ASL

Network Authorisation Process

Approach Paper for Authorising Renewable Energy Zone Network Infrastructure Projects

August 2026

Important notice

PURPOSE

AusEnergy Services Limited (ASL) publishes this Network Authorisation Process Approach Paper to set out its approach, as Consumer Trustee, to assessing renewable energy zone (REZ) network infrastructure project recommendations made by the Infrastructure Planner under the *Electricity Infrastructure Investment Act 2020* (NSW).

DISCLAIMER

This Paper is provided for general information only. It describes ASL's intended approach to exercising its functions as Consumer Trustee in relation to REZ network infrastructure project authorisations under the EII Act and EII Regulation.

This Paper does not limit or fetter ASL's statutory discretion. ASL will consider each recommendation from the Infrastructure Planner on its merits, having regard to the requirements of the EII Act and EII Regulation and the information available to ASL at the time of the relevant decision.

This Paper is not legal, technical, financial or investment advice and should not be relied on as such.

ACKNOWLEDGEMENT OF COUNTRY

ASL recognises the Traditional Custodians of Country throughout Australia and acknowledges that, wherever we work, we do so on Aboriginal and Torres Strait Islander lands.

We pay respect to the world's oldest continuing culture and First Nations peoples' deep and continuing connection to Country; and hope that our work can benefit both people and Country.

We acknowledge the ongoing challenges and opportunities in First Nations reconciliation and are committed to implementing our Reflect Reconciliation Action Plan (RAP).

VERSION CONTROL

Version	Release date	Changes
1.0	22/09/2023	–
2.0	27/03/2024	Minor updates for clarity and alignment with NSW Government Guide to Cost-Benefit Analysis.
3.0	26/09/2024	Substantive updates to reflect amendments to the EII Regulation, which took effect on July 1 2024. This includes: changes to ASL's assessment of the long-term financial interests of NSW electricity customers, including the option of giving primary consideration to the IIO Report instead of CBA; new requirements for CBA; changes to ASL's engagement with the Infrastructure Planner; changes to ASL's consideration of technical information and investigating the accuracy of the Infrastructure Planner's recommendation; and changes to complete information requirements. Updates to timeframes for decision-making.
4.0	29/11/2024	Update to reflect change to the EII Act that provides for sharing the maximum capital cost amount with the Minister.
5.0	17/08/2026	Updates to reflect amendments to the EII Act and EII Regulation, including new functions to amend the terms of an authorisation and maximum capital cost amounts, including a new section 3.6, and updates to clarify ASL's role and responsibilities.

Contents

1. Introduction

1.1 NSW Government Policy Background

The state's coal-fired power stations, which have been a reliable source of energy for many generations, are ageing and expensive to operate. With renewables replacing coal-fired power as the most affordable source of new build energy, an electricity network built on the state's abundant solar and wind resources, backed by large-scale storage, will deliver more affordable, clean and reliable energy to everyone in New South Wales **(NSW)**. The NSW Government is undertaking a whole-of-government effort to make sure that as coal-fired power stations retire, NSW has enough renewable energy, transmission and storage to meet the energy needs of every household, school, hospital, farm and business across the state. To enable this, the NSW Government is accelerating investment in renewable energy, building five Renewable Energy Zones **(REZs)** across NSW. The five declared REZs are:

- Central-West Orana
- Illawarra
- New England
- South West
- Hunter-Central Coast

A REZ is a modern-day power station. They combine renewable energy generation such as wind and solar, storage such as super batteries, and network infrastructure such as high-voltage poles and wires, to deliver energy to the homes, businesses and industries that need it.

Establishment of key roles

The NSW Electricity Infrastructure Roadmap (Roadmap) establishes a statutory framework for coordinating investment in generation, storage and network infrastructure. Within that framework, the authorisation process for REZ network infrastructure projects is a key consumer protection. It provides an independent statutory point before the costs of a recommended REZ network infrastructure project may progress to regulatory determination, and ultimately, recovery from NSW electricity customers.

The Roadmap is enabled by the *Electricity Infrastructure Investment Act 2020* **(EII Act)**. The EII Act establishes three statutory roles for supporting the delivery of network projects in REZs **(REZ network infrastructure projects)**. These are:

- An Infrastructure Planner role – For the first five renewable energy zones, this statutory role will be performed by the Energy Corporation NSW **(EnergyCo)**. For any future renewable energy zones, this role may be performed by different entities. Consequently, this document generally refers to the statutory role of the Infrastructure Planner rather than the specific entity performing the role.
- A Consumer Trustee role – AusEnergy Services Limited **(ASL)** has been appointed to perform this role. References to ASL throughout this document are in its capacity as the Consumer Trustee.
- A Regulator role – The Australian Energy Regulator **(AER)** has been appointed to perform this role in relation to REZ network infrastructure projects.[1] References throughout this document to the AER are as the designated Regulator under Part 5 of the EII Act as opposed to its other regulatory functions under the National Electricity and Gas legislation and associated regulations.

1. The Independent Pricing and Regulatory Tribunal (IPART) is also a regulator under the EII Act with functions including publishing annual reports on the exercise of functions by Roadmap entities, undertaking performance audits of Roadmap entities and reviewing and recommending the Renewable Energy Sector Board Plan to the Minister for approval.

Figure 1 - Key roles under the EII Act

Infrastructure Planner
(EnergyCo for first five REZs)

Assesses and recommends:

- New REZ network infrastructure projects.
- Amendments to the terms of an authorisation for a REZ network infrastructure project.

Protects consumer and community interests by:

- Identifying REZ network infrastructure projects that best meet consumer energy and community needs.

Consumer Trustee
(ASL)

Assesses and recommends:

- Determines whether to authorise the Infrastructure Planner's recommendation.
- Sets the maximum capital cost amount for the project.
- May provide advice to support the development of the Infrastructure Planner's recommendation.

Protects consumer and community interests by:

- Considering the development pathway and confirming if the REZ project supports the delivery of the infrastructure investment objectives.
- Determining if the benefits of authorising are greater than the counterfactual of not authorising the recommended project.
- Setting the upper limit on build costs for the project.

Regulator
(AER)

Assesses and recommends:

- Determines the amount payable to network operators for authorised REZ network infrastructure projects (ensuring the prudent, efficient and reasonable capital costs tor development and construction are less than the maximum capital cost amount).
- Assesses whether any competitive processes for the contestable procurement of a network operator was genuine and appropriate.
- Remakes or adjusts revenue determinations as required.

Protects consumer and community interests by:

- Determines the maximum cost of the whole REZ network infrastructure project that can be recovered from NSW customers.

The key roles and responsibilities of these entities in performing their statutory functions for REZ network infrastructure projects are outlined in Figure 1. An overview of the process for delivering REZ network infrastructure projects, indicating the different functions performed by the roles established under the EII Act is discussed further in Section 2.1 and summarised in Figure 2.

What is network authorisation?

The network authorisation process is one of the consumer protections built into the EII Act framework. It requires ASL, in its statutory role as Consumer Trustee, to independently assess whether a REZ network infrastructure project recommended by the Infrastructure Planner satisfies the requirements for authorisation under the EII Act and Electricity Infrastructure Investment Regulation 2021 (**EII Regulation**). In doing so, ASL considers whether authorising the recommended project is in the long-term financial interests of NSW electricity customers and has regard to the development pathway set out in the latest Infrastructure Investment Objectives Report (**IIO Report**).

The authorisation process provides an independent statutory decision point before a recommended REZ network infrastructure project may proceed to revenue determination by the Regulator (AER). In deciding whether to authorise a project, ASL assesses the recommendation against the statutory criteria in the EII Act and EII Regulation, including whether authorising the project is in the long-term financial interests of NSW electricity customers.

The authorisation of a REZ network infrastructure project identifies the authorised project and its terms consistent with the Infrastructure Planner's recommendation and establishes the maximum capital cost amount that applies for the purposes of the Regulator's revenue determination. Following authorisation, the Regulator may determine the amount payable to the network operator for carrying out the project in accordance with the EII Act. Once those determinations and related steps under the EII Act have occurred, the Scheme Financial Vehicle may pay the network operator for carrying out the project, with those costs ultimately recoverable from NSW electricity customers.

Authorisation is not itself a revenue determination and does not determine the prudent, efficient and reasonable capital costs payable by a network operator. Those matters are determined by the Regulator under the EII Act. ASL's role is to decide whether to authorise the recommended project and, if it does so, to set the maximum capital cost amount that applies for the purposes of the Regulator's determination.

1.2 Purpose

The Network Authorisation Process and Approach Paper (this **Paper**) focuses on the approach ASL will adopt in performing its role to support the timely and efficient delivery of REZ network infrastructure projects.

This Paper is intended to provide transparency to stakeholders on how ASL will exercise its authorisation functions under the EII Act and outlines:

- The framework for delivering REZ network infrastructure projects and where network authorisation fits within this broader process (see Section 2.1).
- The different roles and responsibilities of the Consumer Trustee, Infrastructure Planner, and Regulator in supporting the overarching delivery of REZ network infrastructure projects under the EII Act (see Section 2.1).
- Key touchpoints in the delivery of REZ network infrastructure projects where stakeholders can provide feedback and input (see Section 2.2).
- The approach and process that underpins ASL's exercise of its functions under the EII Act to authorise REZ network infrastructure projects and set a maximum capital cost amount for those projects (see Section 3).

