



AER work program to support actionable ISP projects

Stakeholder forum on draft guidance note

28 January 2021

aer.gov.au

Welcome to the AER's stakeholder forum

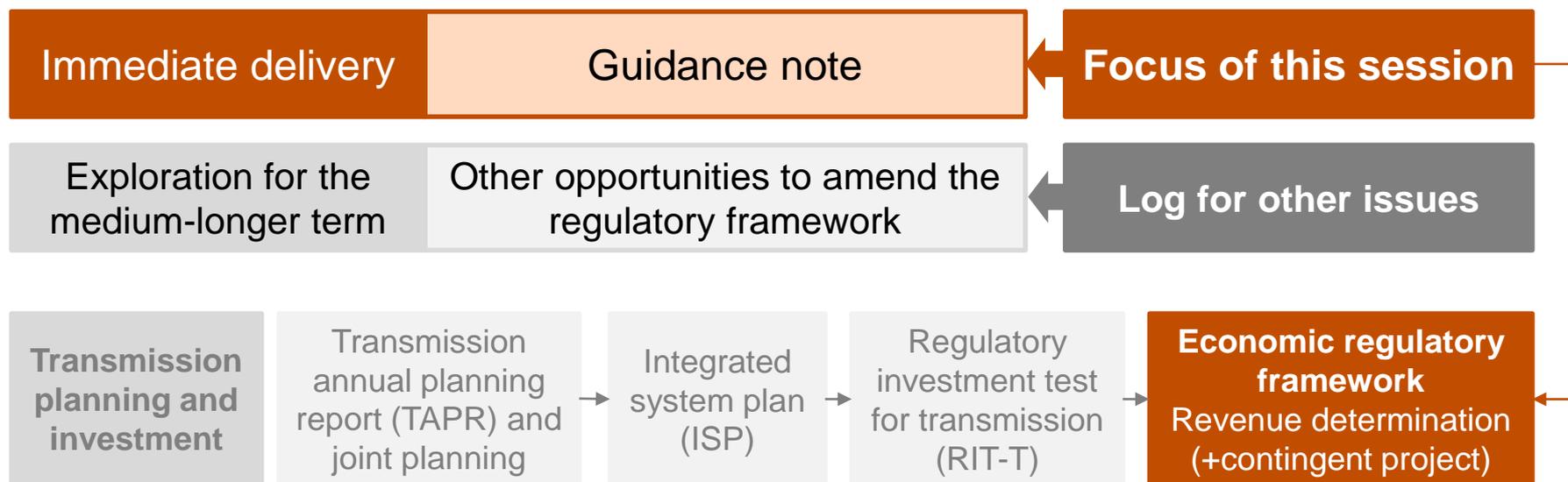
Item (presenter)	Timing
Welcome and overview	2:00pm
Contingent project application guidance	2:10pm
Staging guidance	2:40pm
Ex-post measures guidance	3:00pm
Next steps and closing remarks	3:25pm

Housekeeping

- Please remain on mute when you are not speaking
- Please use the chat box to raise questions or comments – we will stop regularly to discuss and answer questions – you can “like” the questions or comments that you are particularly interested in discussing.

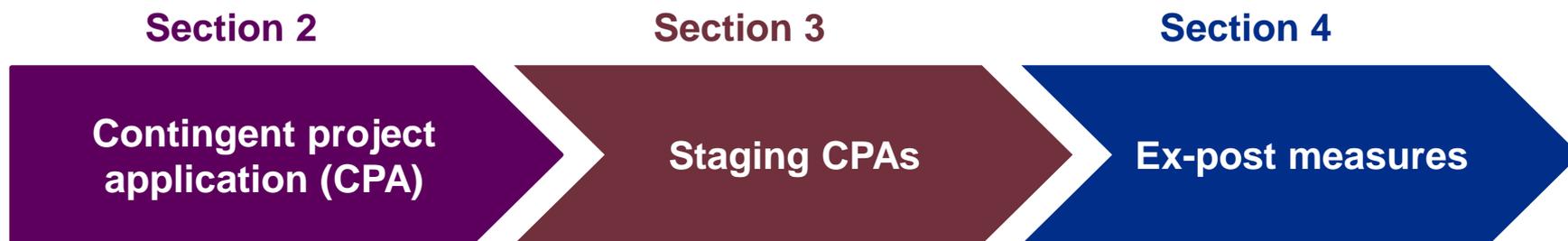
Our work program and the focus of this session

- We have commenced a program of work to support the efficient and timely delivery of large transmission projects, identified as ‘actionable’ in AEMO’s Integrated System Plan (see Appendix A for background)
- We want to ensure our regulatory tools remain fit-for-purpose to effectively assess forecast costs for these projects against the criteria set out in the National Electricity Rules.



