TRANSMISSION PLANNING AND INVESTMENT REVIEW & MATERIAL CHANGE IN NETWORK INFRASTRUCTURE PROJECT COSTS RULE CHANGE REQUEST

DIRECTIONS FORUM

13 DECEMBER 2021

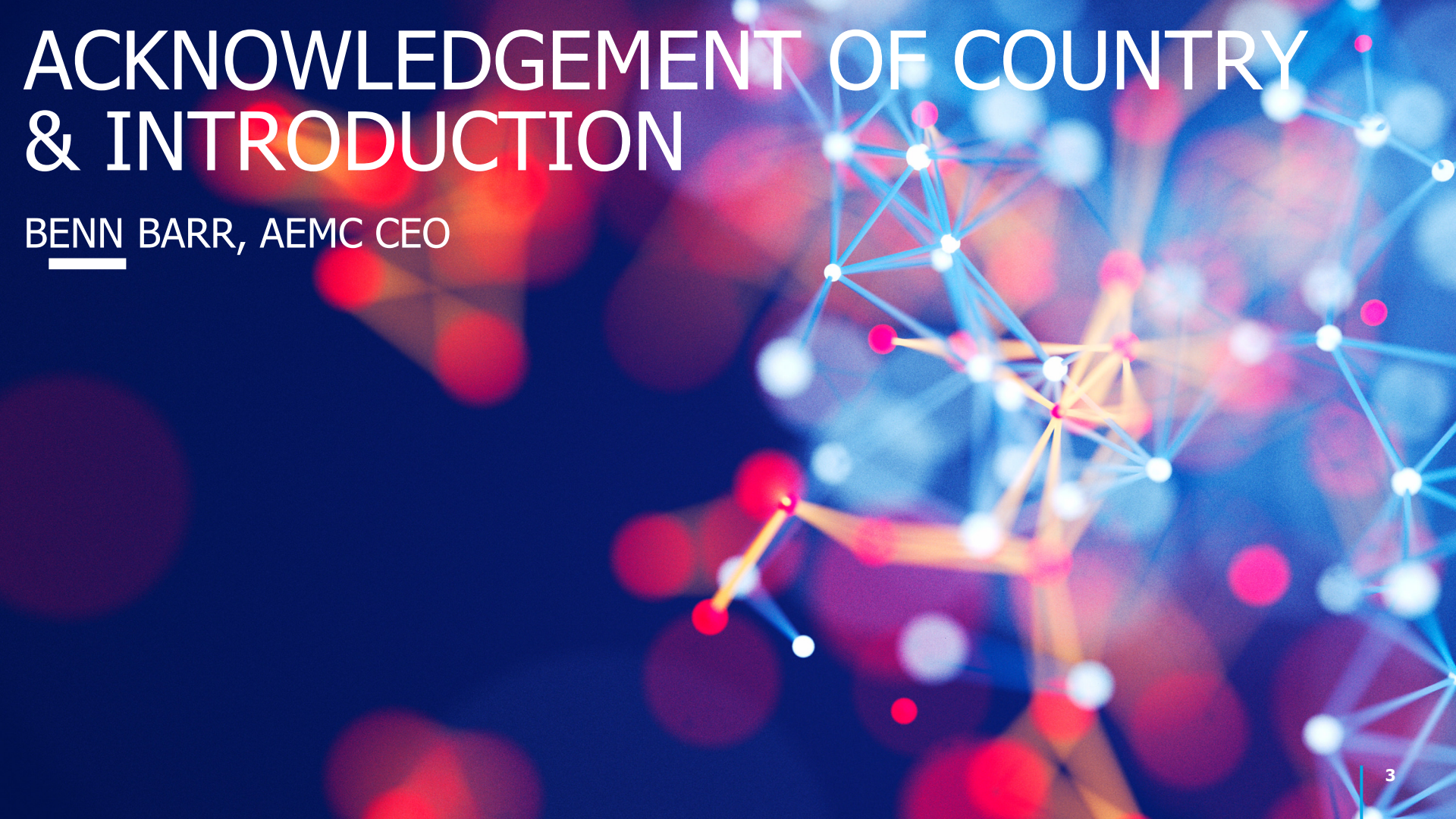
AEMC

Agenda

1.	Introduction – Benn Barr
2.	Opening remarks – Charles Popple
3.	Purpose of today's presentation
4.	Overview of the review and approach to upcoming stages
5.	Prioritisation and directions for reform pathways - AEMC ○ Initial changes ○ Longer-term reforms
6.	Questions
7.	Spotlight: ○ Update on carbon - AEMO ○ Ex-ante framework – AER
8.	Questions
9.	Material change in network infrastructure project costs rule change request - AEMC
10.	Questions
11.	Next steps
12.	Closing remarks – Charles Popple

ACKNOWLEDGEMENT OF COUNTRY & INTRODUCTION

BENN BARR, AEMC CEO



OPENING REMARKS

CHARLES POPPLE, AEMC COMMISSIONER

PURPOSE OF TODAY'S PRESENTATION

Purpose of today's presentation

Introduce and explain the priority issues for the Review and key publication milestones

AEMC, AEMO and AER staff will provide updates on issues being progressed as part of the Review. AEMC will also provide an update on the *Material change* rule change request

Forum participants are invited to ask questions

Housekeeping

- All participants are currently in ‘listen-only’ mode
  - Please stay on mute during presentations
- Presentations from today will be posted on our website after the webinar
- Please engage respectfully

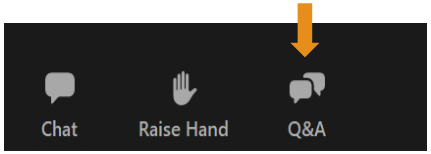
Before we start, an important notice: Compliance with Competition Law

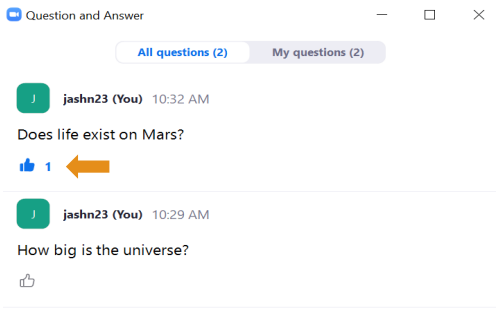
- The attendees must not discuss, or reach or give effect to any agreement or understanding which relates to:
  - Pricing
  - Targeting markets or customers
  - Tendering processes
  - Boycotting other parties
  - Sharing competitively sensitive information
  - Breaching confidentiality obligations

Each entity must make an independent and unilateral decision about their commercial positions.

