Our Ref:201179Contact Officer:Nishana PereraContact Phone:03 9910 9447

17 November 2020

Dear stakeholders

Re: AER work program to support efficient delivery of actionable ISP projects —stakeholder views sought

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 Plans (ISPs).¹ We invite stakeholders to contribute their views and insights as part of this work.

As a first step, we are developing guidance notes to provide additional information to stakeholders about how the AER will assess actionable ISP projects under the current regulatory framework.

Why we are undertaking this work

Our role under the economic regulatory framework set out in the National Electricity Rules (NER) involves assessing forecast expenditure (or costs) in determining the maximum amount of revenue network businesses can earn. We want to promote the efficient and timely delivery of actionable ISP projects, and ensure consumers pay no more than necessary for these large projects, consistent with the National Electricity Objective (NEO).²

The recent reforms to make the ISP actionable have changed the way transmission planning is undertaken. AEMO's 2020 ISP identifies a number of actionable projects which it forecasts to cost between \$6.8 and \$12.7 billion over the period 2022-32.³ The magnitude of this investment in large and complex transmission projects is unprecedented, particularly when

¹ Under the national transmission planning framework, AEMO is required to develop a biennial ISP by 30 June in accordance with the procedures under rule 5.22 of the NER. The ISP establishes a whole of system plan for the efficient development of the power system that achieves power system needs for a planning horizon of at least 20 years, for the long term interests of consumers of electricity.

² That is, to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to: price, quality, safety and reliability and security of supply of electricity; and the reliability, safety and security of the national electricity system.

³ See AEMO, 2020 ISP: Appendix 3. Network investments, July 2020, pp. 13-14. This range only considers actionable ISP projects, and does not consider the three committed or six future ISP projects identified in AEMO's ISP.

compared to the current transmission regulatory asset bases (\$21.4 billion⁴), which have remained relatively stable over the past decade.

These are significant changes and TNSPs have had limited experience in forecasting expenditure associated with projects of this size and complexity. Similarly, the AER has not had to assess cost forecasts for such significant projects under the current regulatory framework. Given these circumstances, we have done some work to consider whether our regulatory tools and processes can be improved to promote the efficient and timely delivery of these actionable ISP projects. This involved gathering information and engaging HoustonKemp to help us understand:

- the challenges (if any) associated with efficiently costing and delivering large transmission projects under the regulatory framework, and whether these warrant a change to our regulatory approaches and/or tools
- the spectrum of options that could address any identified challenges, ranging from minor adjustments within our current approach to substantial changes to the regulatory framework (e.g. more ongoing regulatory intervention, competitive tendering), and the implementation costs/timeframes of each option.

We have published HoustonKemp's report alongside this letter.⁵ We have considered and built upon the challenges and reform options canvassed in the report and the extent to which the options proposed by HoustonKemp are compatible with other elements of the economic regulatory framework. The attachment to this letter provides more information on our analysis and the options we have identified to take forward as part of this work program.

Our proposed work program

We are seeking to provide more predictability about how we will assess actionable ISP projects under the economic regulatory framework, and improve our regulatory assessment tools/processes to ensure they remain fit-for-purpose for large actionable ISP projects.

As a first step, we are developing some principles-based guidance notes for stakeholders to clarify how we intend to assess expenditure proposals for actionable ISP projects. We consider these will improve predictability and transparency (including our expectations of TNSPs). This should in turn reduce any regulatory uncertainty and increase confidence in cost forecasts and subsequent project delivery. The guidance notes will cover:

- The contingent project application (CPA) assessment process through which cost forecasts for actionable ISP projects are typically assessed. This seeks to clarify what we expect TNSPs to demonstrate for our CPA assessment, to increase confidence in the quality of their forecasts and how they have assessed and managed risk.
- Project staging, to clarify how we will approach sequencing actionable ISP projects through staged CPAs. This will set out how staged CPAs can be used in some circumstances to help understand and manage project risks better, and subsequently reduce uncertainty around cost forecasts.
- The ex-post measures that may apply to capital expenditure forecasts that contain actionable ISP project costs. This seeks to provide greater predictability about how we may undertake ex-post measures.

⁴ This is the 2019 closing RABs for transmission electricity networks in the NEM, CPI adjusted to June 2020 dollars. See AER, State of the energy market 2020 data, Chapter 3 electricity networks, Figure 3.17 - Value of network assets, July 2020.

