grid australia
BACKBONE OF THE NEM

10 May 2013

Mr Sebastian Roberts
General Manager
Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

Via email: incentives@aer.gov.au

Dear Sebastian

Expenditure Incentives Guideline Issues Paper

Grid Australia welcomes the opportunity to provide this submission to the Australian Energy Regulator (AER) on its Expenditure Incentives for Electricity Network Service Providers Issues Paper (Issues Paper).

Incentive regulation is a key feature of the regulatory framework for Network Service Providers (NSPs) in the National Electricity Market (NEM). Incentives have a pivotal role to play in the achievement of the National Electricity Objective (NEO) and the consequent promotion of the long-term interests of consumers. The primacy of incentives within the overarching legislative framework reflects that incentives are well known to be the best means of promoting an efficient electricity service.

The AER's consideration of expenditure incentives is, therefore, expected to be a significant contributor to the success of the framework in promoting the long-term interests of consumers.

Grid Australia, therefore, welcomes the opportunity to work closely with the AER to assist it to deliver a high quality guideline that appropriately aligns the interests of consumers and NSPs.

If you would like to discuss any aspect of this submission, please do not hesitate to contact Andrew Kingsmill in the first instance on 02 9284 3149 or at andrew.kingsmill@transgrid.com.au.

Yours sincerely

Rainer Korte

Rainer Korte
Chairman
Grid Australia Regulatory Managers Group

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Capital Expenditure Incentives Guideline

Submission in response to the AER Issues Paper

May 2013

Powerlink Queensland
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1. Introduction and Overview

Grid Australia welcomes the opportunity to provide this submission to the Australian Energy Regulator (AER) on its Expenditure Incentives for Electricity Network Service Providers Issues Paper (Issues Paper). The Issues Paper addresses the AER's requirement to produce a Capital Expenditure Incentives Guideline (CEIG or Guideline) and also considers whether refinements can be made to the approach to operating expenditure incentives.[1] As the AER is aware Grid Australia is the organisation which represents the owners of Australia's major electricity transmission networks.

The AER's consideration of expenditure incentives is expected to be a significant contributor to the success of the framework in promoting the long-term interests of consumers. Grid Australia, therefore, welcomes the opportunity to work closely with the AER to assist it to deliver a high quality guideline that appropriately aligns the interests of consumers and of service providers.

Grid Australia members are also members of the Energy Networks Association (ENA) and note that it has also lodged a submission to the AER on this issue. Given the differences in the nature of capital investment and services between transmission and distribution networks, the purpose of this submission is to focus on those aspects that are of most importance to transmission businesses for the development of the CEIG.

1.1 An incentives framework for efficient expenditure decision making

Incentive regulation is a key feature of the regulatory framework for Network Service Providers (NSPs) in the National Electricity Market (NEM). Incentives have a pivotal role to play in the achievement of the National Electricity Objective (NEO) and the consequent promotion of the long-term interests of consumers. Providing TNSPs with effective incentives, together with a reasonable expectation of efficient cost recovery, are key elements of the Revenue and Pricing Principles of the National Electricity Law.[2]

The primacy of incentives within the overarching legislative framework reflects that incentives are well known to be the best means of promoting an efficient electricity service. Grid Australia's experience indicates that the benefits of incentive regulation can be maximised when the framework contains a number of key features, namely:

- appropriate rewards and penalties to encourage behaviours from NSPs that maximise the long-term benefit to consumers;

1 Clause 6A.5A(b) of the Rules.

2 Section 7A of the National Electricity Law.

- rewards and penalties that have equal incentive power between operating and capital expenditure so that there is no incentive for NSPs to favour one type of expenditure over another;

- rewards and penalties that as much as possible have equal incentive power with service performance incentives so that expenditure efficiency is not undertaken at the expense of service performance; and

- delivery of sufficient certainty and transparency about the operation of the framework that NSPs are aware of the likely outcomes of certain behaviours, creating a more straightforward expenditure decision making process.

Ensuring the achievement of these key features of successful incentives frameworks in the new framework being developed by the AER forms the basis of Grid Australia's response to the Issues Paper.

1.2 Summary of responses to Directions Paper

The key points raised in this submission are as follows:

Ex-ante capital expenditure incentives

- Grid Australia supports a process to improve capital expenditure incentives for network businesses, and agrees with the AER's position that ex-ante incentives should be the primary tool used for promoting efficient expenditure. Grid Australia has previously advocated for enhanced incentives for TNSPs to pursue efficient investment decisions and efficiency initiatives for the long-term benefits of consumers.

