

Risk Management Framework

February 2026

The Risk Management Framework for the purpose of regulation 10(1)(f) of the *National Electricity (South Australia) (Firm Energy Reliability and Orderly Exit Management) Regulations 2025*



Important notice

PURPOSE

AusEnergy Services Limited (ASL) acting as the South Australian Firm Energy Reliability Mechanism Scheme Administrator develops the Risk Management Framework under regulation 10(1)(f) of the *National Electricity (South Australia) (Firm Energy Reliability and Orderly Exit Management) Regulations 2025*.

VERSION CONTROL

Version	Release date	Changes
1	30 January 2026	

Table of contents

Important notice	2
PURPOSE	2
VERSION CONTROL	2
1. Introduction	5
1.1 Background	5
1.2 Purpose of Risk Management Framework.....	5
1.3 Appointment of Financial Vehicle.....	5
1.4 Scope of Financial Vehicle functions.....	5
1.5 FERM contracts.....	6
1.6 Role of the Scheme Administrator.....	7
1.7 Role of the AER and ESCOSA.....	8
1.8 Scheme hierarchy of risk management	8
2. Scope of risks	9
2.1 Key risks	9
2.2 Risks not covered by the Risk Management Framework.....	10
2.3 Assessment of long-term financial interest and commercial reasonableness and prudence	11
3. Risk appetite	12
3.1 Performance Standards Schedule.....	13
4. Risk management obligations	15
4.1 General obligations.....	15
4.2 Processes, procedures and systems	15
4.3 Skills and training.....	15
4.4 Reporting and audit (including internal audit)	16
4.5 Operationalisation of the Risk Management Framework.....	16
5. Risk management process	17
5.1 Identification.....	17
5.2 Assessment	17
5.3 Treatment	17
5.4 Reporting	17
5.5 Risk monitoring.....	18
5.6 Escalation.....	18
5.7 Communication, consultation, and continuous improvement.....	19
6. Review and update of this Risk Management Framework	21
6.1 Update following Minister’s direction	21
6.2 Review and update by Scheme Administrator	21
7. Summary of roles and responsibilities	22
Abbreviations and definitions	23

1. Introduction

1.1 Background

This Risk Management Framework governs the management of specific risks under the *National Electricity (South Australia) (Firm Energy Reliability and Orderly Exit Management) Regulations 2025 (Regulations)*.

The primary object of the Regulations is to establish the Firm Energy Reliability Mechanism (**SA FERM** or the **scheme**) and a fund administered by the Financial Vehicle for the purposes of providing long duration dispatchable electricity capacity to ensure secure, reliable and affordable electricity supply for South Australia.

The scheme aims to support long duration dispatchable electricity capacity providers through long term contracts, the FERM contracts, in order to assist meeting the Firm Energy Target.

This Risk Management Framework recognises that FERM contracts may reduce risk by achieving the scheme objectives (including to incentivise investment in long duration dispatchable electricity capacity at the lowest cost to consumers within emission reduction targets) but also create new risks to South Australian electricity consumers arising from the functions of the Financial Vehicle which need to be acknowledged, understood and actively managed.

Terms in this document have the meaning given in the Abbreviations and Definitions schedule, or otherwise as defined under the National Electricity Rules (**NER**) or the Regulations.

1.2 Purpose of Risk Management Framework

This Risk Management Framework has been developed by ASL, as the SA FERM Scheme Administrator, at the direction of the Minister in accordance with Regulation 10(1)(f) to protect the financial interests of South Australian electricity consumers:

- in connection with the risks associated with FERM contracts; and
- otherwise in connection with the functions of the Financial Vehicle.

The key risks covered by this Risk Management Framework are set out in Table 2.

In accordance with Regulation 10(2), this Risk Management Framework is binding on the Financial Vehicle.

The development of the Risk Management Framework is guided by key concepts and principles in the International Standard ISO 31000: 2018 Risk Management – Guidelines (**ISO 31000**). In accordance with ISO 31000, this Risk Management Framework requires an overarching commitment to effective, transparent and accountable risk management through the development of a comprehensive framework, aligned to the activities and scope of the Financial Vehicle's functions and in connection with the risks associated with FERM contracts.

1.3 Appointment of Financial Vehicle

Regulations 9(3) and 9(8) authorise the Scheme Administrator to appoint a person or body to carry out scheme financial functions on any terms or conditions determined by the Scheme Administrator. ASL, in its capacity as a Scheme Administrator, has appointed the Financial Vehicle to carry out scheme financial functions under the Instrument of Appointment.

It is a requirement of the Risk Management Framework that the Financial Vehicle complies with the Instrument of Appointment.

1.4 Scope of Financial Vehicle functions

Under Regulation 12(1), the Financial Vehicle has the following functions:

1. to administer the Fund, including by managing the receipt and expenditure of funds in accordance with the scheme;
2. to enter into FERM contracts with long duration capacity (**LDC**) providers in circumstances prescribed by the Regulations;
3. to monitor and enforce contractual performance and compliance by LDC providers in respect of FERM contracts;

4. to provide information to the Scheme Regulator in connection with the contribution determination processes associated with the scheme; and
5. any other functions conferred on the Financial Vehicle under the Regulations.

Regulation 10(1)(e) provides that the Scheme Administrator may advise the Financial Vehicle in relation to the contractual management of FERM contracts, to the extent considered appropriate by the Scheme Administrator. However, the Financial Vehicle retains formal authority for entering into and managing FERM contracts. The Financial Vehicle engages the Scheme Administrator's expertise and discretion in supporting FERM contract advisory, while maintaining its independent governance and statutory accountability.

1.5 FERM contracts

There are three categories of FERM contracts that the Financial Vehicle may enter into or become a party to with LDC providers which give rise to risks to the financial interests of South Australian electricity consumers; these are summarised in **Table 1** and are: Negotiated Contracts, Tender Contracts and Transitional Contracts.¹

Each of the three categories of FERM contracts require the Financial Vehicle to make payments to LDC providers as the contract counterparties.

Negotiated Contracts and Tender Contracts are FERM contracts entered into by the Financial Vehicle upon recommendation by the Scheme Administrator under Regulations 23 and 24, respectively.

Regulation 9(2) authorises the Minister to appoint two or more entities as a Scheme Administrator for the purpose of performing different functions under the Regulations.

ASL has been appointed as Scheme Administrator for the purpose of all scheme administration functions other than those relating to Negotiated Contracts². The Financial Vehicle will enter into Tender Contracts on the recommendation of ASL as Scheme Administrator appointed for the purpose of Regulation 24.

Transitional Contracts are FERM contracts entered into by the Minister during the transition period between the commencement of the scheme and 31 December 2026 under Regulation 25. Under Regulation 25(3) the Financial Vehicle will become a party to these FERM contracts when the Minister makes a determination to novate the contracts to the Financial Vehicle, in which case the Financial Vehicle becomes a party to the contracts in place of the Minister by operation of law. This transfer of rights and liabilities to the Financial Vehicle is subject to any exclusions notified in writing by the Minister to the Financial Vehicle and the other party to the contract (see Regulation 25(5)).