⁵ See HoustonKemp, Regulatory treatment of large, discrete electricity transmission investments: A report for the Australian Energy Regulator, August 2020.

We plan to develop these guidance notes, in consultation with stakeholders, over the coming months. This will also enable TNSPs to consider these issues when developing any CPAs for actionable ISP projects included in AEMO's 2020 ISP over the coming months. We have set out our initial views on the guidance notes in the attachment to this letter, and aim to release draft guidance notes for consultation between December 2020 and January 2021, in order to finalise them by March 2021. We then intend to update the guidance notes periodically as we and TNSPs learn from the experiences of assessing and delivering actionable ISP projects.

We are also exploring whether there are opportunities to amend the regulatory framework to further improve the assessment or delivery of these projects in the medium to longer term, such as improving the assessment process for actionable ISP projects and increasing competitive tension in the procurement and delivery of actionable ISP projects. We introduce some of these potential opportunities in the attachment to this letter.

Next steps, and how you can get involved

We are seeking stakeholder input, initially through focus groups, to inform the early development of our draft guidance notes. We invite interested stakeholders to register to participate in one of the following sessions:⁶

- 25 November 2020, 11:00am 12:15pm
- 25 November 2020, 2:00pm 3:15pm
- 26 November 2020, 2:00pm 3:15pm.

We also welcome any feedback on this letter and information in the attachment. Please email <u>TIRreview@aer.gov.au</u> if you have feedback or are interested in registering to attend a focus group. We are also happy to meet with interested stakeholders who would like further information on this work.

We look forward to working with you on these matters.

Clare Savage Chair Australian Energy Regulator

⁶ The same content will be discussed at each focus group so stakeholders only need to register to attend one session and can choose the session that is most suitable.

Attachment – Further information on our work program to support efficient delivery of actionable ISP projects

This attachment sets out how we have built on HoustonKemp's work to identify the challenges in assessing efficient costs associated with actionable ISP projects and our work program to address these challenges.

We also set out our initial views on the principles-based guidance notes we are developing, to facilitate early stakeholder engagement and input. Finally, we provide some information on the other possible opportunities to amend the regulatory framework we intend to explore in the medium to longer term.

How we have built upon HoustonKemp's work

In light of the recent reforms to make the ISP actionable, we have done some work to consider whether our regulatory tools and processes can be improved to promote the efficient and timely delivery of these actionable ISP projects. This involved gathering information and engaging HoustonKemp to identify a scope of possible work.

We have published HoustonKemp's report alongside this letter.⁷ We have considered and built upon the challenges and reform options canvassed in the report. This includes HoustonKemp's assessment of the options, particularly in terms of implementation time, complexity and costs. We have also considered the extent to which the options proposed by HoustonKemp are compatible and would work with other elements of the economic regulatory framework that will remain in place. From this analysis, we have identified some options to take forward (through delivery or further exploration) as part of this work program.

We set out our view of the challenges and reform options for actionable ISP projects below. In building on and refining HoustonKemp's findings, we applied the following considerations:

- Many project risks can be managed in some way by TNSPs, including for large projects,⁸ and there are mechanisms in the current regulatory framework that allow TNSPs to pass through some risks that are beyond their reasonable control. We consider project risks should be held by the party best able to manage them.
- Our current ex-ante incentive based regulatory framework promotes efficient outcomes given the key regulatory challenges of information asymmetry and principleagent incentives.⁹ As such, we are not proposing to take forward options that require significant ongoing regulatory intervention and dilution of ex-ante incentives.

Challenges in forecasting and assessing efficient costs associated with actionable ISP projects

We consider there are additional challenges in assessing the forecast expenditure of large actionable ISP projects under the current regulatory framework. There appears to be greater uncertainty associated with the costs and benefits of large and/or complex infrastructure

⁷ See HoustonKemp, Regulatory treatment of large, discrete electricity transmission investments: A report for the Australian Energy Regulator, August 2020.

⁸ See Deloitte, Capital projects: Project and risk management—Leading practices, January 2016, p. 5; McKinsey & Company, A risk-management approach to a successful infrastructure project, November 2013; KPMG, Managing risk in the Australian construction industry, May 2020. We note that risk management does not mean fully mitigating all risks. Risks can be managed through avoidance, transference, mitigation (to varying degrees) or acceptance. See Deloitte, Capital projects: Project and risk management—Leading practices, January 2016, p. 12.