- Grid Australia broadly supports the proposed scope for the Guideline. However, the development of a transmission specific Guideline is essential to ensure the specific characteristics of transmission are considered and given appropriate weight. A transmission specific Guideline would also be better able to evolve with changes that may occur specifically to the transmission regulatory framework over time.

- Certainty about the rewards and penalties available under any incentive scheme is critical to its success. This means the guideline should be specific about the arrangements that will apply.

  – Where choices are left to be made by the AER in the context of a specific determination the options, and criteria for selecting between options, should be identified in advance.

  – Where options are to be proposed by businesses as part of a determination the AER should also provide criteria for how it will assess that proposal.

- Businesses should also be provided with certainty about the rewards or penalties they can expect to receive under any incentive scheme. This means there should be no retrospective adjustments to the payoffs or penalties that businesses receive unless these result from adjustments that have been clearly defined in advance.

- Grid Australia is pleased that the AER has recognised the benefits of rewarding businesses that can outperform expenditure forecasts. However, the consideration of a scheme that penalises expenditure above the ex-ante regulatory allowance more strongly than it rewards savings is of material concern. An asymmetric scheme means that incentives between capital and operating expenditure are not aligned and that the power of the incentive for capital expenditure will knowingly be incorrect in some circumstances.

  - The National Electricity Objective (NEO) promotes efficiency across total expenditure, rather than capital or operating expenditure in isolation. An incentive for efficient total expenditure requires the capital expenditure incentives to be equated to the operating expenditure incentives, and where practicable, service performance incentives. It also requires an appropriate power for the capital expenditure incentive. Neither of these conditions can be met under all conditions if the incentive is asymmetric.

  - Grid Australia contends that TNSPs currently respond to financial incentives and as such strive to improve efficiency. Indeed, the AER has not presented any evidence that TNSPs do not respond to incentives. Even if this was a legitimate concern, it should not (and indeed, cannot) be addressed by compromising the ex-ante incentives. Instead, the ex-post tools provided to the AER are much more suited to addressing this concern.

  - The introduction and application of the new tools for capital expenditure incentives will be an improvement over the incentives within the previous framework. The AER should first assess outcomes under this improved framework before making any decision about whether firms respond appropriately to capital expenditure incentives.

  - There is no justification for the AER's assumption that the regulatory allowance is upwardly biased and therefore at the upper threshold of what is efficient. The AEMC was clear in its Rule change determination for the Economic Regulation of Network Service Providers that the expenditure forecasting Rules do not include a bias to either the regulator or NSPs. Further, the very nature of forecasts means that businesses may need to spend above the forecasts at times, based on the circumstances. This does not, of itself, imply inefficient expenditure. In actuality, it may be due to increased demand or other unexpected drivers, such as compliance obligations, that do not meet the high thresholds of the existing

uncertainty measures (such as re-openers, contingent projects and cost pass throughs).

- If the AER perceives a bias nevertheless, such that it considers the expenditure allowance falls outside of providing that businesses are able to recover at least their efficient costs, it should test this perception with evidence and address the matter through its expenditure forecast assessment approach.

- Some of the more difficult issues with the design of a capital expenditure incentive scheme are not given substantial prominence in the Issues Paper. A full and proper debate and resolution of all aspects of the scheme will be essential to achieving consumer confidence and acceptance and hence a scheme that can be applied with certainty and consistency into the future. The issues that warrant more consideration include:

  - the selection of the power of the incentives for capital expenditure (and, by implication, operating expenditure and service performance);

  - whether improvements can be made to the rewards and penalties for projects that efficiently shift between regulatory periods; and

  - whether mechanisms within the scheme are warranted to ameliorate the potential for windfall gains and losses.

Operating expenditure incentives

- Grid Australia supports the existing "revealed cost" approach as the primary basis for setting operating expenditure forecasts which, combined with the Efficiency Benefit Sharing Scheme (EBSS), provides incentives for improved efficiency in operating expenditure over time. This approach has already encouraged substantial efficiency gains by the TNSPs and delivered consequent benefits to consumers. While there is a need for flexibility when applying the revealed cost approach to transmission, the AER's current EBSS states that it will not apply a mechanistic approach to the scheme, meaning flexibility appears to already be appropriately reflected in the existing EBSS for transmission.

- Given the importance of balancing the incentives between capital and operating expenditure, Grid Australia also supports the AER considering refinements to the "revealed cost" operating expenditure incentive scheme at this time. It notes, however, that separate formal consultation would need to be undertaken to implement any refinements to the existing transmission EBSS.

- There are many challenges, particularly in the context of transmission, with obtaining reliable benchmarks that can be used to set expenditure forecasts.