Zoom Q&A function

- Q&A function is open throughout the webinar
  - Use the Q&A button on the bottom of your screen
- 'Upvoting' function
  - We will try to answer all questions, but will prioritise questions with most 'upvotes' first
- 'Dismissed' queue
  - This is a Zoom term
  - We will move questions here if they are duplicates

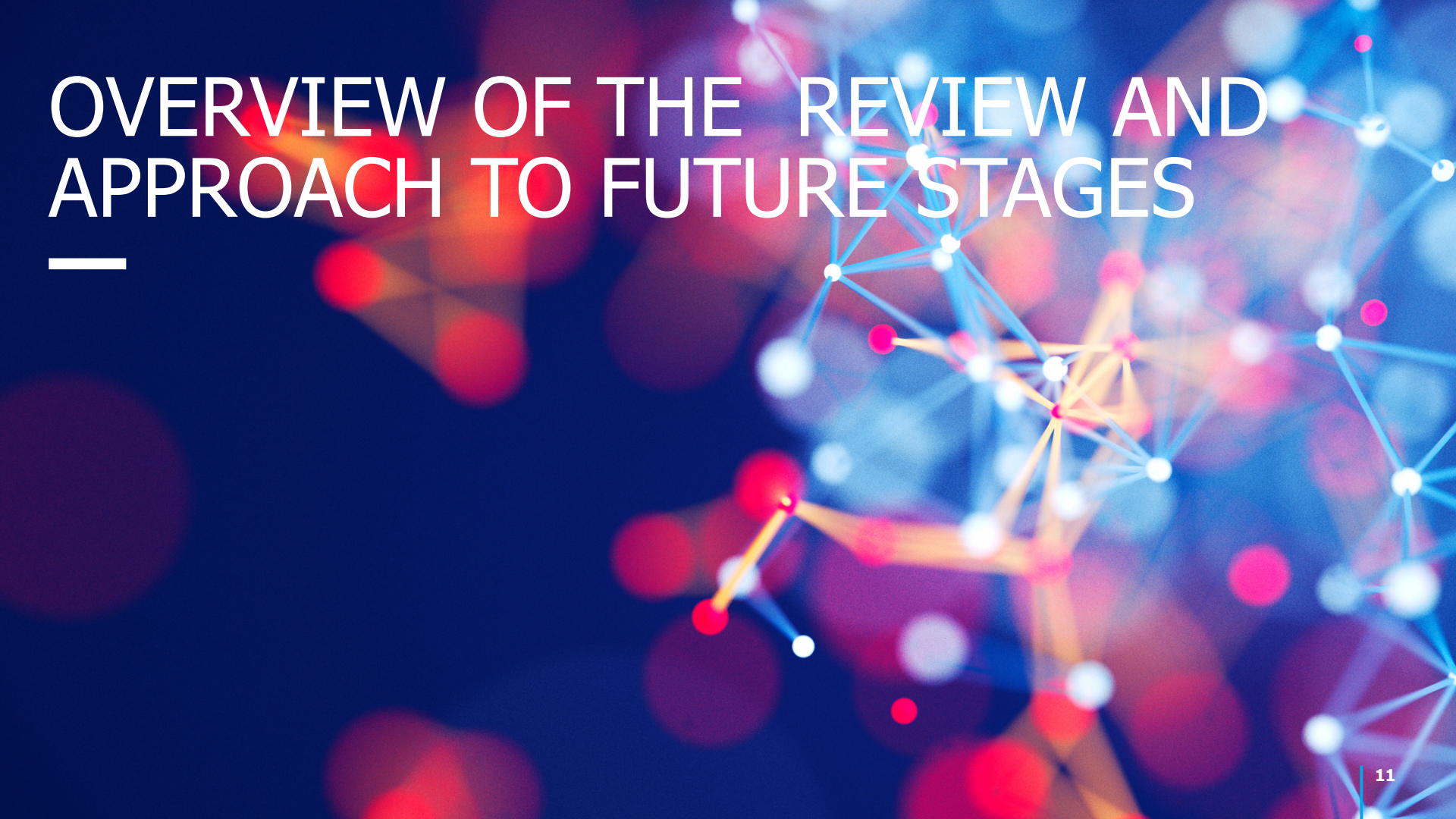




Asking questions

- Questions will be answered at dedicated Q&A sessions
- Please keep questions on topic and avoid making comments – we have a large audience and limited time
- When asking questions, please indicate which presenter you are directing the question to
- If requested by moderator please switch your mic or mic/video on during the Q&A session to further explain your question. Moderators won't switch your mic/video on unless you specifically request it.

OVERVIEW OF THE REVIEW AND APPROACH TO FUTURE STAGES



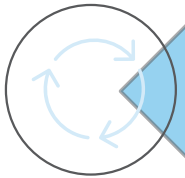
Recap: The Review will explore options to support the timely and efficient delivery of major transmission projects

- A pipeline of major transmission investment is required to support the energy transition
- The Commission foreshadowed the Review in the TransGrid and ElectraNet financeability participant derogation determinations
- The purpose of the Review is to:
    - identify issues with the existing regulatory frameworks in relation to the timely and efficient delivery of major transmission projects
    - explore options for reform of, or improvements to the existing regulatory frameworks and recommend possible changes

Submissions on the Consultation Paper expressed support to progress a number of key issues

Some stakeholders suggested that the existing ex-ante framework is generally appropriate, while others considered an alternative approach, such as contestability, is more appropriate for major projects.

Submissions also highlighted that the ISP framework should be given a chance to work. However, adjustments to the economic assessment process, particularly in relation to the feedback loop and accuracy/consistency of cost estimates, could support clarity and timeliness.



Stakeholder views varied in relation to the risks and benefits of contestability. Key concerns related to accountability for reliability and security outcomes. Purported benefits included increased efficiencies and certainty in project delivery.

Other key issues for stakeholders related to clarifying the treatment of early works and carbon under the existing framework. Promoting community engagement to build social licence was widely raised as a priority issue.

The Review prioritises issues that will have the greatest impact on ensuring the timely and efficient delivery of major projects that are in the long-term interests of consumers

The priority issues to be addressed via the Review have been separated into two stages

Stage 2 – Initial changes*

- Uncertainty of project costs
- Workability of the feedback loop and ISP updates
- Accuracy and consistency of cost estimates
- Certainty in cost recovery arrangements for early works
- Social licence – stakeholder engagement
- Treatment of carbon as a benefit in the economic assessment process
- Financeability

Stage 3 – Longer-term reforms

- Suitability of existing incentives and/or obligations on TNSPs to invest in major transmission projects (including contestability)
- Streamlining the economic assessment process
- ISP process issues: frequency and regulatory complexity (2025 ISP Review)

