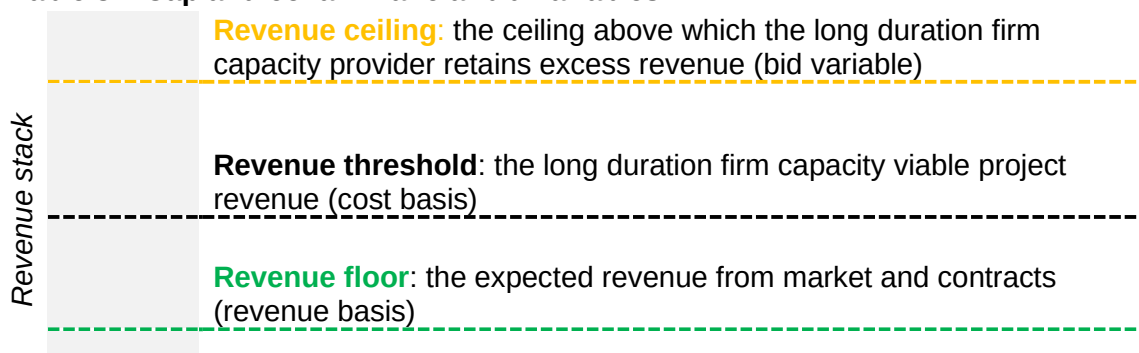
Considering this rationale, the 15-year contract length will be retained for new long duration capacity providers based on the following:

- Feedback from several stakeholders that this tenure was sufficient for a new project to reach financial close.
- The Department views the tenure as a reasonable level of support to promote new projects, without impacting the long-term dynamics of the wholesale electricity market.

3.4.2.3.2 Commercial model

Contracts awarded to new long duration capacity providers are proposed to be based on the cap and collar model as proposed in the concept design phase. A standard contract is proposed based on the draft Term Sheet (Attachment Three). As part of a bid process, new long duration capacity providers will submit three financial bid variables: a floor, a ceiling, and a threshold (Table 8). The Department proposes to retain upside and downside sharing with the percentages published in the Minister's guidelines.

Table 8 – Cap and collar financial bid variables



The concept design phase proposed scheme payments to contracted generators would be on a quarterly basis. After review and discussion with stakeholders, the Department has elected for this to be undertaken annually (as opposed to quarterly) to limit the administrative burden and costs associated with this assessment requirement. Given the intention for the