⁹ Frontier Economics, RPI-X@20: The future role of benchmarking in regulatory reviews, May 2010, pp. 14-16.

projects.¹⁰ There is some evidence that these types of projects have a higher likelihood of being delivered over-budget and later than originally expected.¹¹ As such, it is important TNSPs proactively manage the risks of actionable ISP projects,¹² and identify risks that are uncontrollable and/or not economic to mitigate.

The current economic regulatory framework is incentive-based to encourage efficient project delivery without ongoing regulatory intervention. We set a periodic ex-ante revenue 'cap' that is based on the forecast efficient costs of running a transmission business plus a commercial return on capital. If a TNSP is able to beat the forecasts while still meeting performance targets, it shares rewards with consumers (and vice versa, with penalties). For capital expenditure, the balance of incentives is not always clear,¹³ so the framework contains an additional incentive through ex-post measures. This allows us to review and exclude certain types of outturn capital expenditure from the regulatory asset base (RAB)—for example, inefficient over-spends against the forecast. The incentive based framework places the onus on TNSPs to manage project risks. However, it also contains mechanisms that allow efficient costs from certain uncontrollable events to be passed through to consumers¹⁴ via cost pass throughs (or, in exceptional cases, the capital expenditure re-opener provision).¹⁵

Some TNSPs have argued it is difficult to accurately forecast the efficient level of capital expenditure required to deliver actionable ISP projects, prior to their commencement, because of their scale and scope.¹⁶ This can mean that these large actionable ISP projects may be more prone to cost overruns than 'business as usual' projects. Under the current framework, cost overruns may lead to over-spends that trigger penalties and ex-post measures (if the expenditure is inefficient). This is because any overruns on these projects will likely be larger in magnitude and more difficult to manage through unders and overs that would occur across projects in a capital expenditure portfolio.

These elements of the regulatory framework, combined with the scale and scope of large projects, may create a greater incentive for TNSPs to include 'buffers' into their expenditure forecasts over and above their best estimates of project costs (with reasonable quantified contingencies for risk). This would enable the TNSPs to minimise the possibility of an overspend. Such buffers may not represent proactive risk management, and could lead to consumers paying more than they need to for transmission network investment (by transferring the full risk of cost overruns onto them before the risk eventuates).¹⁷

Our role is to set an allowance that reflects efficient and prudent forecast expenditure for these actionable ISP projects. Consistent with the current framework, we consider TNSPs should be exposed to project risks that are within their control to manage, but (in some

¹⁰ That is, compared to more business as usual capital expenditure.

¹¹ PwC, Managing capital projects through controls, processes, and procedures, 2014, p. 4; KPMG, Managing risk in the Australian construction industry, May 2020; Grattan Institute, Cost overruns in transport infrastructure, October 2016; McKinsey & Company, A risk-management approach to a successful infrastructure project.

¹² See Deloitte, Capital projects: Project and risk management—Leading practices, January 2016; McKinsey & Company, A risk-management approach to a successful infrastructure project, November 2013; PwC, Managing capital projects through controls, processes, and procedures, 2014.

¹³ This is because the actual capital expenditure TNSPs spend is ultimately rolled into the regulatory asset base. As such, the TNSP balances the incentive of earning the regulated rate of return on actual capital expenditure over the asset life, with the rewards that can be gained under the capital expenditure sharing scheme (CESS).

¹⁴ Efficient costs from uncontrollable events can be positive or negative, meaning that cost pass throughs can also lead to cost reductions to consumers.

¹⁵ See AEMC, Rule determination: National Electricity Amendment (Cost pass through arrangements for Network Service Providers) Rule 2012, August 2012.

¹⁶ See AEMC, Final report: Electricity Network Economic Regulatory Framework 2020 Review, October 2020, pp. 25-27.

¹⁷ If TNSPs fully factor expected cost overruns into their expenditure forecasts, consumers pay the financing costs for this before the risk eventuates, and TNSPs are not as strongly incentivised to proactively manage project risks and find cost efficiencies. Also, if the risk does not eventuate and the TNSP underspends, it will receive a CESS reward.

circumstances) be able to pass efficient costs associated with uncontrollable events through to consumers. However, given the greater uncertainty associated with actionable ISP projects, we consider there are opportunities to reduce risk for TNSPs and consumers, and promote reliable and efficient cost forecasting through rigorous risk assessment and market testing. We discuss these opportunities below.

