

Consumer Trustee

Statement of Reasons

Authorisation of Hunter-Central Coast Renewable Energy Zone Network Infrastructure Project

Public summary of reasons for Consumer Trustee's authorisation decision

May 2025



Important notice

The Consumer Trustee has published this summary of reasons for its decision to authorise the Hunter-Central Coast Renewable Energy Zone Network Infrastructure Project for information purposes only. It is published to outline the approach taken by the Consumer Trustee in reaching its decision, is a summary of that decision and is not intended to be comprehensive. To the maximum extent permitted by law, the Consumer Trustee (including its officers, employees, agents, contractors and consultants) expressly disclaims any and all liability relating to or resulting from the use of, or reliance on, the information in this document by any person or entity.

Any specific questions should be addressed to the Consumer Trustee at stakeholderengagement@aemoservices.com.au

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Summary

Context

The Electricity Infrastructure Investment Act 2020 (NSW) (EII Act) creates a framework for the delivery of network infrastructure in NSW renewable energy zones (REZs). Under this framework AEMO Services Limited (AEMO Services), as the Consumer Trustee, considers recommendations from the Energy Corporation of New South Wales (EnergyCo) as Infrastructure Planner for network infrastructure projects in REZs (RNIPs), and decides whether to authorise the recommended network operator to carry out the recommended project.

The Infrastructure Planner is required to assess and make recommendations to the Consumer Trustee about RNIPs required for the renewable energy zone. In doing so, the Infrastructure Planner is required to assess and make recommendations in relation to a number of matters including options for RNIPs to provide the intended network capacity for the renewable energy zone, the staging and sequencing of RNIPs, funding, procurement and cost recovery for the recommended RNIP (recommended project), and other matters prescribed under the EII Act.

On receiving a recommendation from the Infrastructure Planner, the Consumer Trustee is to independently satisfy itself that the recommended project is in the long-term financial interests (LTFI) of NSW electricity customers. To determine this, the Consumer Trustee considers the information set out in the Infrastructure Planner's recommendations and decides whether to undertake its own cost-benefit analysis (CBA). The Consumer Trustee is also required to determine if authorising the recommended project meets several overarching obligations under the EII Act, including consistency with the objects of the EII Act. If the Consumer Trustee authorises the Infrastructure Planner's recommended network operator and project, the Australian Energy Regulator (AER), in its role as Regulator, will then determine the prudent, efficient and reasonable costs payable to the network operator for the delivery of the project.

Decision

The Consumer Trustee has received a recommendation from the Infrastructure Planner for a RNIP in the Hunter-Central Coast (**HCC**) REZ (the **HCC RNIP**). The Infrastructure Planner has recommended that Ausgrid¹ be authorised to carry out the HCC RNIP as the network operator.

The HCC RNIP involves the construction and operation of new and upgraded network infrastructure to enable the connection of new renewable energy generation and storage projects in the HCC REZ. It will provide an additional 1 GW of network transfer capacity in three portions that are due for completion between late 2025 and mid-2028.

After considering the Infrastructure Planner's recommendations, the Consumer Trustee has decided to authorise Ausgrid to carry out the HCC RNIP.

The Consumer Trustee's CBA shows that the HCC RNIP is expected to deliver material net benefits to NSW electricity customers.²

These benefits are driven by the recommended project's impact on wholesale electricity costs. The project delivers a long-term reduction in wholesale prices compared with a counterfactual where the project is not built. This is due to the HCC RNIP's attractive location close to the Sydney-Newcastle-Wollongong load centre, which reduces network losses and renewable electricity curtailment, and increases resource diversity of both solar and wind generation in NSW. The project also delivers material short-term wholesale price benefits in the first few years after construction is completed due to its ability to be delivered earlier than alternative projects in other REZs.

A detailed explanation of the analysis of the Consumer Trustee's CBA is set out in Section 4.1.2.2.

 $^{1\}quad \hbox{See Section 3.3 below for the full legal description of the authorised network operator.}$

² EnergyCo has published its Hunter-Central Coast REZ Infrastructure Planner Recommendation Public Report. Available at: https://www.energyco.nsw.gov.au/publications/hunter-central-coast-public-infrastructure-planners-recommendations-report

The HCC RNIP is also expected to improve the affordability, reliability, security and sustainability of electricity supply. The Infrastructure Planner has implemented measures to achieve the objects of the EII Act, including promoting local industry and jobs and opportunities for First Nations people. The Infrastructure Planner's recommendations are consistent with all recommendations of the Renewable Energy Sector (**RES**) Board Plan and First Nations Guidelines, including meeting all minimum targets and several stretch targets for local content and local jobs.

The Infrastructure Planner consulted with local councils and other affected stakeholders in developing its recommendations for the project to ensure that the recommendations include consideration of local community impacts. The HCC RNIP will involve augmentations to Ausgrid's existing network in the HCC REZ and will largely use existing Ausgrid easements to minimise impacts on local communities.

Accordingly, based on the Infrastructure Planner's recommendation and the Consumer Trustee's CBA and other analysis, the Consumer Trustee has determined that authorising the HCC RNIP is in the LTFI of NSW electricity customers and is consistent with the objects of the EII Act.

1 Introduction

This document summarises the reasons for the Consumer Trustee's decision to authorise Ausgrid to carry out the HCC RNIP.

The Consumer Trustee's authorisation decision is set out in the Notice of Authorisation published on the AEMO Services website.³ The Notice of Authorisation includes a full description of the authorised project, including the scope and the conditions of the authorisation.

The authorisation decision recorded in the Notice of Authorisation was made by the AEMO Services Board, exercising the authority of the Consumer Trustee. The process and approach for making this decision was consistent with that outlined in the Network Authorisation Process and Approach Paper (NAPAP).

This document summarises the reasons for the Consumer Trustee's decision to authorise the HCC RNIP. It is provided to help stakeholders understand the approach taken by the Consumer Trustee in determining to authorise the project. It does not form part of the authorisation.

³ Available at https://aemoservices.com.au/products/rez

2 The role of the Consumer Trustee

The Consumer Trustee has a function under section 31(1)(b) of the EII Act to decide whether to authorise a network operator to carry out a RNIP recommended by EnergyCo in its role as Infrastructure Planner under the EII Act.

When exercising this function, the Consumer Trustee is to act independently and in the LTFI of NSW electricity customers.⁴ The Consumer Trustee must also exercise its functions in a way that is consistent with the objects set out in section 3 of the EII Act⁵ and comply with other requirements set out in the EII Act and the *Electricity Infrastructure Investment Regulation 2021* (**EII Regulation**).