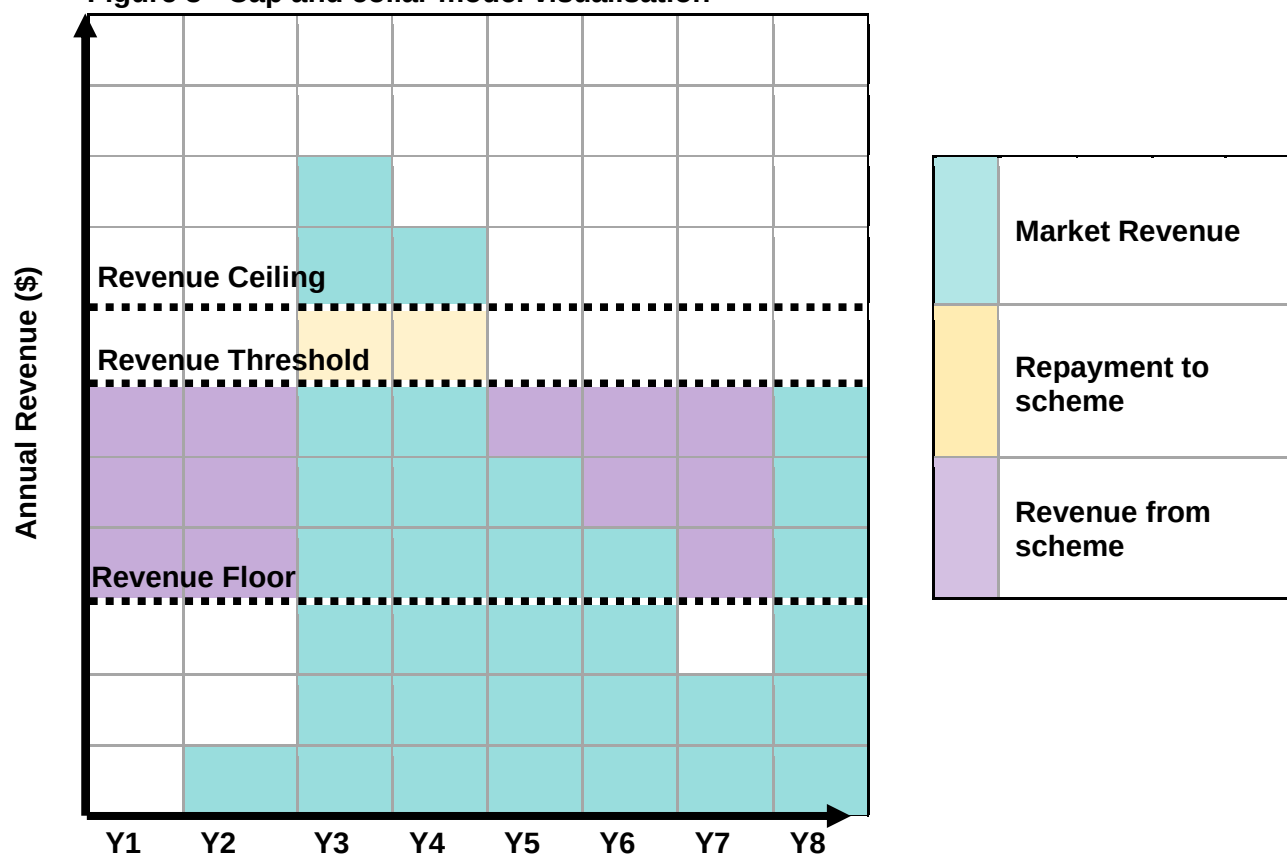
scheme to not be a substantial component of project's revenues, the Department's view is that this should not significantly impact contracted asset's on-going operation.

Revenue and costs that are proposed to be included in assessing revenue are summarised in the draft contract term-sheet. Notably, fuel and/or electricity purchase costs are not included in the proposed annual revenue calculations. Fuel costs were excluded based on the following rationale:

- Fuel costs are anticipated to be reflected by a generator's offer to the market.
- The FERM is not intended to implicitly underwrite fuel costs.
- This may assist avoiding perverse impacts to other contracting markets.

Where annual revenue falls below the Revenue Threshold, the contracted asset may claim payment from the SFV up to the difference between the Revenue Threshold and the Revenue Floor. Where actual revenue earned is between the Revenue Threshold and the Revenue Ceiling, repayments to the SFV may be required up to the revenue ceiling (see Figure 3). If the asset does not hold a cumulative positive balance drawn from the SFV from previous contract periods, no payments from the long duration firm capacity provider are required. If the asset holds a cumulative positive balance drawn from the SFV, repayments are capped by the lesser of the Revenue Ceiling and the cumulative positive balance. It is proposed that revenue above the ceiling will be retained by the asset.

Figure 3 - Cap and collar model visualisation





3.4.2.3.3 Construction milestones

The contracts for new long duration capacity providers are anticipated to include a series of milestones to provide comfort to the Financial Vehicle that projects are progressing towards reaching full commercial operations prior to commencement of the relevant commitment period. These milestones are outlined in the draft term sheets. Separate agreements for the development/construction and operational periods are not currently contemplated.

3.4.2.3.4 Contract timing

It is proposed that contract years of the scheme will run from 1st November to 31st October of the next year. Whilst the scheme was originally intended to operate in line with financial years, several stakeholders made convincing arguments for aligning the operational years around another period. November commencement ensures a transition outside of South Australia's typical peak summer and winter months.

3.4.2.3.5 Capacity commitment

Capacity commitments for new generators are primarily made under contract's awarded following a tender process. In the case where new eligible long duration capacity provider enters the market without a FERM contract, the asset will be captured by the subsequent NOI process.

3.4.2.3.6 Indexation

The Department proposes to index contract values (e.g. floor, threshold, ceiling) at CPI from the executed date to the commencement of the capacity commitment.