HoustonKemp also considered greater productive efficiencies could be achieved by increasing the level of rigour required in seeking out and assessing innovative (and cost effective) solutions to address network needs for actionable ISP projects. The current transmission planning framework only introduces competitive tendering at the construction phase,¹⁸ although it seeks to encourage competition through the RIT process.¹⁹ The benefits from innovation may be better realised through competition than through regulation, and are likely to be greater for large projects (because of their scale and scope).

What we are doing to address the challenges—our work program

We are seeking to address the above challenges by providing more predictability about how we will assess actionable ISP projects under the economic regulatory framework, and by improving our regulatory assessment tools/processes.

As a first step, we are developing some principles-based guidance notes for stakeholders to clarify how we intend to assess expenditure proposals for actionable ISP projects. We consider these will improve predictability and transparency (including our expectations of TNSPs). This should in turn reduce any regulatory uncertainty and increase confidence in cost forecasts and subsequent project delivery. The guidance notes will cover:

- the CPA assessment process through which cost forecasts for actionable ISP projects are typically assessed
- sequencing actionable ISP projects through staged CPAs, to reduce project risk
- the ex-post measures that may apply to capital expenditure forecasts that contain actionable ISP project costs.

Our initial views on these guidance notes are discussed below. We plan to develop these guidance notes, in consultation with stakeholders, over the coming months so TNSPs have more clarity to inform TNSPs' development of forthcoming CPAs for the actionable ISP projects in AEMO's 2020 ISP.

We are also exploring whether there are opportunities to amend the regulatory framework to further improve the assessment or delivery of these projects in the medium to longer term, such as improving the assessment process for actionable ISP projects and increasing competitive tension in the procurement and delivery of actionable ISP projects.

We are in the early stages of exploring these other potential reform options to amend the regulatory framework for actionable ISP projects. We intend to consult with stakeholders on these matters when our thinking is further progressed. The figure below illustrates this work program, along with our indicative timeframes.

¹⁸ Victoria is the exception to this, as it has a unique planning framework with bid-based competitive tendering. This is where AEMO would tender out for implementing, owning and operating a preferred solution it identified through the RIT-T.

¹⁹ The RIT embeds a sponsor-based procurement process because it requires the TNSP to invite competitors to put options forward to address a specific identified need. The TNSP is then required to select the preferred option (that is, the option that maximises net economic benefits) to meet that need, having regard to any options that its competitors have put forward.

		2020			2021					
Workstream	Milestone	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Guidance notes	Work plan + focus groups									
	Draft guidance notes									
	Final guidance notes									
Other potential reforms	Exploration and scoping									

Our initial views on the guidance notes

The guidance notes seek to provide more predictability and transparency to TNSPs and stakeholders on how we intend to approach our regulatory assessment of actionable ISP projects. They will complement and support our existing guidelines²⁰ in explaining how we intend to perform our economic regulatory functions under the NER for these projects—specifically, our forecast capital expenditure and CPA assessments under clause 6A.6.7 and 6A.8, and ex-post measures under clause 6A.14.2(b) and S6A.2.2A.

A key element of these assessments is the expenditure criteria in the NER.²¹ That is, the efficient costs that a prudent operator would require to achieve the expenditure objectives,²² as well as a realistic expectation of the demand forecast and cost inputs required to achieve those objectives.²³

The guidance notes will be non-binding on TNSPs. However, they will clarify our expectations on what TNSPs should demonstrate to increase our confidence in the efficiency and prudency of their cost forecasts for actionable ISP projects, and subsequently their project delivery. TNSPs can elect to depart from the guidance, but we would expect them to explain their reasoning. Similarly, the guidance notes clarify how we intend to approach CPA assessments and ex-post measures related to actionable ISP projects. This does not preclude our ability to depart from the guidance in our assessments of actionable ISP projects and we will explain our reasoning for any departures.

The guidance notes are also interrelated and should be considered together. For example:

- The project staging guidance is linked to and facilitates the CPA guidance by explaining how we will treat staged CPAs for actionable ISP projects. Staged CPAs (particularly for early works) also provide another way to facilitate the AER's assessment of the project and reduce uncertainty around cost estimates.
- The CPA guidance is linked to and facilitates the ex-post measures guidance by encouraging TNSPs to identify project risks and management strategies in advance. If a TNSP follows the CPA guidance and acts in accordance with its risk management plans and governance structures, it should gain greater comfort that we will review the TNSP's expenditure as efficient ex-post, even where there is an over-spend.