The approach and process set out in this paper provide a general framework under which ASL will exercise its authorisation function. Nothing in this Paper limits ASL's statutory discretion or requires ASL to follow a particular process where doing so would be inconsistent with the EII Act, the EII Regulation or the circumstances of a particular recommendation. ASL may depart from, adapt, or supplement the approach described in this Paper where it considers this appropriate to perform its functions lawfully, independently and in the long-term financial interests of NSW electricity customers.

This Paper may be reviewed and updated from time to time.

A summary of key terms and definitions used throughout this paper is included in Appendix A. This is intended to provide further context and detail on key terminology used throughout this Paper which have a defined meaning under the EII Act.

1.3 Scope

This Paper does not cover:

- Detailed approaches or processes for all steps involved in supporting the delivery of REZ network infrastructure projects under the EII Act outside of the authorisation process. A summary of these steps is provided in Section 2 for context.
- The specific approaches and processes to be adopted by EnergyCo, as Infrastructure Planner, or the AER, as Regulator, in undertaking their respective functions under the EII Act framework.
- Approaches or processes for delivering priority network infrastructure projects, as these are not subject to the Consumer Trustee authorisation process described in this Paper.[2]

2. ASL is not involved in priority network infrastructure projects. This is a matter for the Minister and the Infrastructure Planner. See sections 32 and 34 of the EII Act and clauses 44A and 45(1)(b) of the EII Regulation.

2. Delivering REZ network infrastructure projects

2.1 Overview of EII Act framework

The EII Act introduces a NSW-specific framework for identifying, developing and delivering network infrastructure projects in REZs in NSW, and determining the costs for these projects that can be recovered from electricity customers. These projects are known as REZ network infrastructure projects. The intent of this NSW-specific framework is to support timely regulatory decisions for network infrastructure investment in REZs.

Under the EII Act, a REZ network infrastructure project is a project that forms part of a REZ and consists of network infrastructure of a class prescribed by the Regulation.[3] A REZ may include more than one REZ network infrastructure project. Figure 2 below provides an overview of the EII Act framework for delivering REZ network infrastructure projects. It illustrates the different roles and functions of the Infrastructure Planner, Consumer Trustee, and Regulator, and shows how these roles fit within the broader end-to-end process of planning and delivering REZ network infrastructure projects. The steps in this process are described in more detail below.

Figure 2 - Overview of the process for delivering REZ network infrastructure projects

Responsible party for performing function	Infrastructure planner (EnergyCo for first five REZs)	ASL (as the Consumer Trustee)	AER (as the Regulator)	Network Operator
STEP 1: NSW-wide system planning	**STEP 2:** Develop REZ network infrastructure project recommendations	**STEP 3:** Authorise REZ network infrastructure projects	**STEP 4:** Make revenue determinations	**STEP 5:** Carry out project
• ASL: IIO Report including 20-year development pathway, 10-year tender plan and REZ network infrastructure • Minister: declaration of renewable energy zones	• Assesses options for REZ network infrastructure projects • Undertakes stakeholder and community engagement • Engages with the Consumer Trustee • Submits recommendation to Consumer Trustee	• May provide advice to support the development of the Infrastructure Planner's recommendation • Considers recommendation from Infrastructure Planner • Assesses whether to authorise REZ network infrastructure zone project • Sets maximum capital cost amount and informs Regulator	• Determines the amount payable to network operators for authorised REZ network infrastructure projects (ensuring the prudent, efficient and reasonable capital costs for development and construction of these projects are less than the maximum capital cost amount) • Remakes or adjusts revenue determination	• Network operator delivers REZ network infrastructure project

3. Clause 17 EII Regulation.

Step 1: NSW-wide system planning

System planning forms an important part of the delivery of REZ network infrastructure projects for REZs identified under the EII Act. This includes:

- The IIO Report which sets out a development pathway and 10-year tender plan for generation, long-duration storage and firming infrastructure (prepared by ASL), and the REZ network infrastructure required to enable the development pathway.
- The declaration of REZs by the Minister for Energy which set out the geographic location of the zone as well as its intended network capacity.

Step 2: Develop REZ network infrastructure project recommendations

Once a REZ has been declared, the Infrastructure Planner must:

1. assess different options for REZ network infrastructure projects,
2. identify and recommend its preferred REZ network project, staging and sequencing of the project and how the project should be procured and funded,
3. demonstrate how the preferred REZ network project best meets the objects of the EII Act,
4. consult with AEMO, relevant operators in the REZ (generally Transgrid and/or relevant distribution network operators) and each local council in the REZ, and
5. identify, where applicable, a preferred network operator or the intended pathway for appointing or directing a network operator to deliver the project.

ASL may provide advice to help inform the Infrastructure Planner's assessment of options.[4] Once it has identified a preferred project, the Infrastructure Planner recommends the project to ASL for authorisation.

Step 3: Authorise REZ network infrastructure projects

Once a recommendation has been received from the Infrastructure Planner, ASL must consider the recommendation and determine whether it has sufficient information to decide whether to authorise the recommended REZ network infrastructure project.

ASL independently assesses the recommendation against the requirements of the EII Act and EII Regulation. This process is described in further detail in Section 3.1. This process ensures the REZ network infrastructure project is in the long-term financial interests of NSW electricity customers,[5] by considering whether the benefit of authorising the recommended REZ network infrastructure project is greater than not authorising the recommended REZ network infrastructure project. ASL may only authorise the REZ network infrastructure project recommended by the Infrastructure Planner and must not analyse options for alternatives or variants to the recommended project.[6]

In assessing whether to authorise the recommended project, ASL will generally rely on the information contained in, or provided with, the Infrastructure Planner's recommendation. ASL does not undertake an independent options assessment or generally investigate the accuracy of the Infrastructure Planner's recommendation.[7] However, ASL may seek further information where necessary to satisfy itself that the recommendation contains the information required for ASL to make a lawful and informed decision under the EII Act and EII Regulation.

Where the information is adequate, ASL will then decide whether to authorise the recommended REZ network infrastructure project. Once ASL has decided to authorise, it must then determine the maximum cost for the development and construction of the project that can be recovered by the network operator.[8] The intent of the maximum capital cost amount is to set an upper limit on the capital costs that reflect the point at which the costs of the project would exceed its benefit to NSW electricity customers. This is provided to the Regulator and the Minister on a confidential basis.[9] This cost is kept confidential to ensure that the network operator does not increase the amount it seeks to recover for the project up to the point of the maximum capital cost amount. Further details on this and how the maximum capital cost is calculated is included in Section 3.4.

If ASL refuses to authorise a recommended REZ network infrastructure project, it will provide written reasons for its refusal to the Infrastructure Planner.[10]

4. Section 60(4) EII Act and clause 18(1) EII Regulation.
5. Section 60(3) EII Act.
6. Section 30AA(1) EII Act and clause 19C(2)(b) EII Regulation.
7. Clause 19B(5)(a) EII Regulation.
8. Section 31(1) EII Act.
9. Section 31(4) and (5) EII Act.
10. Clause 19E EII Regulation.

Following authorisation of the REZ network infrastructure project by ASL, the Infrastructure Planner may either appoint a network operator to carry out the project or recommend that the Minister directs a network operator to carry out the project.[11]

After a project has been authorised, the Infrastructure Planner may recommend that ASL amends the terms of the project's authorisation.[12] The Infrastructure Planner may also ask ASL to amend the maximum capital cost amount for an authorised project.[13] These processes are discussed in Section 3.6 below.

Step 4: Make revenue determinations

Once a REZ network infrastructure project has been authorised, a network operator has been appointed, and the appointed network operator has submitted a revenue proposal, the AER must determine the amount payable to the network operator for carrying out the project. The AER's revenue determination protects customers by ensuring the network operator can only recover the prudent, efficient, and reasonable costs for delivering REZ network infrastructure projects.

As part of determining the costs that can be recovered from NSW electricity customers, the AER must ensure that the capital costs for development and construction of the infrastructure project do not exceed the maximum capital cost amount set by ASL.

The AER makes its revenue determination in accordance with its Revenue Determination Guidelines. The AER process for determining the amount payable to the network operator varies based on whether the authorisation relates to a contestable or non-contestable project.

Step 5: Carry out project

Once the AER determines the amount payable for carrying out the REZ network infrastructure project, the Scheme Financial Vehicle pays the network operator who then delivers the project in accordance with the terms of its authorisation. The Scheme Financial Vehicle collects the funds it pays to authorised network operators from distribution network service providers in accordance with the AER's yearly contribution determination. The distribution network service providers pass these costs onto their customers via network charges.

2.2 Stakeholder input on REZ Network Infrastructure Projects

The EII Act framework for delivering REZ network infrastructure projects is intended to support timely regulatory approval for REZ network infrastructure projects. The framework contains opportunities for consultation on REZ network infrastructure projects, including the development of the Infrastructure Planner's recommendation, and the AER's consultation for determining the amount payable to the network operator.

