



NSW Electricity Infrastructure Roadmap

Infrastructure Safeguard Policy Paper (Part 6 of the EII Act)

Acknowledgement of Country

We acknowledge that today we meet on many Aboriginal lands.

We acknowledge the traditional custodians of the lands and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work.



Planning,
Industry &
Environment

Nikita Ridgeway

Agenda

- Presentation: Infrastructure Safeguard Policy Paper
- Questions and answers
- Interactive session



Purpose

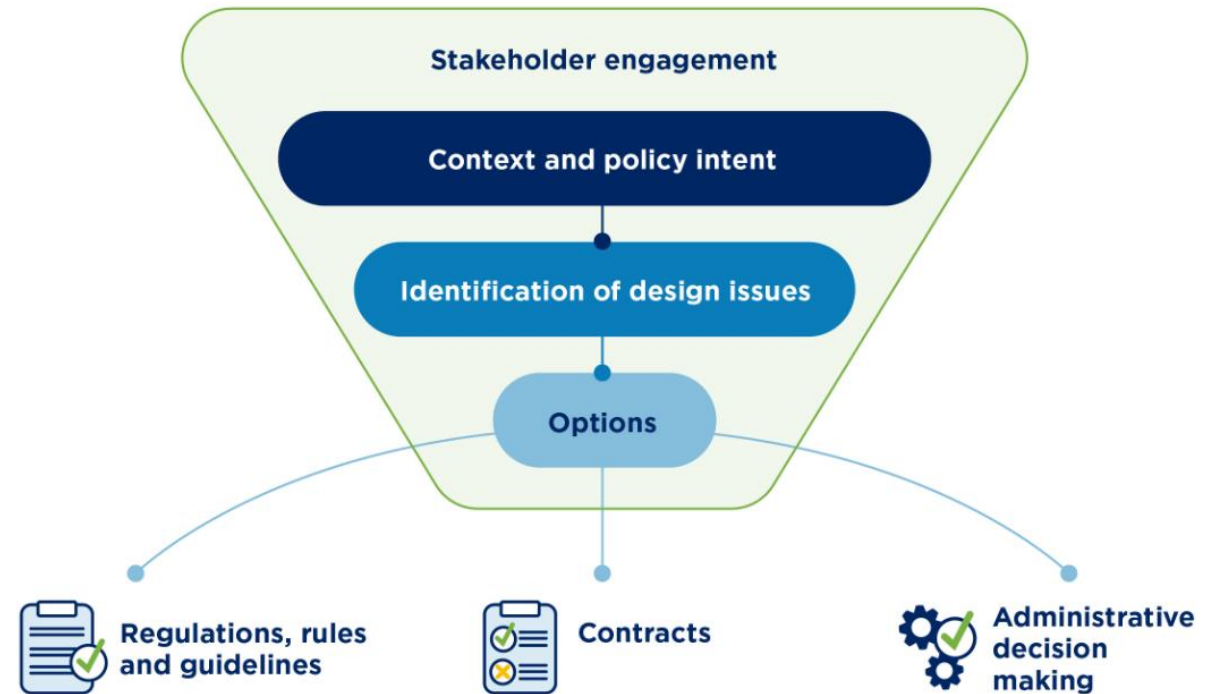
- Provide overview of Roadmap and Infrastructure Safeguard paper
- Opportunity to clarify aspects of the policy paper, to support submissions
- Engage with stakeholders on key policy issues within the paper

What are we consulting on?

Current consultation seeks feedback on substantive policy issues that could call for regulations under Parts of the *Electricity Infrastructure Investment Act 2020*.