The Risk Management Framework is designed to protect the financial interests of South Australian electricity consumers in connection with the risks associated with FERM contracts and otherwise in connection with the functions of the Financial Vehicle. Though the Risk Management Framework is specifically binding on the Financial Vehicle, the Scheme Administrator performs certain functions – such as negotiating contracts and running tenders for long duration dispatchable electricity capacity – that create risk for the Financial Vehicle and affect its statutory functions under the scheme.

The key risks addressed by this Risk Management Framework are those associated with negotiated contracts, tender contracts and transitional contracts. The Risk Management Framework addresses risks in connection with the Financial Vehicle's functions with respect to the financial interests of South Australian electricity consumers but does not otherwise address risks related to the Scheme Administrator's functions with respect to South Australian electricity consumers' financial interests. This is because the Scheme Administrator undertakes relevant functions in relation to FERM contracts at the direction of the South Australian

¹ The Regulations also contemplate the Financial Vehicle becoming a party to Deemed Contracts, being contracts entered into by the Minister before the commencement of the Regulations, under Regulation 26. As no such contracts were entered into, Deemed Contracts are not discussed further in the Risk Management Framework.

² As a Scheme Administrator has not been appointed for the purpose of performing scheme administration functions in relation to Negotiated Contracts, there is no current mechanism for recommendations to be made to the Financial Vehicle in relation to those contracts. If a separate Scheme Administrator were to be appointed for the purpose of performing scheme administration functions in relation to Negotiated Contracts, ASL would review the Risk Management Framework and amend or substitute it as appropriate to take account of that appointment.

Minister and in accordance with prescribed Ministerial guidelines. The Ministerial directions and guidelines define the risk appetite and negotiation parameters for the Scheme Administrator, including value for money. The Scheme Administrator also consults with the South Australian Minister when undertaking its functions.

The Financial Vehicle may enter contracts upon recommendation from the Scheme Administrator but will still act independently, in the long-term financial interests (LTFI) of South Australian electricity consumers and in a commercially reasonable and prudent way, in accordance with its obligations under the scheme.

Table 1 below outlines the different categories of FERM contracts, providing a brief description of each to help clarify their respective roles and processes within the scheme. The table does not include negotiated contracts.

Table 1 Overview of FERM contract categories

FERM contract category	Description
Tender Contract	<p>Under Regulation 24, the Minister may from time to time direct the Scheme Administrator to undertake a competitive tender process to assist in meeting the Firm Energy Target or otherwise for the purposes of the scheme. After this process concludes, the Scheme Administrator may negotiate with successful tenderers for the provision of long duration dispatchable electricity capacity.</p> <p>The Scheme Administrator (which is ASL) may then recommend to the Financial Vehicle, that a contract be entered into with the relevant entity for the provision of long duration dispatchable electricity capacity.</p>
Transitional Contract	<p>Under Regulation 25, during the transition period, from the commencement of the Regulations to 31 December 2026, the Minister may enter into a contract with one or more LDC providers to assist in meeting the Firm Energy Target or otherwise for the purposes of the scheme. A Transitional Contract will be for a term agreed to between the Minister and the LDC provider.</p> <p>On a day determined by the Minister, the contract will be taken to be a contract between the Financial Vehicle and the LDC provider. On and from the relevant day, the rights and liabilities of the Minister under the Transitional Contract vest in and attach to the Financial Vehicle, meaning the Minister is wholly released and discharged from the contract, subject to the exclusion of any right or liability specified by the Minister.</p>

1.6 Role of the Scheme Administrator

This Risk Management Framework has been developed by ASL, in its capacity as the Scheme Administrator, at the direction of the Minister in accordance with Regulation 10(1)(f). It was submitted by ASL to the Australian Energy Regulator (AER) for review and approval under Regulation 11(1)(a)(iii).

ASL, as the Scheme Administrator, has ongoing accountability for maintaining and reviewing the Risk Management Framework in accordance with Section 6 (Review and update of this Risk Management Framework).

As discussed in Sections 1.5 and 2.2, there are certain risks in relation to FERM contracts that are outside the scope of this Risk Management Framework on the basis that they are managed by the Scheme Administrator and not the Financial Vehicle. The management of these risks is undertaken in accordance with ASL’s Enterprise Risk Management Framework and in compliance with the relevant Regulations, Minister’s guidelines and Minister’s directions that apply to exercise of those functions.

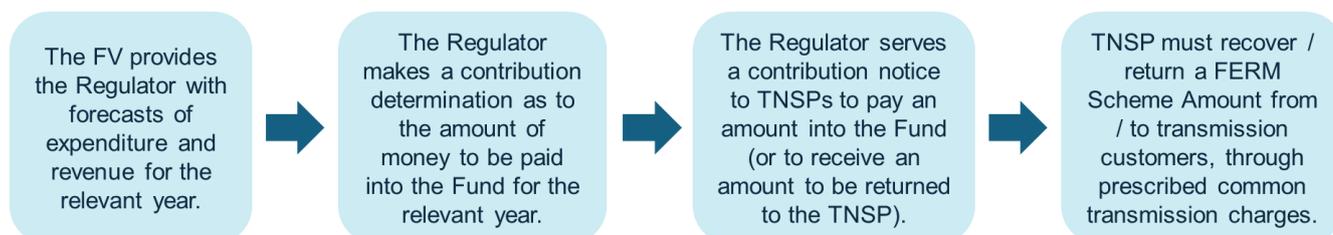
As part of its responsibilities in relation to this Risk Management Framework, the Scheme Administrator is tasked with preparing the Performance Standards Schedule and the Reporting Schedule described in Sections 3.1 and 5.4, respectively. The Scheme Administrator (and not the AER) is responsible for developing and maintaining both documents. It is important to note that, while the Risk Management Framework creates the obligation for the Financial Vehicle to manage and report on risks consistent with these schedules, the schedules themselves do not form part of the Risk Management Framework and are not subject to AER approval.

Furthermore, as part of its obligation to develop, amend and substitute the Risk Management Framework under Regulations 10(1) and 10(3), the Scheme Administrator is required to actively participate in the Risk Management Process as detailed in Section 5 of this Risk Management Framework, ensuring that risks associated with FERM contracts and otherwise in connection with the functions of the Financial Vehicle are identified, assessed, treated, and monitored in accordance with the scheme’s objectives and regulatory requirements.

1.7 Role of the AER and ESCOSA

[This Risk Management Framework has been approved]³ by the AER as the Scheme Regulator for the purpose of Regulation 11(1)(a)(iii). The AER’s role is limited to reviewing and approving the Risk Management Framework and any amended or substituted Risk Management Framework as required by Regulation 11(1)(a)(iii). The AER does not make decisions on the way risk is managed by the Financial Vehicle. The AER does not approve FERM contracts or other activities governed by this Risk Management Framework.

The AER also serves as the Scheme Regulator for the purpose of Regulation 11(1)(e) (amongst other functions in the Regulations), which refers to the issuing of contribution determinations and contribution notices for the purposes of the scheme. The diagram below provides an overview of the approach to cost recovery of scheme costs.