Consistent with the objective of supporting timely regulatory decisions for REZ network infrastructure projects, and having regard to the Infrastructure Planner's consultation obligations, ASL does not generally intend to undertake public consultation before making an authorisation decision. ASL will consider information provided by the Infrastructure Planner about consultation undertaken in developing its recommendation, to the extent that information is relevant to ASL's decision-making criteria. ASL remains responsible for independently determining whether the requirements for authorisation are satisfied.

Figure 3 summarises opportunities for stakeholders to inform the delivery of REZ network infrastructure projects, including:

- AEMO's public consultation on its Integrated System Plan (**ISP**) and Inputs Assumptions and Scenarios Report (**IASR**). These documents are publicly consulted on and form a key input into strategic NSW system-wide planning.
- The Infrastructure Planner's targeted consultation with AEMO, REZ network operators, and local councils in the REZ to inform the development of its recommendation.[14]
- The development of ASL's Network Authorisation Process and Approach Paper has been informed by public consultation on the draft Network Authorisation Guidelines.[15] ASL endeavours to keep stakeholders informed of any material change to the approach and processes outlined in this paper and in some cases, may choose to undertake further consultation on any such change.
- The AER's public consultation on the revenue determination for REZ network infrastructure projects.

11. Sections 31A and 31B EII Act.
12. Section 30(2B)(a) EII Act.
13. Section 30(2B)(b) EII Act.
14. Section 30(3) EII Act.
15. The Draft Network Authorisation Guidelines were open for public consultation until 1 June 2022. Available at energyco.nsw.gov.au/draft-network-authorisation-guidelines

Figure 3 – Stakeholder engagement under NSW EII Act framework for REZ network infrastructure projects

Planning to Authorisation

NEM-wide System Planning

AEMO

Publications:

- Integrated System Plan (ISP)
- Inputs Assumptions and Scenarios Report (IASR)

Key outcomes:

- Scenarios and assumptions for use in strategic NSW system planning
- IASR adopted in IIO Report (except where not fit for purpose)

Topics for stakeholder input

- Inputs, assumptions and scenarios used in modelling

Strategic NSW System Planning

Planning to meet Infrastructure Investment Objectives

ASL

Consumer Trustee

Publications:

IIO Report:

- 20-year development pathway for generation, long duration storage and firming infrastructure
- 10-year plan for long-term energy service agreement tenders

Key outcomes:

- Determines preferred development pathway
- Determines tender plan for generation, long duration storage and firming infrastructure
- Input into AEMO ISP report

Topics for stakeholder input

- General modelling assumptions and scenarios

REZ Network Design

Develop recommendations for REZ network infrastructure projects

EnergyCo (for first 5 REZs)

Infrastructure Planner

Key outcome:

Infrastructure Planner submits recommendations to Consumer Trustee

Key functions:

- Assess options for REZ network infrastructure projects including potential routes, network configurations, capacity and staging
- Undertakes consultation (including wth AEMO, network operators and councils in the REZ)
- Engages with Consumer Trustee
- Appoints network operator or recommends that Minister directs a network operator

Topics for stakeholder input

- Community impacts from route options
- Technical options
- Market testing for delivery by a competitive network operator

REZ Assessment

Assess recommendations and authorise REZ network infrastructure projects

ASL

Consumer Trustee

Key outcome:

Consumer Trustee authorises the REZ network infrastructure project

Key functions:

- May provide advice to support the development of the Infrastructure Planner's recommendation
- Assess whether authorising REZ network infrastructure projects is in the long-term financial interests of NSW electricity customers
- Consider most recent development pathway
- Set maximum capital cost amount if authorised

Topics for stakeholder input

- General principles and approach through consultation on any amendments to the Network Authorisation Process and Approach Paper
- *Note: The Consumer Trustee will generally rely on consutation undertaken by the Infrastructure Planner to inform its recommendations*

3. Authorisation process and approach

3.1 Overview and process

This section sets out the process and approach ASL will take in considering and making decisions in relation to recommendations from the Infrastructure Planner under its EII Act authorisation functions.

ASL intends to apply the processes and approach set out in this paper flexibly to reflect the unique circumstances of each REZ and to meet the requirements set out in the EII Act and Regulation. While the precise application may differ on a case-by-case basis, this paper aims to provide stakeholders with clarity on how the functions are expected to be performed.

In developing its approach for assessing and making decisions about REZ network infrastructure projects, ASL has had regard to:

- How to best meet the statutory requirements for these decisions, including acting in the long-term financial interests of NSW electricity customers.
- Operational ways of supporting timely delivery of REZ network infrastructure projects, including by working cooperatively with the Infrastructure Planner to streamline processes.
- The need to act independently in applying its expertise in assessing recommendations from the Infrastructure Planner against the criteria set out in this Section 3.

3.1.1 Process

ASL's process for considering and making decisions on recommendations is summarised in Figure 4.

Figure 4 – ASL's process for considering and responding to recommendations

Engage with the Infrastructure Planner (EnergyCo for first five REZs)

- ASL will engage with the Infrastructure Planner on the Infrastructure Planner's development of recommendations for REZ network infrastructure projects, focused on the objects of the Act and the long-term financial interests of NSW electricity customers.
- See section 3.2.1.

Provide advice (optional)

- ASL may provide formal advice to the Infrastructure Planner and Minister in relation to a REZ and proposed REZ network infrastructure projects in accordance with section 60(4)(a) of the EII Act.
- See section 3.2.2.

Consider the recommendation

- Upon receipt of the Infrastructure Planner's recommendations, ASL will consider the recommendations against the requirement of the EII Act and Regulation and decide whether to authorise the project.
- See section 3.3.

Determine whether to authorise the project

- ASL will decide whether to authorise the REZ network infrastructure project based on the Infrastructure Planner's recommendation.
- See section 3.4.

Determine the contents of the authorisation

- If ASL authorises the REZ network infrastructure project, it will determine the contents of the notice of authorisation, including the scope of the project.
- See section 3.4.

Set a maximum capital cost amount

- If ASL authorises the project, it must set a maximum amount for the capital costs for development and construction of the project and provide that amount to the AER and the Minister. This amount is kept confidential.
- See section 3.4.1.

3.1.2 Multiple authorisations

A REZ may involve different types of network infrastructure delivered by different network operators. For example, a single REZ may include:

- new greenfield network infrastructure;
- enabling works by an incumbent network operator to connect the REZ to the existing network (where the greenfield infrastructure is delivered by a different network operator);
- augmentations to the existing network by one or more incumbent network service providers to unlock transfer capacity within a REZ;
- future or optional augmentations or expansions where the REZ is developed in stages.

The Infrastructure Planner is responsible for determining whether these works will be included together in a single recommended REZ network infrastructure project or will form separate recommended projects.

Where a REZ involves more than one recommended REZ network infrastructure project, each project will have a separate authorisation by ASL and a separate maximum capital cost amount.[16]

3.1.3 Timing

ASL aims to make its authorisation decision as soon as practicable after receiving the Infrastructure Planner's recommendations. However, the exact timeframe for making an assessment is dependent on whether the Infrastructure Planner provides all information required by ASL to make its assessment.

Where complex modelling is required for cost-benefit analysis (**CBA**) to inform the Consumer Trustee's authorisation decision, this modelling may take up to 5 months. Modelling may commence in advance of receiving a final recommendation from the Infrastructure Planner, in circumstances where the Infrastructure Planner is able to provide relevant inputs earlier.

3.1.4 Stakeholder input

ASL expects the Infrastructure Planner's recommendations to be informed by consultation and stakeholder engagement.

In exercising its authorisation function under the EII Act, ASL will rely on information provided by the Infrastructure Planner in its recommendation regarding consultation with relevant stakeholders, including AEMO, local councils, and relevant network operators.[17]

To support timely decision-making, ASL does not intend to undertake public consultation on its authorisation decision. ASL may, however, seek to inform its decision-making, for example, via advice from subject matter experts on aspects of its assessment, which may result in further information being sought from the Infrastructure Planner.

16. See Section 3.4.1 for how ASL intends to determine this amount and apportion costs and benefits between projects.
17. Section 30(3) of the EII Act requires the Infrastructure Planner to consult with AEMO, relevant operators in the REZ and local councils in the REZ when making recommendations.

3.2 Engagement with the Infrastructure Planner and providing advice

3.2.1 Engagement on the Infrastructure Planner's recommendations

The Infrastructure Planner and ASL each perform distinct roles and functions under the EII Act and are required to act independently of one another in discharging their statutory functions.

To help promote the timely delivery of REZ network infrastructure projects, ASL intends to work in a coordinated and cooperative way with the Infrastructure Planner (whilst still maintaining its independence) during the development of REZ network infrastructure project recommendations.

ASL may request that the Infrastructure Planner provide updates on matters relevant to ASL's authorisation decision-making criteria prior to the final Infrastructure Planner recommendation. Such updates may relate to:

- the net financial benefit of the recommended REZ network infrastructure project and risks to the net financial benefit;
- the objects of the Act and risks to the objects of the Act.