Other policy papers in this consultation round focus on

- Network Infrastructure Projects (Part 5)
- Electricity Infrastructure Fund (Part 7)



Infrastructure Safeguard Policy Paper: Overview

Paul Verschuer
Executive General Manager, AEMO Services

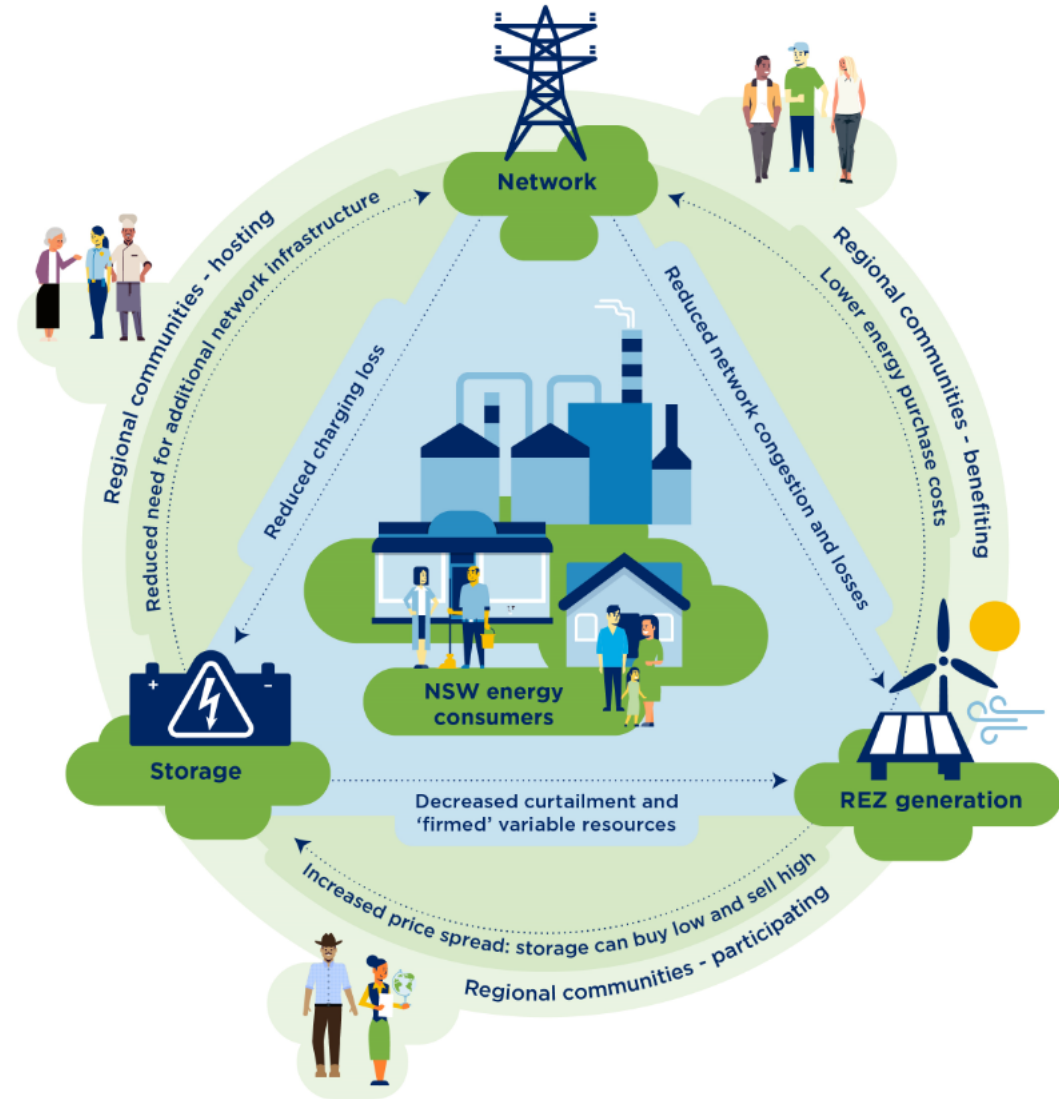


What is the Electricity Infrastructure Roadmap?