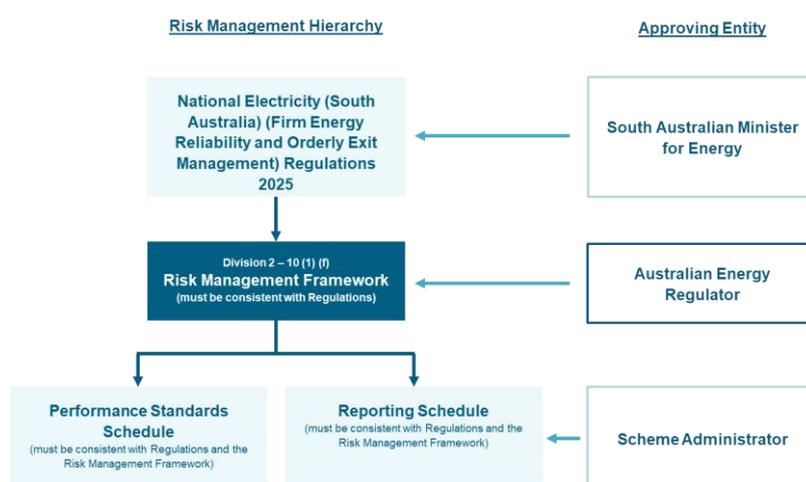
The AER is also responsible for overseeing and monitoring the Financial Vehicle’s compliance with the scheme, including the Financial Vehicle’s compliance with this Risk Management Framework under Regulation 11(1)(b) and in accordance with the Scheme Regulator’s guidelines.

The Financial Vehicle will also be subject to performance audits by the Essential Services Commission of South Australia (ESCOSA), which has been appointed as a Scheme Regulator for the purpose of Regulation 11(1)(a)(ii) (amongst other functions in the Regulations).

1.8 Scheme hierarchy of risk management

Figure 1 below presents the hierarchical structure of risk management within the SA FERM scheme, highlighting where this Risk Management Framework fits within the broader system and identifying the entities responsible for approving each component.

Figure 1 Scheme hierarchy of risk management



³ This remains subject to the formal appointment of the AER as a Scheme Regulator pursuant to regulation 9(1)(b) and approval of the Risk Management Framework pursuant to regulation 11(1)(a)(iii).

2. Scope of risks

The scope of risks covered by this Risk Management Framework is limited to risks arising from the Financial Vehicle’s functions in connection with the scheme that impact the financial interests of South Australian electricity consumers either by:

- reducing the **benefits** expected to be delivered by the FERM contracts; or
- increasing the direct **costs of the FERM contracts** or the **costs of the Financial Vehicle to administer** the FERM contracts and the Fund.

The Scheme Administrator has prepared this Risk Management Framework in accordance with the requirement for it to develop a Risk Management Framework to protect the financial interests of South Australian electricity consumers under Regulation 10(1)(f), as well as its general obligation to act in the LTFI of South Australian electricity consumers under Regulation 14(a).

Accordingly, the Financial Vehicle may also consider that exercising its functions under this Risk Management Framework meets its own obligation to act in the LTFI of South Australian electricity consumers under Regulation 14(a).

Where this Risk Management Framework and/or the Regulations provide for discretion as to how the Financial Vehicle may act in the LTFI of South Australian electricity consumers, the Financial Vehicle may seek the advice of the Scheme Administrator.

2.1 Key risks

For the purposes of this Risk Management Framework, the key risks are set out in **Table 2** below.

Table 2 Overview of key risks

Risk	Risk description	Risk impacts for South Australian consumers	Relevant Financial Vehicle function
Risk 1: The Fund lacks sufficient liquidity to meet the Financial Vehicle’s payment obligations.	<p>The Financial Vehicle may be unable to meet its payment obligations if there is insufficient liquidity in the Fund. This risk may arise from variable and uncertain inflows (e.g. contributions from TNSPs, loan proceeds, penalties, investment income, including maturity profile of investments), uncertain outflows under FERM contracts and debt repayments.</p> <p>Timing mismatches between due liabilities and cost recovery collection may also create short-term funding gaps, leading to payment delays or shortfalls for capacity providers.</p>	<p>Where LDC providers do not receive required revenue, their projects may not be constructed or the provider may default, potentially reducing the benefits of the scheme to South Australian electricity consumers.</p> <p>The AER may also need to vary a contribution determination under Regulation 28 in order to secure more funds from TNSPs to cover any funding gap, leading to increased costs to South Australian electricity consumers.</p>	Administration of the Fund
Risk 2: The Financial Vehicle may not be perceived as a credit worthy counterparty by institutions providing finance to LDC providers.	<p>A downgrade or negative outlook for the credit rating of the SA FERM Trust could undermine its perceived creditworthiness, weaken the bankability of FERM contracts and limit debt funding for LDC providers.</p> <p>The credit rating and outlook may be affected by various operational risks, including process and systems failure, legal non-compliance, and failure to meet the obligations under the FERM contracts (including payment obligations described in Risk 1).</p>	The bankability of FERM contracts may be undermined impacting participation in the scheme and the corresponding realisation of benefits to South Australian electricity consumers.	All
Risk 3: The Financial Vehicle makes decisions about FERM contracts that adversely impact the benefits able to be realised.	<p>The Financial Vehicle may decide not to enter into a FERM contract, exercise a termination or other enforcement right under an existing FERM contract, or make amendments to FERM contracts that could prevent meeting the Firm Energy Target.</p> <p>In each of these decisions, the Financial Vehicle must weigh up the risks to the benefits against potential savings to South Australian electricity consumers, taking account of recommendations made by the Scheme Administrator under Regulation 24(4) and advice provided by the Scheme Administrator under Regulation 10(1)(e).</p>	<p>Where LDC providers’ contracts are terminated or amended in way that means they do not receive required revenue, their projects may not be constructed or the provider may default, potentially reducing the benefits of the scheme to South Australian electricity consumers.</p> <p>Conversely where LDC providers’ contracts are not terminated or amended, and the project does not go ahead in any case, South Australian consumers may be</p>	<p>Entering into FERM contracts</p> <p>Monitoring and enforcing contractual performance</p>