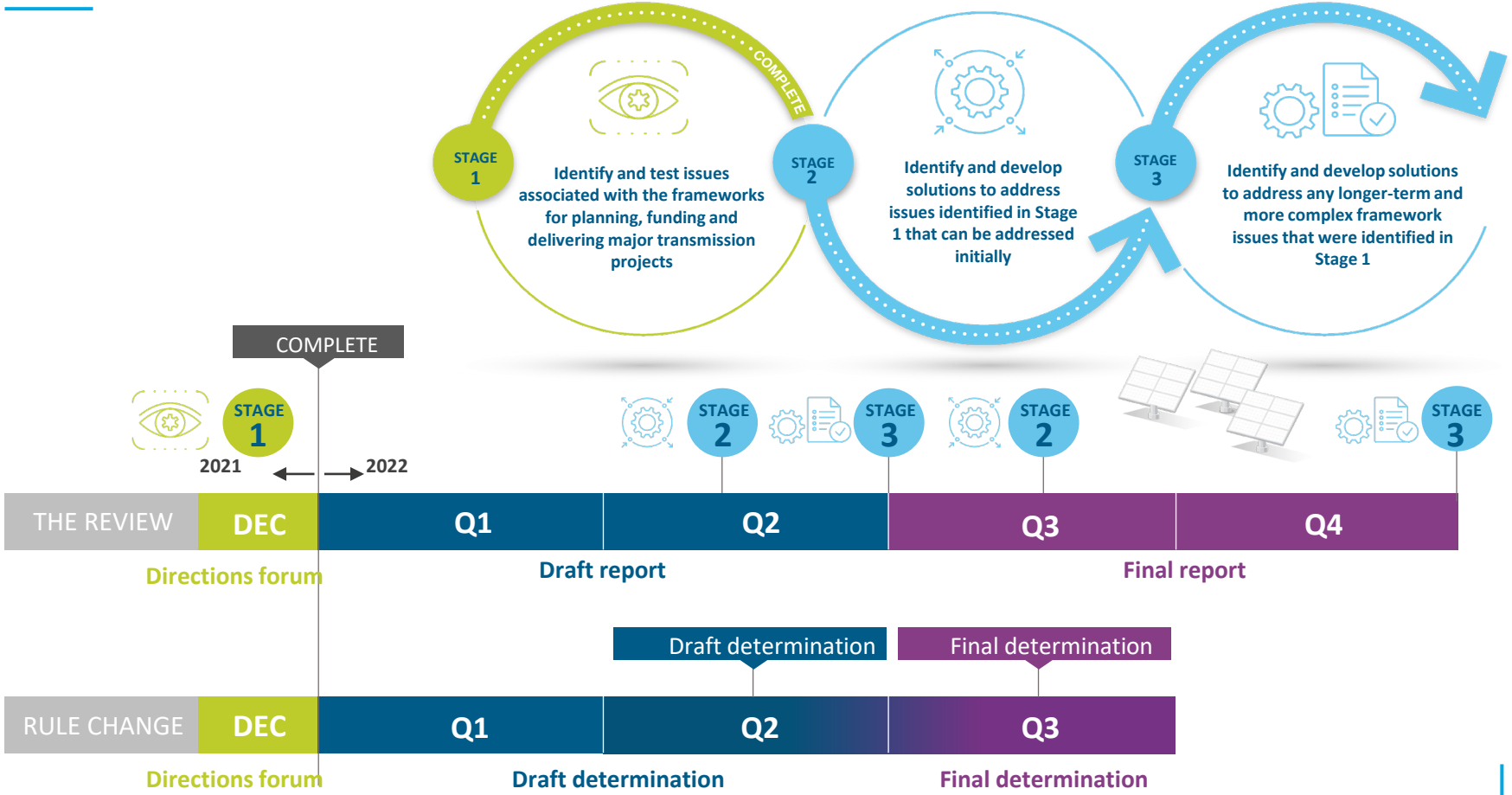
Not progressed as priority review issue**

- Uncertainty of project benefits
- Inclusion of wider economic benefits
- Guidance on hard to monetise benefits
- Market benefits versus consumer benefits test
- Treatment of non-network options in the planning process

* Issues targeted for initial change will also be considered as part of longer term reforms, reflecting the interrelated nature of the planning and investment frameworks (e.g., contestability may alter planning and cost recovery arrangements).

** Some of these issues will not be progressed as standalone issues via the Review. Others will be considered in the course of addressing other key issues. See Appendix for more information.

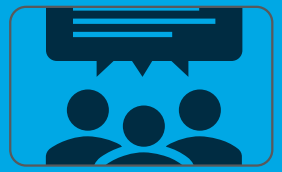
Timeline to progress the Review



STAGE 2

INITIAL CHANGES

The Review will explore how particular cost types may be treated differently to manage how cost uncertainty interacts with the incentive framework



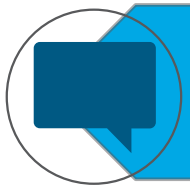
Stakeholder submissions suggested the ex-ante incentive framework was generally working well. However, there is merit in exploring targeted reforms so that it can better manage uncertainty

Stakeholders also agreed with the sources of project cost uncertainty canvassed in the consultation paper – lack of recent experience, implications of final route design and the preliminary nature of cost estimates

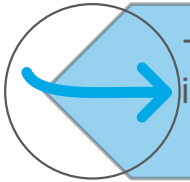
Submissions also highlighted a temporal dimension to the uncertainty of major project costs – lack of experience will decline over time, but uncertainty of costs associated with detailed route design will endure, particularly in light of growing social licence expectations

Land costs appear to be the source of enduring cost uncertainty, meaning it may be appropriate to treat these costs differently. Stage 2 of the Review will consider options to do this

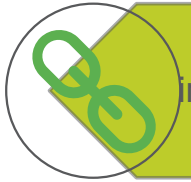
The Review will examine options to improve the practicability of the feedback loop assessment



Stakeholder submissions expressed a clear desire for the actionable ISP framework to be given an opportunity to work as intended



The Commission considers that some issues raised are indicative of enduring issues with the framework. This includes the workability of the feedback loop and the scale and pace of the NEM's energy transition



An effective and workable feedback loop is important to ensure that only investments that are in the long term interest of consumers are approved, and that this regulatory approval occurs in a timely manner

The Commission intends to explore whether greater clarity is required on what the feedback loop is testing, as well as whether there are opportunities to reduce misalignment between the RIT-T and feedback loop to improve its workability

Accuracy and consistency of cost estimates will be assessed as part of the *Material change in network infrastructure project costs* rule change request

Recent cost escalations for major transmission projects have brought into focus the accuracy and consistency of cost estimates in the planning process

Stakeholder submissions suggest there is merit in exploring whether there should be more prescription regarding the nature of the cost estimates that should be used at each of stage of the planning process

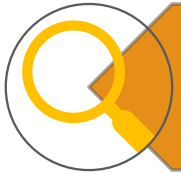
This issue is a key area of intersection between the Review and the *Material change in network infrastructure project costs* rule change request. It will be explored as part of the draft determination for the rule change request

The Review will consider the cost recovery arrangements for early works

There was broad support from stakeholders to clarify the meaning of early works and how it is distinguished from preparatory activities

Stakeholders expressed the view that clarity in the cost recovery arrangements for early works would support transparency and greater certainty for TNSPs by enabling the identification and management of risk earlier in the process

Stakeholders suggested a number of approaches to cost recovery for early works would support greater certainty, including clarifying the staged CPA process, cost pass throughs, government underwriting and allowing parties other than the incumbent TNSP to participate in the delivery of early works



The Commission intends to explore potential approaches to defining early works and potential cost recovery mechanisms for early works which provide greater certainty for TNSPs while appropriately allocating risk and cost

Promoting community engagement to build social licence is a priority issue

Submissions highlighted community engagement and acceptance are key to promoting timely delivery of ISP

This is challenging given fragmented accountability. All parts of sector have a role to play to build and maintain social licence – from new generators operating in REZs to TNSPs delivering major infrastructure

Land acquisition laws, access protocols and landholder compensation frameworks are not within scope of the review, given they are jurisdictional matters

The Review will explore if the existing framework has the appropriate tools should financeability or other concerns arise in the future

In the final determinations for the Participant derogations - Financeability of ISP projects, the Commission found that the regulatory framework did not create a barrier to the proponent TNSPs financing their respective shares of current ISP projects.

- Some stakeholders see financeability challenges as greater for *major projects* – the scale of investment and the timing of revenue recovery creates a short-term cash flow mismatch
- A range of options were proposed by stakeholders to increase the flexibility in the framework to account for individual circumstances. For example, increased flexibility in cachflows or introducing an obligation on the AER to undertake a financeability/commercial viability test

Stage 2 of the review will focus on whether further flexibility under the existing economic regulation arrangements is required to address any concerns that may emerge in the future – including, but not limited to, financeability concerns. As part of this focus, we will consider where flexibility in the framework may be required and what that flexibility may look like.