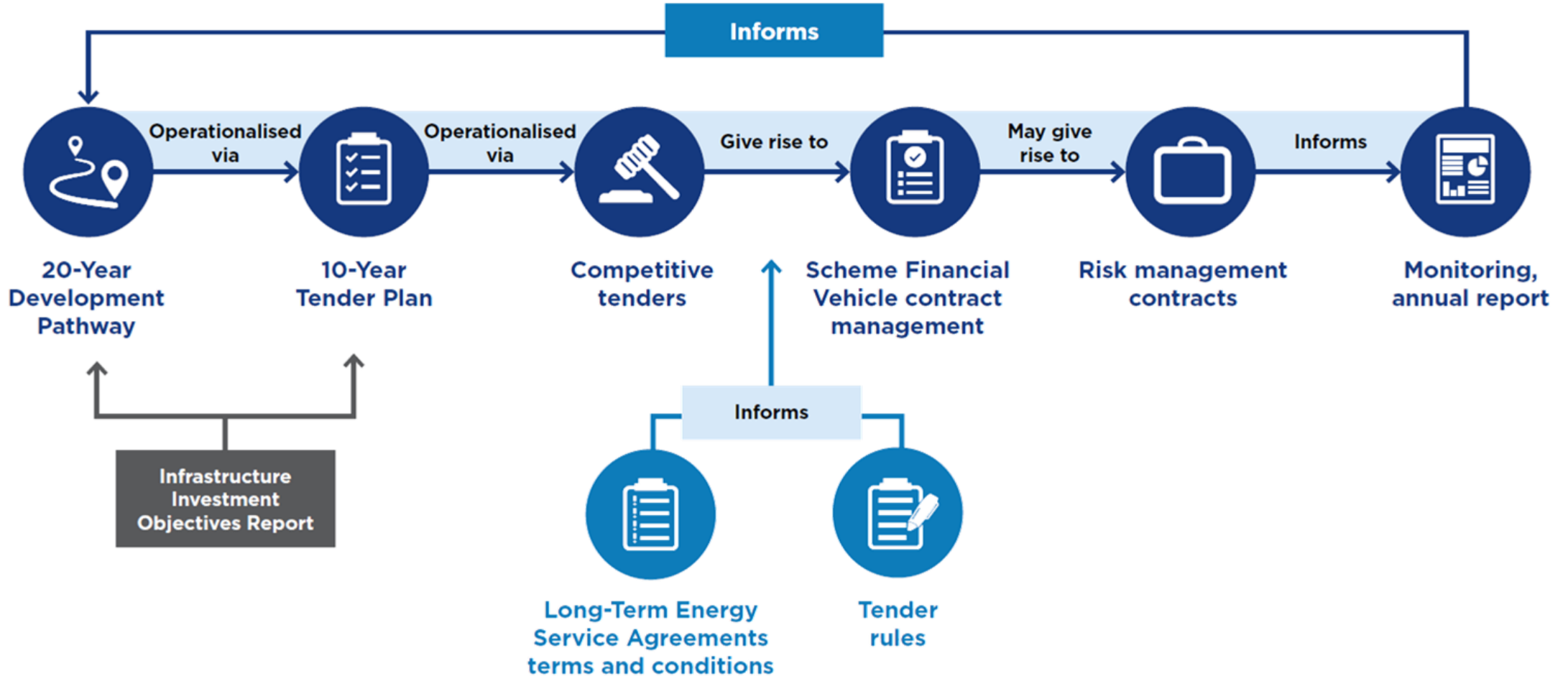
Coordinates investment in transmission, generation, storage and firming infrastructure to replace aging power stations.

Delivers 'whole-of-system' benefits:

- Renewable Energy Zones
- Transmission Development Scheme
- Electricity Infrastructure Investment Safeguard
- Pumped Hydro Recoverable Grants Program
- Internationally competitive NSW industries



What is the Electricity Infrastructure Investment Safeguard?