²⁰ That is, the AER's Capital expenditure incentive guideline (November 2013), Expenditure forecast assessment guideline for transmission (November 2013) and Process guideline for contingent project applications (September 2007).

²¹ That is, the capital expenditure criteria and the operating expenditure criteria.

²² Expenditure objectives refer to capital expenditure and operating expenditure objectives. These are set out in NER, clause 6A.6.6(a) and 6A.6.7(a).

²³ See NER, clauses 6A.6.6(c), 6A.6.7(c).

Guidance on CPA process and assessment for actionable ISP projects

Effective project planning and management (including procurement and proactive risk management) are fundamental to accurate project cost forecasting and efficient project delivery.²⁴ These are activities we expect prudent TNSPs would conduct in planning and delivering actionable ISP projects.

Given the greater uncertainty surrounding large transmission project costs and benefits, we are developing additional guidance to clarify our approach to CPA assessments for actionable ISP projects. This guidance seeks to:²⁵

- Set expectations for TNSPs in terms of what to demonstrate to increase our confidence in the reliability and efficiency of their expenditure forecasts. This in turn, will facilitate our CPA assessment and increase confidence in the delivery of actionable ISP projects in line with efficient cost forecasts and identified risks.
- Explain our assessment of efficient and prudent forecast expenditure in accordance with clause 6A.8.2(f) of the NER, particularly with regard to project risks.

This guidance will supplement the current process guideline for CPAs.²⁶ In developing the guidance, key topics and/or issues we propose to cover are:

- **Promote meaningful early engagement**—we consider that meaningful early engagement between the TNSP and stakeholders, prior to CPA lodgement, is important to facilitate an effective CPA assessment. We propose to explain how early engagement, particularly with the local community and consumer groups, can improve the quality of CPAs and the accuracy and efficiency of TNSPs' forecast costs. For example, the forecast cost of a solution will depend on community acceptance of the TNSP's selected line route. Early engagement can help TNSPs proactively identify and manage risk in this area, and obtain community support.
- Encourage effective project planning and management—there is substantial literature on the importance of effective project planning and management for the efficient delivery of large infrastructure projects.²⁷ This includes project governance, risk management and controls for avoiding cost and schedule overruns. We propose to clarify our expectations that TNSPs should demonstrate effective project planning and management practices when submitting CPAs. This should increase confidence in the reliability of TNSPs' forecast costs and facilitate our assessment against the expenditure criteria.²⁸ TNSPs could demonstrate:
 - project governance and control arrangements that promote accountability, risk management and efficient decision-making
 - risk management plans that identify key risks, management strategies, potential impact on cost/timing, and monitoring and reporting processes

²⁷ See above references.

²⁴ See Deloitte, Capital projects: Project and risk management—Leading practices, January 2016; PwC, Managing capital projects through controls, processes, and procedures, 2014; PwC, Six key ways to de-risk your infrastructure project; KPMG, Managing risk in the Australian construction industry, May 2020; Grattan Institute, Cost overruns in transport infrastructure, October 2016; McKinsey & Company, A risk-management approach to a successful infrastructure project, November 2013; Australian Government Department of Infrastructure and Transport, Infrastructure Planning and Delivery: Best Practice Case Studies Volume 2, February 2012.

²⁵ We expect TNSPs to use the contingent project application process to incorporate actionable ISP project cost forecasts into the revenue determination. However, if a TNSP chooses to use the main revenue determination process, it can still use the principles in this guidance note to assist in preparing its revenue proposal.

²⁶ See AER, Process guideline for contingent project applications, September 2007.

²⁸ Taking into account the expenditure factors. See NER, clause 6A.8.2(f).