3.5 Liquidity and Competition

3.5.1 What we heard

Stakeholder feedback from the Stage 1 consultation highlighted a significant concern among stakeholders that the FERM would further reduce competition and liquidity for the South Australian electricity market.

Stakeholders considered that the scheme's revenue underwriting may reduce the financial risk of long duration capacity providers, removing their incentive to use hedging contracts. Stakeholders highlighted a number of consequences as a result including i) lowering the availability of counterparties for retailers to hedge, potentially leading to ii) increased costs to consumers; and iii) reduced retailer competition.

Stakeholders also considered that the scheme's commercial model may reduce liquidity:

- Including contract revenue in the net revenue calculation may discourage the sale of contracts to maximise a generator's revenue position. This may be particularly pronounced at the margins e.g. at the revenue threshold a generator may have a weak incentive to increase revenue through selling market contracts due to the revenue sharing obligations.

- Revenue sharing above the threshold may return a similar outcome (lowering contract activity) as a contracted generator may have to pay out to both government and on its hedged contracts during periods with high spot prices.

Several stakeholders noted that further reduced liquidity would make it hard for retailers to comply with the Retailer Reliability Obligation (RRO) under the National Electricity Law when it is triggered and several stakeholders requested further advice regarding the anticipated operation of the FERM and the RRO.

Stakeholders suggested the Department consider incorporating a range of mechanisms to promote liquidity within the FERM. These predominantly related to mechanisms to encourage greater participation of generators in financial markets, for example including a requirement for long duration capacity providers to make contracts available, either through exchange-traded markets or the Scheme Financial Vehicle. Suggestions also included incorporating a market-making mechanism similar to the RRO, and its process to trigger the Market Liquidity Obligation (MLO) on generators, but with longer tenor obligations and more frequent and narrower bid profile.

3.5.2 Design decisions

The Department proposes to implement liquidity obligations as part of the FERM to promote effective market outcomes in South Australia and reduce possible negative impacts from underwriting support. The measures are designed to:

- Improve contract market liquidity enabling more predictable revenue streams to enhance the commercial viability of existing long duration capacity assets so they can continue operating until planned retirement, and of new assets by ensuring they are financially viable, reducing the risk to investors.
- Minimise the level of underwriting support provided to assets by supporting them to maximise their ability to generate revenue from market-based activity.
- Ensure electricity retailers are financially and operationally prepared to meet their customers' demand, especially during periods of market stress, thereby enhancing market stability and consumer protection.

The scheme regulations provide for market liquidity obligations to be imposed upon existing and new long duration capacity providers and a reliability obligation to be imposed on retailers and other large-load customers, with the relevant requirements of these obligations published in the Minister's guidelines.

The draft Minister's guidelines outline a possible approach to implementing these obligations, with a summary provided in Table 9 below.

Table 9 Market Liquidity and Reliability Obligations summary

	Market Liquidity Obligation	Reliability Obligation
Obligated Participants	Existing and new long duration capacity providers unless exempt	Retailers and large load customers that self-contract with demand >10GW/h/year
Obligations	Offer a minimum of 20% of their Capacity Commitment through contracts that provide coverage for the summer/winter evening peak	Have sufficient eligible contracts to meet their forecast one-in-two-year peak demand
Eligible Contracts	Be standardised (e.g. ASX-style or in accordance with the AFMA Electricity Market Conventions). Be a minimum of 1MW and quoted in \$AUD/MWh Have a maximum bid/offer spread (outlined in the Minister's guidelines)	Standardised peak futures or caps Exchange-traded or OTC contracts. PPAs with firm capacity providers. Innovative or bespoke contracts that meet the objectives of the scheme (e.g. evening peak products)
Minimum Firmness Rating	0.8	0.8
Reporting Obligations	Market Liquidity Obligation Forecast Report (in advance) Market Liquidity Obligation Contracting Activity Report (in arrears) Market Liquidity Obligation Compliance Declaration (in arrears)	Reliability Obligation Forecast Report (in advance) Reliability Obligation Contracting Activity Report (in arrears) Reliability Obligation Compliance Declaration (in arrears)

An alternative approach would be to adopt the proposed market liquidity obligations outlined in the draft Minister's guidelines (and summarised above), with the reliability obligation on retailers. This could be enacted via amending the NER for the purposes of the scheme to activate the RRO when needed in South Australia (with some minor amendments to align with the objectives of the scheme).