Content of the paper

- Planning for private sector infrastructure investment
- Policy considerations for LTES Agreements
- Tendering for and recommending LTES Agreements and access rights
- Infrastructure Safeguard governance and control



Planning for Private Sector Infrastructure Investment

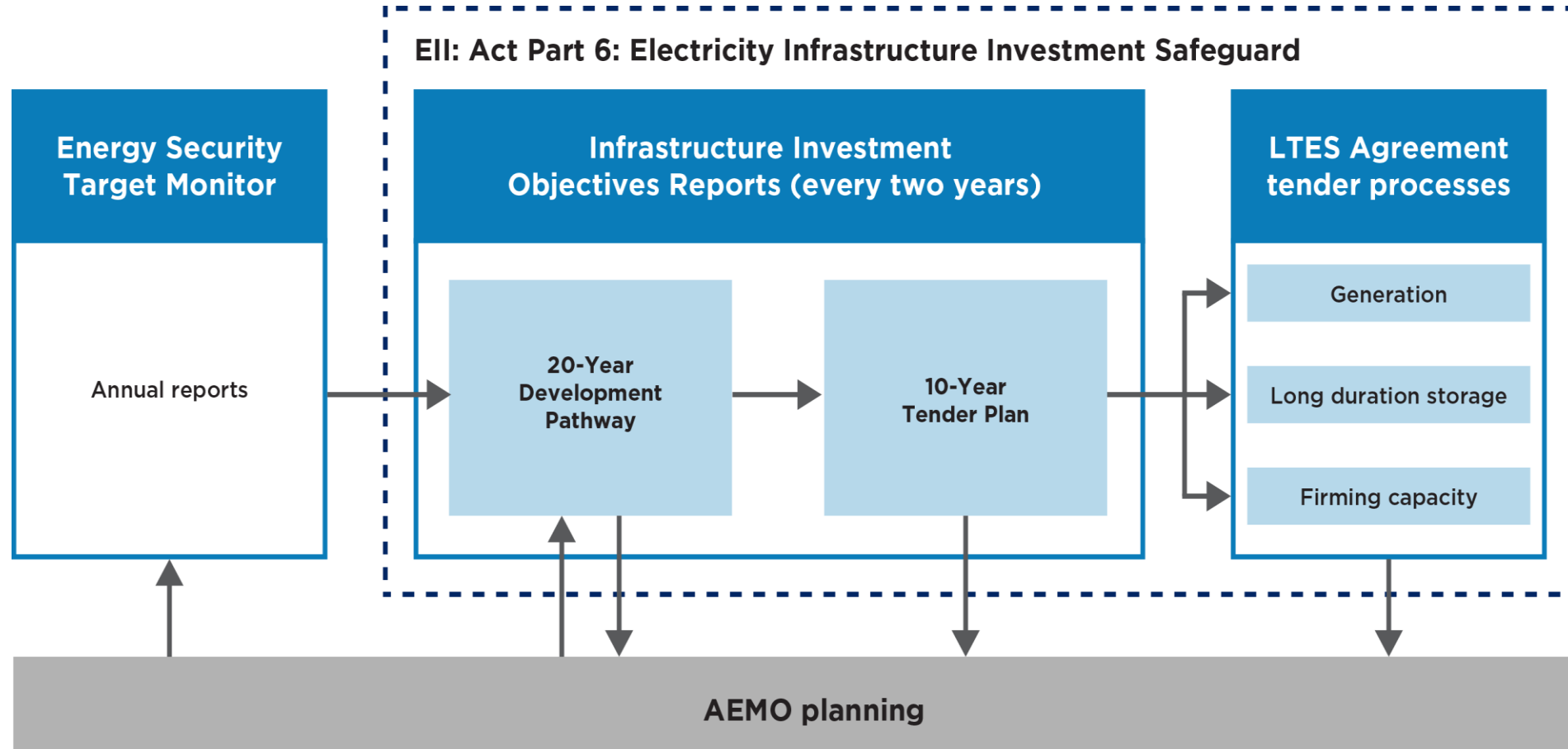
James Higgins
Senior Project Officer, DPIE