An explanation of the Consumer Trustee's authorisation functions, and the processes and approach the Consumer Trustee adopts in performing those functions, is set out in the NAPAP. The <u>NAPAP</u> was first published by the Consumer Trustee in September 2023 and the most recent version was published in November 2024 to reflect relevant changes to the EII Act and EII Regulation.

When deciding whether to authorise a project, the Consumer Trustee is required to consider the Infrastructure Planner's recommendations and decide whether the recommended project should be authorised based on the requirements set out in the EII Act and the EII Regulation.

To authorise a REZ network infrastructure project, AEMO Services needs to:

- 1. be satisfied that the Infrastructure Planner's recommendation provides all necessary information to enable the Consumer Trustee to make its decision;
- 2. be satisfied that authorising the project would be in the LTFI of NSW electricity customers;
- 3. consider the development pathway in the latest Infrastructure Investment Objectives Report (IIO Report);
- 4. take into account the First Nations Guidelines and RES Board Plan and decide whether to impose or recommend a condition to give effect to these documents; and
- 5. be satisfied that authorising the project would be consistent with the objects of the EII Act.

As part of its assessment of whether authorising the recommended project is in the LTFI of NSW electricity customers, the Consumer Trustee undertook a CBA. The EII Regulation sets out a number of requirements for this CBA, which are discussed in Section 4.2 below.

Importantly, the Consumer Trustee's authorisation process and CBA does not consider whether there may be an alternative option within the HCC REZ for the recommended RNIP that better delivers in the LTFI of NSW electricity customers. It is the responsibility of EnergyCo, in exercising its statutory function as the Infrastructure Planner under section 30 of the EII Act, to consider and assess projects drawing on its technical expertise and deep "on the ground" knowledge of local environmental constraints and opportunities as well as the concerns and needs of local communities, including First Nations peoples. The EII Regulation provides that the Consumer Trustee's CBA must not include an options analysis of alternatives or variants to the RNIP recommended by the Infrastructure Planner.⁶

The EII Regulation also provides that the Consumer Trustee is not required to, and generally does not intend to:7

- investigate the accuracy of the Infrastructure Planner's recommendations;
- consider technical information, other than technical information specified in clause 44 (which sets out the technical information the Infrastructure Planner must include in its recommendations);
- consider the technical information provided in the Infrastructure Planner's recommendation; or
- assess or review the contractual arrangements the Infrastructure Planner recommends that the Consumer Trustee's authorisation require the network operator to enter into.
- 4 Ell Act, section 60(3)
- 5 EII Act, section 3(3)
- 6 EII Regulation, clause 19C(2)(b)
- 7 EII Regulation, clause 19B(5)

The Infrastructure Planner is required to consult with relevant stakeholders when developing its recommendations. The Infrastructure Planner's recommendations to the Consumer Trustee set out the consultation that it undertook with AEMO, network operators, local councils, local communities, First Nations communities, customers and government, and how it took their feedback into account in developing its recommendations. As explained in the NAPAP, the Consumer Trustee does not undertake its own stakeholder consultation when making an authorisation decision and relies on the consultation undertaken by the Infrastructure Planner.

The Consumer Trustee also does not assess the fitness of the network operator to carry out the project. The network operator's role and performance will be governed by contractual arrangements between EnergyCo and the network operator, and relevant regulatory requirements including National Electricity Rules registration requirements and the NSW electricity network licencing regime.

Further, the Consumer Trustee's authorisation decision does not consider whether the costs of the recommended RNIP are prudent, reasonable and efficient. Determining the prudent, reasonable and efficient costs that can be recovered by the network operator from NSW electricity customers is the responsibility of the Regulator under section 38 of the EII Act. The AER has been appointed by the Minister as the Regulator for this purpose.

In making its determination, the Regulator will consider a maximum capital cost amount provided to it by the Consumer Trustee in accordance with section 31(2) of the EII Act. This maximum capital cost amount applies only to the first determination for a RNIP and sets an upper limit on how much of the development and construction capital costs of the authorised project can be recouped from customers via electricity bills. Under the EII Act, the maximum capital cost amount must be kept confidential, and the Consumer Trustee may only disclose it to the Regulator and the Minister.

3 The HCC REZ Network Infrastructure Project

3.1 The HCC REZ

The HCC REZ was declared by the Minister on 9 December 2022 under section 19(1) of the EII Act.⁸ The geographical area of the HCC REZ is shown in Figure 1 below.

The HCC REZ Declaration was amended by the Minister on 2 December 2024 to extend the specified network infrastructure covered by the declaration to include network infrastructure outside the specified geographic area and connecting Somersby Zone Station and Berowra Zone Station.⁹

Figure 1: Geographical area of the HCC REZ



⁸ Renewable Energy Zone (Hunter-Central Coast) Order 2022 (HCC REZ Declaration) published in the NSW Government Gazette (NSW Government Gazette No 569 of 9 December 2022)

⁹ Renewable Energy Zone (Hunter-Central Coast) Order 2024 (HCC REZ Declaration) published in the NSW Government Gazette (NSW Government Gazette No 476 of 6 December 2024)

3.2 The HCC REZ Network Infrastructure Project

The HCC RNIP involves the construction and operation of network infrastructure to enable the connection of new renewable energy generation and storage projects in the HCC REZ.

It will provide an additional 1 GW of network transfer capacity in three portions:

- Portion 1: Upper Hunter secondary systems modernisation (providing 350MW additional network capacity), scheduled for completion in late 2025.
- Portion 2: Muswellbrook network rearrangement, Singleton to Kurri 132kV link, and installation of a communications link across the Hawkesbury River (providing a cumulative total of 630 MW additional network capacity), scheduled for completion in 2028.
- Portion 3: Antiene 132kV switching station and Antiene to Singleton 132kV link (providing a cumulative total of 1 GW of additional network capacity), scheduled for completion in 2028.