3.6 Performance Obligations

3.6.1 Performance Measurement - Lack of reserve (LOR) events

The Stage 1 consultation paper noted that it is important to verify that long duration capacity providers contracted under the scheme are available, and will physically provide their capacity commitment to the market, when needed. The paper proposed that AEMO forecast Lack of Reserve (LOR) events be adopted as the primary performance obligation.

3.6.1.1 What we heard

Several stakeholders questioned the need to include performance obligations in the scheme, suggesting that existing market signals would be sufficient for generators to make capacity available in response to periods of low reserve/high demand.

Other stakeholders supported the adoption of LOR 2, 3 events as the trigger for assessing compliance, with one suggesting that the frequency of these events may subsequently decline following implementation of the FERM.

Stakeholders provided feedback suggesting further consideration of the adoption of these events as the primary measure of contract performance including:

- Questioning the appropriateness of this indicator considering that the majority of LOR 2 events are subsequently withdrawn, and most LOR 3 events are unpredictable with limited notice.
- Noting that LOR events are an AEMO tool, questioned the impact on the scheme if the definition(s) of these change.
- Questioning whether the obligations would apply to forecast and/or actual LOR events with one stakeholder suggesting that the performance requirements should apply to both forecast and actual events.
- Suggesting that using these as performance requirements might result in long duration capacity providers' withholding a percentage of their capacity from the market during normal operation as a risk strategy or that it might simply shift the LOR event window rather than addressing the reliability gap.
- Commenting that storage generators may have difficulty responding to LOR events and that the performance requirements should be tailored to asset technology type and not apply to storage units.
- Suggesting that it should only apply to LOR 2, 3 events during particular periods, e.g. summer and winter peak demand periods, or should consider the advance notice of the event e.g. not apply for events with less than 8 hours' notice.

3.6.1.2 Design Decisions

The Department has considered stakeholder feedback in relation to the adequacy of using LOR 2, 3 events as the performance measure. This has included reviewing data of 14 recent LOR 2 and 3 event notices in the South Australian region of the NEM.

The data shows that these 14 events related to forecast LOR 2 events and that for nine of the events, the notice period was more than 12 hours, three were more than 2 days and two were more than 5 days. It also shows that all event notices were subsequently withdrawn without escalating to actual LOR events. This data accords with stakeholder feedback in relation to the frequency of LOR events but suggests that the position that LOR-based performance requirements should consider the technology type, and not apply to storage technology, has less merit.

Longer-term analysis of LOR 2, 3 events suggests that LOR 2 events can generally be linked to periods where demand is forecast to be higher than supply and frequently relate to weather (e.g. heat wave or renewables drought) while LOR 3 are linked to unexpected and unplanned market conditions often precipitated by physical infrastructure failure.

The Department considers that sufficient market data exists to allow generators to make effective operational decisions, for example the short term (ST) and medium term (MT) projected assessment of system adequacy (PASA) provide information to the market on expected capacity reserves, allowing market participants to plan their responses to the market with regards to operational requirements including routine maintenance and fuel supplies.

It is therefore proposed to retain actual LOR 2 or 3 events in the South Australian region of the NEM as the trigger for assessing compliance with a capacity commitment on the basis that:

- The methodology for establishing these events, the architecture to communicate them into the market, and the market's understanding of them, is mature;
- The indicator is directly linked to the objectives of the scheme;
- The indicator is inclusive, that is all assets will be captured by the measure; and
- The indicator is not expected to further distort the market.

3.6.2 Compliance

The Stage 1 consultation paper stated that to ensure the FERM operates effectively, and consumers derive benefits and value of the service, the scheme include a range of compliance and performance obligations.

The Scheme Administrator was nominated to retrospectively review long duration capacity providers' bids to determine their market availability during forecast LOR 2, 3, events with assets potentially being required to submit evidence of their bids to demonstrate compliance.

It also outlined a range of consequences for non-compliance including (but not limited to):

- Repayment of previous claims from the scheme;
- Increase in, or loss of, any contract security payments;

- Termination of contract; and
- Civil penalties imposed by statute.