Risk	Risk description	Risk impacts for South Australian consumers	Relevant Financial Vehicle function
<p>Risk 4: Parties that make payments to the Financial Vehicle or to the Fund, or that hold the Fund, default resulting in liquidity issues for the Financial Vehicle. This excludes FERM contract counterparties.</p>	<p>Default by a party making payments to the Fund, or that hold the Fund, may leave the Financial Vehicle with insufficient access to liquidity to meet its payment obligations, requiring the Financial Vehicle to source alternative and potentially higher cost liquidity.</p> <p>Such parties include TNSPs, bank guarantors (for LDC providers' security bonds), loan providers and bank account providers.</p> <p>This risk may also impact the perception of the Financial Vehicle as a creditworthy counterparty (see Risk 2).</p>	<p>exposed to unnecessary costs of contract administrations.</p> <p>Where counterparty defaults give rise to liquidity issues, the Financial Vehicle may not be able to meet its payment obligations under FERM contracts to LDC providers. This would adversely impact projects, risking construction or provider default, potentially reducing the benefits of the scheme to South Australian electricity consumers.</p> <p>Counterparty defaults may also increase administration costs for the Financial Vehicle and flow on as increased costs to South Australian electricity consumers</p>	<p>Administration of the Fund</p>
<p>Risk 5: Exposure to spot price and fuel price volatility impacting financial interests of SA electricity consumers</p>	<p>The risk that the Financial Vehicle is exposed to spot price volatility under FERM contracts, which may affect the financial interests of South Australian electricity consumers.</p>	<p>Where electricity and fuel prices are volatile, SA consumers may be exposed to volatile scheme payments and potentially high costs. This risk is somewhat mitigated by payment caps, and fuel reimbursement caps under the FERM contracts, which limit SA consumer exposure to price volatility as well as the "natural hedge" under the SA FERM. The "natural hedge" means that at times of higher scheme payments consumers are likely benefiting from lower electricity prices.</p> <p>Exposure to price volatility requires the Financial Vehicle to maintain access to cash reserves or access to other facilities with associated costs to consumers.</p> <p>Mitigating this risk via hedging contracts may produce unfavourable outcomes, introduce further basis risk, and increase the costs of FERM contracts for South Australian electricity consumers</p>	<p>Administration of the Fund</p>
<p>Risk 6: Potential financial losses to the Financial Vehicle due to operational failure.</p>	<p>An operational failure by the Financial Vehicle may result in the Financial Vehicle experiencing financial losses. This risk may also impact the perception of the Financial Vehicle as a creditworthy counterparty (see Risk 2).</p>	<p>Operational failures may increase administration cost for the Financial Vehicle may increase and flow on as increased costs to South Australian electricity consumers.</p> <p>Where operational failures give rise to liquidity issues, LDC providers do not receive required revenue and therefore the LDC providers' projects may not be constructed or may default, reducing the benefits of the scheme to South Australian electricity consumers.</p> <p>The bankability of FERM contracts may be undermined impacting participation in the scheme and the corresponding realisation of benefits to South Australian electricity consumers.</p>	<p>All</p>

2.2 Risks not covered by the Risk Management Framework

There are several other important risks facing South Australian electricity consumers arising from the scheme. These risks are not associated with the functions of the Financial Vehicle or are subject to other laws and regulations. Consequently, they fall outside the scope of this Risk Management Framework. These include:

- Risks that increase costs to South Australian electricity consumers due to the form of FERM contracts themselves given that the development of the FERM contract is not a Financial Vehicle function.
- Risks of insufficient market liquidity due to FERM contracts or other drivers (these are addressed outside of the Risk Management Framework and via the market liquidity obligations and reliability obligations (if any) set by the Minister’s guidelines for electricity entities under the scheme).
- Risks that increase costs to South Australian electricity consumers that arise as a result of the tendering or any subsequent negotiation processes (these are the responsibility of the Scheme Administrator and are regulated separately).

Risks to overall reliability and affordability of electricity in South Australia (that is more broadly covered under the National Electricity Rules).

2.3 Assessment of long-term financial interest and commercial reasonableness and prudence

Regulation 14 requires the Financial Vehicle, in performing its functions as a scheme entity under the Regulations, to:

- act independently and in the long-term financial interests of South Australian electricity consumers; and
- act in a commercially reasonable and prudent way.

The same requirement applies to the Scheme Administrator when performing its functions under the Regulations. The Scheme Administrator’s functions include making recommendations to the Financial Vehicle with respect to its entry into FERM contracts under Regulation 23 (negotiated contracts)⁴ and Regulation 24 (tender contracts). The Scheme Administrator’s functions also include advising the Financial Vehicle in relation to the contractual management of FERM contracts to the extent considered appropriate by the Scheme Administrator, under Regulation 10(1)(e).

If the Scheme Administrator and the Financial Vehicle were to make separate assessments of the LTFI of South Australian electricity consumers and of commercial reasonableness and prudence when deciding whether to enter into FERM contracts or when making decisions with respect to contract management of FERM contracts, this would create a risk of delay in the implementation of tender outcomes and contract administration. It would also create a risk of the Scheme Administrator and the Financial Vehicle arriving at different assessment outcomes, resulting in uncertainty with respect to scheme entity actions and accountabilities.

The Scheme Administrator will be in the best position to make an assessment of the LTFI of South Australian electricity consumers, and of commercial reasonableness and prudence, in respect of decisions about entering into FERM contracts and the contractual management of FERM contracts. This reflects the Scheme Administrator’s responsibility for undertaking the tender process and negotiation of FERM contracts and the capabilities and experience required of the Scheme Administrator to carry out its functions.

Accordingly, for the purpose of satisfying the requirements under Regulation 14 when making decisions in relation to the entry into FERM contracts and the contractual management of FERM contracts, the Financial Vehicle may choose to rely upon the Scheme Administrator’s assessment of the LTFI of South Australian electricity consumers and the commercial reasonableness and prudence of those decisions.

⁴ As noted previously, a Scheme Administrator has not been appointed for the purpose of performing scheme administration functions in relation to Negotiated Contracts, there is no current mechanism for recommendations to be made to the Financial Vehicle in relation to those contracts.

3. Risk appetite

The risk appetite defines the amount and type of risks SA FERM is willing to accept in pursuit of its objectives. It sets clear boundaries for decision-making and helps ensure risks are managed within acceptable levels. The following definitions define the appetite levels:

- **High risk appetite:** willing to accept significant risk to achieve its objectives.
- **Medium risk appetite:** willing to accept moderate level of risk where there is a clear benefit expected, with appropriate controls applied to manage exposure.
- **Low risk appetite:** prefer to avoid risk where possible, accepting only limited exposure to risk when necessary, supported by strong and effective controls.
- **Very low risk appetite:** minimal tolerance for risk, seeking the lowest possible exposure to risk through robust controls to avoid exposure.