Our draft guidance note

- Clarifies how we intend to assess expenditure proposals for actionable ISP projects. This improves regulatory predictability and transparency, and sets out our expectations for transmission businesses
- Seeks to encourage proactive risk management and productive efficiencies, to improve efficiency / reliability of cost estimates for actionable ISP projects
- Collates and builds upon our learnings from recent transmission projects, and experiences of delivering large infrastructure projects in other sectors
- Covers contingent project applications, staging, and ex-post measures – for actionable ISP projects.



What we have heard from stakeholders so far

- Our draft guidance note was informed by early stakeholder input and feedback via focus group sessions held in November 2020.
- We will discuss key areas where we have incorporated stakeholder feedback in the following sessions of this forum
- Key overarching themes raised by stakeholders include:



Milestone	Timing
Work program letter published	17 November 2020
Focus group sessions	25-26 November 2020
Draft guidance note published	18 December 2020

Arista Kontos

Contingent project applications

Purpose and key topics

- The AER typically assesses cost forecasts for actionable ISP projects through the contingent project application (CPA) process (set out in 6A.8 of the rules)
- **Purpose** of the CPA guidance section:
 - To provide greater clarity and predictability around what the AER expects transmission businesses to demonstrate in their CPAs for actionable ISP projects
 - To highlight the key considerations for the AER in increasing confidence in the efficiency and reliability of cost forecasts for these projects.

Topics	
1.	Pre-lodgement stakeholder consultation
2.	Early information sharing with the AER
3.	Project management and governance
4.	Procurement
5.	Project risks
6.	Cost estimates

1. Pre-lodgement stakeholder consultation

- Transmission businesses are expected to demonstrate high quality early engagement with stakeholders, and how it has improved the quality of the CPA and forecast costs
- We expect transmission businesses to promote **consumer confidence** in the project and engage with **impacted communities** to understand their concerns
- Early engagement should assist with identifying and managing project risks, particularly around the proposed route
- We expect transmission businesses to demonstrate how its engagement approach satisfies the principles in the AER’s Consumer Engagement Guideline
- Transmission businesses should demonstrate the range of stakeholder views heard and that they have considered and responded to those views.

How we have addressed initial stakeholder feedback

- Expectation for transmission businesses to provide stakeholders with transparency around evolving cost estimates from the RIT-T stage
- Encourage consistent cost categorisations across RIT-T and CPA stages.

4. Procurement

- Effective market-testing can drive efficiencies in cost forecasts and encourage third parties to take on project risks within their control for a lower premium
- We expect transmission businesses to demonstrate an overview of their tender process and their evaluation of tender responses
- Procurement activities should promote the principles set out in the guidance, including maximising competition and innovation
- We expect transmission businesses to demonstrate they have:
 - Undertaken procurement planning activities
 - Sought innovation in the design of the solution by providing functional specifications to the market
 - Maximised supplier engagement
 - Considered optimal contractual arrangements (especially in risk allocation).

5. Project risks (1)

- There is evidence of greater uncertainty around the costs of these large projects – risk identification and assessment is therefore particularly important
- We expect transmission businesses to identify all known project risks and establish a risk management framework (including risk monitoring and reporting, and project controls to manage overruns in delivery)
- Transmission businesses should demonstrate the steps they have taken to mitigate (or avoid or transfer) project risks and, in turn, improve the accuracy of their cost estimates
- Note that risks should only be managed where the cost of doing so is less than the cost impact of the risk eventuating.

5. Project risks (2)

- The AER can accept a project risk allowance for residual risks (i.e. risks that cannot be efficiently transferred, avoided or mitigated – or included in cost pass through events)
- We expect transmission businesses to demonstrate detailed breakdowns of residual project risks they seek allowances for, that should:
 - Define each risk
 - Assess each risk cost (consequential estimate x likelihood of occurrence)
 - Demonstrate how the transmission business has reached its assessment outcome
- We also expect transmission businesses to demonstrate which risks it has transferred to contractors and why it is efficient to do so – it is important for us to assess that each risk has only been accounted for once.