Any feedback provided by ASL is intended to identify matters that may be relevant to ASL's statutory decision-making criteria and to assist the Infrastructure Planner to determine whether and how to address those matters in its recommendation. Early engagement may support a more efficient authorisation process by allowing potential information gaps or issues relevant to ASL's statutory decision-making criteria to be identified before the final recommendation is submitted. By engaging with the Infrastructure Planner in the early stages of the recommendation process, ASL can help to support timely delivery of authorisation decisions.

In some cases, ASL may also provide feedback to the Infrastructure Planner in the form of formal advice under its advisory functions (refer to Section 3.2.2).[18]

3.2.2 ASL advice to the Infrastructure Planner

To assist in forming its REZ network infrastructure project recommendations, the Infrastructure Planner may request advice from ASL under its EII Act or Regulation advisory functions.[19]

For example, this could include a request by the Infrastructure Planner for ASL to conduct CBA, or other quantitative analysis of the benefits of different technical options for REZ network infrastructure projects to NSW electricity customers.

Typically, this advice will be provided to the Infrastructure Planner prior to making its recommendation.

Any advice provided by ASL does not fetter ASL's discretion or decision-making in respect of any later decision to authorise a REZ network infrastructure project, set a maximum capital cost amount, amend the terms of an authorisation or amend a maximum capital cost amount.

3.3 Decision-making criteria

ASL must consider recommendations submitted to it by the Infrastructure Planner about REZ network infrastructure projects and decide whether to authorise the project.

The criteria ASL will apply in deciding whether to authorise are summarised in Figure 5.

18. Section 60(4) EII Act.
19. Section 60(4) EII Act and Clause 18 EII Regulation.

Figure 5 – ASL's decision-making criteria for authorisations

To authorise a REZ network infrastructure project, ASL must be able to:

make its decision on the basis of the Infrastructure Planner's recommendations and sufficient supporting information

be satisfied that authorising the recommended project is in the long-term financial interests of NSW electricity customers

consider the development pathway in the latest IIO Report

exercise its functions consistently with the objects of the EII Act

3.3.1 Complete information

ASL's authorisation decision must be made by reference to the Infrastructure Planner's recommendation and the requirements of the EII Act and EII Regulation. ASL therefore requires the recommendation and supporting material to contain sufficient information to enable ASL to make a lawful, independent and defensible decision.[20] This includes information sufficient to enable ASL to:

- assess whether authorising the recommended project is in the long-term financial interests of NSW electricity customers;
- assess whether authorising the recommended project would be consistent with the objects of the EII Act;
- understand the scope and terms of the recommended project so that any notice of authorisation can be described with sufficient clarity;
- conduct an authorisation CBA where required, or otherwise determine whether it is appropriate to give primary consideration to the most recent IIO Report.

Consistent with the EII Regulation, ASL does *not* intend to:

- independently investigate the accuracy of the Infrastructure Planner's recommendation or undertake its own options analysis. However, ASL may seek clarification or further information where the recommendation does not contain sufficient information, contains apparent inconsistencies, or raises issues that may affect ASL's ability to make a legally valid authorisation decision;[21] and
- consider technical matters beyond those specified in clause 44 of the EII Regulation;[22] and
- include an analysis of options or alternatives to the recommended REZ network infrastructure project in its CBA,[23] nor generally consider options analysis as part of its assessment of the Infrastructure Planner's recommendation.

20. Section 30AA(1) EII Act.
21. Clause 19B(5) EII Regulation.
22. Clause 19B(5) EII Regulation.
23. Clause 19C(2)(b) EII Regulation.

3.3.2 Long-term financial interests of NSW electricity customers

ASL is required to act independently and in the long-term financial interests of NSW electricity customers.[24] For the purposes of deciding whether to authorise a REZ network infrastructure project, ASL must be satisfied that authorising the recommended project (as compared to not authorising) would be in the long-term financial interests of NSW electricity customers.

In addition to this statutory requirement, the EII Regulation provides that:

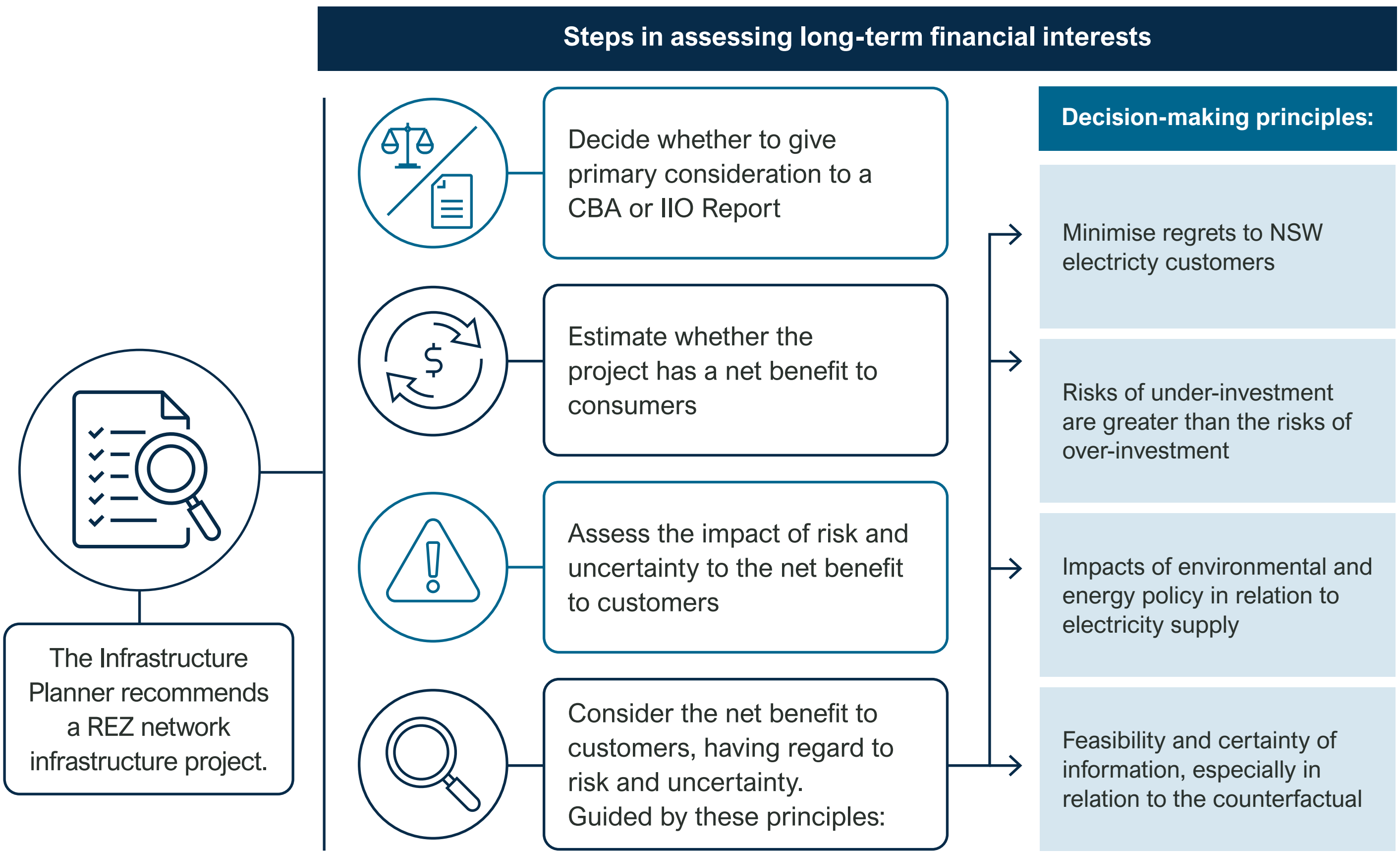
> *The consumer trustee must not authorise a REZ network infrastructure project unless satisfied the project is in the long-term financial interests of NSW electricity customers.*[25]

The EII Regulation further provides that:

> *In determining whether it is satisfied the project is in the long-term financial interests of NSW electricity consumers… the consumer trustee must –*
>
> *(a) undertake a cost benefit analysis of the project in accordance with clause 19C and give primary consideration to the analysis [the CBA], or*
>
> *(b) give primary consideration to the most recent infrastructure investment objectives report as at the time of the infrastructure planner's recommendation in relation to the authorisation.*[26]

Consistent with these legal requirements, ASL intends to undertake the analysis described below and summarised in Figure 6 to determine whether authorising the recommended project is in the long-term financial interests of NSW electricity customers.

Figure 6 – Approach for assessing long-term financial interests of NSW electricity customers



24. Section 60(3) EII Act.
25. Clause 19B(2) EII Regulation
26. Clause 19B(3) EII Regulation.

1) Giving primary consideration to CBA or IIO Report

ASL is required to publish an IIO Report approximately every 2 years. The modelling for the IIO Report optimises REZ network infrastructure projects with the development pathway for generation and storage so that the IIO Report can include information about the expected timing, staging and sequencing of the construction of REZ network infrastructure projects that may be required.[27] The identification of these projects in the IIO Report indicates that these projects, if delivered in the timeframes identified in the report, will deliver a net-benefit to NSW electricity customers.