3.6.2.1 What we heard

In addition to feedback on the proposal to adopt LOR 2, 3 events as the performance measure, stakeholders provided other feedback on performance obligations and requirements including proposing a range of caveats or scenarios in which the performance obligations would not apply including *force majeure* and other forced constraints that may impact a contracted asset's ability to meet its performance requirement during the performance period, or because it is unavailable due to planned maintenance.

3.6.2.2 Design decisions

As outlined above, the Department proposes to retain the performance assessment and penalty regime outlined in the Stage 1 consultation paper including using LOR 2, 3 events as the performance trigger, with standard requirements for events with more than 12 hours' notice and tailored requirements for events with less than 12 hours' notice. Retrospective analysis of asset's performance will be retained to minimise the administrative burden on both assets and the assessing body. Performance requirements and the compliance assessment process will be provided for at a contractual level in scheme contracts and outlined in the Minister's guidelines. **Figure 4** provides a decision tree for the proposed process.

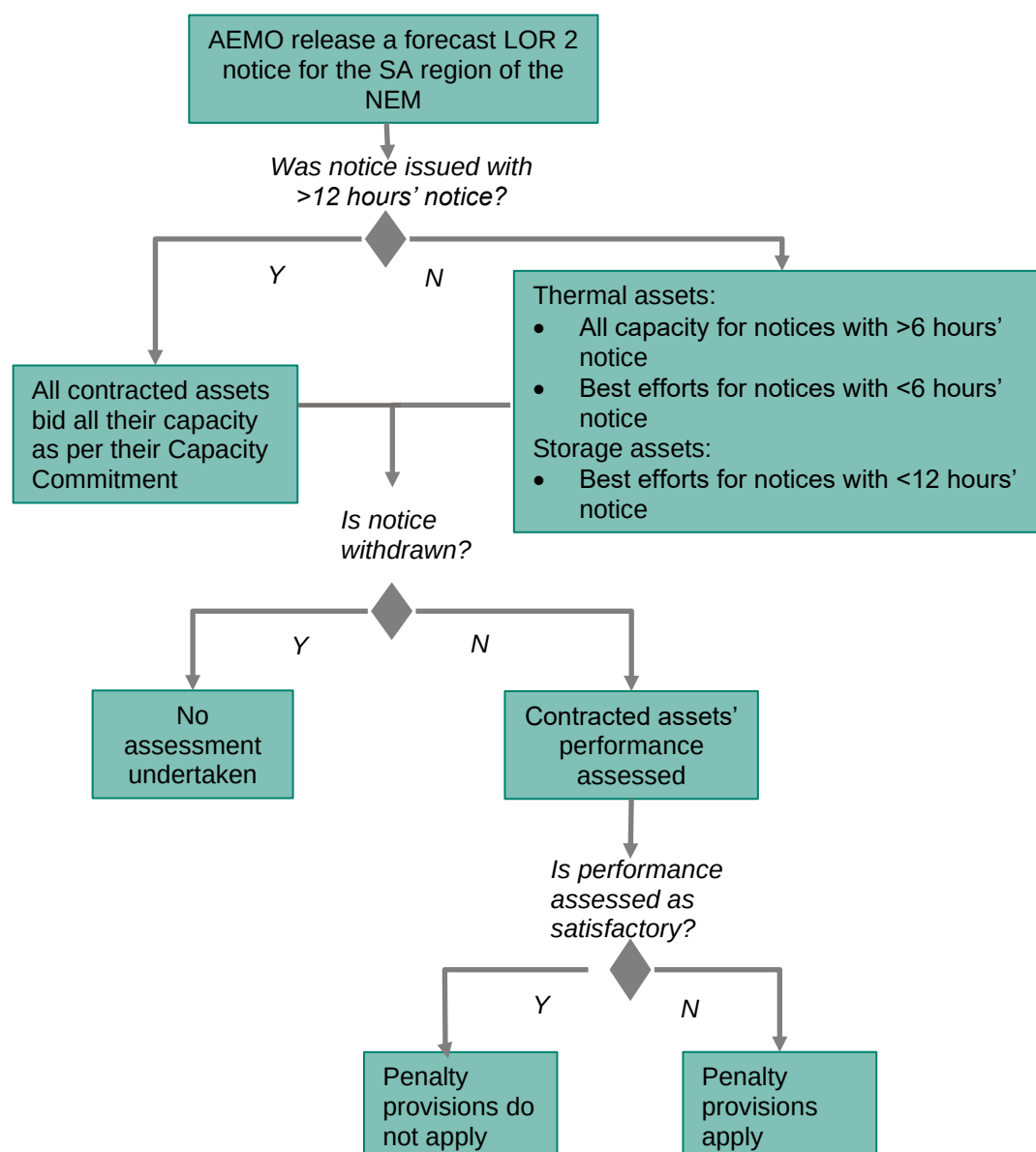
The assessment process will include reviewing assets most recent MTPASA response. By leveraging existing market processes, including AEMO notices of forecast and actual LOR events, and using contracted assets submitted MTPASA information, the Department seeks to minimise the administrative burden of performance assessment.