The scope of the HCC RNIP is described in the Notice of Authorisation and broadly consists of:

- (a) remote end secondary systems works to upgrade protection to duplicated differential line schemes on existing 132kV lines between Muswellbrook Bulk Supply Point, Muswellbrook Subtransmission Substation and Mitchell Line Subtransmission Substation generally as described in the diagram in Figure 2 and indicatively as shown in the map in Figure 3, in each case marked as part of Portion 1;
- (b) a new 132 kV subtransmission switching station at Muswellbrook adjacent to the existing Muswellbrook Subtransmission Substation (referred to as Sandy Creek Subtransmission Switching Station) generally as described in the diagram in Figure 2 and indicatively as shown in the map in Figure 3, in each case marked as part of Portion 2;
- (c) works to reroute lines 95F and 95H from the Muswellbrook Subtransmission Substation to the Sandy Creek Subtransmission Switching Station generally as described in the diagram in Figure 2 and indicatively as shown in the map in Figure 3, in each case marked as part of Portion 2;
- (d) cut in works at the Sandy Creek Subtransmission Switching Station to reroute line 95M generally as described in the diagram in Figure 2 and indicatively as shown in the map in Figure 3, in each case marked as part of Portion 2:
- (e) new 132 kV lines (referred to as lines 9PF and 9PG) to connect Muswellbrook Subtransmission Substation to the Sandy Creek Subtransmission Switching Station, generally as described in the diagram in Figure 2 and indicatively as shown in Figure 3, in each case marked as part of Portion 2;
- (f) a new 132 kV line (referred to as line 95U(2)) to connect Sandy Creek Subtransmission Switching Station to the existing 95U line, with a tee near Muswellbrook Bulk Supply Point, generally as described in the diagram in Figure 2 and indicatively as shown in the map in Figure 3, in each case marked as part of Portion 2;
- (g) a new dual circuit 132kV subtransmission line between the Antiene Subtransmission Switching Station and Kurri Subtransmission Substation generally as described in the diagram in Figure 2 and indicatively as shown in the map in Figure 3, in each case marked as part of Portion 2 and Portion 3;
- (h) augmentations to the Kurri Subtransmission Substation generally as described in the diagram in Figure 2 and indicatively as shown in the map in Figure 3, in each case marked as part of Portion 2;
- a new communications link from Somersby Zone Substation to Berowra Zone Substation using an optical fibre ground wire (OPGW) on Feeder 95Z generally as described in the diagram in Figure 2 and marked as part of Portion 2 and indicatively as shown in the map in Figure 4;
- (j) a new 132 kV subtransmission switching station along the north-eastern bank of Lake Liddell (referred to as Antiene Subtransmission Switching Station) generally as described in the diagram in Figure 2 and indicatively as shown in the map in Figure 3, in each case marked as part of Portion 3; and
- (k) augmentations to the Rothbury Zone Substation generally as described in the diagram in Figure 2 and indicatively as shown in the map in Figure 3, in each case marked as part of Portion 3.

The scope and location of the HCC RNIP are shown in the diagram in Figure 2 and the maps in Figures 3 and 4.

Figure 2: Diagram of HCC RNIP lines and switching stations

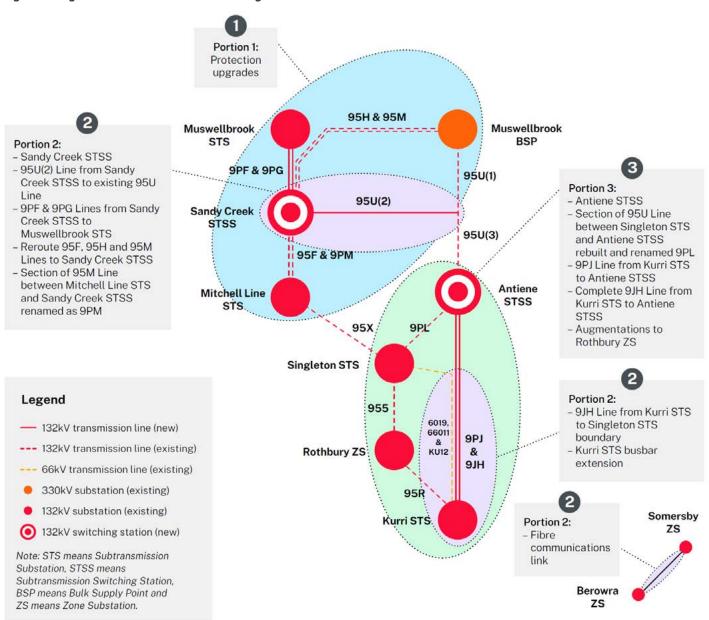


Figure 3: Map of HCC RNIP, excluding communications link

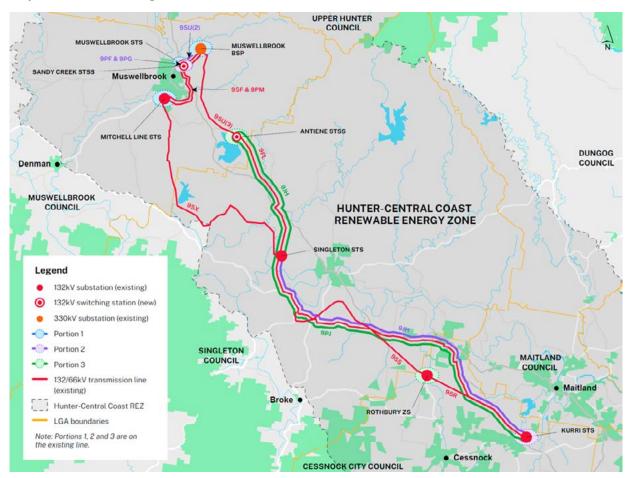
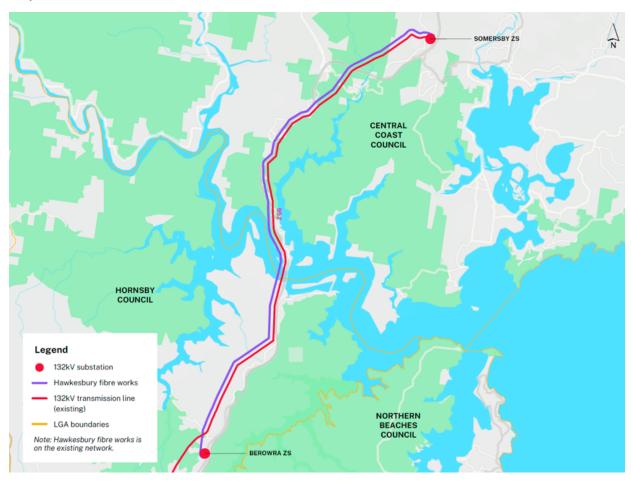


Figure 4: Map of HCC RNIP communications link



3.3 Network operator for the HCC REZ Network Infrastructure Project

The authorised network operator for the HCC REZ Network Infrastructure Project is:

- Blue Op Partner Pty Ltd (ACN 615 217 500) as trustee for the Blue Op Partner Trust;
- ERIC Alpha Operator Corporation 1 Pty Ltd (ACN 612 975 096) as trustee for ERIC Alpha Operator Trust 1;
- ERIC Alpha Operator Corporation 2 Pty Ltd (ACN 612 975 121) as trustee for ERIC Alpha Operator Trust 2;
- ERIC Alpha Operator Corporation 3 Pty Ltd (ACN 612 975 185) as trustee for ERIC Alpha Operator Trust 3; and
- ERIC Alpha Operator Corporation 4 Pty Ltd (ACN 612 975 210) as trustee for ERIC Alpha Operator Trust 4,

together operating as a partnership, carried on under the name of Ausgrid Operator Partnership (ABN 78 508 211 731) and trading as Ausgrid.