These challenges should not be underestimated. It is unlikely, therefore, that this approach can be applied to TNSPs in the near future.

- In view of the limited time and resources available, the development of an incentive scheme that may be applied under exogenous forecasting approaches such as benchmarking should not be a priority.

- However, the AER's proposal to limit the power of the incentive under an external benchmarking approach appears to recognise some of the inherent risks of this approach and this would be appropriate if external benchmarking was to be implemented in the future.

Ex post assessments for capital expenditure

- Grid Australia supports the AER's statements that indicate it would only disallow expenditure for the regulatory asset base on an ex-post basis as a last resort and only in extreme circumstances. This view properly acknowledges the challenges and potential risks of ex-post reviews. Grid Australia supports the staged assessment approach outlined by the AER and also encourages the AER to put forward for consideration in its draft Guideline, this level of process clarity in other guidelines.

- It is important for the AER to be cognisant of the differences between the approach to assessing expenditure ex-ante and assessing expenditure after it has been incurred. To that end, Grid Australia encourages the AER to be specific in the guidelines on the principles and criteria it will apply when undertaking ex-post assessments so as to manage the inevitable risks created by such a scheme.

- Consistent with the Rules requirement that rewards or penalties should be commensurate with the efficiencies or inefficiencies in capital expenditure,[3] the maximum penalty that an NSP should face from inefficient expenditure above the forecast allowance is the disallowance of recovery of that expenditure (i.e., excluding it from the RAB). Grid Australia therefore welcomes statements made by AER staff at a recent workshop[4] that this is its intention. If a sharing scheme penalty was also applied in this circumstance it would mean that the business would be penalised more than 100 per cent of the costs it incurred, which is unreasonable.

- In addition, the Guideline should also set out detailed criteria for other important matters, such as:

[3] Clause 6A.6.5A(c)(2) of the Rules.

[4] AER Joint Stakeholder Forum on Expenditure Forecast Assessment and Incentives, 29 April 2013.

- The treatment of disallowed expenditure that is subsequently used and useful. The guideline should specify how any disallowed expenditure will be carried forward so it can re-enter the RAB at a later date.

- The principles for assessing the extent of inefficiency (and disallowance) associated with a project. Any disallowance should reflect the additional "societal cost" from the deemed inefficiency. For example, if the AER considers inefficiency to be related to the timing of a project rather than the need, the societal cost is the financing cost over the period of timing difference, net of the value of service provided, and not the full cost of the project.

2. Overarching comments

Grid Australia has consistently supported the use of effective and well balanced ex-ante incentives as the most effective mechanism for delivering efficient network service provision. On this basis, Grid Australia supports the AER's statements in the Issues Paper that ex-ante incentives will be the primary tool used to drive efficient outcomes. This position recognises that well designed ex-ante incentives can encourage NSPs to strive for efficiency by aligning commercial motives with the achievement of outcomes that are in the long-term interests of consumers.

The AEMC's recent Rule change process identified that the ex-ante incentives for efficient capital expenditure can be improved.[5] Grid Australia agrees with this view and has previously noted that the power of the capital expenditure incentive in the current framework declines over the regulatory period. As such, the incentive for NSPs to continue to find and implement new efficiency initiatives related to capital expenditure reduce towards the end of a regulatory period. Having said that, the AEMC was also clear that the current framework does not provide NSPs with an incentive to spend more than an efficient level over the regulatory period.[6]

Grid Australia considers that gains can be made by implementing a scheme that has a continuous incentive rate for capital expenditure, and delivers an equal incentive power between capital expenditure, operating expenditure, and service performance incentives. Resolving these issues should also go a long way in instilling confidence for consumers in the effectiveness of the framework, so that they are reassured that the incentive arrangements provide them with protection against inefficient expenditure being incurred.

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5 AEMC, *Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Rule Determination,* 29 November 2012

6 AEMC, *Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Rule Determination,* 29 November 2012, p.27.

2.1 The role and scope of the Capital Expenditure Incentive Guidelines

The role of the incentives framework is to influence the behaviours of monopoly businesses such that socially optimal activities are also commercially attractive. In practice this means that businesses are encouraged to strive for efficiency. Importantly, capital expenditure incentives form part of an integrated framework and the Capital Expenditure Incentive Guidelines should not be viewed as a stand-alone document.

Certainty and transparency regarding the rewards and penalties that are available under an incentive scheme is central to the effectiveness of the framework. This is because certainty and transparency impact on the extent to which businesses can rely on certain behaviours leading to certain outcomes.