Table 3 Risk appetite statement

Risk	Qualitative statement	Risk appetite	Relevant performance standards
Risk 1: The Fund lacks sufficient liquidity to meet the Financial Vehicle’s payment obligations.	<p>The Financial Vehicle must make payments consistent with Regulation 21(8) and its obligations and relevant performance standards set out in the Performance Standards Schedule.</p> <p>The Financial Vehicle must meet contractual payment obligations, reflecting a strong need for financial reliability and compliance.</p> <p>The Financial Vehicle may hold surplus cash in the Fund, acknowledging the strategic flexibility it provides despite potential inefficiencies due to the risk of various maturity profiles</p>	Low	The Financial Vehicle must maintain an appropriate Liquid Assets to Payment Obligations (LAPO) ratio, as specified in the Performance Standards Schedule, to ensure it can meet projected payment obligations over a rolling forward-looking period (such as 12 months), under both base case and stress-case scenarios.
Risk 2: The Financial Vehicle is not perceived as a credit worthy counterparty by institutions providing finance to LDC providers.	<p>There is minimal appetite for the Financial Vehicle’s functions to give rise to any breaches, non-compliance, or incidents that could adversely impact credit quality or create a market perception of deteriorating creditworthiness.</p> <p>The Financial Vehicle may pass costs to consumers when necessary to prevent such outcomes and preserve financial integrity.</p>	Low	<p>The Financial Vehicle must maintain an investment grade credit rating for the SA FERM Trust consistent with the Performance Standards Schedule.</p> <p>If the person or body appointed to be Financial Vehicle conducts activities other than in connection with the scheme financial functions under the Regulations (for example, as a commercial trustee) (Non-FERM Activities) then the Financial Vehicle must not allow any acts or omissions in connection with Non-FERM Activities to have an adverse impact on the Financial Vehicle’s creditworthiness or perceived creditworthiness.</p>
Risk 3: The Financial Vehicle makes decisions about FERM contracts that adversely impact the benefits able to be realised.	<p>The Financial Vehicle must not accommodate FERM contract counterparty deviations or requests that do not enhance the likelihood of benefits realisation and result in increased costs to South Australian electricity consumers.</p> <p>The Financial Vehicle must accommodate FERM contract counterparty deviations or requests where such deviations increase the likelihood of benefits being realised, so long as those benefits offset costs.</p> <p>The Financial Vehicle may only enter into FERM contracts under the FERM Regulations following a recommendation of the Scheme Administrator under Regulation 23(3) or 24(4), and the Financial Vehicle may seek the advice of the Scheme Administrator in relation to the contractual management of FERM contracts as contemplated by Regulation 10(1)(c).</p>	Low	The Performance Standards Schedule may set out the circumstances under which deviations or requests may be approved.

Risk	Qualitative statement	Risk appetite	Relevant performance standards
	<p>While the Financial Vehicle is required to act independently when carrying out its functions under the FERM Regulations, it is expected that the Financial Vehicle will enter into FERM contracts, and act consistently with the advice of the Scheme Administrator in relation to contractual management, of FERM contracts, unless doing so would result in the Financial Vehicle being in breach of the Regulations, the Minister's guidelines, the Risk Management Framework, the Instrument of Appointment or the terms of the FERM contracts. For the purpose of satisfying the requirement under Regulation 14 that the Financial Vehicle act in the long-term financial interest of South Australian electricity consumers and in a commercially reasonable and prudent way when entering into and managing FERM contracts the Financial Vehicle may, for the reasons described in section 2.3, choose to rely on an opinion of the Scheme Administrator confirming that acting in accordance with the relevant advice or recommendation would be in the long-term financial interest of South Australian electricity consumers and is commercially reasonable and prudent, for the purposes of satisfying the requirements under Regulation 14.</p>		
<p>Risk 4: Parties that make payments to the Financial Vehicle or to the Fund, or that hold the Fund, default resulting in liquidity issues for the Financial Vehicle. This excludes FERM contract counterparties.</p>	<p>There is minimal appetite for the parties that hold the Fund to be rated below AA- (Moody's equivalent Aa3), reflecting heightened concern over control and accountability.</p> <p>There is minimal appetite for parties that make payments to the Financial Vehicle or the Fund to be rated below investment grade.</p> <p>Such parties include TNSPs, bank guarantors (for LDC providers' security bonds), loan providers and bank account providers.</p>	<p>Low</p>	<p>Parties that make payments to the Fund, including the parties that hold the Fund, excluding FERM contract counterparties, must have a credit rating consistent with the requirements of the Performance Standards Schedule.</p>
<p>Risk 5: Exposure to spot price and gas price volatility impacting financial interests of SA electricity consumers</p>	<p>This risk is currently assessed to be very low because of the payment caps and fuel consumption caps that form part of the FERM agreement.</p> <p>There is very low appetite for the Financial Vehicle further mitigating this risk using hedging contracts as this would introduce a transactional cost and carry the risk of unfavourable outcomes, which would negatively impact the financial interests of South Australian electricity consumers.</p>	<p>Very low</p>	<p>The Financial Vehicle must conduct any hedging activities for the purpose of hedging its exposure under FERM contracts in accordance with restrictions, limits and other requirements set out in the Performance Standards Schedule.</p>
<p>Risk 6: Potential financial losses to the Financial Vehicle due to operational failure.</p>	<p>There is minimal appetite for operational risks that could compromise the Fund's liquidity or negatively affect the Financial Vehicle's perceived creditworthiness.</p>	<p>Low</p>	<p>Operational risks must be proactively managed to prevent material losses to the Fund, in compliance with the Performance Standards Schedule.</p>

3.1 Performance Standards Schedule

The Scheme Administrator also provides a Risk Management Framework Performance Standards Schedule. The Performance Standards Schedule is intended to guide the Financial Vehicle as to how the risk appetite should be interpreted in terms of quantitative criteria, thresholds or standards and triggers for Escalation Events.

The Performance Standards Schedule does not form part of this Risk Management Framework and may be updated by the Scheme Administrator as described below, but it is a requirement of this Risk Management Framework that the Performance

Standards Schedule must be consistent with this Risk Management Framework. The Financial Vehicle is required to comply with the Performance Standards Schedule. In recognition of the requirement for the Financial Vehicle to establish systems and processes to manage compliance with the Performance Standards Schedule, the Schedule may include grace periods of up to 6 months during which compliance with particular obligations may be relaxed or exempted.

The performance standard types listed in the risk appetite table are not exhaustive and additional standards may be outlined in the Performance Standards Schedule.

The Performance Standards Schedule will be reviewed and updated annually by the Scheme Administrator; when the Risk Management Framework itself is reviewed (every two years) or updated from time to time as required. In conducting the annual review or otherwise updating the Performance Standards Schedule, the Scheme Administrator may take into account:

- the functions of the Financial Vehicle;
- the Scheme Administrator's current assessment of material risks to South Australian electricity consumers in connection with FERM contracts;
- the impact of the demonstrable performance record or operating and governance maturity of the Financial Vehicle;
- any amendments to the Regulations;
- any written Government, Regulator or Ministerial direction, guidelines or policy that supports adjustments to the Performance Standards Schedule;
- any amendments to the Risk Management Framework; and
- any other matters the Scheme Administrator considers relevant.

4. Risk management obligations

4.1 General obligations

The Financial Vehicle must have the necessary understanding, resources, capabilities and controls to manage risk and fulfil its roles and responsibilities under this Risk Management Framework. Regulation 14 requires the Financial Vehicle to act independently and in the LTFI of South Australian electricity consumers, and in a commercially reasonable and prudent way. This involves the systematic application of policies, procedures and practices by the Financial Vehicle. Where relevant and applicable, the required capabilities or controls must reflect practices as detailed in ISO 31000.

Where the Financial Vehicle is a commercial trustee, it is acknowledged that it may in its separate capacity (as a trustee on behalf of other entities) enter into arrangements with the Financial Vehicle provided that conflict management measures are adopted that are reasonably satisfactory to the Scheme Administrator.