ASL will determine whether it is appropriate to give primary consideration to the most recent IIO Report by considering whether it is 'fit-for-purpose' for assessing the long-term financial interests of NSW electricity customers in respect of the recommended project. If ASL does not consider that the most recent IIO Report provides such a basis, ASL will undertake a CBA and give primary consideration to that analysis. This is because, as discussed above, the modelling for the IIO Report may already indicate whether a project will be in the long-term financial interests of NSW electricity customers and adopting it as the primary consideration will generally result in time and resource efficiencies. When assessing whether the IIO Report is fit-for-purpose, ASL will consider:

- whether the most recent IIO Report demonstrates that the project has benefits under conservative scenario(s);
- whether there have been material changes in the electricity market since the most recent IIO Report, with particular consideration to be given to the currency of assumptions relating to network options (in terms of size, cost, configuration or timing), demand and changes to policy objectives; and
- whether the contents of the most recent IIO Report allow for a sufficiently robust assessment of the long-term financial interests of NSW electricity customers against the principles outlined in step 4.

Further information about how ASL will conduct a CBA is set out in Section 3.5.

2) Estimate whether the project has a net benefit to customers

ASL will give primary consideration to either CBA or the most recent IIO Report to estimate whether a REZ network infrastructure project has a net benefit to customers. ASL may make such an estimate for each of the different scenarios in the CBA or the IIO Report. Where different scenarios are modelled, these will generally reflect upside and downside scenarios.

The general approach to CBA is discussed in Section 3.5, including adaptations of the approach for different types of REZ network infrastructure projects.

ASL may also give consideration to other quantitative or qualitative analysis which is relevant to indicating whether the project will have a net benefit to customers e.g. analysis tracking progress towards meeting the development pathway and the infrastructure investment objectives. Any such material will be considered only to the extent relevant and will not displace the primary consideration ASL is required to give to the CBA or the most recent IIO Report.

3) Assess the impact of risk and uncertainty to the net benefit to customers

CBA

When giving primary consideration to a CBA, ASL will consider the impact of risk and uncertainty to the estimated net benefit as part of this CBA via quantitative analysis. ASL's consideration of risk will generally be informed by risk analysis in the Infrastructure Planner's recommendations.

ASL will consider the following two categories of risk:

- risks that some or all of the planned benefits to customers cannot be realised; and
- risks that some or all of the planned costs to customers are exceeded.

ASL will also consider how the impact of uncertainty could result in either a higher or lower net benefit for the REZ network infrastructure project.

When undertaking sensitivity analysis, risk and uncertainty will generally be assessed through probabilistic analysis. Where this is not possible, ASL will undertake post-processing sensitivity analysis or estimated quantification of plausible worst-case outcomes on the net benefits of the project. This approach is consistent with the approach to considering risk and uncertainty as outlined in the NSW Government Guide to Cost-Benefit Analysis.

As with Step 1, ASL may also give consideration (though not primary consideration) to other quantitative or qualitative analysis which is relevant to indicating the impact of risk and uncertainty on the estimated benefit of the REZ network infrastructure project.

27. Clause 24(1)(a) and (b) EII Regulation.

IIO Report

When giving primary consideration to the most recent IIO Report, ASL will have regard to analysis of risks in the IIO Report, including consideration of the scenarios and/or sensitivities undertaken for that report.

As a non-primary consideration, ASL may undertake further assessment of the impact of risk and uncertainty to the estimated net benefits where it considers that this impact has not been sufficiently assessed as part of the IIO Report, including where new risks are identified in the Infrastructure Planner's recommendation which were not assessed as part of the IIO Report. This further assessment may occur using the same approaches and analysis as described above for the CBA.

4) Consider the net benefit to customers, having regard to risk and uncertainty

Having regard to its analysis in steps 1 and 2, ASL will then form a view on whether and how the estimate of net benefits (including across different scenarios) should be adjusted or considered in its authorisation decision.

This may include a quantitative adjustment of the estimate or a qualitative assessment of the impact of the risks or uncertainty upon the authorisation decision. This assessment will be guided by principles that consider the following (subject to any amendments required to reflect the features of the specific recommended REZ network infrastructure project):

- **Tolerable quantum of impacts –** ASL will seek to minimise regrets to NSW electricity customers in deciding whether to authorise the recommended project, generally considering upside and downside risk.
- **Asymmetrical investment risks –** ASL considers that risks of under-investment in new network infrastructure are greater than risks of over-investment. This is because the increase in wholesale costs associated with a lack of available network, generation and storage capacity at high-demand periods will generally outweigh the cost-savings from deferring network investment.
- **Policy intent and regulations –** ASL will consider the impact(s) of environmental and energy policy in relation to electricity supply in NSW.
- **Reliance on other projects –** ASL will consider the extent to which the counterfactual (without the recommended project) relies on the timely and efficient delivery of other projects and the risks to consumers if those assumptions do not materialise.

3.3.3 Development Pathway

ASL will consider the development pathway in the latest IIO Report in making its decision regarding a REZ network infrastructure project.

Generally, consideration of the development pathway will occur through giving primary consideration to the CBA or the most recent IIO Report.

In the case of giving primary consideration to CBA, this will involve assessment of the net-benefit of the recommended project under circumstances where the infrastructure investment objectives are met either:

- on the same trajectory as the development pathway from the most recent IIO Report;
- or where in considering the development pathway, ASL forms the view that it is in the long-term financial interests of customers to update the development pathway, re-optimising the trajectory of build in the CBA modelling to meet the infrastructure investment objectives.

In the case of giving primary consideration to the IIO Report, consideration of the development pathway will occur by referring to the contents of the IIO Report, and the extent to which this indicates the recommended REZ network infrastructure project and its recommended timing enable the delivery of the development pathway.

3.3.4 Objects of the EII Act

All entities established or appointed under the EII Act are required to exercise their functions in a way consistent with the objects set out in section 3 of the EII Act.

The objects of the EII Act are summarised in Table 1.

Table 1 – Objects of the EII Act

Objects of the EII Act
• to improve the affordability, reliability, security and sustainability of electricity supply
• to co-ordinate investment in new generation, storage, network and related infrastructure
• to encourage investment in new generation, storage, network and related infrastructure by reducing risk for investors
• to foster local community support for investment in new generation, storage, network and related infrastructure
• to support economic development and manufacturing
• to create employment, including employment for Aboriginal and Torres Strait Islander people
• to invest in education and training
• to promote local industry, manufacturing and jobs
• to promote export opportunities for generation, storage and network technology
Additional objects of Parts 4 to 6 of the EII Act:
• to increase employment and income opportunities for Aboriginal and Torres Strait Islander people in NSW
• to promote consultation and negotiation with the traditional Aboriginal owners of land on which generation, storage and network infrastructure is proposed to be constructed or operated under the Act

ASL will consider information provided by the Infrastructure Planner about how the recommended project supports, or may affect, the objects of the EII Act. ASL will use that information to form its own view about whether authorising the recommended project would be consistent with the objects. In doing so, ASL may identify trade-offs between individual objects and will consider those trade-offs in the context of the EII Act framework as a whole. ASL will also consider the extent to which not authorising, or delaying authorisation to seek further information, is consistent with the objects.