The asset may be temporarily relieved of the obligations and granted a waiver of its obligations under a Capacity Commitment to the extent that a Project Force Majeure Event prevents it from performing its obligations.

The following events will not constitute a Project Force Majeure Event:

- Network Events
- Lack of funds, financial hardship or inability to obtain financing or insurance by FERM Provider and its related bodies corporate;
- Shortage of materials and consumables required by FERM Provider except the extent it is itself caused by a Project Force Majeure Event;
- Breakdown of property or equipment caused by normal wear and tear;
- Strikes and industrial disputes that only affect the contracted asset; and
- Lack of fuel.

Figure 4 –Capacity commitment performance assessment





3.7 Penalties

3.7.1 What we heard

Stakeholder feedback on financial penalties suggested that the penalty regime for non-compliance during a commitment period be incorporated into the scheme's payment regime. Others suggested the adoption of a performance payments to reward long duration capacity providers that over-perform.

The Stage 1 consultation paper did not consider penalties in addition to performance-related penalties and stakeholders did not provide feedback on this design element.

3.7.2 Design decisions

As outlined in Section 3.6.2.2 above, assets will be assessed as either performing or underperforming in accordance with scheme performance requirements. Under-performance will result in the application of penalties. The Department has also identified that a range of penalties may be required in addition to performance requirements such as non-compliance with the NOI process or liquidity obligations.

The draft regulations propose the application of the Tier 1 civil penalty regime contained in the National Electricity Rules for non-compliance with scheme requirements and obligations.

3.8 Cost Recovery

3.8.1 Scheme Cost Recovery

The Stage 1 consultation paper envisaged that scheme costs would be recovered through South Australian TNSP's which will then pass these costs on to be shared by all electricity consumers as the ultimate beneficiaries of the scheme.

3.8.1.1 What we heard

Many stakeholders supported equitable scheme cost recovery but consumer and business advocates opposed cost recovery that increased consumer bills. Numerous stakeholders highlighted the issue of social equity in the mechanism used to determine cost recovery and advocated for a fixed fee rather than consumption-based approach that could lead to some customers cross-subsidising others.

A number of stakeholders advocated for transparency in scheme costs, for example by itemising it on customer bills, and for consideration of a concession framework for hardship customers.

Stakeholders also highlighted the importance of aligning the cost recovery approach and timing with existing regulatory mechanisms governing TNSP revenue setting.



3.8.1.2 Design Decisions

The Department will retain the cost recovery approach proposed in the initial consultation paper and recover costs via TNSPs. This approach (see Figure 5) is considered the most equitable approach to cost recovery as it will enable costs to be passed onto all electricity consumers.

The draft regulations propose to modify the NER to require an amount payable by a TNSP under a contribution order to be passed on to transmission customers in a scheme regulatory year (as determined by the TNSP) through an adjustment to the prices for prescribed transmission services provided by the TNSP and calculated in respect of each Transmission Network Connection Point as if it were a prescribed common transmission service under clause 6A.23.4 of the NER.