In establishing the functions and developing the capabilities to meet the obligations conferred by this Risk Management Framework, the Financial Vehicle must consider the role of the following principles:

- Integrated and embedded risk management across all organisational activities through a strong risk management culture.
- Structured and comprehensive approaches to risk management, including consideration of shared risks with other scheme entities.
- Customised frameworks and processes that are proportionate to the external and internal context and related to its objectives.
- The ability to be dynamic and responsive to changes in internal and external environments.
- Continual improvement based on learning and experience.
- Transparent with the best available information provided to it, and input from all relevant stakeholders in a timely and clear manner.

4.2 Processes, procedures and systems

The risk management process must be an integral part of management and decision-making and integrated into the structure, operations and broader processes of the Financial Vehicle. It can be applied at strategic and operational levels.

This involves risk identification, risk analysis and risk evaluation and must be conducted systematically, iteratively and collaboratively, drawing on the knowledge and views of stakeholders. It must use the best available information, supplemented by further enquiry as necessary.

The Financial Vehicle must have appropriately developed and documented processes, procedures and systems to:

- enable the identification, assessment, execution, ongoing monitoring and management, settlement and reporting of all transactions to be undertaken pursuant to the Regulations and this Risk Management Framework; and
- identify, assess, monitor and report on broader organisational and environmental risks and their mitigations.

Processes and procedures must be regularly reviewed and updated so they remain consistent with this Risk Management Framework and include the implementation and management of key controls. Systems must be regularly tested and maintained, including ensuring appropriate data storage, retention, access rights and security.

The Financial Vehicle must notify the Scheme Administrator of any material change to its processes, procedures or systems and promptly provide the Scheme Administrator with a summary of its processes, procedures and systems on request.

4.3 Skills and training

Key personnel in the Financial Vehicle must have completed the appropriate training and qualifications or have the appropriate industry experience to enable them to fulfil their role in managing risk and meeting the requirements of this Risk Management Framework.

Training and capability records must be maintained, along with appropriate annual capability declarations, to ensure ongoing compliance and effectiveness. Where resourcing constraints or deficiencies are identified, escalation and reporting must occur in accordance with the Reporting Schedule as described in Section 5.4.

4.4 Reporting and audit (including internal audit)

An audit function must provide timely and useful information to the Financial Vehicle in relation to the adequacy of, and its compliance with, the system of policies, procedures, controls, and staff skill and training requirements.

The Financial Vehicle must develop and maintain an annual audit program that outlines the areas to be audited in the forthcoming year.

The Financial Vehicle must report on its compliance with this Risk Management Framework to the Scheme Administrator and the Scheme Regulator on an annual basis including audit outcomes and audit recommendations.

4.5 Operationalisation of the Risk Management Framework

As soon as practicable during a reasonable transition period following appointment, but in any event within 6 months, the Financial Vehicle must develop and maintain appropriate supporting documents to effectively operationalise the Risk Management Framework. In undertaking this process, the Financial Vehicle must refer to Sections 3.1 and 5.4, which outlines the relevant performance standards and reporting schedules that set out the specific requirements and tasks the Financial Vehicle must complete to ensure effective operationalisation of the Risk Management Framework. These documents should be subject to regular review and updates by the Financial Vehicle's governing body and management to ensure they remain current, fit for purpose, and aligned with evolving risk and compliance requirements. Supporting documents may include the Financial Vehicle's own Enterprise Risk Management Framework and internal policies that focus on broader organisational and environmental risks.

The Financial Vehicle must ensure that risk considerations are consistently factored into everyday operations and strategic decisions by systematically integrating risk management information into all levels of governance, assurance, and reporting frameworks. This approach strengthens accountability, transparency, and compliance across the organisation, helping to embed a risk-aware culture and meet regulatory obligations.

5. Risk management process

5.1 Identification

The Financial Vehicle must identify and maintain visibility of the key risks in **Table 2** and those arising from broader organisational activities. This includes risks linked to legislative obligations, governance requirements, operational delivery, financial management etc. Risks must be considered across all areas of the organisation to ensure that statutory obligations are met while capturing emerging and organisational risks that may impact the Financial Vehicle's ability to meet its obligations under this Risk Management Framework. All risks must be documented in a risk register for assessment and monitoring.

5.2 Assessment

The Financial Vehicle must assess identified risks to understand their potential impact and likelihood. Each risk must be rated on an inherent and residual basis, considering the effectiveness of existing controls. Risks must then be evaluated against the defined risk appetite to determine priority and guide decision-making. The outcomes of the assessment are to be recorded in the risk register.

5.3 Treatment

The Financial Vehicle must develop and implement treatment plans for risks that are outside of the defined risk appetite or risks with a residual rating of High or Extreme. Treatment options may include mitigating, avoiding, transferring, or accepting the risk, with clear accountability assigned for delivery. A treatment option of accepting must be approved, regularly reported, and monitored. Mitigation actions must be monitored for progress, and the target residual risk rating documented to track the expected outcome once treatments are implemented.

5.4 Reporting

In addition to the annual report of the Financial Vehicle required to be prepared under Regulation 17, the Financial Vehicle must provide reporting as per the Scheme Administrator's requirements set out in the Reporting Schedule. The Reporting Schedule does not form part of this Risk Management Framework and may be updated by the Scheme Administrator as described below, but it is a requirement of this Risk Management Framework that the Reporting Schedule is consistent with this Risk Management Framework. The Scheme Administrator will inform the Scheme Regulator of any changes to the Reporting Schedule, within 5 business days. The Financial Vehicle is required to comply with the Reporting Schedule. In recognition of the requirement for the Financial Vehicle to establish systems and processes to manage compliance with the Reporting Schedule, the Schedule may include grace periods of up to 6 months during which compliance with particular obligations may be relaxed or exempted.

The Financial Vehicle must provide information in the Reporting Schedule:

- to the Scheme Administrator and to any other party specified in the Reporting Schedule as being a recipient of that information or report;
- on or prior to the times indicated in the Reporting Schedule as being applicable to that information or report; and
- based on reasonable enquiries and reasonable endeavours to ensure that such information and reports are accurate and complete and not misleading by statement or omission.

The Reporting Schedule will be reviewed and updated annually by the Scheme Administrator or updated from time to time as required. In conducting the annual review or otherwise updating the Reporting Schedule, the Scheme Administrator may take into account:

- the functions of the Financial Vehicle;
- the Scheme Administrator's then current assessment of material risks to South Australian electricity consumers in connection with FERM contracts;
- the impact of the demonstrable performance record or operating and governance maturity of the Financial Vehicle;
- any amendments to the Regulations;

- any written Government, Regulator or Ministerial direction, guidance or policy that supports adjustments to the Reporting Schedule;
- any amendments to the Risk Management Framework; and
- any other matters the Scheme Administrator considers relevant.

The Scheme Administrator will notify the Financial Vehicle in writing regarding the findings of its annual review, or any other updates, including providing the Financial Vehicle with a revised Reporting Schedule. The revised Reporting Schedule will take effect 30 days after the Scheme Administrator provides the relevant notification.