5. Cost estimates

- We expect transmission businesses' cost estimates to:
 - Have a strong basis, accompanied by supporting documentation
 - Be realistic, and reflect the likelihood of any contingencies occurring
 - Be trend-based, where possible, and/or informed by post-completion data from comparable projects
- Prefer market-tested costs. If this is not possible, the transmission business is expected to demonstrate how its capex forecast otherwise reflects efficient and prudent costs.

How we have addressed initial stakeholder feedback

- We expect transmission businesses to demonstrate the extent to which the actionable ISP project displaces the need for capex on other projects in its current revenue determination.

Questions?

- What are your views on our proposed approach to the CPA process?
- What areas need further clarification (if any)?
- What principles / considerations are unique to assessing non-network solutions that we could consider including in the guidance note?

Nish Perera

Staging contingent project applications

Purpose and key topics

- Transmission businesses can stage the regulatory process for actionable ISP projects by lodging multiple CPAs with the AER. Each CPA would correspond to a different component of the project
- **Purpose** of the staging section:

Allow transmission businesses to use CPA staging in certain circumstances to help reduce uncertainty associated with project costs and benefits

Clarify some technical interactions between the ISP, regulatory investment test for transmission (RIT-T), and staged CPAs
- **Key topics** covered:
 1. Objectives of staging CPAs
 2. Mechanics of staging CPAs
- AER response to HumeLink letter is the starting point.

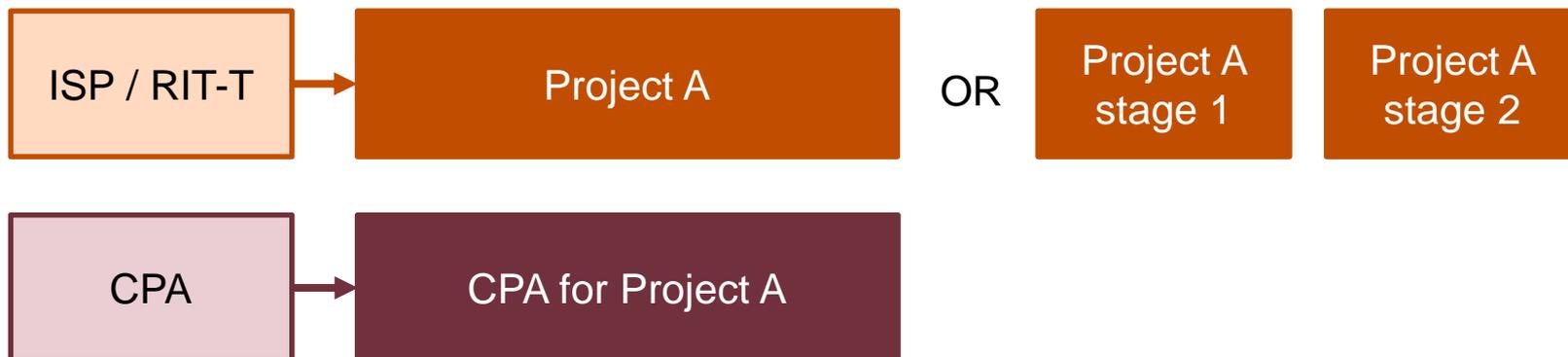
Staging projects versus the regulatory process

- The rules allow transmission businesses to stage the regulatory process for an actionable ISP project, by lodging multiple CPAs with the AER, one after another
- This is different to directly staging the actionable ISP project itself. Project staging of this type is discussed in the AER's cost benefit analysis guidelines.



Staging projects versus the regulatory process

- The rules allow transmission businesses to stage the regulatory process for an actionable ISP project, by lodging multiple CPAs with the AER, one after another
- This is different to directly staging the actionable ISP project itself. Project staging of this type is discussed in the AER's cost benefit analysis guidelines.