Infrastructure Investment Objectives

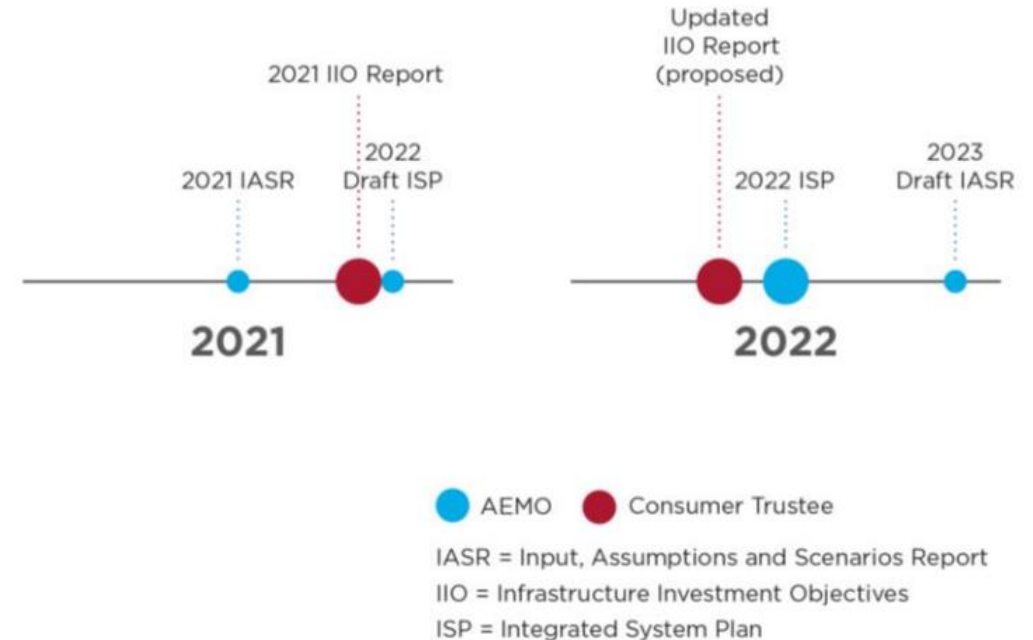
		Infrastructure investment objectives			
		Overall objectives			
Infrastructure type	Definition	Minimum objective (volume/capacity target)	Minimise electricity costs	Meet reliability standard	Meet Energy Security Target
Generation	Generation from a renewable energy source \geq 30 MW	At least the same amount as 12 GW (-33,652 GWh) constructed by end of 2029	✓	N/A	N/A
Long duration storage	Storage able to be dispatched at registered capacity for \geq 8 hrs, and scheduled by the Australian Energy Market Operator (AEMO) in the central dispatch process under the national electricity rules (NER)	2 GW in construction by end of 2029	N/A	✓	N/A
Firming	Firm capacity that is scheduled by the Australian Energy Market Operator (AEMO) in the central dispatch process under the national electricity rules (NER)	None	N/A	✓	✓

Planning and investment process



Interaction with AEMO Integrated System Plan

- Integrated System Plan and 20-Year Development Pathway are both long term plans for investment in infrastructure
- The ISP is not tasked with achieving lowest cost to NSW consumers, nor prescribing intervention to ensure resource adequacy
- The 20-Year Development Pathway and information from tender processes are intended to be inputs to ISP and ESOO
- Collaboration between the Consumer Trustee and AEMO will enable alignment of inputs and assumptions



Consultation questions: Private Sector Infrastructure Investment

Question 1: What stakeholder consultation on the Infrastructure Investment Objectives report should be required to ensure that the Consumer Trustee's report is informed by the best available information?

Question 2: How should changes in technology, consumer behaviours, customer investment in generation (e.g. distributed energy resources) and demand uncertainty be treated in relation to determining the requirement for large-scale infrastructure investment?

Question 3: What assumptions, scenarios or approaches could be prescribed by regulation to encourage an independent Consumer Trustee to make appropriate decisions regarding the treatment of future risks and uncertainties in planning for infrastructure investment?