The network operator is authorised to develop, construct, own, control and operate the project in accordance with the Notice of Authorisation.

The network operator was recommended by the Infrastructure Planner based on a select tender process for the HCC REZ. Tender bids were submitted by Ausgrid and Transgrid as the incumbent network service providers in the HCC REZ. The procurement process was conducted for an identified transmission need of 1GW, in alignment with EnergyCo's Network Infrastructure Strategy (**NIS**) and the Consumer Trustee's IIO Reports.

4 Reasons for Decision

The following sections summarise the Consumer Trustee's reasons for authorising the network operator to carry out the HCC RNIP and why the Consumer Trustee is satisfied that doing so meets the relevant requirements under the EII Act and EII Regulation.

The Consumer Trustee's decision is based on its consideration of the Infrastructure Planner's recommendation and the Consumer Trustee's obligations to:

- consider the development pathway contained in the IIO Report;
- act independently and in the LTFI of NSW electricity customers;
- exercise its functions consistent with the objects of the EII Act; and
- take into account the First Nations Guidelines and RES Board Plan when exercising its functions, and its ability to impose conditions on an authorisation consistent with the First Nations Guidelines and RES Board Plan.

In making its authorisation decision, the Consumer Trustee considered the Infrastructure Planner Recommendations Report (IPRR) provided by the Infrastructure Planner to the Consumer Trustee on 20 December 2024.¹⁰

The IPRR includes detailed information on a range of matters related to the recommended project and network operator, the Infrastructure Planner's consultation with stakeholders and the Infrastructure Planner's justifications for how the recommended project will promote the objects of the EII Act. The IPPR also deals with how the Infrastructure Planner considers that it has met the requirements of the EII Act and EII Regulation in relation to the contents of its recommendations.

4.1 Long-term financial interests (LTFI) of NSW electricity customers

4.1.1 Context

Under the EII Act, the Consumer Trustee is required to act independently and in the LTFI of NSW electricity customers.¹¹ The EII Regulation also imposes several requirements for how the Consumer Trustee must apply this requirement. In particular:

- The Consumer Trustee must not authorise a network operator to carry out a RNIP unless satisfied the project is in the LTFI of NSW electricity customers.¹²
- In determining whether it is satisfied the project is in the LTFI of NSW electricity customers, the Consumer Trustee must:¹³
 - undertake a CBA of the project in accordance with the requirements set out in the EII Regulation and give primary consideration to the CBA; or
 - give primary consideration to the most recent IIO Report as at the time of the Infrastructure Planner's recommendations.

The Consumer Trustee's assessment of whether authorising the recommended RNIP is in the LTFI of NSW electricity customers is guided by a four-step test that is set out in the NAPAP and summarised below. The application of each step of this test is explained in Section 4.1.3 below.

¹⁰ EnergyCo has published its Hunter-Central Coast REZ Infrastructure Planner Recommendation Public Report. Available at: https://www.energyco.nsw.gov.au/publications/hunter-central-coast-public-infrastructure-planners-recommendations-report

¹¹ EII Act, section 60(3)

¹² EII Regulation, clause 19B(2)

¹³ EII Regulation, clause 19B(3)

Figure 5: Approach for assessing long-term financial interests of NSW electricity customers

Assessing long-term financial interests Decide whether to give primary consideration to section 31 CBA or IIO Report Estimate whether the project has a net benefit to consumers Assess the impact of risk and uncertainty to the net benefit to customers Decision-making principles: Consider the net benefit Minimise regrets to NSW electricity customers. to customers, Risks of under-investment are greater having regard than the risks of over-investment. to risk and uncertainty. Impacts of environmental and energy policy Guided in relation to electricity supply. by these principles: Feasibility and certainty of information, especially in relation to the counterfactual.

As explained in Section 4.1.3 below, the Consumer Trustee assessed whether authorising the HCC RNIP is in the LTFI of NSW electricity customers by undertaking a CBA and giving primary consideration to the outcomes of that CBA.

This Statement of Reasons does not set out the results of the Consumer Trustee's CBA or the amount of the net benefit the Consumer Trustee considers the project would deliver to NSW electricity customers. That is because doing so could allow the network operator and potentially other stakeholders to derive a reasonable estimate of the maximum capital cost that the Consumer Trustee must calculate and notify to the Regulator under section 31(2) of the EII Act. The maximum capital cost is calculated based on the net benefit of the project to NSW electricity customers and the payments to the network operator provided by the Infrastructure Planner. The maximum capital cost is confidential and must not be disclosed by the Consumer Trustee to any person except the Regulator and the Minister.¹⁴

The EII Regulation provides that the Consumer Trustee may disclose the assumptions, scenarios, results or forecasted costs and benefits in relation to the CBA to the Infrastructure Planner or the Secretary of the Department of Climate Change, Energy, the Environment and Water (**DCCEEW**). However, disclosure to any other party is not permitted if it may indirectly disclose the maximum capital cost.

The maximum capital cost is an important protection for customers against the risk that the construction and development costs of the project increase compared with the costs set out in the Infrastructure Planner's recommendations and result in the RNIP no longer having a net financial benefit to NSW electricity customers. The requirement for the maximum capital cost to remain confidential supports the effectiveness of this protection.

¹⁴ Ell Act, section 31(2A)

¹⁵ Ell Regulation, clause 19C(5)

4.1.2 Decision

Based on its assessment and the reasons set out below, the Consumer Trustee considers that authorising the HCC RNIP is likely to have a net benefit and be in the LTFI of NSW electricity customers.