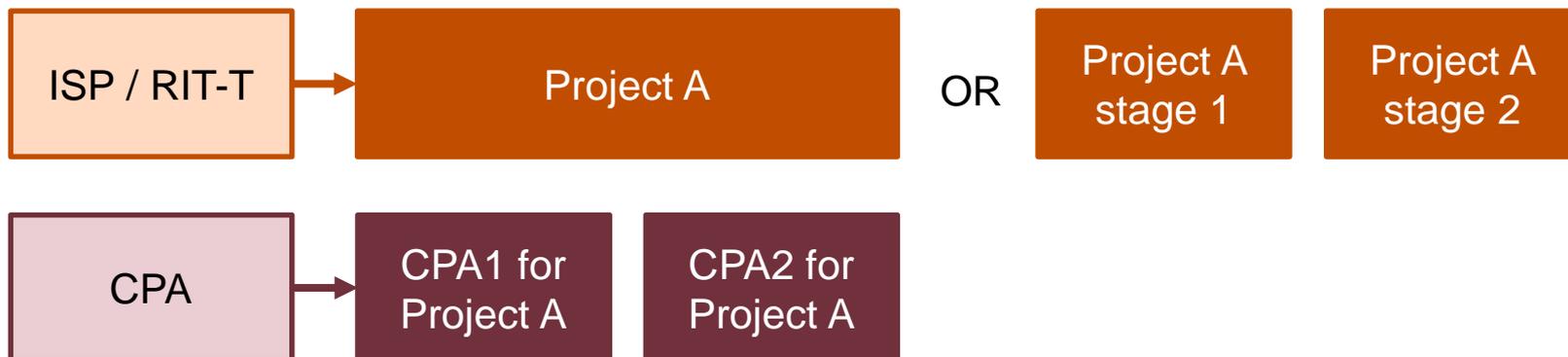
Staging projects versus the regulatory process

- The rules allow transmission businesses to stage the regulatory process for an actionable ISP project, by lodging multiple CPAs with the AER, one after another
- This is different to directly staging the actionable ISP project itself. Project staging of this type is discussed in the AER's cost benefit analysis guidelines.



Staging projects versus the regulatory process

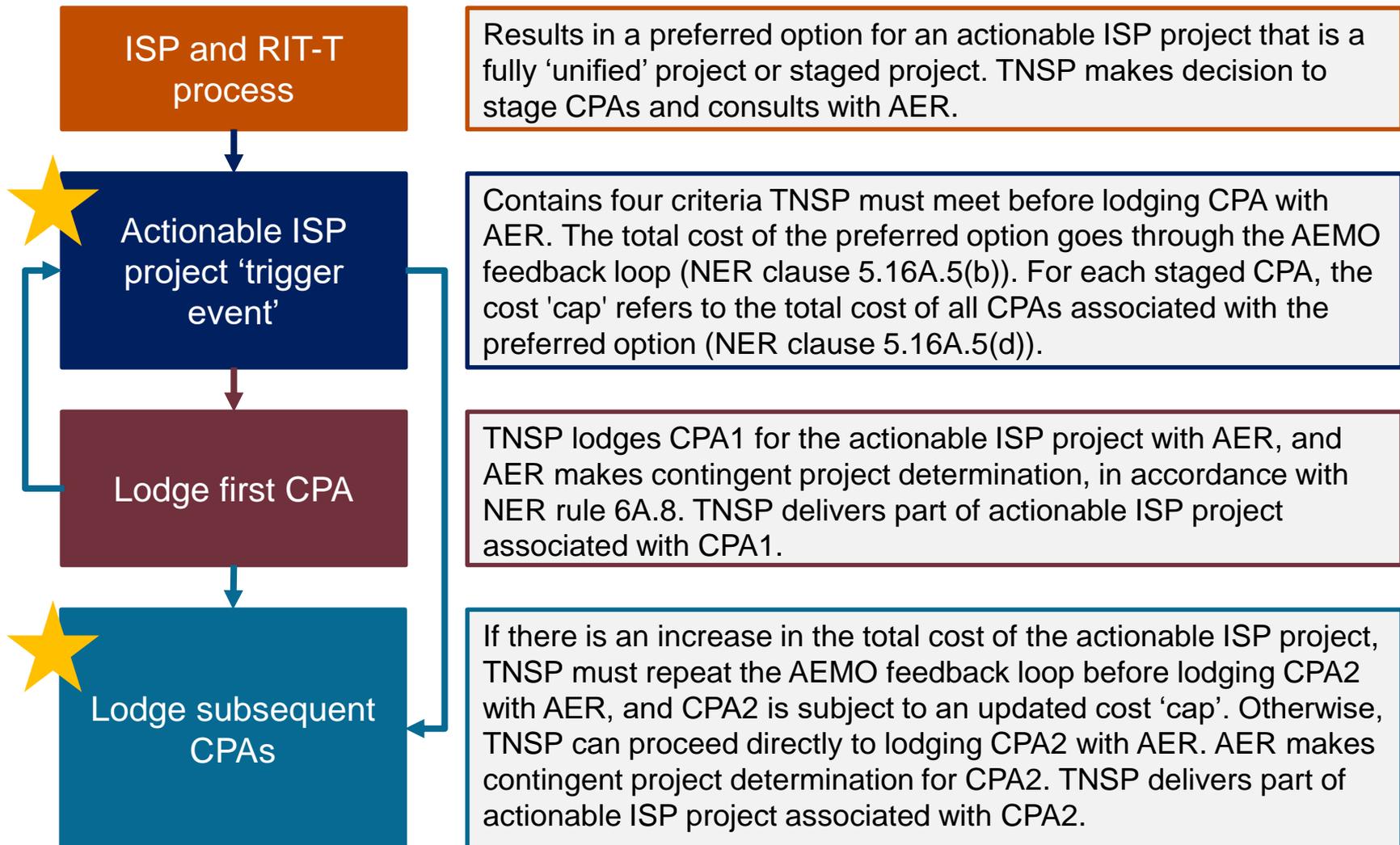
- The rules allow transmission businesses to stage the regulatory process for an actionable ISP project, by lodging multiple CPAs with the AER, one after another
- This is different to directly staging the actionable ISP project itself. Project staging of this type is discussed in the AER's cost benefit analysis guidelines.