- processes to manage any commercial contracts, including breadth of scope and potential for additional costs via scope variations.
- Set expectations for procurement processes—we consider TNSPs are likely to outsource at least a portion of costs for actionable ISP projects. Market testing, where conducted appropriately, can drive efficiencies in cost forecasts (e.g. through tenders proposing innovative and cost effective design and construction solutions). As such, we propose to outline principles that TNSPs consider as part of their procurement arrangements, recognising there is no 'one size fits all' approach to procuring projects. These principles will aim to promote competition and innovation in project design and construction, as well as efficient risk allocation (through contract arrangements) to the parties best placed to manage different project risks.
- Clarify our assessment of project risk costs—CPA assessments typically involve a
 technical assessment of the efficiency and prudency of TNSPs' forecast project costs.
 Because actionable ISP projects may face greater uncertainty of costs and benefits,
 we propose to clarify how we intend to assess TNSPs' costing of project risks for
 these projects. This includes how TNSPs have assessed the confidence in their cost
 forecasts and incorporated contingencies for project risk, as well as any interactions
 with risks TNSPs have shared or transferred (e.g. through contracting arrangements).

Guidance on project staging for actionable ISP projects

Staging projects can reduce the risk of large and/or complex investment projects.²⁹ This is because each stage can reveal important information about the project, reducing the uncertainty associated with its costs and/or benefits.

We provided guidance on staging projects for option value in the cost benefit analysis guidelines to make the ISP actionable.³⁰ This involves breaking an actionable ISP project into stages, not all of which will necessarily go ahead. Staging can also be used where the entire project is intended to go ahead, but where there may be benefit in sequencing the project by lodging multiple CPAs corresponding to different components of the project. For this latter case, we are providing additional guidance for actionable ISP projects to:

- Allow TNSPs to use staging to help reduce uncertainty associated with project costs and benefits, and to improve their expenditure forecasts. This could also aid our assessment of these forecasts in accordance with clause 6A.8.2(f) of the NER.
- Clarify some of the technical interactions between the ISP, RIT-T and staged CPAs.

This guidance will supplement our cost benefit analysis guidelines to make the ISP actionable.³¹ In developing the guidance, key topics and/or issues we propose to cover are:

• Where project staging has benefits and detriments—developing a separate CPA for an early works project stage, prior to building the full project, can have benefits in some circumstances. For example, it can allow TNSPs to better understand and manage the costs and risks of large and/or complex projects. This can reduce uncertainty and assist TNSPs to develop more reliable cost forecasts. It can also allow us to better assess the cost effectiveness of the project specification. However, too many CPAs for one project can be detrimental, as it can be harder to assess the

²⁹ TNSPs can stage a project to achieve option value, where there is uncertainty around whether subsequent stages will occur. TNSPs can also stage a project to sequence its delivery, which is different to option value, because each stage is intended to proceed from the start.

³⁰ See AER, Cost benefit analysis guidelines: Guidelines to make the ISP actionable, August 2020, section 3.4.2 and 4.4.

³¹ See AER, Cost benefit analysis guidelines: Guidelines to make the ISP actionable, August 2020.

project as a whole. This can result in duplication and/or scope creep. Our guidance would clarify our views on how to strike the right balance for large projects.

- How actionable ISP projects can result in staged CPAs—our guidance would clarify how projects that are not identified as staged in an ISP or RIT-T can result in multiple CPAs. It will explain how the CPA 'trigger event' for actionable ISP projects (in NER clause 5.16A.5) should work, which includes how the projects should be taken through AEMO's 'feedback loop' after the RIT-T application.
- How the efficient costs of project stages can be recovered—there is currently some uncertainty around how the costs subject to an earlier CPA can be recovered if works subject to a subsequent CPA does not proceed. Our guidance would provide more clarity on our approach to assessing efficient forecast costs of project stages exante, and how this would interact with ex-post measures where the subsequent stage(s) does not go ahead. This would include consideration of whether and how the costs of an earlier stage could be capitalised.

Guidance on ex-post measures related to actionable ISP projects

Every time we conduct a transmission revenue determination, we must make an ex-post statement on the efficiency and prudency of all capital expenditure that is to be rolled into the regulatory asset base (RAB). In doing that, we may exclude certain types of capital expenditure from being included in the roll forward of the RAB.³² For example, where a TNSP has spent more than its capital expenditure allowance, we may exclude, from the RAB, capital expenditure above the allowance if it does not reasonably reflect the capital expenditure criteria in the NER. We call this full process an ex-post review.

Because the costs and benefits of large transmission projects are more uncertain, these projects may be more prone to cost overruns that result in an over-spend (against the entire capital expenditure allowance). As such, the TNSP faces more risk that we may exclude certain types of capital expenditure from the RAB.