We intend to provide clarity on the current treatment of carbon, while exploring how this relates to explicitly quantifying carbon reduction benefits

Stakeholder submissions regarding the treatment of carbon can be grouped into three categories

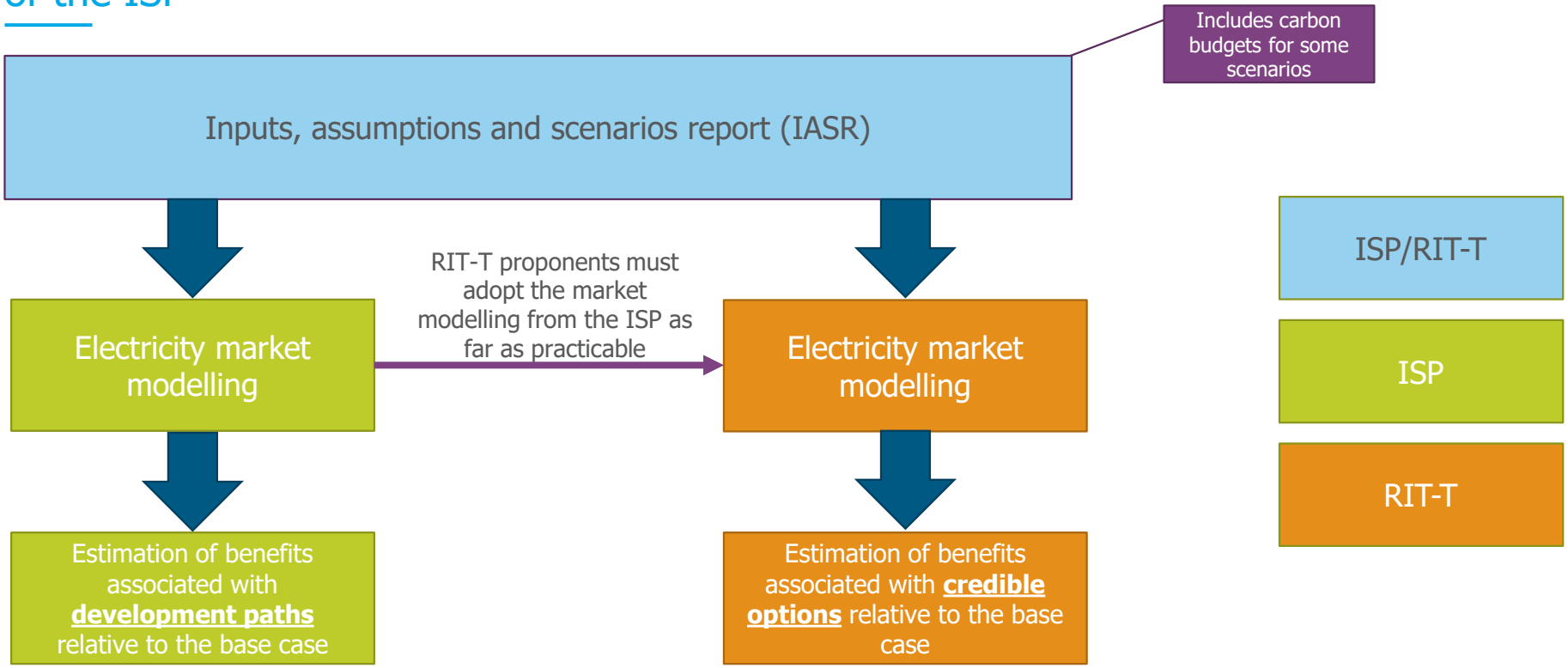
1. No need for change because the current approach of scenario planning in AEMO's ISP captures various assumptions around future emissions reductions levels
2. Including carbon emission reductions benefits would be inconsistent with the NEO, meaning legislative reform would be required to include an environmental or climate change component
3. Current approach of scenario planning is not sufficient – carbon reduction benefits should be explicitly quantified and considered in the planning process

The Commission will seek to clarify the existing arrangements during Stage 2 of the Review

Stakeholder submissions highlighted there are varying degrees of understanding regarding the treatment of carbon in transmission planning

This information piece will explore the scenario planning process and consider if there is merit in carbon reduction benefits being more explicitly quantified in the RIT-T

Carbon is factored into the RIT-T similarly to how it is treated in the development of the ISP



*Carbon spotlight – treatment of carbon in scenario planning to follow.

STAGE 3

LONGER-TERM REFORMS

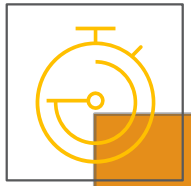
We intend to explore three broad policy solutions to deal with the risk of non-delivery of major transmission projects

Changes to existing incentive arrangements

- Stakeholder submissions suggested changes to the existing framework could help address delivery risk. For example, pass-through events for major projects, their exclusion from the general "over-spending' ex post review trigger and discretionary application of CESS
- We intend to explore whether changes to existing arrangements may be suitable to address uncertainty and delay in the non-delivery of major projects

Establishing an obligation on TNSPs to deliver

- Stakeholders noted that project execution could be subject to a form of legal obligation
- For example, via licensing conditions or a power/obligation to direct investment could be introduced to manage delivery risk
- Consideration will be given to the scope of any power/obligation to direct and the instances in which it may apply



Contestability in transmission provision

- Stakeholder submissions expressed a wide variety of views on contestability, including that:
  - it is not an effective or proportionate solution to delivery risk
  - greater consideration of purported benefits to consumers is needed
  - it may not be suitable in all instances and could be targeted at projects or businesses with specific characteristics
  - it has the potential to provide various benefits in the provision of transmission
- Going forward, greater consideration of the complexities of introducing contestability is required (for example, the suitability of contestability will vary for different types of functions and assets)

Contestability may also be considered more broadly as a possible solution to multiple issues identified in the Review

Some stakeholders expressed that contestability could be considered as a possible solution to multiple issues identified in the planning and investment stages

For example, enhancing the identification and delivery of solutions, reducing information asymmetries by revealing efficient costs and addressing the perceived barriers to the equal assessment of non-network options

As part of our assessment of the suitability of contestability as one of several options to deal with the risk of non-delivery, consideration may also be given to where contestability may provide a solution to multiple issues identified as priority issues for the Review

The Commission will examine whether there are opportunities to improve the balance of timeliness and rigour in the economic assessment process

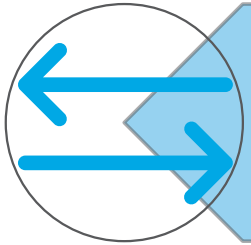
Stakeholder submissions expressed a clear desire for the actionable ISP framework to be given an opportunity to work as intended – including its streamlining elements

Where stakeholders were open to the prospect of streamlining, the need to maintain rigour was emphasised. Proponents of this view noted that the assessment process is not the most time intensive activity of the planning process, with social licence considerations leading to significant delays.

Although the ISP, RIT-T and feedback loop have distinct purposes, the ISP and feedback loop were effectively appended to the existing RIT-T framework. The Commission intends to explore whether this framework appropriately balances timeliness and rigour, as well as the appropriate parties to undertake each stage of the assessment process

Broader ISP process issues will be considered as part of the 2025 review of the actionable ISP framework

Some submissions to the consultation paper expressed that there is scope to change regulatory obligations/expectations to better balance rigour and transparency with resource intensiveness in developing the ISP



The Commission acknowledges broader stakeholder sentiment that the actionable ISP framework should not be assessed by reference to the transitional experience to date – the framework should be given an opportunity to work as intended

ISP process issues may be considered in the context of potential solutions to other issues in this Review. Unresolved issues at the conclusion of this Review will be considered as part of the 2025 ISP Review

QUESTIONS?