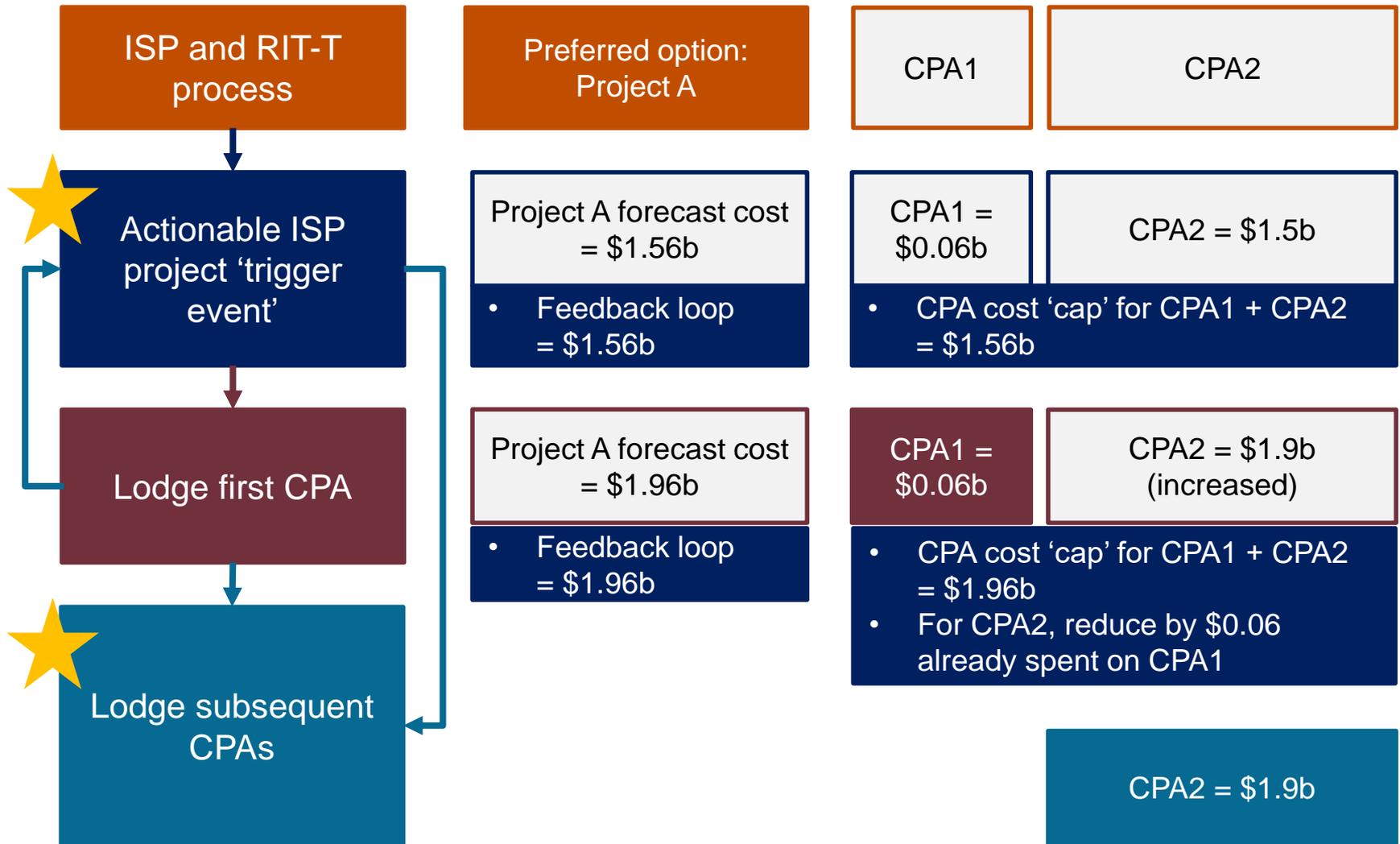
1. Objectives of staging CPAs

- Staging of CPAs can reduce the risk of actionable ISP projects and increase flexibility for transmission businesses and the AER
- There are also challenges. Breaking the regulatory process up into too many stages can make it harder to assess the project as a whole and result in excessive regulatory involvement
- We consider staging has the most benefits when it is used for actionable ISP projects that are particularly large, complex or uncertain (e.g. greenfield interconnector across varied terrain)
- We consider staging can have particular benefits when used to conduct early works activities before submitting a CPA for constructing the full project. This can reduce uncertainty of cost estimates **before** AER approval of the full project costs
- Early works are distinct from preparatory activities defined in the rules.

2. Mechanics of staging CPAs



2. Mechanics of staging CPAs



Questions?

- What are your views on our proposed approach to staging CPAs?
- What areas need further clarification (if any)?

Nish Perera

Ex-post measures

Purpose and key topics

- Every time we conduct a transmission revenue determination, we must make an ex-post statement and, in some limited circumstances, can exclude capital expenditure (capex) from the regulatory asset base (RAB)
- **Purpose** of the ex-post measures section:

To clarify how we will conduct ex-post reviews when a capex forecast contains actionable ISP project costs. This aims to provide greater predictability so transmission businesses have a clearer understanding about how we will form a view on costs that may, and may not, be excluded from the RAB in an ex-post review
- **Key topics** covered:
 1. Objectives of ex-post reviews
 2. Ex-post review process and exclusion of capex from RAB
 3. Ex-post statement.