4.1.3 Reasons

4.1.3.1 Assessment step 1: Giving primary consideration to Section 31 CBA or IIO Report

The EII Regulation provides that in determining whether the Consumer Trustee is satisfied the project is in the LTFI of NSW electricity customers, the Consumer Trustee must:16

- undertake a CBA of the project in accordance with the requirements set out in the EII Regulation and give primary consideration to the CBA; or
- give primary consideration to the most recent IIO Report as at the time of the Infrastructure Planner's recommendations.

To determine which source it will give primary consideration to in undertaking its LTFI assessment, the Consumer Trustee applied the following principles:

- The IIO Report will be given primary consideration where doing so is considered to be fit-for-purpose to make an authorisation decision using the principles for an LTFI assessment described in step 4 below.
- Where the IIO Report is not considered to be fit-for-purpose, the Consumer Trustee will undertake a CBA.

When assessing whether the latest IIO Report is fit-for-purpose, the Consumer Trustee considered:

- Whether the most recent IIO Report demonstrates that the project has benefits under conservative scenarios.
- Whether there have been material changes in the electricity market since the most recent IIO Report, with particular consideration generally to be given to the currency of assumptions relating to network options (in terms of capacity and cost), demand and changes to policy objectives.
- Whether the contents of the most recent IIO Report allow for a sufficiently robust LTFI assessment against the principles outlined below in step 4.

The most recent IIO Report as at the time of the Infrastructure Planner's recommendations was the 2023 IIO Report that was published by the Consumer Trustee on 21 December 2023.

Based on these principles, the 2023 IIO Report was not considered to be fit-for-purpose for the making of the HCC RNIP authorisation decision. There has been substantial passage of time since publication of the 2023 IIO Report in December 2023 and some of its assumptions no longer reflect the best available information, including regarding transmission project timing, demand projections, the design of the HCC RNIP and the estimated cost of the HCC RNIP. The 2023 IIO Report also does not contain a sufficiently broad range of scenarios and sensitivities to allow a comprehensive analysis to be undertaken of the project's potential benefits to customers. The 2023 IIO Report was also based on the 2022 Integrated Service Plan (ISP)¹⁷ modelling as the more recent 2024 ISP modelling was not available at the time of the 2023 IIO Report. The Consumer Trustee is currently developing the 2025 IIO Report, however this was not available at the time of the HCC RNIP authorisation decision.

The Consumer Trustee therefore decided that it is in the LTFI of NSW electricity customers to use an updated development pathway for assessing whether to authorise the HCC RNIP. Accordingly, the CBA uses a development pathway updated from the 2023 IIO Report development pathway to utilise updated assumptions and the 2024 ISP modelling.

¹⁶ EII Regulation, clause 19B(3)

¹⁷ AEMO's ISP is a whole-of-system plan that provides an integrated roadmap for the efficient development of the National Electricity Market (NEM) over the next 20 years and beyond. Its primary objective is to optimise value to end consumers by designing the lowest cost, secure and reliable energy system capable of meeting any emissions trajectory determined by policy makers at an acceptable level of risk.

4.1.3.2 Assessment step 2: Estimate whether the project has a net benefit to customers

The Consumer Trustee undertook a CBA consistent with the NSW Government Guide to Cost-Benefit Analysis and other requirements of the EII Regulation to estimate whether the project has a net benefit to customers.

Three scenarios were modelled in the Consumer Trustee's CBA as summarised in Table 1.

Table 1: Summary of scenarios used in the HCC RNIP CBA

	Step Change	Progressive Change	Infrastructure Delay
Purpose	2024 ISP Step Change scenario while capturing supply chain risk.	Scenario testing the value of the HCC RNIP in a world with lower economic growth and a slower transition.	Key infrastructure is delayed to test reliance on other network projects.
Description	Assumptions broadly in line with 2024 ISP Step Change scenario.	Assumptions broadly in line with 2024 ISP Progressive Change scenario.	Assumptions in line with the 2024 ISP Step Change scenario with a 1-year delay to all transmission, gas and pumped hydro projects.

The costs and benefits of the HCC RNIP were derived from the difference in customer costs between two cases:

- A base case, in which the recommended HCC RNIP is built; and
- A counterfactual case, in which the HCC RNIP is not built (and no other RNIP is built in the HCC REZ). The
 counterfactual case assumes that additional variable renewable energy generation projects will connect into
 other parts of the NSW network, including other NSW REZs and non-REZ open access areas. This results in higher
 customer costs due to a combination of less resource diversity, higher likelihood of transmission losses and network
 curtailment.

The development pathway was identified in each case and across each scenario, such that the overall and minimum infrastructure investment objectives are met at least cost.

The benefits were compared to the estimated cost of the HCC RNIP that are expected to be paid by NSW electricity customers over the project's asset life from 2028 to 2077, based on cost information provided by the Infrastructure Planner in its recommendations.

To test the resilience of the HCC RNIP benefits and costs to changes in assumptions and methodology, all three scenarios were tested against eight post-processing sensitivities as part of the modelling exercise. These sensitivities included increases in the cost of the project, changes in weather and outage patterns, different emissions values and discount rates, different approaches to benefits continuation and different benefit start years.¹⁸

The CBA showed that the HCC RNIP is expected to deliver significant net benefits to customers. The project delivers benefits that significantly exceed the costs in each of the three scenarios. These estimated net benefits are resilient to each of the tested sensitivities, with the project continuing to deliver material net benefits to customers even with the potential changes to costs or benefits that were tested in the eight sensitivities.

These benefits are driven by the HCC RNIP's impact on wholesale electricity costs. Wholesale electricity prices are lower in the three core scenarios if the HCC RNIP is built compared to the counterfactual where it is not built. This is driven by the HCC RNIP's attractive location close to the Sydney-Newcastle-Wollongong load centre, which reduces network losses and renewable electricity curtailment, and increases resource diversity of both solar and wind generation in NSW. Wind generation capacity in particular is expected to be higher under the base case compared to the counterfactual across all scenarios, which helps reduce wholesale prices.

The project also delivers ever greater short-term wholesale price benefits in the first few years from when construction is completed until around 2031. In addition to the long-term factors above, these short-term benefits are driven by the ability of the HCC RNIP to support the achievement of the 2030 minimum objectives amidst the assumed timing for the exit of coal power stations under the 2024 ISP, and the relatively slow entry of new generation capacity driven by assumed supply chain constraints and build limits.

¹⁸ The simulations performed utilised the Monte Carlo analysis, wherein the core scenario is based on mean customer cost benefits and sensitivities assess the distribution of benefits.