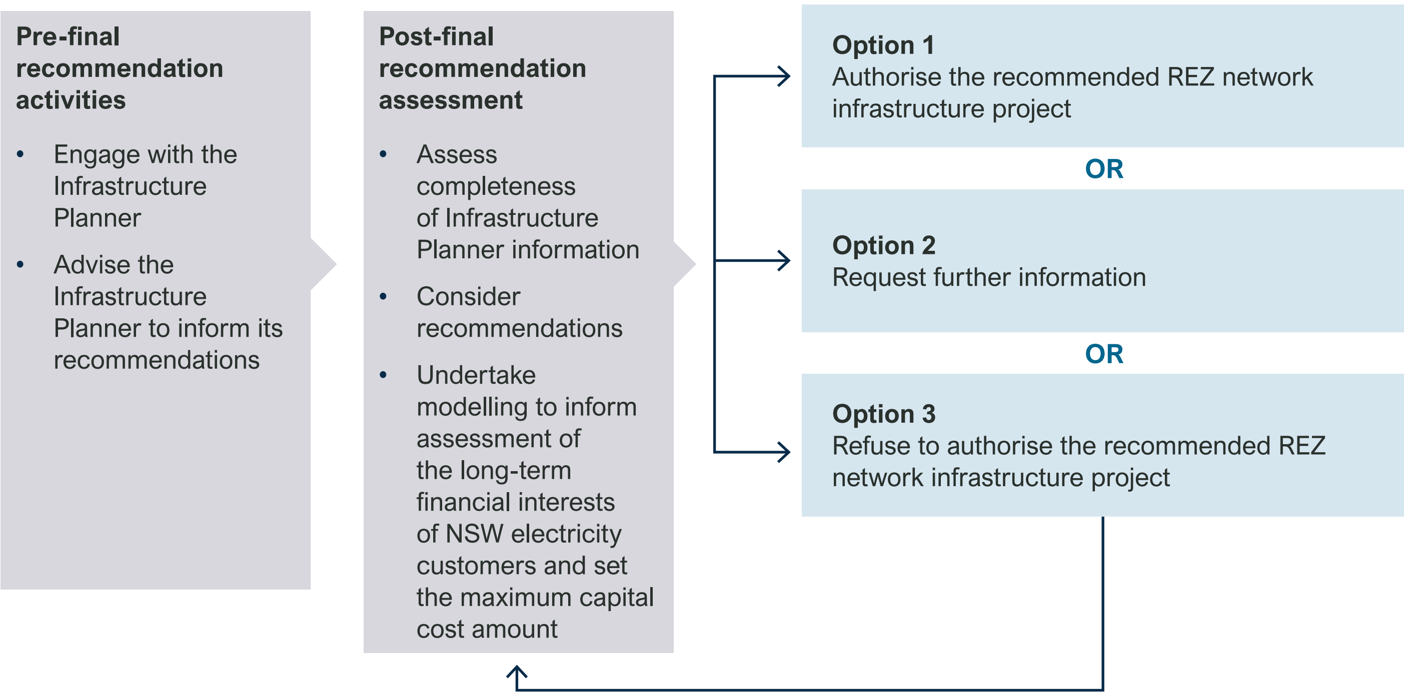
3.4 Decision process

Decision options and process

Figure 7 highlights the general process ASL adopts and decision options available to ASL following receipt of a recommendation from the Infrastructure Planner. As shown on the right-hand side of Figure 7, after applying the decision-making criteria above, ASL can decide to:

- authorise the REZ network infrastructure project based on the Infrastructure Planner's recommendation; or
- request that the Infrastructure Planner provide more information prior to ASL making a final decision; or
- not authorise the REZ network infrastructure project.

Figure 7 – Process for authorising a REZ network infrastructure project[28]



After reaching a decision, ASL will generally publish its decision to provide stakeholders with transparency about the outcome of the network authorisation process. Any published decision will be prepared having regard to confidentiality, commercial sensitivity and statutory restrictions on disclosure. ASL will not publish the maximum capital cost amount.

Option 1 – Authorise the project

If ASL decides to authorise a REZ network infrastructure project recommended to it by the Infrastructure Planner, ASL proposes to:

- inform the Infrastructure Planner of its decision;
- inform the AER of its decision and the maximum capital cost amount set for the project under section 31(1) of the EII Act;
- inform the Minister of the maximum capital cost amount set for the project under section 31(4) of the EII Act; and
- publish its decision.

The notice of authorisation will identify the authorised project and the terms of the authorisation with sufficient clarity to support the Regulator's subsequent revenue determination process and the network operator's delivery of the authorised project.

The Infrastructure Planner may recommend that the authorisation for the project should expire on a specified date.[29] If the Infrastructure Planner makes such a recommendation, ASL will include the recommended expiry date in the terms of the authorisation.

28. If ASL authorises a REZ network infrastructure project, subsequent steps relating to the appointment or direction of a network operator occur under the relevant provisions of the EII Act and are separate from ASL's threshold decision of whether to authorise the recommended project.
29. Clause 44(e) EII Regulation.

Option 2 – Do not make a decision and request further information

Where ASL identifies that there is insufficient information to make an authorisation decision, it will seek further information from the Infrastructure Planner, consistent with its obligation to act reasonably in exercising its functions.

Option 3 – Do not authorise the project

ASL may decide not to authorise the recommended REZ network infrastructure project if it considers the decision-making criteria discussed above in Section 3.3 have not been met.

If ASL decides to refuse to authorise the recommended project, ASL will provide written reasons for the refusal to the Infrastructure Planner.[30]

In these circumstances, the Infrastructure Planner may resubmit an amended recommendation for the REZ network infrastructure project. ASL intends to treat an amended recommendation as a new recommendation and consider it in full.

3.4.1 Maximum capital cost amount

Section 31(1) of the EII Act requires ASL, for each authorised REZ network infrastructure project, to notify the Regulator in writing of a maximum amount for the prudent, efficient and reasonable capital costs for developing and constructing the project that may be determined by the Regulator under section 38(4) of the EII Act.[31]

The maximum capital cost amount is intended to operate as a consumer protection by setting an upper limit on the capital costs for development and construction that may be determined by the Regulator for the authorised project. In setting that amount, ASL will have regard to the estimated net benefit to NSW electricity customers of carrying out the project, recognising that the assessment may involve judgment about modelling outputs, risk and uncertainty.

The net benefit is generally determined by comparing the cost savings that accrue to NSW electricity customers where the REZ network infrastructure project is built **(the REZ network case)** to a counterfactual where the REZ network infrastructure project is not built **(the REZ project counterfactual)**, with the development pathway met in both cases.

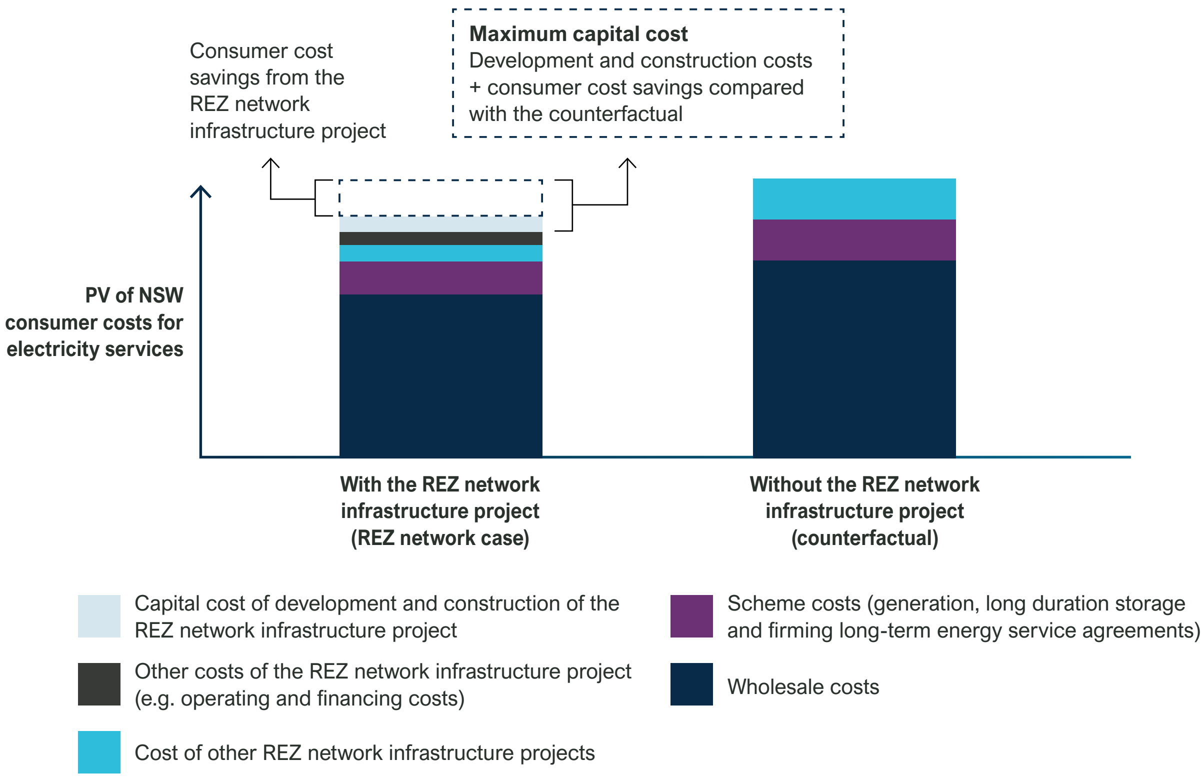
ASL must set a separate amount for each authorised REZ network infrastructure project.

Under the EII Act, the amount relates only to the capital costs of developing and constructing the project. It does not apply to other costs, such as ongoing operation and maintenance costs. While these costs are considered in the CBA when assessing the project's net benefit, they are not included in the maximum capital cost amount.

Figure 8 summarises this general approach to estimating the net benefit of the project and setting the maximum capital cost amount.

30. Clause 19E EII Regulation.
31. ASL must not publish or otherwise disclose the maximum capital cost amount to any person other than the AER and the Minister. See Section 31(5) EII Act.

Figure 8 – Illustration of basis for setting a maximum capital cost amount



3.5 Cost-benefit analysis methodology

Where ASL undertakes a CBA for the purposes of an authorisation decision, the CBA will be undertaken consistently with the requirements of the EII Regulation, including requirements to consider relevant costs and benefits, scenarios and sensitivity analysis where required.

This section sets out ASL's general approach to undertaking CBA to inform ASL's assessment of the long-term financial interests of NSW electricity customers. This approach will generally be appropriate for recommendations that involve REZ network infrastructure projects that deliver benefits to customers through increasing the REZ network capacity and lowering generation curtailment, and which are not subject to optionality.

Where this is not the case, or where the recommended REZ network infrastructure project has other features that require a bespoke approach, ASL may adopt an alternative approach. Example alternative approaches are set out in Section 3.5.4.

Figure 9 summarises the general approach that ASL will adopt in undertaking CBA.