1. Intent of the ex-post review

- The economic regulatory framework set out in chapter 6A of the NER is focused on ex-ante incentives to promote efficient project delivery and capital expenditure
- The ex-post review is a ‘last resort’ check and incentive that would only exclude clear cases of capital expenditure that is not efficient or prudent
- Conducting an ex-post statement at each revenue determination is also a way to facilitate continuous learning and improvement, and increase transparency for stakeholders.

What can be excluded from the RAB roll forward?

1. When a transmission business has spent more than its capex allowance, the amount of capex above the allowance that does not reasonably reflect the capital expenditure criteria
2. Where there is an inflated related party margin (that is, the margin refers to arrangements that do not reflect arm’s length terms), the inflated portion of the margin
3. Where a change to a transmission business’ capitalisation policy has led to operating expenditure (opex) being capitalised, the capitalised opex.

2. Ex-post review process

- The ex-post review process is conducted in two stages
- We expect transmission businesses to demonstrate they have delivered the actionable ISP project in accordance with project governance structures, and project and risk management plans / processes evidenced in its CPA
- We also expect transmission businesses to demonstrate they have controlled and minimised any cost overruns, and have notified stakeholders and AEMO when material overruns are expected
- This provides more clarity on the information about project planning and management tools and processes in the current capital expenditure incentives guideline
- We have also provided more clarity about some of the technical aspects of the ex-post review process, in response to questions and comments from stakeholders.