SPOTLIGHT ON TREATMENT OF CARBON IN TRANSMISSION PLANNING

AEMO – Andrew Turley

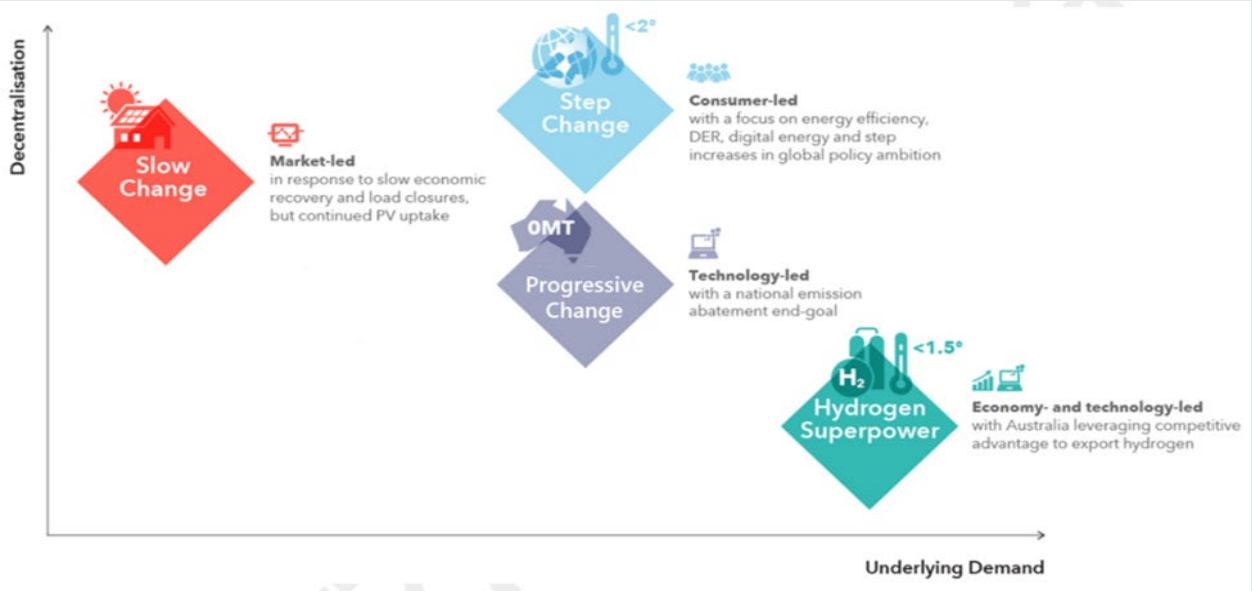
The treatment of carbon in the 2022 ISP

ISP scenario development:
Scenario modelling undertaken to assess costs, risks, opportunities and development needs by varying inputs associated with major sectoral uncertainties, including decarbonisation

Electrification impact from decarbonisation considered:

- Transport sector
- C&I sector impact
- Hydrogen

Scenarios used for the Draft 2022 ISP



The treatment of carbon in the 2022 ISP

Step 1:

Each scenario in the ISP is mapped to:

1. IEA World Energy Outlook – scenario narratives post COVID
2. Shared socioeconomic pathways (SSPs) – baseline scenarios
3. Representative concentration pathways (RCPs) – greenhouse gas trajectories/temperature increase projections

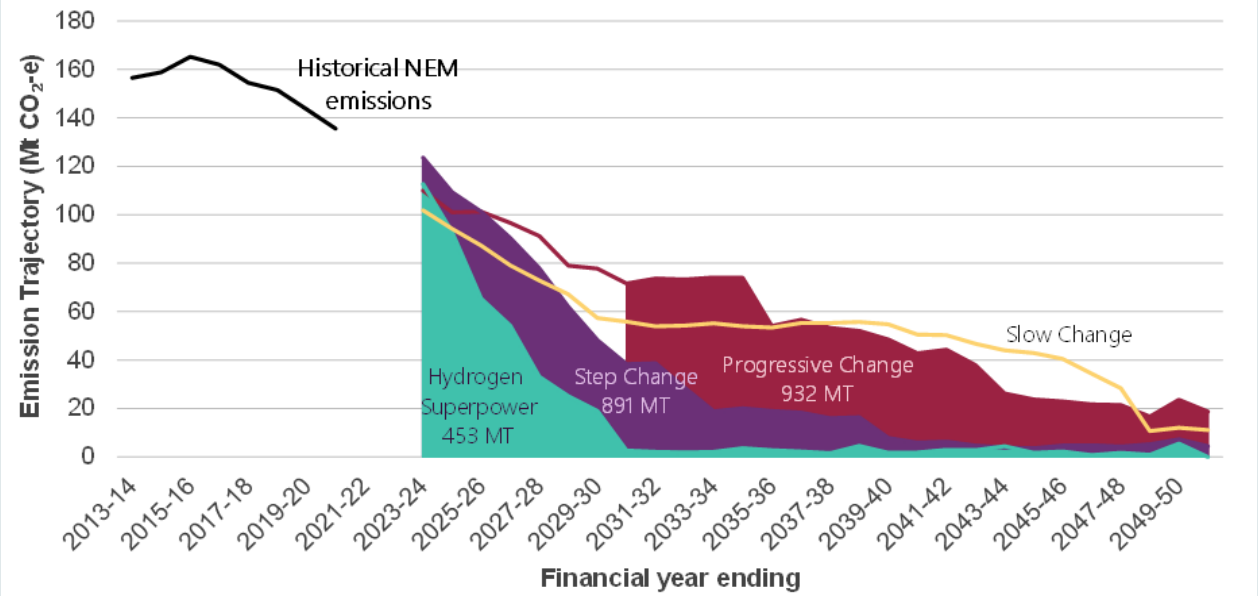
2021 IASR scenario	WEO scenario	SSP	RCP
Progressive Change	STEPS (pre-2030), transitioning to SDS	SSP2 – Middle of the Road	RCP4.5 (around 2.6ºC increase in temperatures by the end of the century)
Slow Change	DRS	SSP3 – Regional Rivalry	RCP7.0 (around 4ºC increase in temperatures)
Step Change	SDS	SSP1 – Sustainability	RCP2.6 (consistent with a less than 2ºC increase in temperatures, in line with the Paris Agreement)
Hydrogen Superpower	NZ2050	SSP1 – Sustainability	RCP1.9 (consistent with limiting temperature increases to 1.5ºC)

The treatment of carbon in the 2022 ISP

Step 2:
Multi-sectoral modelling to inform pace and breadth across scenarios

Outcomes:
1) Carbon budgets for electricity sector
2) Scale of fuel switching as loads shift towards lower emissions sources, particularly electrification

NEM carbon budgets and indicative emissions trajectories that achieve them



Options for treatment of carbon for the 2024 ISP and beyond

1 Improved transparency

Scenario analysis for each development path undertaken

Price on carbon implicitly imposed

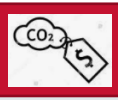
Carbon emissions would be published

2 Carbon price

Carbon price set by Government

AEMO applies to carbon emitted

Emission cost savings included in cost benefit analysis



3 Societal emissions abatement value

Could use agreed international reference price, or multi-sectoral modelling assumption