Policy Considerations for LTES Agreements

Baharak Sahebekhtiari
Director Commercial Capabilities, DPIE



Long-Term Energy Service Agreements

Option contracts for eligible projects to achieve the objectives:

- incentivise investment in New South Wales
- protect the financial interests of NSW electricity consumers
- encourage projects' participation in the NEM and wholesale contracts markets
- efficient risk allocation between projects and NSW electricity consumers
- high coordination with REZs and access rights

LTES Agreement intended to:

- supplement Power Purchase Agreements, spot market sales or other wholesale contracts
- be a fallback for projects – not intended to constrain more profitable contracting by projects in the wholesale market

Types of Long-Term Energy Service Agreements

- The Department's position is to recommend the regulations require the terms of **generation** LTES Agreements to include 'fixed-shape fixed-volume' swap structure unless these risks can be managed on behalf of consumers
- Fixed shape and fixed volume contracts could incentivise output in line with system needs, enable SFV to trade its exposure, and result in reduced risk for consumers
- **Long duration storage** projects may be structured to receive an annuity payment, to be repaid if project net revenues are over a certain threshold
- **Firming** services, if provided by synchronous generators or some forms of demand response, may have unique characteristics that need to be catered for in bespoke LTES Agreements

Enhancing the legislated design principles

- Regulations could make interpretation simpler for the Consumer Trustee by prescribing additional principles at a greater level of policy detail
- Regulations will need to balance providing principles with flexibility for the Consumer Trustee to perform its duties

a) Align financial incentives	b) Adopt contract conventions	c) Allow for future market reform	d) Consistent with risk management
<ul style="list-style-type: none">• Maintain sufficient spot exposure• Preserve existing locational price signals• Maintain exposure to ESS incentives	<ul style="list-style-type: none">• Enable on-selling of RRO compliant contracts• Acquire rights to future capacity credits or other windfall gains	<ul style="list-style-type: none">• Acquire rights to future certificate or other windfall gains• Maintain exposure to ESS incentives	<ul style="list-style-type: none">• Enable on-sold or back-to-back products• Enable risks to consumers to be effectively managed

Questions: Policy Considerations for LTES Agreements

Question 4: What role could demand response play as 'firming infrastructure' under the EII Act and are any special considerations required in LTES Agreement design?

Question 5: Other than those prescribed in the EII Act, are further LTES Agreement design principles required to support spot, contract and system service market operation and greater consistency across jurisdictional schemes and, more broadly, innovation over time?

Tendering for and Recommending LTES Agreements

Baharak Sahebekhtiari
Director Commercial Capabilities, DPIE



Tendering for LTES Agreements and REZ access rights

Combined tenders for better coordination

- Intent of Roadmap is to coordinate new generation and network investment
- The Department's position is that the Consumer Trustee will
 - carry out combined tenders
 - consult the Infrastructure Planner

Outstanding merit

- The Department will recommend regulations to define 'outstanding merit'

A non-REZ project could have 'outstanding merit' if it delivers better outcomes for consumers and communities, compared to similar REZ projects built inside a REZ

Considerations for determining REZ access fees

Under the Act, the Consumer Trustee considers the following high-level principles

Maximising financial value for NSW electricity customers

Recovering the cost of the operation of the access scheme

Optimising the use of the existing and planned network infrastructure in the REZ

The Consumer Trustee needs to consider

- Objects of the EII Act
- Regulations that will prescribe
 - ‘community purpose’
 - ‘employment purpose’
 - minimum and maximum amounts or proportions of access fee that may be designated for these purposes
- Advice from a specially formed committee

REZ access fees to promote, de-risk, coordinate investment

It is expected that access fees will be set by the CT with consideration of:

1. funding of community and employment purposes
2. recovering part of the cost of building shared REZ network infrastructure
3. recovering administration costs of the access scheme
4. impact on LTES Agreement pricing
5. promoting connection to, and utilisation of, REZ network infrastructure
6. overall value of the REZ access right to proponents

Access fees may vary by infrastructure and access right type

- certain types or combinations of projects may enhance REZ by providing greater network hosting capacity and utilisation
- projects providing these benefits could be encouraged through lower access scheme fees

Consultation questions: Outstanding merit and REZ access fees

Question 6: What do you think is important to include in a regulation to define 'outstanding merit'?