The CEIG is the primary tool for the AER to articulate its approach to capital expenditure incentives and therefore provide necessary certainty to the industry. In view of the discussion above, Grid Australia encourages the AER to be specific about the arrangements that will apply. In certain circumstances, however, it will be appropriate for the AER to either choose between a number of options or assess a proposal put forward by the business. In such circumstances the guideline should set out the options the AER might choose. It should also set out the criteria it will apply in choosing between options or assessing a proposal put forward by the business.

The Rules require that the CEIG sets out:

- Any capital expenditure sharing schemes developed by the AER and how it has taken into account the capital expenditure sharing scheme principles in developing those schemes,
- The manner in which it proposes to make determinations under the ex-post prudence test if the overspending requirement is satisfied
- The manner in which it proposes to determine whether depreciation for establishing a regulatory asset base as at the commencement of a regulatory control period is to be based on actual or forecast capital expenditure
- The manner in which it proposes to make determinations under clause S6A.2.2A)(i) if the margin requirement is satisfied
- The manner in which it proposes to make determinations under clause S6A.2.2A)(j) if the capitalisation requirement is satisfied, and
- How each scheme and proposal referred to in sub-paragraphs (1) to (5), and all of them taken together, are consistent with the capital expenditure incentive objective.

The capital expenditure incentive objective to which the AER is required to have regard is:[7]

> "…to ensure that, where the value of a regulatory asset base is subject to adjustment in accordance with the Rules, then the only capital expenditure that is included in an adjustment that increases the value of that regulatory asset base is capital expenditure that reasonably reflects the capital expenditure criteria."

Grid Australia considers it is important for the AER to be conscious of the NEO and the Revenue and Pricing Principles in the National Electricity Law when interpreting this objective and developing the guideline. Of particular importance are the Revenue and Pricing Principles, which state that NSPs be provided with a reasonable opportunity to recover at least the efficient costs incurred and also be provided with effective incentives in order to promote economic efficiency, including:

- efficient investment in the transmission system;
- efficient provision of electricity network services; and
- the efficient use of the transmission system.

Grid Australia broadly supports the scope proposed by the AER in its Issues Paper. There are, however, a number of other specific inclusions that the AER should incorporate in the guideline, namely:

- A clear articulation of how the AER interprets the capital expenditure incentive objective to provide transparency and certainty about what behaviours and outcomes it considers are evidence of the objective being achieved;
- A statement on how the capital expenditure incentive objective is impacted by other incentive schemes. This reflects the fact that operating expenditure and service performance incentives impact decisions on when, and how much, capital expenditure an NSP might incur;
- A description of the circumstances that might lead the AER to depart from the guideline and the criteria or principles it would consider when making the decision to do so. Describing these circumstances should assist in providing confidence to consumers and NSPs that the AER will not make opportunistic departures from its guideline; and
- A clear glossary of the terms and terminology used throughout the guideline. Terms such as 'the power of the incentive scheme' and 'sharing ratios' can sometimes be used interchangeably despite their different meaning. Having the AER provide a clear statement about what certain terms in incentive regulation

[7] Clause 6A.5A(a) of the Rules.

mean can greatly assist the understanding that stakeholders have about the framework in place.

2.2 Separate transmission and distribution guidelines

Grid Australia recommends that the AER develop separate guidelines for transmission and distribution. This is to reflect a number of key differences between transmission and distribution that are relevant to incentive regulation, most notably:

- the lumpy nature of transmission capital expenditure given the drivers for investment and the substantial economies of scale associated with transmission investment;
- the different design and coverage of the Service Target Performance Incentive Schemes;
- the interactions between the wholesale market, national planning and transmission networks; and
- the requirement to apply a revenue cap form of price control.

These differences mean that careful consideration is required before deciding the extent to which the design of incentive schemes should be similar across transmission and distribution.

Grid Australia also notes that there is the potential for substantial reforms to be made to the transmission sector over the coming years. A number of significant reviews have either just completed or are under consideration that relate to what services TNSPs provide and the manner in which they are provided, most notably, the AEMC's Transmission Frameworks Review and review of the national framework for transmission reliability. It is important that the incentives framework for TNSPs is able to evolve with any reforms that are made to other aspects of the regulatory framework without unnecessarily disturbing the arrangements that apply to distribution.

3. Ex-ante measures for capital expenditure

Grid Australia notes the AER's development of a capital expenditure sharing scheme (CESS) as an ex-ante incentive for capital expenditure. As indicated previously, Grid Australia has previously recognised that improvements could be made to the ex-ante incentives for capital expenditure. For example, consideration could be given to providing a continuous capital expenditure incentive that has equal power to the operating expenditure and service performance incentives such that there is no incentive for NSPs to favour one form of expenditure over the other.