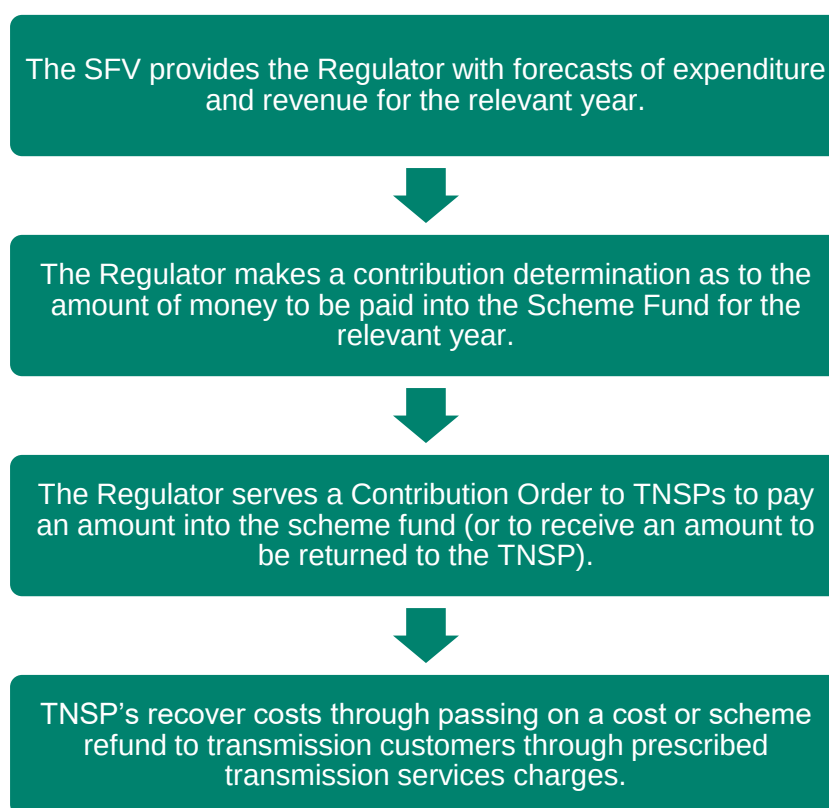
Mechanisms have been included in the draft regulations to enable the balancing of any surplus money in the Fund from year to year, whether through a lower contribution order amount being issued in the following year or provision for the return of funds to the TNSP (and ultimately consumers) through the contribution order process.

The regulations also provide for the TNSP to adjust the amount passed on, or through, to transmission customers in a scheme regulatory year having regard to any over or under recovery of the FERM Scheme Amount from customers in the previous regulatory year.

The revised scheme timetable, with contracts issued by late November and a contribution determination issued by the Scheme Regulator before 1 March in each year, aligns with existing regulatory processes and will provide sufficient time for TNSPs to include this in their annual revenue proposal to the Australian Energy Regulator (AER).

Further details of the proposed cost recovery process are provided in the draft regulations and Regulator's guidelines.

Figure 5 – Cost Recovery Process



Consultation Questions:

7. Do you agree with our approach to allow flexibility in the model under which exiting generators could be contracted (where required to meet the FET)? Do you foresee any risks with this approach?
8. Do you foresee any risks with our proposed approach to calculating revenue under the cap and collar model? Do you agree that fuel/energy import costs should be excluded?
9. Do you support our proposed approach to require both generators and retailers (and other large load customers) to meet a minimum contracting obligation to enhance supply reliability? Would you prefer a FERM-specific approach such as outlined in the draft Minister's guidelines, or to permanently activate the RRO instead (for the retailer obligation). Do you have any feedback on the method for identifying obligated participants, the types of contracts to include, or the minimum firmness rating of contracts?
10. Do our proposed performance requirements and process for assessing an asset's performance alleviate any previous concerns you may have had about the scheme's performance requirements?
11. Do you have any concerns with our proposed cost recovery approach?



Next Steps



4 Next Steps

4.1 Scheme Implementation Timetable

This consultation acts a gateway from concept design into scheme implementation. The proposed high-level pathway for the implementation of the FERM is summarised below in Figure 6.

As high-level guidance to the market, it is currently anticipated that the Notice of Intention process for 2025, will request confirmation of available capacity for FY28/29 and FY29/30. In line with this, tenders are anticipated for new generation commencing in each of these years.

Figure 6 – Scheme implementation steps



Consultation Questions:

12. Does the proposed implementation timeline for the FERM cause any concerns or are there any further considerations that the Department should be aware of?