Question 7: Are there further matters that should be considered when setting and using REZ access fees?

Infrastructure Safeguard Governance and Controls

Nicholas Gurieff
Principal Policy Officer, DPIE



Mandate and decision making of the Consumer Trustee

Development pathway and tender plan

Risk management framework and contracts

Network project authorisation and access fees

Tender rules and LTESA recommendation

- **Consultation:** To empower the Consumer Trustee to perform its duties, consultation should be meaningful and occur only where it can enhance decision making

Risk management and risk appetite for the Consumer Trustee

Some risk will need to be taken, to achieve the objectives

- A range of risks will need to be managed by the Consumer Trustee
- Governance and oversight to establish the risk appetite of the consumer trustee
 - Corporations Act 2001
 - best practice
 - community expectations

Further considerations for the CT may include:

1. ensuring the overall investment environment for the supply of electricity and other essential system services remains attractive
2. accounting for the potential role for efficient levels of demand side participation
3. having regard to how its decisions encourage 'dynamic efficiency' over time through appropriate risk management
4. ensuring its contracting and risk management processes support electricity contract and retail market operation
5. reducing volatility in electricity prices



Roles and responsibilities for the risk management framework

The Department intends to recommend risk management regulations

- the Consumer Trustee should design the risk management activities
- the Regulator should provide independent oversight to ensure the framework is consistent with the Act and any relevant regulations

Consumer protection controls on decision making processes

- A range of potential controls are envisaged which could be regulated:
 - prior to decision making e.g. benchmarking and consultation
 - after decision making e.g. evaluation and reporting

Risk Management Framework to be required to consider risks

Risks that may require active risk management or hedging

1. Enough LTES operators exercise their options to reduce liquidity in the financial electricity contract market thus increasing costs for retailers
2. Uncertainty in future payments to LTES operators leads to unnecessarily high contributions to provide a prudent cash balance

Risks which concern financial liquidity and may require finance

3. The cash balance of the Electricity Infrastructure Fund is not sufficient to pay for the administrative costs of scheme entities
4. Unexpected increases in the liabilities for payments by the Scheme Financial Vehicle to LTES operators under LTES Agreements

Department's position on the Risk Management Framework

Systems, processes and capabilities for risk management esp. derivative arrangements

- Provide for the Regulator to verify these are in place before any trading commences

Net financial exposure to the wholesale energy market

- Set a cap on basis risk exposure, or provide a process for the Consumer Trustee to propose a cap for the Regulator to approve

Ensure LTES Agreements are consistent with managing consumer costs

- Generation LTES Agreements to include 'fixed-shape fixed-volume' swap structures (unless strategies for alternative structures within the cap on basis risk)

Consultation questions: Safeguard Governance and Controls

Question 8: How should stakeholders be engaged in key processes so as to ensure the ongoing success of the Safeguard according to the objectives of the EII Act?

Question 9: Where could the regulations provide guidance to the Consumer Trustee in relation to the Risk Management Framework, to increase transparency and confidence for stakeholders?

Question 10: When should the Scheme Financial Vehicle enter active risk management or hedging contracts?

Question 11: What capabilities will the Consumer Trustee or Financial Trustee need to manage net financial exposures under hedging contracts and LTES Agreements?

Question 12: What parameters, principles and structures should be regulated to limit net basis risk exposures for consumers?

Next steps

Submissions close Wednesday, 27 October 2021

To make a submission, go to:

[energy.nsw.gov.au/electricity-infrastructure-
roadmap](https://energy.nsw.gov.au/electricity-infrastructure-roadmap)

Any questions?

Electricity.Roadmap@dpi.nsw.gov.au

Next webinar

Electricity Infrastructure Fund Policy Paper
(Part 7 of the EII Act)

1.30 – 3pm, Thursday 14 October 2021



Thank you

Electricity.Roadmap@dpi.nsw.gov.au

Department of Planning, Industry and Environment