Grid Australia has a number of material concerns, however, with the approach to ex-ante capital incentives that has been proposed by the AER. This section of the submission discusses the following issues with the AER's proposed approach:

- The perverse outcomes that might result from an asymmetric incentive power for capital expenditure
- The need for the AER to address in detail the key issues with the design of incentive schemes for capital expenditure, namely:
  - the choice of the power of the incentive
  - ensuring that rewards and penalties are appropriate where projects move between regulatory periods, and
  - considering whether mechanisms should be implemented to ameliorate the potential for exogenous factors to create windfall gains and losses within regulatory period.
- Other mechanical or procedural issues with the proposed approach.

The section then concludes with some comments on the proposed approach to applying depreciation, noting that Grid Australia broadly supports the AER's approach on this matter.

3.1 The importance of balanced incentives

Through the AEMC's Rule change process Grid Australia proposed that a symmetrical incentive apply for capital expenditure. This is because a symmetrical incentive provides the following benefits:

- It allows for a constant, and correct, incentive for efficiency to be provided irrespective of whether the business expects to underspend or overspend
- It facilitates a better balance of incentives between capital expenditure and operating expenditure, noting there is already symmetry in the EBSS
- It can allow for a better alignment with service performance incentives.

In its original Rule change proposal to the AEMC the AER proposed a capital expenditure incentive scheme where its main element was to penalise expenditure above expenditure forecasts. Grid Australia supports the AER's change in position since its Rule change proposal such that it is now proposes to also reward outperformance. However, the application of an asymmetric incentive between spending under or over expenditure forecasts means that the benefits of a symmetrical scheme cannot be achieved and incentives would not be aligned in some situations.

The AER's main task is to develop a CEIG that is consistent with the capital expenditure incentive objective. This objective cannot be met by considering capital expenditure incentives in isolation. Promoting efficient capital expenditure requires the AER to have regard to all the levers that are available to NSPs. These include operating expenditure, capital expenditure and service performance incentives. This means that first and foremost the objective for the AER should be to promote efficient *total expenditure* for the long-term benefit of consumers.

Total expenditure efficiency requires incentives that encourage efficient trade-offs between capital and operating expenditure. Where possible, incentives between expenditure and service outcomes should have equal power. This means that there are no "acceptable ranges" for incentive rates. Instead, creating incentives so that NSPs do not prefer one type of expenditure over another, or more or less improvement in service performance than is efficient, can only exist where there is an equal incentive power across all incentive schemes. As discussed further below, alignment between incentive rates is impossible if different incentive rates apply between spending above or below expenditure forecasts.

3.1.1 Issues with an asymmetric capital expenditure incentive scheme

The further development of ex-ante incentives for capital expenditure is likely to address those known issues that exist under the current approach; most notably declining incentives over the regulatory period. It is important, however, that the AER not introduce new problems through any alternative solutions it identifies. Grid Australia is concerned that the AER's asymmetric scheme will distort incentives for NSP's to incur efficient expenditure.

Inappropriate reliance on forecast expenditure as a benchmark of efficiency

Grid Australia considers it is vital that the AER change its focus from 'overspending' to a consideration of whether expenditure is efficient or not. This means that there should be no automatic assumption that spending above forecast expenditure is inefficient, or an implication that businesses that incur expenditure above forecast are not responsive to incentives. Instead, it should be recognised that the role of the expenditure forecast in the incentives framework is to provide an objective measure from which rewards or penalties can be calculated.

It is important to first be clear about the role of the expenditure forecast in expenditure incentive schemes of the type being discussed here. The primary role of the expenditure forecast is to act as a measure, in the absence of a better reference point, from which gains in efficiency can be measured and rewarded.

The reason expenditure forecasts are only a second best measure for the efficiency of businesses is because, by their very nature, forecasts are inaccurate and will be out of date almost from the moment they are set. Therefore, there should never be an expectation that actual outcomes will ever fully match those that were forecast at the time of the regulatory determination. Importantly, however, perfection in the

expenditure forecast is not necessary in order for the incentive to work. What is important is that there is an objective reference point from which rewards or penalties can be measured.

When implementing its efficiency sharing scheme for capital and operating expenditure in Victoria the Essential Services Commission (ESC)[8] was conscious to point out that outcomes under the scheme provided only limited information about the actual efficiency of businesses. Instead, it noted that the primary role of expenditure forecasts is as a means of facilitating incentive payments to businesses.[9]

> An efficiency carry-over mechanism has been previously defined by the Office as an increment of the benchmark revenue requirement that provides a distributor with an additional share of the benefit from any efficiency gains achieved during the first regulatory period. As such, it is most appropriately viewed as an incentive payment, rather than an actual audit of the efficiency of each distributor.