To help manage this risk we are developing additional guidance to clarify how we will conduct ex-post reviews when a capital expenditure forecast contains actionable ISP project costs. This aims to provide greater predictability in the regulatory framework so that TNSPs will 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.

This guidance will supplement the information already available on ex-post reviews in the current capital expenditure incentive guideline.³³ In developing the guidance, key topics and/or issues we propose to cover are:

• Clarify the intent of the ex-post review—we consider it is important to clarify the intent of the ex-post review in the content of an ex-ante, incentive based regulatory framework. An ex-ante, incentive based regulatory framework relies on high regulatory scrutiny in determining an efficient revenue allowance, and is then 'hands off', relying on incentives to drive efficient project delivery. On that basis, an ex-post review is a 'last resort' incentive, and seeks to only exclude capital expenditure from the RAB where there is clear evidence it does not reasonably reflect the capital expenditure criteria in the NER. For example, where risks were controllable and not

³² See AER, Capital expenditure incentive guideline, November 2013, section 4. Also see NER, clause 6A.14.2 (b) and S6A.2.2A.

³³ See AER, Capital expenditure incentive guideline, November 2013, section 4.

efficiently and prudently managed in accordance with the TNSP's project and risk management plans.

• Links to the CPA guidance note—we propose to draw out the links between the expost review and the CPA guidance note, particularly the elements on project planning and management. The current capital expenditure incentive guideline states any detailed assessment we undertake will assess a TNSP's planning and management tools and processes.³⁴ We propose to provide more clarity in this area by linking our assessment to the information provided in a TNSP's CPA, including its risk management plan(s) and governance and control arrangements. This would help us to understand if any cost overrun was driven by controllable risks, and if the TNSPs followed its risk management plan(s). It would also help us to understand if the TNSP followed governance and control arrangements to proactively identify and minimise any cost overruns that occurred.

Other areas of potential reform we are exploring

We have also identified some potential reform areas to explore in addition to delivering the guidance notes discussed above. These are amendments to the regulatory framework that could further improve the assessment or delivery of actionable ISP projects in the medium to longer term. At a high level, these include:

- Changes to the CPA and RIT-T processes to allow for a more robust assessment of project benefits alongside more reliable project cost estimates, while enhancing stakeholder input and streamlining the overall process. Some of the changes we could explore for actionable ISP projects include:
 - enhancing the rigour of the CPA process, including by introducing a draft decision to promote greater stakeholder input/engagement; and simultaneously streamlining the overall planning and regulatory process by integrating some elements of the RIT-T process into the CPA (and/or AEMO's ISP) process.
 - improving the NER information disclosure requirements associated with the CPAs to improve the quality of our assessment while reducing the administrative burden of issuing and responding to information requests.
- Changes to improve incentives for efficient actionable ISP project delivery and risk allocation. For example through considering the operation of the CESS and ex-post measures, as well as the complementary role of cost pass through (and capital expenditure re-opener) provisions. This would explore how to maintain incentives on TNSPs to deliver actionable ISP projects efficiently and bear a reasonable level of project risk.
- Introducing more competition through sponsor-based competitive tendering, as outlined in HoustonKemp's report. This could deliver greater productive efficiencies through more innovative solutions, and reduce the need for regulatory assessment of expenditure forecasts. This would be a substantial reform that may be costly and time consuming to implement, and we are cognisant of the many other reforms underway.

These options are more significant reforms that may potentially require changes to formal AER guidelines,³⁵ the NER or the National Electricity Law (NEL)—as such they involve other

³⁴ See AER, Capital expenditure incentive guideline, November 2013, p. 15.

³⁵ That is, guidelines that we are formally required to develop and maintain under the NER. For example, the AER's Capital expenditure incentive guideline (November 2013) and Expenditure forecast assessment guideline for transmission (November 2013). These differ from guidance notes, which we develop to assist stakeholders in understanding our approach or expectations, rather than out of a NER requirement.

decision-makers and will take longer to implement. We are particularly cognisant that increasing competitive tension through a competitive tendering model would be a significant change to the current arrangements and the various roles of market participants. It will be important to understand the benefits and costs of such reforms, and the circumstances that would be required to ensure the benefits were realised. We will be undertaking further work to scope out these potential changes and assess them together to decide what (if any) to pursue, as some may be mutually exclusive.