Requires material difference between development paths

SPOTLIGHT ON EX-ANTE FRAMEWORK

AER – Arista Kontos

Introduction

- The **issue**:

  How to manage the increased uncertainty and/or risk associated with the costs of major transmission projects

- The **objective**:

  Ensure the regulatory process is ‘fit for purpose’ for approving major transmission projects

- The **scope** for this specific workstream:

  
  Transmission determination framework (Chapter 6A of the NER)

  
  Will not consider the “planning” framework (i.e. the ISP and RIT-T); that is the subject of a separate workstream under this review

Problem statement (1/2)

The context:

- Associated with major complex transmission projects is greater risk that the actual costs will exceed forecasts. However, there is uncertainty about the extent to which actual costs will exceed forecasts.
- Therefore, TNSPs may seek to mitigate the risk of cost overruns by including risk allowances and “buffers” within their proposed forecasts at the contingent project application (CPA) (or revenue determination) stage.
- TNSPs are expected to identify sources of cost risk. However, there is concern that we have insufficient information at the CPA stage to assess and quantify appropriate buffers and/or risk allowances to be included in an efficient capex forecast.

Problem statement (2/2)

The arising issues:

- Are the incentives placed on TNSPs for these major projects appropriate to ensure efficient costs to consumers overall (i.e. to avoid creating incentives for excessive cost buffers upfront but still ensure efficiencies are promoted in project delivery)?
- Do we need to improve the accuracy of, and confidence in, cost forecasts at the CPA (or revenue determination) stage?
- How can we give TNSPs confidence in how their proposed costs will be assessed by the AER?

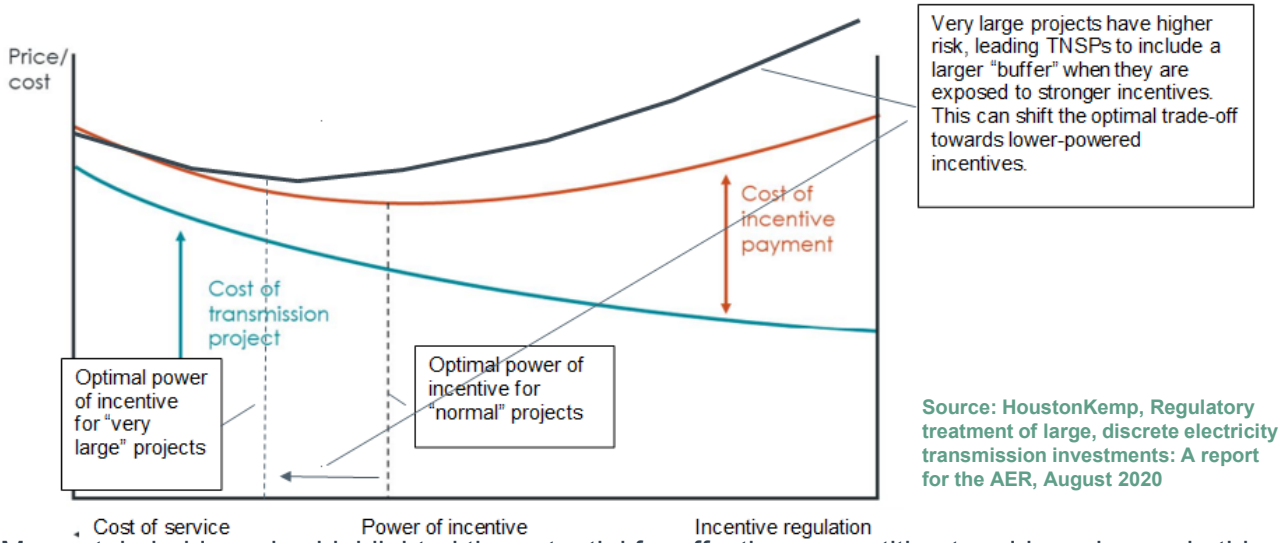
Understanding the problem

- Based on stakeholders' feedback and experience with Project EnergyConnect, examples of the sources of increased cost risk associated with major projects are:
    1. Lack of comparable project information (at point in time)
    2. Undetermined line route (at contingent project/revenue determination stage)
- Lack of comparable information should only be temporary – we will have increasing information as actionable ISP projects are delivered
- Separate workstream focused on improving cost estimates at the RIT-T stage; this may assist in reducing cost risk at the subsequent contingent project application stage

We are open to feedback from stakeholders on other factors that may be contributing to increased cost risk and/or uncertainty associated with major transmission projects

Incentive based vs cost of service regulation – achieving the right balance

- Reforms should appropriately balance the trade-off between the level of productive efficiency attained and the cost of any incentive payment made to attain greater levels of productive efficiency



Source: HoustonKemp, Regulatory treatment of large, discrete electricity transmission investments: A report for the AER, August 2020

- Many stakeholders also highlighted the potential for effective competition to address issues in this area, as an alternative to regulation

QUESTIONS?

MATERIAL CHANGE RULE CHANGE REQUEST

Material change rule change request – recap

On 15 February 2021, EUAA, MEU, ERM Power, Delta Electricity and AGL Energy submitted a request to change rules that apply when project costs materially increase after RIT is complete.

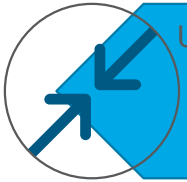
Currently, RIT must only be reapplied where, in proponent's reasonable opinion, there has been a material change in circumstances which means the preferred option identified in final RIT report is no longer the preferred option.

Rule change proponents are concerned that cost of recent projects has risen substantially between completion of RIT and request for AER funding approval – for example, Project EnergyConnect (~60% increase) and Eyre Peninsula Upgrade (~20% increase).

Proponents consider that allowing project costs to significantly increase post RIT completion undermines confidence in RIT process and does not adequately protect consumers.

To address this, they propose objective cost metrics be included in the NER so requirement to reapply RIT does not rely on proponent's opinion that circumstances have materially changed.

What changes are proposed?



Unless AER grants exemption, proponent must reapply RIT if project costs increase by 10% (for larger T & D projects: >$500m, $200m) or 15% (for projects <$500m, $200m).

(In response to consult paper, proponents suggested 10% trigger should apply to all projects: no longer proposing 15% trigger for smaller projects.)

AER may determine that proponent is not required to reapply RIT (or is only required to repeat part of RIT). AER would have 30 days to make and publish determination.

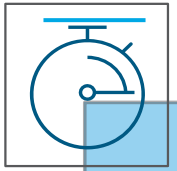
Amend AER guidelines to require more rigorous cost estimates for final RIT report: will reduce risk of reopening RIT. Cost estimates should = AACE class 2 (i.e. detailed feasibility study).

(In response to consult paper, proponents are no longer calling for AACE 2 requirement – instead propose to rely on 10% cost increase trigger to incentivise appropriate cost estimates.)

Project EnergyConnect (PEC) should update final RIT-T report to take account of material cost increases since completion of RIT.

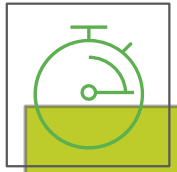
(In response to consult paper, proponents say they are no longer calling for this as AER has now approved funding for PEC.)

What did stakeholders say?