3. Ex-post statement

- Each of our revenue determinations must include an ex post statement on the efficiency and prudence of all capex to be rolled into the RAB from the previous regulatory control period
- In response to stakeholder feedback, we propose to use the ex-post statement to report key information about the actionable ISP project (subject to confidentiality), including:
 - Progression of cost estimates
 - Key drivers of any cost overrun
 - Whether some or all of the expenditure on the project was deferred
- Reporting this information will provide transparency to stakeholders and facilitate continuous learning to improve transmission businesses' forecasts and our ex-ante assessments of future projects.

Questions?

- What are your views on our proposed approach to ex-post measures?
- What areas need further clarification (if any)?

Next steps

Next steps

- We will publish the slides from this session, and a summary of the issues raised and our responses
- We will consider the best way to respond to questions and comments in the issues log – some may be best considered as part of the other reform options being explored in this work program
- Email TIRreview@aer.gov.au to request a meeting with us or send through feedback on the draft guidance note. Feedback can be provided via formal submission or an alternative format.

Milestone	Indicative timing
Submissions close (or feedback via alternative format)	5 February 2021
Final guidance notes released	Late March / early April 2021

Thank you for attending this forum

Appendix

Appendix A: Why we are doing this work

2020 Integrated System Plan

The Australian Energy Market Operator's (AEMO) Integrated System Plan (ISP) provides a 20-year roadmap for the National Electricity Market (NEM) through the energy transition period to 2040.

Consultation

AEMO facilitated an 18-month consultation program in developing the draft and final ISP, along with the Forecasting and Planning Scenarios, Inputs and Assumption Report, including:

- 200+ stakeholders consulted
- 8 workshops held
- 3 webinars hosted
- 85 written submissions provided

Considerations

- Market reforms
- Government policies
- Economic growth
- Emissions reductions
- Grid technologies and services
- Consumer investment in DER

Expected changes to 2040

The ISP modelling confirms that the least-cost, least-regret transition of the NEM is from a centralised coal-fired generation system to a highly diverse portfolio dominated by distributed energy resources (DER) and variable renewable energy (VRE), supported by dispatchable resources and enhanced grid and service capabilities, to ensure the power system can reliably meet demand at all times.

- Coal generation retirements **15GW**
or 63% of coal-fired generators
- DER **+200%**
supplying from 7% to 13-22% of total consumption
- New VRE **26GW**
(grid-scale wind and solar)
- New dispatchable resources **6-19GW**
(pumped hydro, batteries, gas)

Optimal development path and net benefits

The ISP sets out the optimal development path needed for Australians to enjoy an affordable, secure and reliable energy system. If implemented, these investments would deliver \$11 billion in market benefits, while meeting the security, reliability and emissions expectations of energy consumers.

Classification	Project	Indicative timing
Committed	SA System Strength Remediation	2021-22
	QNI Minor	2021-22
	Western Victoria Transmission Network Project	2025-26
	VNI Minor	2022-23
Actionable ¹	Project EnergyConnect	2024-25
	HumeLink	2025-26
	Central-West Orana REZ Transmission Link	Mid-2020s
	VNI West ²	2027-28
	Marinus Link ³	2028-29 to 2031-32
	- Cable 1	2031-32 to 2035-36
	- Cable 2	2031-32 to 2035-36
	QNI Medium & Large	2030s
	Central to Southern QLD	Early-2030s
	Reinforcing Sydney, Newcastle and Wollongong Supply	2026-27 to 2032-3
Preparatory Activities Required	Gladstone Grid Reinforcement	2030s
	New England REZ Network Expansion ⁴	2030s
	North West NSW Network Expansion ⁴	2030s
Future ISP Projects	Far North QLD REZ	2030s
	South East SA REZ	2030s
	Mid North SA REZ	2030s

Unprecedented pipeline of large transmission projects

Greater uncertainty around costs & benefits

More prone to larger cost overruns*
*(see chart in appendix A1)

Many risks can be managed but some risks are unforeseeable

Under the current framework, may be an incentive to include 'buffers' in cost forecasts