Grid Australia is also particularly concerned by the AER's statements that forecast expenditure will always be biased in favour of the businesses. The AEMC has recently undertaken a comprehensive Rule change process and reaffirmed that there is no inherent bias toward either the regulator or the regulated business. Indeed, the AEMC sought to put this question beyond doubt through its statements and also through clarifying changes to the Rules:[10]

> When the AER assesses an expenditure forecast it has certain criteria to assess the forecast against, and certain factors it must bear in mind. These criteria broadly reflect the NEO, and include the efficient costs of a prudent operator and a realistic expectation of demand. The AER assesses the total of the capex or opex forecast and is not required to consider individual projects. **The Commission considers that the rules give the AER sufficient freedom to set capex and opex allowances that are efficient, assuming it applies appropriate analytical techniques and has access to an appropriate level of information.** [Emphasis added]

Distorted incentives to incur efficient expenditure

The asymmetry of the AER's scheme means that NSPs will consider where trade-offs are possible between capital and operating expenditure in order to improve commercial outcomes. This is because the penalty for spending higher than forecast capital expenditure will outweigh the penalty of spending higher than forecast operating expenditure. The existence of this imbalance of incentives means that there is an increased prospect that the commercial motives for an NSP may not necessarily align with what is efficient from the perspective of the long-term interests of consumers.

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8 At the time the ESC was called the Office of the Regulator General, Victoria.

9 Office of the Regulator General, Victoria, *2001 Electricity Distribution Price Review, Draft Decision, May 2000*, p,110.

10 AEMC, *Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Rule Determination,* 29 November 2012, p. 113.

Grid Australia notes it is incorrect to state that because there is no way to recover 'overspends' in operating expenditure that there is an in-built incentive not to swap capital expenditure for operating expenditure. This ignores that an EBSS is focused on providing an incentive to achieve ongoing savings in operating costs and so rewards only incremental improvements in efficiency. Therefore, where cost increases turn out to be only temporary the EBSS 'refunds' one-off operating expenses five years after being incurred. If this did not occur then businesses would incur the full value of any temporary overspend in perpetuity.

Putting aside the imbalance between capital and operating expenditure, it is notable that an asymmetric incentive power will also mean that in some circumstances the power of the incentive for capital expenditure cannot be correct. That is, it is not possible for there to be two 'correct' values for the power of the incentive. However, there would be two incentive powers under the AER's proposed asymmetric scheme as the power of the incentive changes depending on whether a firm is spending above or below its expenditure forecast. As discussed further below, the correct power of an incentive scheme is instead an analytical solution weighing up a number of factors.

Treatment of 'unresponsive' TNSPs unnecessarily compromises the ex-ante incentives

The AER's proposal for an asymmetric incentive scheme for capital expenditure appears to be strongly influenced by a perception that some NSPs do not respond to incentives. In the first instance, Grid Australia considers that the evidence actually suggests that TNSPs do respond to the financial incentives put before them Secondly, as previously stated the AER's position does not properly take into consideration the many factors that can influence actual expenditure outcomes relative to forecast over a regulatory control period. Thirdly, even if there was evidence that some firms do not respond to incentives, the AER now has a combination of tools that are far better suited to addressing this problem than the introduction of an asymmetric capital expenditure incentive scheme.

Seeking to address concerns of unresponsive NSPs through ex-ante incentives only serves to compromise the incentives for those that do respond, and most likely, would not lead to a change in behaviour of those firms that do not respond to incentives. Therefore, to the extent the AER maintains its perception that some NSPs do not respond to incentives, Grid Australia considers that tools such as the option to disallow expenditure ex-post and assessments of the efficiency of past expenditure are better suited to addressing this concern. Indeed, arguably the purpose of a variety of tools being available to the AER is so that it can use each for different purposes while maintaining the overall integrity of the incentive framework.

Grid Australia also considers that before the AER takes a view on whether some NSPs respond to incentives or not that it waits to observe the impact the introduction of a continuous and symmetrical capital expenditure sharing scheme has on

outcomes. The incentives for efficient capital expenditure are improved under such a scheme and should be given an opportunity to work before alternatives are sought.