4.1.3.3 Assessment step 3: Assess the impact of risk and uncertainty to the net benefit to customers

The Consumer Trustee considered the impact of risk and uncertainty to the estimated net benefit as part of its CBA.

The Consumer Trustee's consideration of risk was informed by the Infrastructure Planner's risk analysis in the IPRR and the Consumer Trustee's own quantitative and qualitative analysis.

The Consumer Trustee identified and documented plausible risks to the LTFI of NSW electricity customers related to:

- Risks of the costs to customers of the project increasing, compared with the costs provided by the Infrastructure Planner and used for the CBA.
- Risks of the modelled benefits not being realised or decreasing compared with the CBA results.

For each risk, the Consumer Trustee assessed the likelihood and consequence of the risk compared with the counterfactual, having regard to the measures adopted by the Infrastructure Planner to mitigate the risk. Some risks were able to be quantified via sensitivity analysis or information provided by the Infrastructure Planner. When undertaking sensitivity analysis, risk and uncertainty were assessed through probabilistic analysis where possible. Where this was not possible, the Consumer Trustee undertook estimated quantification of plausible worst-case outcomes on the net benefits of the project. The Consumer Trustee also considered how the impact of uncertainty could result in either a higher or lower net benefit for the RNIP.

The Consumer Trustee identified two risks related to cost increases that were rated as low risks. It also identified one medium risk, and four low risks related to realisation of the modelled benefits. No risks were rated as high or critical. The identified risks are discussed below.

The Consumer Trustee's assessment of the risks of cost increases involved assessing the impact on the project's net benefits if costs increased above the cost estimates provided in the Infrastructure Planner's recommendations. The Consumer Trustee tested the impacts in the case if costs were to materially increase, with the modelling outcomes showing that it did not significantly undermine the net benefits of the project.

The Infrastructure Planner's recommendations set out the steps that the Infrastructure Planner and network operator will take to mitigate the risks of cost increases. The Consumer Trustee also notes that the costs that can be recovered by the network operator from electricity customers will be determined by the AER under the EII Act, EII Regulation and the AER's revenue determination guideline for NSW non-contestable projects. ¹⁹ Under this process, the AER will assess whether the network operator's proposed costs are prudent, efficient and reasonable. The Infrastructure Planner's recommendations set out a series of proposed variation events that could result in an increase in costs. However, the Consumer Trustee notes that the AER will determine which of these proposed variation events are permitted under the network operator's revenue determination and whether any increases in costs are prudent, efficient and reasonable.

The Consumer Trustee identified and assessed several potential risks to benefits realisation related to risks that completion of the HCC RNIP may be delayed or that generation and storage connections to the project may be lower than forecast or occur later than forecast. If these risks occurred, they would decrease the modelled wholesale price benefits. These risks include:

- Delivery of the Transgrid enabling works may be delayed;²⁰
- Delivery of the HCC RNIP may be delayed;
- Generation connections may be fewer than expected, may occur later than expected and/or may be of a different type than expected; and
- Downstream works that are necessary to utilise the RNIP's expected capacity may be delayed.²¹

¹⁹ Available at https://www.aer.gov.au/industry/registers/resources/guidelines/revenue-determination-guideline-nsw-non-contestable-projects-july-2024

²⁰ The HCC RNIP will connect to Transgrid's existing transmission network. Minor enabling works will be undertaken by Transgrid to facilitate the connection.

²¹ The Infrastructure Planner's recommendations state that utilisation of the intended 1 GW network capacity of the HCC RNIP relies on delivery of stage 1 of the Hunter Transmission Project (HTP). The Infrastructure Planner recently signed a Commitment Deed with Transgrid for HTP stage 1 and expects it to be delivered before completion of the HCC RNIP.

The risks of delays to the enabling works or downstream works were rated as low. Even if these delays arise, the impact on the modelled benefits of the project is expected to be insignificant based on the CBA sensitivity related to delayed benefits that is discussed below.

The risk of delays to the delivery of the HCC RNIP was rated as low. Any major infrastructure project faces risks of delays but risks in the case of HCC RNIP have been mitigated by several factors including that the project involves upgrades to Ausgrid's existing brownfield network infrastructure, the use of Ausgrid's existing easements, and the planning activities performed to manage program, regulatory, procurement, and community risks.

The risk related to generation connections was rated as medium. The estimated benefits of the HCC RNIP in the CBA are based on modelled entry of new generation and storage projects. The benefits to consumers would be less than modelled if generation or storage projects are delayed. There is also a specific risk that the modelled dates for the connection of new wind projects in the Consumer Trustee's CBA are overly optimistic.

The potential impact of a delay to generator connections was tested by CBA sensitivities that assessed the net benefits of the HCC RNIP based on different start years for the modelling. This included a sensitivity based on benefits starting in 2030-31 (i.e. all benefits prior to that date were excluded). This represents a delay of up to five years from the first possible connection by generators to the HCC RNIP. This sensitivity provided good insights into the potential impacts of various possible causes of delays to generator connections or delivery of the HCC RNIP. It showed that even if there is a delay to generator connections that removes the short-term benefits of the HCC RNIP prior to 2030-31, the project still has significant net benefits for consumers over the long term.

4.1.3.4 Assessment step 4: Consider the net benefit to customers, having regard to risk and uncertainty

Having regard to its analysis in the previous steps, the Consumer Trustee assessed whether and how the estimate of net benefits from the CBA (including across different scenarios) should be adjusted or considered in its authorisation decision.

This assessment was guided by the following principles:

- **Tolerable quantum of impacts** the Consumer Trustee 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 the Consumer Trustee 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 the Consumer Trustee will consider whether authorising or not authorising the project would be consistent with the policy intent of the EII Act to improve the affordability and sustainability of electricity supply and encouraging investment in new energy infrastructure, as well as the intent of any other relevant environmental or energy policy in relation to electricity supply in NSW.
- Reliance on other projects the Consumer Trustee will consider feasibility and certainty of information, including the greater level of certainty that will generally exist in relation to the recommended RNIP as compared to the network projects that would be required to meet the infrastructure investment objectives under the counterfactual.

The Consumer Trustee considers that the risks to planned benefits being realised identified in Section 4.1.3.3 above mean that the core CBA scenarios likely overestimate the short-term benefits of the HCC RNIP before 2030. The Consumer Trustee therefore considers it appropriate to adjust the net benefit by applying the 2030-31 consumer benefits start date sensitivity.

For the purposes of this authorisation decision, the Consumer Trustee has primarily relied on the net benefit of the Step Change scenario adjusted by this delayed benefits sensitivity (adjusted Step Change scenario).