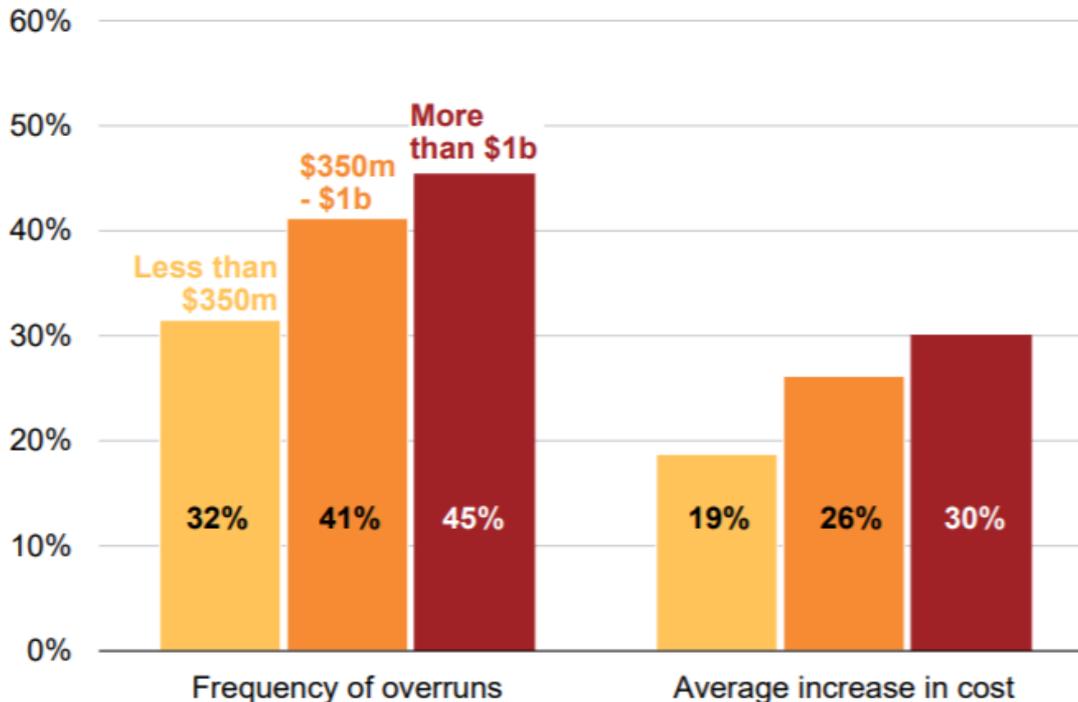
34

aer.gov.au

Appendix A1: Large projects appear more prone to larger cost overruns

Figure 2.1: Bigger projects overrun more often and by more

Frequency of overruns and average increase in cost as a percentage of initial project costs by level of initial cost



Note: Includes all public road and rail projects costing more than \$20 million that were completed between Q1 2001 and Q1 2020.

Source: Grattan analysis of Deloitte Access Economics Investment Monitor.

Source: Grattan Institute, The rise of megaprojects – counting the costs, November 2020, p. 16

Appendix B: current transmission planning and economic regulatory frameworks

Transmission planning framework (ISP projects)

- Transmission annual planning reports (TAPRs) and joint planning feed into / iterate with the ISP
- AEMO uses biennial ISP to identify actionable ISP projects, and identified needs to guide RIT-Ts
- TNSPs conduct RIT-Ts to select the preferred option for meeting the identified need
- TNSPs develop detailed cost estimates, go through AEMO feedback loop, and submit contingent project application

Economic regulatory framework

- AER uses the contingent project application process to incorporate actionable ISP projects into allowed revenue – AER makes a decision on the efficient and prudent **forecast capex** (and incremental opex) associated with the project (e.g. \$2 bil). The RAB is updated with the forecast capex and then **amortised** in the annual revenue allowance as return on capital and depreciation building blocks.
- TNSP delivers actionable ISP project. Actual cost may be under or over forecast costs (e.g. \$2.5 bil)
- At the next revenue determination, AER updates forecast capex with **actual capex** in RAB and determine CESS – if overspend on total forecast capex (for all projects), then decide whether to apply an ex-post review.
- This means the TNSP recovers actual capex spent on the project (subject to ex-post review), and recovers this gradually recovered over many regulatory periods.