Impact on service performance

The AER is appropriately concerned about the impact that expenditure incentives can have on the incentive for NSPs to compromise service performance. It is important that incentives to minimise expenditure do not significantly outweigh the incentives for improving or maintaining service performance. The AER's concerns, however, appear to be predominately focused on the merits of higher powered incentives for expenditure above expenditure forecasts. Grid Australia considers, however, that concerns about service performance being compromised are likely to be more significant in the context of a higher penalty on spending above expenditure forecasts. This is particularly the case when they are combined with the prospects of an ex-post disallowance of expenditure. Grid Australia is concerned to ensure that the final design of the capital expenditure incentives framework does not lead to perceptions that there is an incentive for TNSPs to defer or avoid important service related expenditure.

If an NSP expects that it might spend more than its forecast expenditure over a regulatory period its management will be under significant pressure to reduce costs. This is because spending over forecasts will trigger a higher penalty on every dollar it spends than occurs for any spending below forecast expenditure. This will occur even in the case where expenditure is efficient. In this circumstance, it could be expected that there will be pressure on management to compromise service performance in order to minimise the extent of the financial penalty they face. This in turn could increase the risk of reliability incidents over the network, which can occur at a large scale for transmission.

Uncertain incentive power

As noted above, financial incentives are more effective where businesses have certainty and transparency about the commercial impact of certain behaviours. That is, businesses are more likely to respond to financial incentives where they are aware of the outcomes of certain behaviours.

The incentive power for a NSP under the AER's proposed scheme, however, will be determined by whether they spend above or below forecast expenditure. As a consequence, NSPs will have no certainty about the power of the incentive until they know whether they are likely to be above or below their approved forecast for expenditure. This in turn introduces considerable uncertainty for NSPs. The consequence of this uncertainty is that NSPs might second guess whether to undertake otherwise efficient investments and as such the effectiveness of the incentives framework would be compromised.

3.2 Addressing key incentive design issues

Grid Australia considers that there are three key incentive design issues that the AER should look to address through the design of an ex-ante incentive mechanism for capital expenditure, these are:

- the selection of the power of the incentive;
- the potential for inappropriate rewards or penalties to be applied where projects shift between regulatory periods; and
- the potential for exogenous factors – most notably demand growth – to create material windfall gains or losses.

Grid Australia notes that for the last two issues solutions are practicable for each, and indeed may be more straightforward for transmission than distribution. Grid Australia is willing to work closely with the AER on the development of solutions for these issues. In that context, Grid Australia recommends that the AER devote time at workshops to addressing these matters.

3.2.1 The power of the incentive

Setting the power of the incentive rate is one of the most important issues for the design of a financial incentive scheme. Grid Australia is concerned, however, that the AER does not appear to have given this important issue the level of attention and analysis it requires. As such, Grid Australia considers that there is considerably more work to be done by the AER to explain why its proposed approach will promote efficiency, and specifically, how its proposal is aligned between expenditure types and service performance objectives.

The power of the incentive for NSPs to achieve operating expenditure efficiencies results largely from the mechanism used to deliver the sharing, the EBSS. That is, a carry-over period of five years will deliver an implied incentive power at a particular discount rate. To change the incentive power, the period of carry-over would need to change; longer for a higher sharing to NSPs and vice versa. The net present value approach proposed in the appendix to the Issues Paper would facilitate more flexibility in setting the incentive power for capital expenditure, and the resultant sharing of those gains between NSPs and customers.

There is no single right answer to the question of the optimal power of the incentive, but rather a number of factors should be taken into account. The overarching objective, however, should be to identify the incentive rate that maximises the long-term benefit for consumers.

Highlighted most recently during the AEMC Rule change process, and also by the approaches taken to incentive sharing schemes in Australia and internationally, there

are a number key factors that need to be taken into account when deciding on what incentive power maximises the long-term benefit for consumers, these include:

- the ease, or otherwise, with which firms are likely to be able improve efficiency;
- the confidence that can be obtained from expenditure forecasts;
- the need to align the power with other incentive schemes;
- the comprehensiveness of service performance schemes and obligations to protect against profits being made at the expense of service performance; and
- the extent that costs are driven by exogenous factors.