Figure 9 – Cost-benefit analysis approach

Features of CBA

Scenarios and sensitivity analysis

The Consumer Trustee will:

- Test the relative costs to customers under the REZ network case and the counterfactual under different scenarios, and generally under different sensitivities. These scenarios will generally reflect upside and downside risks.
- In deciding how to conduct scenarios and sensitivity analysis, consider:
  - The fitness for purpose of different scenarios and sensitivities.
  - The likelihood and materiality of the risks and uncertainties to the financial interests of customers.
  - Time implications of conducting sensitivity analysis and impact on the achievement of policy objectives.

Costs and benefits

The Consumer Trustee will:

- Include the following categories of costs and benefits:
  - Those that relate to the supply of electricity to NSW customers.
  - Those that are materially different between the REZ network case and the counterfactual scenario.
  - Those that are reasonably and robustly quantifiable, in a timely manner.

Time period over which costs and benefits are assessed

The Consumer Trustee will:

- Compare costs and benefits over a time period that reflects when costs are imposed on customers, and until the end of the project's economic life in setting the maximum capital cost amount.
- Utilise a terminal value approach to estimate the additional benefits incurred to customers beyond the modelling horizon. This includes consideration of the magnitude and profile over time of benefits directly derived from market modelling.

3.5.1 Scenarios and sensitivity analysis

The REZ network case and counterfactual

The REZ network infrastructure project recommended by the Infrastructure Planner is assumed to be commissioned with timing consistent with the Infrastructure Planner's recommendation. Further network projects are then selected, either in other REZs or in the same REZ, to enable the connection of generation, long-duration storage and firming infrastructure to meet the development pathway, or a reoptimised development pathway that meets the infrastructure investment objectives, at lowest cost to customers.

In the counterfactual scenario, the REZ network infrastructure project recommended by the Infrastructure Planner and any future augmentations that are dependent on this project are excluded from the modelling analysis. Under this scenario, alternative network projects in other REZs are selected, and generation and long-duration storage infrastructure are built in alternative locations and likely with a different technology mix. This counterfactual is then compared to the REZ network case to test if that scenario meets the development pathway or a reoptimised development pathway that meets the infrastructure investment objectives, at lowest cost to customers.

The infrastructure investment objectives are generally met in both the REZ network case and the counterfactual, consistent with the EII Regulation,[32] reflecting the intent of the EII Act that a consumer cost-minimised development pathway for generation and long-duration storage infrastructure be achieved.

The benefits to customers under the counterfactual are expected to be lower than under the REZ network case where the counterfactual:

- lacks efficiencies,
- reduces access to high quality renewable energy resources, and/or
- creates delays that would otherwise be avoided by the recommended REZ network infrastructure project.

Different scenarios and sensitivities

The EII Regulation requires that the CBA consider the costs and benefits under different scenarios, and a sensitivity analysis if required, to understand the impact of uncertainty on the project's costs and benefits.[33] Consistent with this, ASL will test the relative costs to customers under the REZ network case and the counterfactual under different scenarios, and generally under different sensitivities, to understand the impact of uncertainty in relation to ASL's authorisation decision.

Different scenarios modelled in the CBA will generally reflect upside and downside scenarios. Each of these scenarios will be generally consistent with the infrastructure investment objectives as required by the EII Regulation.[34]

When undertaking sensitivity analysis, risk and uncertainty will be assessed through probabilistic analysis. Where this is not possible, ASL will undertake post-processing sensitivity analysis or estimated quantification of plausible worst-case outcomes on the net-benefits of the project. This approach is consistent with the approach to considering risk and uncertainty as outlined in the NSW Government Guide to CBA. ASL's consideration of risk through sensitivity analysis will generally be informed by the Infrastructure Planner's risk analysis.

In deciding how to conduct scenario and sensitivity analysis, ASL will have regard to the following matters:

- The **fitness for purpose** of different scenarios and sensitivities to enable ASL to consider whether the project is in the long-term financial interests of electricity customers consistent with the approach described in Section 3.3.2 of this paper.
- The **likelihood and materiality** of the risks and uncertainties to the financial interests of NSW electricity customers that could be tested through sensitivity analysis.
- The **time implications** of conducting sensitivity analysis, and the extent to which this impacts achievement of the policy intent of timely decision-making.

32. Clause 19C(2)(a) EII Regulation
33. Clause 19C(1)(c) and (d) EII Regulation.
34. Clause 19C(2)(a) EII Regulation.

ASL intends to exercise judgment in adopting a least-regrets assessment approach to considering scenarios and sensitivities in its CBA, consistent with the objects and frameworks established under the EII Act which go to coordinating and encouraging investment in new electricity infrastructure and improving the affordability of electricity supply.

3.5.2 Costs and benefits

In calculating the costs and benefits of a REZ network infrastructure project, ASL will consider those that:

- **Relate to the supply of electricity to NSW customers**

In conducting its CBA, ASL is focused on cost and benefit categories that relate to the supply of electricity to customers. Consistent with the EII Regulation, in its CBA, ASL:

  – considers the costs to NSW electricity customers from the project;[35]
  – considers the benefits to NSW electricity customers from generation and storage infrastructure connecting to the project;[36]
  – considers the costs or benefits from the expected change in greenhouse gas emissions as a result of the project;[37]
  – considers the costs to finance the project, including interest costs;[38]
  – does not consider the costs and benefits to government or electricity producers.[39]

- **Are materially different between the REZ network case and the counterfactual scenario**

Costs that do not vary materially between the REZ network case and the counterfactual scenario are excluded from the CBA as they will have an offsetting effect. For example, where both scenarios are defined to meet the infrastructure investment objectives, the costs of community impacts may be largely the same between the two cases.

- **Are reasonably and robustly quantifiable, in a timely manner**

Some types of costs and benefits may require more resource-intensive or time-consuming analysis to robustly quantify. This may occur where more detailed and site-specific modelling is required to quantify the benefits (for example, the cost of planning approvals where this differs between the REZ network case and the counterfactual). These types of costs and benefits would only be included if their likely impact justified the resources required to quantify it.

Where the Infrastructure Planner has undertaken significant work in developing the recommended REZ network infrastructure project prior to the recommendation and there would be additional costs associated with changing course to assess and develop a different option, ASL may reflect this cost in the counterfactual (to the extent not already included in the costs of other REZ network infrastructure projects). Costs already incurred in developing the recommended REZ network infrastructure project will not generally be included in the REZ network case or counterfactual, to the extent they are not incremental costs that differ between those scenarios or are not costs to be recovered from NSW electricity customers through the relevant decision.

3.5.3 Time period over which costs and benefits are assessed

In assessing whether the REZ network infrastructure project is in the long-term financial interests of customers, it is important that benefits and costs are compared over a time period that reflects the extent of contractual obligations that impose costs on customers, and until the end of the REZ network infrastructure project's economic life.

Generally, the economic life over which benefits are expected to be incurred will extend beyond what can reasonably be modelled given future uncertainty. ASL intends to utilise a terminal value approach to estimate the additional benefits incurred to customers from the REZ network infrastructure project beyond the modelling horizon and until the end of its economic life in setting the maximum capital cost amount. This terminal value approach considers the magnitude, and profile over time, of benefits directly derived from electricity market modelling.

35. Clause 19C(1)(a) EII Regulation.
36. Clause 19C(1)(b) EII Regulation.
37. Clause 19C(1)(e) EII Regulation.
38. Clause 19C(1)(f) EII Regulation.
39. Clause 19C(2)(d) EII Regulation.

3.5.4 Example alternative approaches to quantitative analysis

The previous sections set out a general approach to assessing the costs and benefits of REZ network infrastructure projects. This approach will generally be applicable to REZ network infrastructure projects that deliver benefits to customers through increasing REZ network capacity and lowering generation curtailment, and which are not subject to optionality. For other types of REZ network infrastructure projects, ASL may adopt an alternative approach. This section provides some examples of how quantitative analysis may be undertaken for different types of REZ network infrastructure projects.

Connection infrastructure

Some projects may not alter the REZ network capacity but provide benefits by extending to a broader geographic region within the REZ. This would enable the connection of specific generation or long-duration storage infrastructure which would not otherwise connect or could only connect via higher cost dedicated connection assets. Where these assets are expected to be fully funded by access fees, ASL will generally not adopt an alternative approach to considering these assets in the CBA.

The benefits of these types of projects require a bespoke consideration of the resource potential of the specific generation or long-duration storage projects, whether or not that generation would have connected anyway (and if so, at what cost) and the cost of the recommended project. For these types of projects, ASL intends that the REZ network case identifies the benefits associated with connecting the specific infrastructure via the recommended project and that the counterfactual either assumes that the specific generation or long-duration storage does not connect or connects at higher cost.

Enabling works

Where the Infrastructure Planner intends to recommend not only the ‘main’ REZ network infrastructure project but also a separate ‘enabling’ REZ network infrastructure project, ASL will separately authorise and set a maximum capital cost amount for the ‘enabling’ project. ASL’s approach to setting the maximum capital cost amount for this infrastructure will likely vary depending upon the materiality of the costs of this infrastructure, relative to the ‘main’ REZ project.