4.2 How to make a submission

We welcome written submissions from interested and impacted parties, in line with questions posed through this paper.

Submissions can be provided through one of the two following methods:

- 1) **Submit via the YourSAy website:** Upload your submission on the consultation page on the YourSAy website
- 2) **Submit via email:** Email your submission to dem.ferm@sa.gov.au with the subject line: FERM Stage 2 Design Consultation.

We will endeavour to acknowledge receipt submissions within three (3) business days.

To support transparency in the consultation process, generally the Department will publish all non-confidential submissions on its website/s (this may include the YourSAy website and/or the DEM website). If a submission is published on a website, the information in it can be searched for on the internet.

We may choose not to publish submissions at our discretion or to withhold, or redact, certain information in a submission from publication (e.g. by not publishing a submission or parts of a submission that are out of scope of the consultation or by de-identifying personal or sensitive information).

Additionally, we will not publish confidential submissions. To claim confidentiality on behalf of a person or an organisation, the first page of a submission should clearly identify the content that should be treated as confidential. The option also exists to place confidential information in an attachment to a submission, with a request to keep the attachment confidential.

Confidential submissions will be reviewed by relevant staff of the Government of South Australia and/or consultants engaged by the Government to work on the FERM. They will not be released on the website. De-identified summaries of these submissions will not be made public without permission of the submitter.

Submissions can be made anonymously. However, as we may be unable to verify or clarify the information provided in an anonymous submission, this may impact how we consider such submissions as part of the consultation process.

You should note that under the *Freedom of Information Act 1991*, the Government of South Australia may be required by law to release a submission to a third party (including confidential submissions). We will contact the submission author using the details provided in the submission prior to its release if a request is made under the Act.

4.3 Privacy

Inherent in any public consultation is the collection of personal information. Through this consultation process the Government of South Australia may collect a range of personal information including:

- Name
- Contact information (including phone, email and website)
- Organisation you represent and your role (if applicable).

We will use this personal information to contact respondents regarding the consultation (for example, to acknowledge receipt of a submission).

Additionally, through submissions we may also collect the personal views, or the views of the organisation represented, about the energy industry, the actions of participants in the energy industry, the Government of South Australia and its actions and policies.



Appendix A – Response Template



Appendix A – Consultation Response Template

Please use the below template for providing any feedback on the questions posed in the consultation and on any other related matters.

Organisation:	
Contact name:	
Email:	
Phone:	
Date	
Please indicate any parts of your submission to be treated as confidential	

Question:	Response
Objective and Core Principles	
1. Do you agree with our refined mission, objectives and core principles statements?	
2. Have we sufficiently clarified the interface between the FERM and other market reforms?	
Scheme Operation	
3. Do you have any feedback on the proposed governance framework and structures?	
4. Does our proposed Notice of Intention process clarify and	



Question:	Response
	reduce administrative burden on existing generators?
5. Are the eligibility requirements for existing and new generators clear? Do you have any concerns with these?	
6. Do you agree with our approach to allow flexibility in the model under which exiting generators could be contracted (where required to meet the FET)? Do you foresee any risks with this approach?	
7. Does the proposed tender process for new generators present any challenges or concerns?	
Scheme Obligations	
8. Do you foresee any risks with our proposed approach to calculating net revenue under the cap and collar model? Do you agree that fuel/energy import costs should be excluded?	
9. Do you support our proposed approach to require both generators and retailers (and other large load customers) to meet a minimum contracting obligation to enhance supply reliability? Would you prefer a FERM-specific approach such as outlined in the draft Minister's guidelines, or to permanently activate the RRO instead (for the retailer obligation). Do you have any feedback on the method for identifying obligated participants, the types of contracts to include, or the minimum firmness rating of contracts?	
10. Do our proposed performance requirements and process for	

Question:

Response

assessing an assets performance
alleviate any previous concerns
you may have had about the
scheme's performance
requirements?

11. Do you have any further concerns
with our proposed cost recovery
approach?

Scheme Implementation

12. Does the proposed
implementation timeline for the
FERM cause any concerns or are
there any further considerations
that the Department should be
aware of?

Further information

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