In addition to the requirements of the Reporting Schedule, the Financial Vehicle must:

- promptly disclose to the Scheme Administrator and the Scheme Regulator any information reasonably requested in relation to the Financial Vehicle's compliance with this Risk Management Framework; and notify the Scheme Administrator and the Scheme Regulator as soon as reasonably possible (and in any event within 5 business days) after the Financial Vehicle becomes aware that it has breached or is reasonably likely to have breached the Risk Management Framework, the Regulations, the Instrument of Appointment, the Minister's guidelines or any Minister's authorisation under Regulation 21(8)(c).

5.5 Risk monitoring

The Financial Vehicle must maintain a comprehensive risk register to support ongoing oversight and effective management of risks (including low and medium risks). The Financial Vehicle will undertake monitoring under the Risk Management Framework and provide a quarterly risk assessment to the Scheme Administrator including:

- A full risk register including:
 - Inherent and residual risk ratings of each of the key risks in Table 2;
 - Risks reviewed against the defined risk appetite;
 - Controls and an assessment of control effectiveness;
 - Treatment plans for risks that are outside of the defined risk appetite or have a residual rating of High or Extreme; and
 - Target risk ratings reflecting the anticipated position once mitigation strategies are implemented.

5.6 Escalation

5.6.1 Escalation Events

An Escalation Event occurs when the Scheme Administrator or Financial Vehicle identifies any of the following are likely to materially affect the LTFI of South Australian electricity consumers:

- a performance concern, being a process or performance failure by the Financial Vehicle with respect to this Risk Management Framework;
- a persistent issue, being an issue identified through reporting under the Reporting Schedule that remains unaddressed or is progressing slowly or inconsistently over a prolonged period;
- an Unforeseen Event requiring immediate attention affecting the operations of the Scheme Administrator, the Financial Vehicle, a FERM contract counterparty or the broader environment in which they operate;
- a new or emerging risk not covered by this Risk Management Framework;
- a risk rating outside of the defined risk appetite; or
- any other matter deemed relevant by the Scheme Administrator.

5.6.2 Escalation pathways

Following the identification of an Escalation Event, the Scheme Administrator may:

- request that the Financial Vehicle prepares a rectification plan which must then be provided by the Financial Vehicle as soon as reasonably practical and generally within 10 business days of the request; and/or
- in the event of a significant disruption, convene a meeting of senior executives of the Financial Vehicle and Scheme Administrator for good faith discussions aimed at rectifying or addressing the Escalation Event; and/or

- report the Escalation Event to external parties, including the Scheme Regulator, if the Scheme Administrator determines such reporting is necessary to exercise its functions under the Regulations.

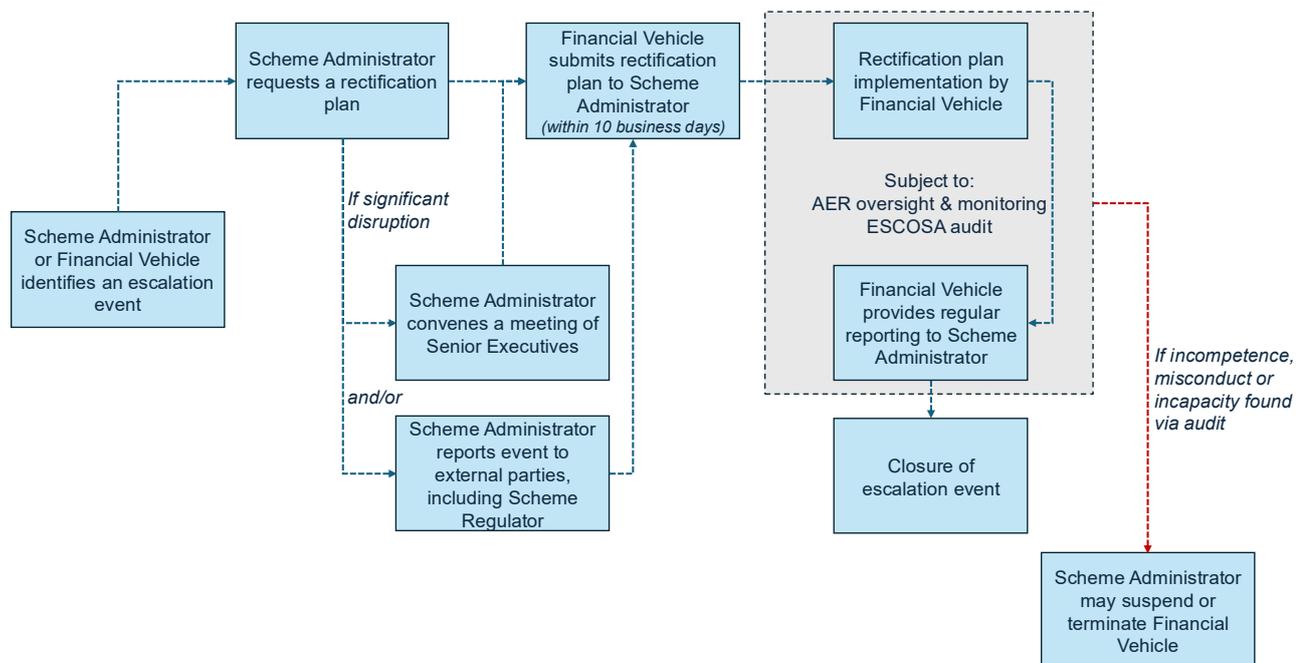
The rectification plan must clearly articulate the actions to be taken, cadence of monitoring, and clear responsibility for who will perform the actions and monitoring. This should also include the final position that will enable closure of the Escalation Event, including the final approver of closure, i.e. Scheme Administrator, Scheme Regulator or Minister, dependent on the severity of the escalation event.

As part of the Quarterly Governance Reporting (see Reporting Schedule), the Financial Vehicle must update the Scheme Administrator on the status of any identified breaches and respective rectification plans.

The timely preparation and effective implementation of a rectification plan as outlined above is also a matter for oversight and monitoring by the Scheme Regulator (AER) under Regulation 11(1)(b) and may be the subject of an audit initiated by the Scheme Regulator (ESCOSA) or at the direction of the Minister under Regulation 11(1)(a)(ii). Where an audit demonstrates that the Financial Vehicle has displayed incompetence, misconduct or incapacity to act under the Regulations, subject to compliance with Regulation 18(3), the Scheme Administrator may elect to suspend or terminate the appointment of the Financial Vehicle under Regulation 18.

Figure 2 below illustrates the escalation event process.

Figure 2 Escalation event



5.7 Communication, consultation, and continuous improvement

The Financial Vehicle is expected to maintain structured, proactive, and two-way communication with relevant stakeholders. This includes, but is not limited to, entities listed in Section 7 and those involved in delivering obligations under the Performance Standard and Reporting Schedules.

This communication should occur regularly and in response to material developments such as audit findings, compliance reviews, and changes in regulatory or policy settings. It must support the identification, monitoring, escalation, and treatment of risks, and contribute to informed decision-making by providing timely and accurate information.