Applying the principles above, the Consumer Trustee considers that:

- The credible upside risks of authorising the HCC RNIP substantially outweigh any credible downside risks. Under the adjusted Step Change scenario, the project has a significant net benefit. The HCC RNIP also has significant upside, with benefits increasing if other planned transmission projects are delayed in the Infrastructure Delay scenario. Benefits across all scenarios are resilient against different assumptions and the project is still expected to have material net benefits under a range of sensitivities, such as delaying consumer benefits even further until early 2032-33 and costs increasing to the P90 contingency.
- Without the HCC RNIP, consumers are at greater risk from delays to other planned transmission projects, which
 puts at risk the 2030 minimum generation objectives and would be expected to lead to higher consumer electricity
 costs and tighter electricity supply, especially in the event of an early coal power station closure.
- Authorising the HCC RNIP is expected to deliver affordability and sustainability benefits. The HCC REZ's benefits
 are driven by its attractive location near a load centre and a resource profile that is complementary to other NSW
 REZs, increasing the resilience of electricity supply and putting downward pressure on prices. If coal power stations
 retire earlier than currently announced, it will bring forward the need for replacement generation. The HCC RNIP is
 expected to be able to be built relatively quickly and connect generation prior to 2030.
- There are few alternatives to the HCC RNIP in terms of delivering additional generation capacity in the short-term.
 To deliver the development pathway without the HCC RNIP, the counterfactual requires additional generation capacity to be built outside existing declared REZs and in the SW REZ. There is significant uncertainty as to whether the level of investment required in the counterfactual could be achieved.

Based on this analysis, the Consumer Trustee considers that authorising the HCC RNIP is likely to be in the LTFI of NSW electricity customers.

4.2 Objects of the EII Act

4.2.1 Context

The EII Act has a variety of objects, which relate to electricity supply, the delivery of new electricity infrastructure and broader socio-economic objectives. The Infrastructure Planner and Consumer Trustee must exercise their functions in a way that is consistent with the objects of the EII Act.²²

Table 2: Objects of the EII Act

1	Objects of the Ell Act		
а	to improve the affordability, reliability, security and sustainability of electricity supply		
b	to co-ordinate investment in new generation, storage, network and related infrastructure		
С	to encourage investment in new generation, storage, network and related infrastructure by reducing risk for investors		
d	to foster local community support for investment in new generation, storage, network and related infrastructure		
е	to support economic development and manufacturing		
f	to create employment, including employment for Aboriginal and Torres Strait Islander people		
g	to invest in education and training		
h	to promote local industry, manufacturing and jobs		
i	to promote export opportunities for generation, storage and network technology		
2	Additional objects of Parts 4 to 6 of the Ell Act		
а	to increase employment and income opportunities for Aboriginal and Torres Strait Islander people in NSW		
b	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		

4.2.2 Decision

Having considered the Infrastructure Planner's recommendations and the other matters discussed below, the Consumer Trustee is satisfied that authorising the recommended project is consistent with the objects of the EII Act.

4.2.3 Reasons

In assessing whether authorising the HCC RNIP is consistent with the objects of the EII Act, the Consumer Trustee considered:

- The Infrastructure Planner's explanation in the IPRR of how its recommendations are consistent with each of the objects of the EII Act. The IPRR contains a detailed explanation of why the Infrastructure Planner considers that the recommendations are consistent with each of the objects of the EII Act. It also explains how the objects of the EII Act were considered by the Infrastructure Planner as part of the network operator procurement process.
- The Infrastructure Planner's explanation in the IPRR of how it balanced trade-offs between objects.
- The Infrastructure Planner's explanation in the IPRR of the consultation the Infrastructure Planner undertook with relevant stakeholders in developing its recommendations and how the outcomes of that consultation support the Infrastructure Planner's view that the recommendations are consistent with the objects of the EII Act. In particular, the IPRR explains:
 - How the Infrastructure Planner consulted with relevant stakeholders including AEMO, relevant network service providers (Transgrid, Endeavour Energy and Essential Energy), all ten local councils located within the HCC REZ, the HCC First Nations Working Group, and potential generation and storage project providers in the HCC REZ.
 - How the Infrastructure Planner's recommendations on the scope and design of the recommended project were informed by consultation with stakeholders.
 - How the Infrastructure Planner's assessment in relation to whether the recommendations were consistent with each of the objects was informed by consultation with relevant stakeholders.
 - That this consultation did not result in significant concerns being raised by any stakeholders or material changes being made to the recommended HCC RNIP.
 - How the Infrastructure Planner will undertake further consultation with relevant stakeholders regarding education and training, promoting local industry, manufacturing and jobs, and export opportunities.
 - The network operator's Community and Stakeholder Engagement Plan, which covers procedures and protocols
 for engaging stakeholders in the HCC community and details how the network operator will work with the
 Infrastructure Planner to design a community-focused engagement approach.

4.3 RES Board Plan and First Nations Guidelines

4.3.1 Context

The EII Act requires the Minister to issue guidelines about consultation and negotiation with the local Aboriginal community in relation to relevant RNIPs, for the purpose of increasing employment and income opportunities for the local Aboriginal community (**First Nations Guidelines**).²³ A First Nations Guideline that applies generally across NSW was published by the Minister in August 2022.²⁴ A region-specific First Nations Guideline for the Hunter-Central Coast was published in May 2024.²⁵

The EII Act also requires the Minister to establish the NSW Renewable Energy Sector Board (**RES Board**).²⁶ The RES Board's functions include preparing a plan for the NSW renewable energy sector, including the manufacture and construction of infrastructure in the renewable sector (**RES Board Plan**).²⁷ The RES Board Plan was published in September 2022.²⁸

The Consumer Trustee must take into account the RES Board Plan when exercising its functions to authorise a RNIP.²⁹

The Consumer Trustee may impose a condition on an authorisation to give effect to the First Nations Guidelines or the RES Board Plan.³⁰

4.3.2 Decision

The Infrastructure Planner does not recommend that the authorisation impose any conditions related to the RES Board Plan and First Nations Guidelines matters. The Consumer Trustee does not consider that any conditions of this nature should be imposed and has therefore not imposed any authorisation conditions in relation to the RES Board Plan and First Nations Guidelines matters.