Who should decide if RIT needs to be reapplied?
→ most said AER

- Most stakeholders considered AER should decide if circumstances have changed and RIT needs to be reapplied (generators, gentailers, generator industry bodies, consumer representatives)
- Others considered proponent should decide if circumstances have changed and RIT needs to be reapplied (networks and network industry bodies)
- We are considering whether this part of the NER needs to be strengthened to address perceived conflict of interest (while keeping in mind the importance of efficient processes).



Should a 10% cost increase trigger reapplication of RIT?
→ most said greater clarity needed

- Most stakeholders support clearer triggers for requiring RIT reapplication i.e. some form of cost threshold or decision rule (generators, consumer reps).
- Others considered there is no need to include a cost threshold (network businesses and reps, investors, industry groups) and that requiring more accurate cost estimates is more important than cost threshold (AEMO).
- Several stakeholders considered the "decision rule" approach could have value (generators, networks, industry groups).
- We are exploring pros and cons of achieving improved outcomes through more robust cost estimates and/or greater reliance on RIT reapplication requirement (while keeping in mind wider processes).

How robust should RIT cost estimates be?
→ most support more rigour

- Most stakeholders thought RIT cost estimates should be more robust (AEMO, generators, gentailers, industry groups, consumer groups).
- Others thought that the current level of rigour is appropriate (network businesses and reps, CEFC and CEC)
- AEMO says "consideration should be given to the value in having clear regulatory requirements for cost estimation accuracy in the ISP, preparatory activities, REZ design reports, RIT-Ts, feedback loops and CPAs". AEMO considers this is more important than introducing cost thresholds for the RIT reapplication obligation.
- We are considering this further and plan to hold a roundtable on cost estimate accuracy in February 2022.

Linkages to other issues highlight need for an integrated approach

Cost recovery for preparatory works: if enhanced consistency/accuracy in RIT cost estimates means higher costs for NSPs, consideration will need to be given to how such costs should be recovered.

Approach to rule change request needs to have regard for other elements of economic assessment framework, including the feedback loop. Also need to consider interest in streamlining the economic assessment framework, and need to balance rigour and timeliness.

Land acquisition, biodiversity offset costs: more consistency re cost estimation and treatment of risk could reduce potential for cost blowouts & lower costs to consumers relative to other solutions (e.g. cost pass throughs). Could also facilitate timely engagement with affected communities, help build & maintain trust, social licence. Could reduce risk of cost overruns once AER has approved funding (lower risk for TNSPs).

While non-network options (NNOs) are not a priority issue for the Review, rule change request may help create more level playing field for them. NNOs are often costed with high level of accuracy at RIT stage so may have higher cost than network options - but network option costs tend to rise as route is finalised etc. More consistent approach to estimating costs (in ISP & RIT) could create more level playing field.

Uncertainty re benefits: current RIT process involves iteration when project costs rise and proponents need to identify additional benefits to offset higher costs. While this issue is not being progressed as a standalone issue for the Review, more robust cost estimates may reduce potential for iteration and delay.

Next steps

- Cost estimate accuracy roundtable in February 2022

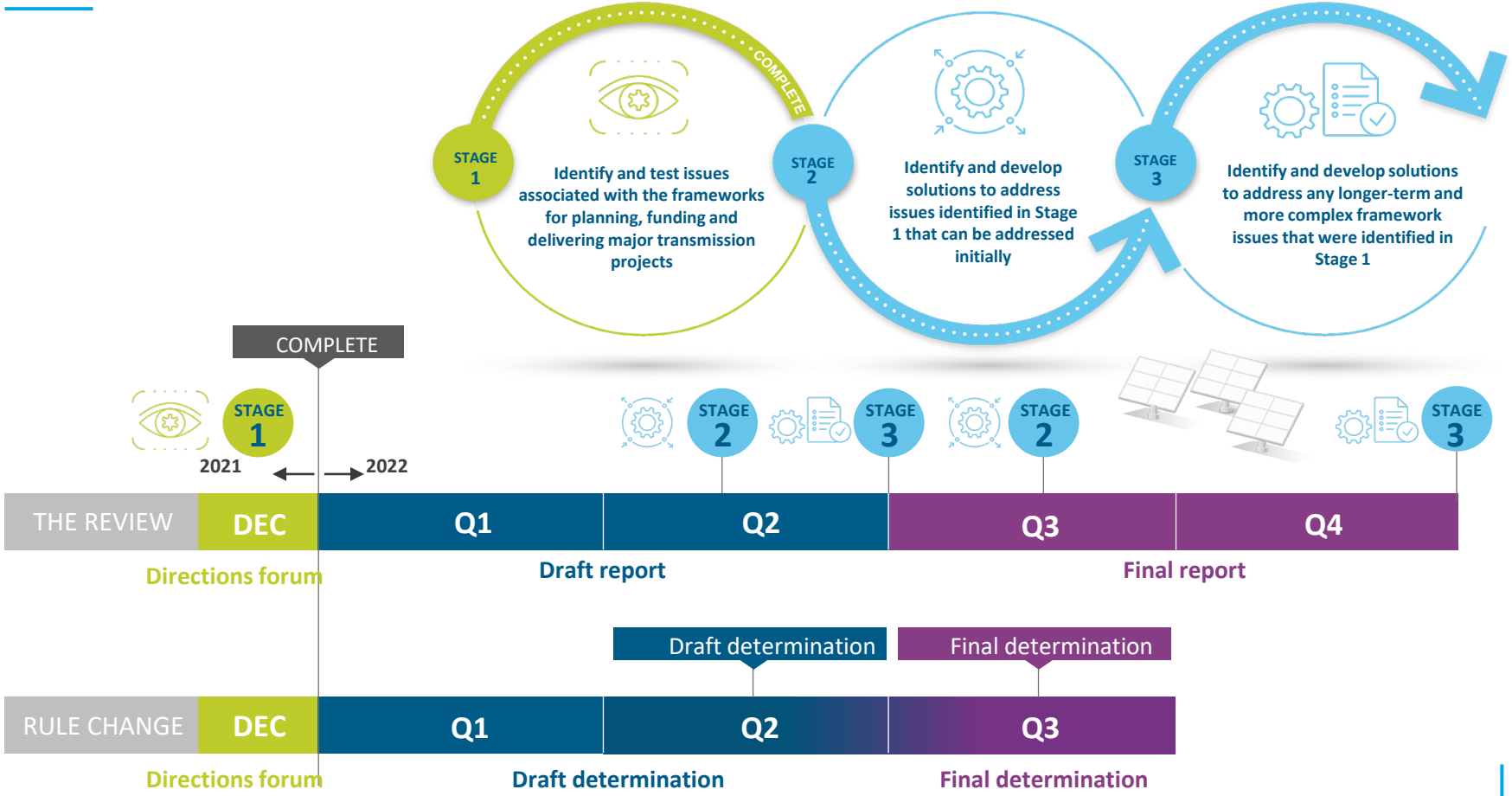
  → **Please register your interest** by emailing katy.brady@aemc.gov.au

- Draft determination to be released in April 2022 alongside draft report for Stage 2 of Review (Initial changes)
- Final determination would then be due for publication in August 2022 (if no extension required)

QUESTIONS?