Stakeholder engagement should not be limited to reactive responses; the Financial Vehicle is expected to initiate dialogue where clarification, alignment, or risk insight is required. Feedback gathered through these interactions, alongside input from

audits and compliance monitoring, should be actively considered and used to inform both risk decisions and the continuous improvement of the Risk Management Framework itself.

In addition, the Scheme Regulators (AER and ESCOSA) are expected to develop clear guidelines outlining their respective scopes of work. These guidelines should specifically emphasise the importance of collaboration among all scheme entities to ensure that improvements to processes and oversight within the Risk Management Framework are comprehensive. Through coordinated efforts and active engagement, all scheme participants can better support effective risk management and continuous improvement across every aspect of the framework.

6. Review and update of this Risk Management Framework

6.1 Update following Minister's direction

The Minister may direct the Scheme Administrator to amend or substitute a Risk Management Framework under Regulation 10(3) at any time. Should such a direction be received then the Scheme Administrator must amend or substitute the Risk Management Framework and submit it to the Scheme Regulator for approval. The amended or substituted Risk Management Framework will then become binding on the Financial Vehicle on the date the Financial Vehicle is notified of the Scheme Regulator's approval.

6.2 Review and update by Scheme Administrator

The Scheme Administrator will also undertake a review every two years of the Risk Management Framework and seek to amend or substitute it as necessary. In conducting the biennial review, the Scheme Administrator may take into account:

- the Scheme Administrator's updated assessment of material risks to South Australian electricity consumers in connection with FERM contracts including the impact of any changes in the external context;
- the functions of the Financial Vehicle;
- the monitoring and reporting of risks provided by the Financial Vehicle over the two-year period;
- the impact of the demonstrable performance record or operating and governance maturity of the Financial Vehicle;
- AER's compliance findings and ESCOSA's performance audit findings (if any) relating to the Financial Vehicle
- any amendments to the Regulations;
- any written Government, Regulator or Ministerial direction or policy that supports adjustments to the Risk Management Framework; and
- any other matters the Scheme Administrator considers relevant.

This biennial review of the Risk Management Framework does not limit the Scheme Administrator's right to amend or substitute the Risk Management Framework from time to time in accordance with Regulation 10(3).

In addition, the Financial Vehicle may request that the Risk Management Framework be reviewed. Upon receiving such a request, the Scheme Administrator will consider whether a review is warranted and, if so, undertake the review and amend or substitute the Risk Management Framework as it considers appropriate.

If the Risk Management Framework is amended or substituted following a biennial review or any other review undertaken by the Scheme Administrator, the Scheme Administrator will submit it to the Scheme Regulator for approval. The amended or substituted Risk Management Framework will then become binding on the Financial Vehicle on the date it is notified of the Scheme Regulator's approval.

The Scheme Administrator will consult with the Financial Vehicle as part of any review to ensure that the administrative costs of any changes are taken into account when assessing the benefits of the changes to South Australian electricity consumers.

7. Summary of roles and responsibilities

Table 4 provides a summary of key roles and responsibilities in respect of the Risk Management Framework for the entities involved; it is intended as a guide and does not represent an exhaustive list of all duties. Please refer to figure 1 in Section 1.8 for additional information on the roles and responsibilities of entities.

Table 4 Summary of roles and responsibilities

Entity	Key responsibilities
Scheme Administrator	<ul style="list-style-type: none"> Develop, review and update the Risk Management Framework Submit the Risk Management Framework to Scheme Regulator for approval Review and update the Performance Standards and Reporting Schedules Consult with Financial Vehicle on updates to the Risk Management Framework
Financial Vehicle	<ul style="list-style-type: none"> Comply with risk management obligations and processes as defined in the Risk Management Framework Undertake all requirements as per the Reporting Schedule May request Scheme Administrator to review and update the Risk Management Framework Provide information to Scheme Regulator as required
Minister (South Australian Minister for Energy and Mining)	<ul style="list-style-type: none"> Direct the Scheme Administrator to prepare and amend/substitute the Risk Management Framework
Scheme Regulator - Australian Energy Regulator (AER)	<ul style="list-style-type: none"> Review and approve the Risk Management Framework and its amendments/substitutions General monitoring of the Financial Vehicle’s compliance with the Risk Management Framework Oversee rectification plans and escalation events
Scheme Regulator - Essential Services Commission of South Australia (ESCOSA)	<ul style="list-style-type: none"> Performance audits

Abbreviations and definitions

This document uses many terms that have meanings defined in the National Electricity Rules (NER) or the Regulations. If a term is defined in the NER or the Regulations, these are not included in this table.

Term	Definition
AER	Australian Energy Regulator.
ASL	AusEnergy Services Limited (ABN 59 651 198 364).
Escalation Event	A material issue identified by the Scheme Administrator or Financial Vehicle that may impact LTFI of South Australian electricity consumers such as performance failures, unresolved issues, unforeseen events, or new risks.
ESCOSA	Essential Services Commission of South Australia.
FERM	Firm Energy Reliability Mechanism: The scheme established under the Regulations for the purposes of providing long duration dispatchable electricity capacity to ensure secure, reliable and affordable electricity supply for the State.
FV	The Financial Vehicle appointed by the Scheme Administrator under Regulation 9(3) to carry out the scheme financial functions under Regulation 12(1).
Instrument of Appointment	The instrument of appointment under which the Financial Vehicle is appointed by the Scheme Administrator to carry out the scheme financial functions.
LAPO	Liquid Assets to Payment Obligations (cash and immediately realisable cash equivalents divided by current liabilities).
LDC provider	Long duration capacity provider.
LTFI	Long-term financial interests.
Minister	South Australian Minister for Energy and Mining.
NEM	National Electricity Market.
Regulations	<i>National Electricity (South Australia) (Firm Energy Reliability and Orderly Exit Management) Regulations 2025.</i>
Relevant Regulatory Year	The period referred to in Regulation 27(1), being that the Scheme Regulator must before 1 March in each year, in respect of each TNSP, make a contribution determination as to the amount of money that is to be paid into or out of the Fund for the following 12-month period (relevant regulatory year) as determined by the Scheme Regulator.
RMF or Risk Management Framework	This document, being the risk management framework developed under Regulation 10(1)(f).
SA	South Australia.
SA FERM Trust	The statutory trust established by Regulation 9(3).
Scheme Administrator	The Scheme Administrator referenced in this Risk Management Framework is ASL.
TNSP	Transmission network service provider.
Unforeseen Event	<p>Any event that prevents a party from performing a function or fulfilling their statutory functions or contractual obligations. These include, but are not limited to:</p> <ul style="list-style-type: none"> • natural events (such as earthquakes, tsunamis, cyclones, extreme drought, wildfires); • political and regulatory events (such as sudden changes in law or regulation, trade embargoes or sanction, government expropriation or nationalisation of energy assets); • technological and operational events (such as major equipment failure, cyber-attacks on grid control systems disabling generation or transmission, industrial accidents); • supply chain and market events (such as critical material shortages, port closures or blockades); • public health events (such as pandemics, for example: covid-19 causing workforce shortages, project delays, or supply chain breakdowns).