²³ Ell Act, section 4(1)

²⁴ Available at https://www.energy.nsw.gov.au/sites/default/files/2022-08/first-nations-guidelines-increasing-income-and-employment-opportunities-from-electricity-infrastructure-projects.pdf

²⁵ Available at https://www.energy.nsw.gov.au/sites/default/files/2024-05/NSW_Hunter-Central_Coast_First_Nations_Guidelines_May_2024.pdf

²⁶ Ell Act, section 7(1)

²⁷ Ell Act, section 7(4)

²⁸ Available at https://www.energy.nsw.gov.au/sites/default/files/2022-09/nsw-renewable-energy-sector-board-plan.pdf

²⁹ EII Act, sections 4(4) and 9(1)

³⁰ EII Act, sections 4(5)(b) and 9(4)

4.3.3 Reasons

The IPRR contains a detailed explanation of the commitments that have been made by the network operator for the HCC RNIP and the Infrastructure Planner's views on how these commitments meet each of the recommendations of the RES Board Plan and First Nations Guidelines.

The information in the IPRR demonstrates that the network operator will meet each of the RES Board Plan recommendations. It explains how the recommended network operator will meet all of the eligibility requirements and minimum requirements for local content in the RES Board Plan, as well as several stretch goals related to supply chain inputs, the proportion of NSW jobs and jobs in the local area.

The IPRR also demonstrates that the network operator will meet all of the requirements in the general First Nations Guidelines and HCC-specific First Nations Guidelines, for example in relation to preparing and implementing an Aboriginal participation plan, best practice engagement and monitoring and reporting.

The Consumer Trustee considers the approach outlined in the IPRR to finalise the Industry and Aboriginal Participation Plan (IAPP) is appropriate and satisfies the relevant RES Board Plan and First Nations Guidelines recommendations, noting the benefits of consulting with relevant stakeholders before the IAPP is finalised, and noting that entry into the Project Deed is a condition of authorisation under the Notice of Authorisation.

The Consumer Trustee encourages stakeholders who have an interest in these issues to participate in the consultation on the network operator's IAPP.

5 Maximum capital cost

As required by the EII Act, the Consumer Trustee has, by written notice to the Regulator, set a maximum amount for the capital costs for development and construction of the HCC RNIP that may be determined by the Regulator.³¹ The Consumer Trustee has also provided written notice of the Maximum Capital Cost to the Minister as required by the EII Act.³²

In accordance with the EII Act, the Consumer Trustee must not disclose this amount to any other person.³³

³¹ EII Act, section 31(2)

³² EII Act, section 31(2A)(a)

³³ Ell Act, section 31(2A)(b)

6 Appendix – Legal requirements for the decision

#	Requirement	Reference in this Statement of Reasons
1.	After considering the Infrastructure Planner's recommendations in relation to REZ network infrastructure projects, the Consumer Trustee may (a) recommend the Minister give a direction under section 32 to a network operator for a REZ network infrastructure project, or (b) authorise a network operator to carry out a REZ network infrastructure project (EII Act, s31(1)).	Sections <u>3</u> and <u>4</u>
	The Consumer Trustee is not required to (EII Regulation, cl19B(5)):	
	 investigate the accuracy of the Infrastructure Planner's recommendations; 	
	 consider technical information, other than technical information specified in clause 44 (which sets out the technical information the Infrastructure Planner must include in its recommendations); 	
	 consider the technical information provided to the Consumer Trustee in the Infrastructure Planner's recommendation; or 	
	 assess or review the contractual arrangements the Infrastructure Planner recommends that the Consumer Trustee's authorisation require the network operator to enter into. 	
2.	If the Consumer Trustee authorises a network operator under section 31(1)(b), the Consumer Trustee must, by written notice to the regulator, set a maximum amount for the prudent, efficient and reasonable capital costs for development and construction of the REZ network infrastructure project that may be determined by the regulator under section 38(4) (EII Act, s31(2)). The Consumer Trustee must also provide written notice of this maximum amount to the Minister (EII Act, s31(2A)(a)). The Consumer Trustee must not disclose the maximum amount to any other person (EII Act, s31(2A)(b)).	Section <u>5</u>
3.	The Consumer Trustee is to consider the development pathway contained in the latest report by the Consumer Trustee under section 45 (EII Act, s31(5)).	Section 4.1
4.	The Consumer Trustee will consider whether to, with respect to the First Nations Guidelines: include, in a recommendation to the Minister under section 31(1)(a), a recommendation that a condition be imposed on the Minister's direction; or impose a condition on an authorisation under section 31(1)(b) (Ell Act, s4(5)).	Section <u>4.3</u>
5.	 The Consumer Trustee will take into account the plan for NSW renewable energy sector (EII Act, s9(1)) and consider whether to: in a recommendation to the Minister under section 31(1)(a), include a recommendation that a condition that is consistent with the plan be imposed on the Minister's direction; or impose a condition that is consistent with the plan on an authorisation under 	Section <u>4.3</u>
	section 31(1)(b) (EII Act, s9(3)-(4)).	

6. The Consumer Trustee is to act independently and in the long-term financial interests Sections <u>2</u> and <u>4.1</u> of NSW electricity customers (EII Act, s60(3)).

The Consumer Trustee must not authorise a network operator to carry out a RNIP unless satisfied the project is in the long-term financial interests of NSW electricity customers (Ell Regulation, cl19B(2)).

In determining whether it is satisfied the project is in the long-term financial interests of NSW electricity customers, the Consumer Trustee must (EII Regulation, cl19B(3)):

- undertake a CBA of the project in accordance with the requirements set out in the Ell Regulation and give primary consideration to the CBA; or
- give primary consideration to the most recent IIO Report as at the time of the Infrastructure Planner's recommendations.

A CBA must consider the costs and benefits set out in cl19C(1) of the EII Regulation and must not consider the matters set out in cl19C(2) of the EII Regulation.

A CBA must be in accordance with the NSW Government Guide to Cost-Benefit Analysis published by NSW Treasury, except to the extent that this Guide is inconsistent with the requirements of the EII Regulation (EII Regulation, cl19C(3)).

If the quantitative measurements of the CBA are negative, the Consumer Trustee may be satisfied the project is in the long-term financial interests of NSW electricity customers having regard to both the quantitative measurements and qualitative elements of the cost benefit analysis (EII Regulation, cl19B(4)).

7. The Consumer Trustee must exercise its function in a way that is consistent with the objects of the EII Act (EII Act, s3(3)).

Section 4.2

An authorisation by the Consumer Trustee must require the network operator to enter See Notice of into the recommended contractual arrangements (EII Regulation, cl 19B(6)).

Authorisation