CLOSE AND NEXT STEPS

Next steps


COMPLETE
STAGE 1
Identify and test issues associated with the frameworks for planning, funding and delivering major transmission projects
STAGE 2
Identify and develop solutions to address issues identified in Stage 1 that can be addressed initially
STAGE 3
Identify and develop solutions to address any longer-term and more complex framework issues that were identified in Stage 1
COMPLETE
STAGE 1
2021
2022
STAGE 2
STAGE 3
STAGE 2
STAGE 3
THE REVIEW
DEC
Q1
Q2
Q3
Q4
Directions forum
Draft report
Final report
Draft determination
Final determination
RULE CHANGE
DEC
Q1
Q2
Q3
Directions forum
Draft determination
Final determination

CLOSING REMARKS

CHARLES POPPLE, COMMISSIONER

APPENDIX

ISSUES NOT TAKEN FORWARD

Market benefits versus consumer benefits test – what's the difference?

Market benefits test

The current approach for the RIT-T and ISP

Selects preferred option based on the net benefits to all those that produce, consume and transport electricity

"Standard" cost benefit assessment

Does not include wealth transfers between producers and consumers

Consumer benefits test

Selects preferred option based on the net benefits to all consumer only

Takes into account wealth transfers between producers and consumers

Work to-date allows us to conclude the market benefits test remains appropriate

The Commission noted in the consultation paper that a "market benefits test" remains fit-for-purpose and should not be replaced by a "consumer benefits test".

Stakeholders overwhelmingly supported this position.

The Commission's position remains unchanged. This issue will not be taken forward.

Despite its name, the consumer benefits test is not consistent with the national electricity objective of the *long-term* interest of consumers.

The consumer benefits approach can result in inefficient outcomes (ie, higher overall total system cost), justified on the basis of wealth transfers from producers to consumers. In turn in the long run this can be expected to increase costs to consumers.

The consumer benefits approach may undermine confidence in investing in generation assets. Overwise efficient business cases may be undermined by inefficient transmission investment justified by expropriating revenue from generators and giving it to consumers – further increasing total system costs to consumers.

The consumer benefits test is also more complicated to administer, as it requires forecasts of *prices*, as opposed to *costs* under the market benefits test.

Inclusion of wider economic benefits: stakeholder views were mixed

Current approach

The current approach to the RIT-T and ISP excludes wider benefits that do not accrue to those that produce, consume and transport electricity.

For example, employment benefits are not included in the analysis.

The consultation paper noted a variety of earlier reviews that concluded that wider economic benefits should not be included in the RIT-T.

Stakeholder views

Stakeholder views on this matter were mixed.

Some stakeholders felt that the existing approach captured major drivers of transmission investment, was consistent with the NEO, and alternatives risked distorting transmission investment.

Others argued for wider benefits to be taken into account in order to fully capture the appropriate drivers of transmission investment.

The national framework focuses on maximising benefits to consumers – consistent with the NEO. Wider benefits are already accounted for

Consistent with the findings of previous reviews, the Commission does not recommend that the transmission planning process should be changed to include wider economic benefits.

The NEO is restricted to considering the long-term interest of *consumers*, not the wider benefits to the economy.

All else equal, including benefits such as increased employment would likely increase input costs to the sector, and hence flow through to worse outcomes for consumers.

We are not taking this issue forward as a priority because we consider it has been satisfactorily addressed by our analysis to date.

Governments have legitimate wider objectives.

Jurisdictions have a range of instruments at their disposal to meet these objectives – such as taxpayer contributions to fund transmission infrastructure, or regulatory standards that must be met.

The national framework focuses on maximising benefits to consumers, given any external funding provided, or regulatory requirements set, by jurisdictions.

The planning process already requires uncertainty in benefits to be accounted for – no rule changes are required

There is general agreement among stakeholders that actionable ISP projects appear to have a higher intrinsic uncertainty relating to future benefits (and costs)

This greater degree of uncertainty represents a challenge for the regulatory framework. Many stakeholders suggested that the incentive framework may need to be altered to account for this uncertainty.

The Commission has not identified any deficiencies in the ***mechanics*** of how the RIT-T or ISP account for uncertainty. It does not propose to continue to explore this issue in stage.

The ISP and RIT-T are a standard, forward-looking, probabilistic economic cost-benefit assessment.

They seek to account for this intrinsic uncertainty relating to benefits via a range of mechanisms – for example the ISP uses scenario analysis.

The appropriate ***management*** of this intrinsically higher risk stemming from uncertainty of large transmission projects is a core question for this review, and is discussed in section.

Additional guidance on hard to monetise benefits will not materially improve outcomes in the timely and efficient delivery of major projects

Broad agreement that number of existing classes of market benefits are hard to monetise. Eg competition benefits.

Some stakeholders suggested that no additional guidance was required on these benefits – their inherent "hardness" meaning guidance would not be helpful.

Others sought guidance through a variety of means eg improved AER guidelines.

The Commission has concluded that providing additional guidance on hard to monetise benefits is not a priority issue.

It does not appear to be particularly material to the timely and efficient investment of major transmission infrastructure

Furthermore, it is not clear what additional guidance may be provided which would materially improve outcomes.

Changes to the treatment of non-network options provide limited opportunity to improve consumer outcomes in the context of the delivery of major transmission projects

Stakeholders who commented on non-network options (NNO) raised the consideration of whether the existing planning framework enables a preference for network options in the selection of a preferred option to address an identified need.

Stakeholders also noted potential issues relating to the way NNO proponents are able to engage in the planning process for major transmission projects.

Several of these issues have been considered in detail by the Commission in previous decisions. Assessment of those issues raised by stakeholders that have not been previously considered indicates that the majority of issues are not sufficiently material in the context of major transmission projects.

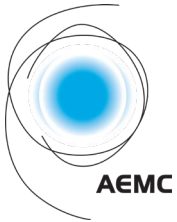
As such, the treatment of non-network options will not be taken forward as a standalone issue in this review.

While NNOs have an important role in the energy transition, in the context of major transmission investments the issues raised by stakeholders provide limited opportunity to materially improve consumer outcomes. On this basis we only intend to consider NNOs, where relevant, in the context of broader reform options examined in the review (for example, contestability).

ASSESSMENT FRAMEWORK

In stages 2 and 3 the assessment framework will be used to assess whether proposed solutions are likely to promote the NEO

Criteria	Explanation
Effectiveness	• Assesses whether the regulatory arrangements promote the timely and efficient delivery of transmission projects.
Economic efficiency	• Assesses whether the solution promotes efficient investment in, and use of, electricity services in the long term interests of consumers with regard to: ○ **Efficient risk allocation** – allocating risk (and costs) to parties best placed to manage them and who have the incentives to do so will support efficient decision making ○ **Effective price signals/incentives** – effective incentives are needed to support service providers in making efficient investment decisions, including with regards to timing ○ **Information provision/transparency** – service providers require clear adequate information to inform decision making in an evolving market ○ **Clear, consistent, predictable rules** – a stable regulatory environment creates confidence in the market and will encourage investment and innovation through the transition and beyond • Evaluates whether the solution provides service providers with a reasonable opportunity to recover at least their efficient costs.
Implementation	• Considers the complexity of implementing a solution, i.e. whether it will require law and rule changes or other jurisdictional legislative changes. • Assesses the costs of implementing a solution (practical implementation and compliance costs) • Evaluates the timing of costs and benefits.
Flexibility	• Assesses whether the solution is consistent with the long-term direction of energy market reform. • Evaluates whether the solution is flexible enough to accommodate uncertainty regarding unknown technological, policy and other changes that may eventuate.



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