For example, where the cost of the ‘enabling’ project does not reflect a significant proportion of the overall total costs (including operations and maintenance) of the main REZ network infrastructure project, ASL intends to attribute the full net benefit to both projects in setting the maximum capital cost amount.

This is because the relative immateriality of the costs of the ‘enabling project’ lowers the materiality of cost-escalation risk to customers. Further, in a case where the costs of the ‘enabling’ project are not yet certain, an alternative approach of apportioning benefits between the ‘main’ and ‘enabling’ project risks creating a barrier to the project proceeding if the costs of the ‘enabling’ works exceed the apportioned maximum capital cost amount for those works.

Alternatively, the Infrastructure Planner could recommend that both of these types of infrastructure are included in a single recommended REZ network infrastructure project. In this case, ASL would only make one authorisation and set one maximum capital cost amount covering all of the recommended network infrastructure.

3.6 Amendments to the terms of an authorisation or the maximum capital cost amount

After ASL has authorised a REZ network infrastructure project, the Infrastructure Planner may:

- recommend that ASL authorises an amendment to the terms of the authorisation in accordance with section 30AA(2) of the EII Act; and/or
- ask ASL to amend the maximum capital cost amount for the project in accordance with section 31(2) of the EII Act.

These are separate amendment pathways. A recommendation to amend the terms of an authorisation concerns the authorised project and the terms on which it is authorised. A request to amend the maximum capital cost amount concerns the upper limit on capital costs that may be determined by the Regulator for the authorised project. Depending on the circumstances, one or both pathways may be relevant.

This section sets out ASL's general approach to these amendment processes.

Amendments to the terms of an authorisation

The Infrastructure Planner may recommend that ASL amends the terms of an authorisation for an existing REZ network project. When making such a recommendation, the Infrastructure Planner must:[40]

- inform ASL of any changes to matters contained in its initial recommendations for the project;
- explain why it considers that the recommended amendment is appropriate;
- assess the impact of the amendment on the costs, timing and delivery of the project; and
- describe the consultation carried out in relation to the amendment and the results of that consultation.

In assessing a recommended project, ASL will consider the nature and extent of the proposed change, the reasons for the change, and the information provided by the Infrastructure Planner about the impact of the change on project costs, timing, delivery and benefits. ASL will also consider whether the proposed amendment would materially change the benefits that were considered when ASL initially authorised the project.

ASL may only authorise or refuse to authorise the amendment recommended by the Infrastructure Planner and cannot authorise a different amendment. This does not prevent ASL from identifying issues with the recommendation or seeking further information before deciding whether to authorise or refuse the recommended amendment.

ASL may only authorise the proposed amendment if it is in the long-term financial interests of NSW electricity customers and will not materially change the benefits considered by ASL as part of its initial authorisation of the project.[41]

ASL is not required to conduct a CBA or have regard to the latest IIO Report to be satisfied that the amendment is in the long-term financial interests of NSW electricity customers, noting that the recommended amendment must not materially change the project's benefits. This reflects the nature of the amendment test, which requires ASL to be satisfied that the recommended amendment will not materially change the benefits considered as part of the initial authorisation.

If ASL decides to authorise the recommended amendment, it will publish its decision and the amended notice of authorisation.

If ASL decides to refuse to authorise the recommended amendment, it will provide written reasons for the refusal to the Infrastructure Planner.[42]

Amendments to a maximum capital cost amount

The Infrastructure Planner may ask ASL to amend the maximum capital cost amount for an authorised REZ network infrastructure project.

The Infrastructure Planner may choose to ask for an amendment to the maximum capital cost amount at the same time as recommending an amendment to the terms of the authorisation, for example, if there has been a change to the scope or timing of the project. Alternatively, the Infrastructure Planner may ask for an amendment to the maximum capital cost amount in circumstances where it is not also recommending an amendment to the terms of the authorisation, for example, where the project is unchanged but there has been a material change in external circumstances that affects the costs and benefits of the project.

40. Clause 45A EII Regulation.
41. Clause 19D EII Regulation.
42. Clause 19E EII Regulation.

The relevant question for ASL is not merely whether the project's estimated costs have changed, but whether there has been a material change in the costs and benefits considered by ASL as part of the initial authorisation that makes an amendment to the maximum capital cost amount necessary.

ASL may only amend the maximum capital cost amount if it is satisfied that the amendment is necessary because of a material change in the costs and benefits considered by ASL as part of its initial authorisation of the project.[43]

In deciding the amended maximum capital cost amount, ASL will:

- give primary consideration to the original CBA conducted at the time of the authorisation, or
- conduct a new CBA and give primary consideration to the analysis, or
- give primary consideration to the latest IIO Report.[44]

ASL will also have regard to any amendments to the terms of the authorisation.[45] ASL may not reduce the maximum capital cost amount.[46]

If ASL decides to amend the maximum capital cost amount, it will provide written notice of the amended amount to the AER and the Minister.[47] The amended maximum capital cost amount is confidential and will not be published or otherwise disclosed by ASL except as permitted or required under the EII Act.[48]

43. Clause 19F(1) EII Regulation.
44. Clause 19F(2) EII Regulation.
45. Section 31(3) EII Act.
46. Clause 19F(3) EII Regulation.
47. Sections 31(2)(a) and 31(4)(b) EII Act.
48. Section 31(5) EII Act.

A1. Definitions and interpretations

Term	Definition or interpretation
Amended authorisation	An authorisation as amended by ASL following a recommendation from the Infrastructure Planner to amend the terms of an existing authorisation in accordance with the EII Act and EII Regulation.
Authorisation	A decision by ASL, in its capacity as Consumer Trustee, to authorise a REZ network infrastructure project recommended by the Infrastructure Planner under the EII Act.
Consumer Trustee	The Consumer Trustee is an entity appointed under the EII Act to act independently and in the long-term financial interests of NSW electricity customers to improve the affordability, reliability, security and sustainability of electricity supply. Its functions include authorising REZ network infrastructure projects, publishing the IIO Report and conducting competitive tenders for long-term energy service agreements. The Minister appointed ASL as the NSW Consumer Trustee.
Counterfactual	The REZ project counterfactual is a scenario where the REZ network infrastructure project recommended by the Infrastructure Planner and any future augmentations that are dependent on this project are excluded from the analysis. This counterfactual is compared to the REZ network case to test if that scenario meets the development pathway at lowest cost to customers.
Development pathway	The development pathway prepared by ASL for the infrastructure required to be constructed over the following 20 years to achieve the infrastructure investment objectives.
EII Act	The *Electricity Infrastructure Investment Act 2020* (NSW).
Energy Corporation of NSW (EnergyCo)	The Energy Corporation of New South Wales constituted by section 7 of the Energy and Utilities Administration Act 1987. The EII Act requires EnergyCo to be the Infrastructure Planner for the five NSW renewable energy zones set out in section 23 of the EII Act.
Infrastructure Investment Objectives (IIO) Report	The report prepared by ASL under section 45 of the EII Act.

Term	Definition or interpretation
Infrastructure Planner	A person authorised to exercise the functions of an infrastructure planner under section 63 of the EII Act. Its functions include preparing recommendations for REZ network infrastructure projects to submit to ASL. EnergyCo is the appointed Infrastructure Planner for the first five declared REZs. The EII Act requires these functions be carried out by EnergyCo at any time during which a person is not appointed.
Infrastructure Planner's recommendation	The recommendation for a REZ network infrastructure project prepared by the Infrastructure Planner under section 30 of the EII Act.
Maximum capital cost amount	The maximum amount for the prudent, efficient and reasonable capital costs for the development and construction of a REZ network infrastructure project that may be determined by the Regulator, as determined by ASL under section 31(1) of the EII Act.
Maximum capital cost amount amendment	An amendment by ASL to the maximum capital cost amount for an authorised REZ network infrastructure project, made in accordance with the EII Act and EII Regulation.
Network Authorisation Process and Approach Paper	This paper.
Network operator	A person who owns, controls or operates, or proposes to own, control or operate, network infrastructure. This may include either transmission or distribution network infrastructure.
Objects	The objects of the EII Act specified in section 3(1) and (2) of the EII Act.
Regulator	A person or body appointed under section 64 of the EII Act to exercise the functions of a regulator. The Australian Energy Regulator (AER) has been appointed as a Regulator for the purposes of Part 5 of the EII Act.
Regulation	*Electricity Infrastructure Investment Regulation 2021* (NSW).
REZ	Renewable energy zone.
REZ network infrastructure project	A network infrastructure project that (a) forms part of a REZ and (b) consists of network infrastructure of a class prescribed by the EII Regulation.
Roadmap	The Electricity Infrastructure Roadmap is the NSW Government's plan to transform the NSW electricity sector into one that is cheap, clean and reliable. It is enabled by the EII Act.
Transmission Efficiency Test (TET)	The Regulator's test to calculate the prudent, efficient and reasonable capital costs for development and construction of a REZ network infrastructure project.
TET and Revenue Determination Guidelines	The Regulator's guidelines setting out its approach in making a revenue determination under the EII Act, including conducting the TET.

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