An explanation of the impact each of these factors might have on the choice for the power of the incentive is discussed in Appendix A. However, it is also illustrative to reflect on the approach of the ESC[11] when developing its approach to an efficiency sharing mechanism. It noted that there is no optimal sharing ratio and that instead it was a matter of judgement, and that there were a number of factors that needed to be taken into account:[12]

> There has been considerable debate throughout the Price Review process regarding the 'optimal' sharing of benefits between distributors and consumers. The trade-off can be characterised as one between the size of the efficiency 'cake', and the share of that cake passed on to consumers. On one hand, the greater the share of the benefits distributors are allowed to retain, the greater will be their incentive to make efficiency savings, and, hence, the greater will be the extent of those savings which can eventually be passed on to consumers. On the other hand, the greater the share distributors are allowed to retain, the longer customers will have to wait before the benefits from efficiency savings are passed through to them. The carryover mechanism should provide sufficient incentive at the margin for distributors to pursue efficiency gains. That is, the benefit that distributors retain at the margin should outweigh the cost of the efficiency improvement.
>
> There is no predetermined 'optimal' sharing of gains. The optimal relationship between gains retained and efficiencies achieved depends on the underlying assumptions regarding the responsiveness of the regulated businesses (in terms of cost reduction and innovation) to changes in the share of efficiency gains they retain. Importantly, the 'optimal' sharing ratio also depends on considerations of allocative as well as productive efficiency.

It is important to emphasise that the power of the incentive is influenced by more than only the sharing rate chosen between customers and NSPs. It is also influenced by the other incentive tools available. In particular, the AER should have regard to the

[11] Which was called the Office of the Regulator General at the time.

[12] Office of the Regulator General, Victoria, *Electricity Distribution Price Determination, 2001-2005, Volume 1, Statement of Purpose and Reasons*, September 2000, pp.91-92

impact that its approach to depreciation has on the power of the incentive and also the influence of ex-post incentives on NSPs to minimise costs.

3.2.2 Rewards and penalties for projects that shift between regulatory periods

One of the primary concerns with the application of sharing schemes to capital expenditure in the past has been that unless adjustments are made the reward or penalty for an NSP can be higher than it should be where projects are efficiently deferred or advanced between regulatory periods.

Where there are movements in key investment drivers, such as forecast demand, NSPs may need to advance or defer projects from the timing that might have been assumed for expenditure forecasting purposes. Under the standard EBSS design a change in the timing of a project is treated as if the project cost less or more than was forecast or was completely avoided altogether.

Without an adjustment to the capital expenditure sharing scheme there is the potential that deferrals or advancements in projects create windfall gains or losses. This is because the rewards or penalties assumed by the scheme would be higher than the societal gains or losses. At the extreme, this can provide an incentive for firms to inefficiently alter the timing of projects to either maximise their rewards or to minimise the penalty received under a sharing scheme. It is worth highlighting, however, that this is an incentive issue only for those investments where businesses are considered to have substantial discretion over the timing of investment.

Solutions for addressing issues regarding the timing of projects under a capital expenditure sharing scheme might differ between transmission and distribution. This largely reflects that the greater proportion of lumpy projects in transmission means that the advancement or deferral of individual projects between one period and the next is more identifiable. Grid Australia is willing to work with the AER to develop a mechanism that properly identifies the efficient deferral or advancement of projects between regulatory periods.

3.2.3 Windfall gains and losses from exogenous factors

The Standing Council on Energy and Resources (SCER) recently requested the AEMC to review whether there should be changes to the Rules to address windfall gains and losses that might result from variations between forecast and actual demand.[13] Grid Australia notes that an AER staff member in providing a presentation in relation to this review indicated that this is a matter that would be addressed as part of the AER's development of guidelines:[14]

[13] See: http://aemc.gov.au/Market-Reviews/Open/differences-between-actual-and-forecast-demand-in-network-regulation.html

[14] Chris Pattas, *AER Speaking Notes - AEMC Demand Workshop 28 February 2013,* p.3.

> Through the development of the guidelines we consider that improvements can be made to the existing incentive arrangements such that the risks and potential costs associated with the difference between forecasts and actual demand are further mitigated.

Grid Australia notes, however, that this issue not been addressed as part of the Issues Paper.

It is inevitable that actual demand will vary from what was forecast for the purpose of setting forecast expenditure requirements. The potential windfall gain or loss for transmission businesses arises as a result of the reduction or increase in expenditure that needs to be incurred if demand is higher or lower than forecast. Factors that can influence the extent of potential windfall gains or losses in transmission include the form of price control applied; the length of the regulatory period; and the treatment of less certain projects or unexpected costs (e.g. contingent projects or pass throughs).

There are a variety of approaches available to address the potential risks of windfall gains or losses arising due to variations between actual and forecast outcomes. For instance identification of cost drivers, such as demand for transmission, and adjusting for the impact these have on revenue requirements, is one means of addressing the issue at a transmission level. Notably the existing EBSS provides for such adjustments when determining the carry-over amounts.[15] Grid Australia notes in this context, however, that it is desirable to have the scheme as comprehensive as possible so that an incentive is provided to target all categories of expenditure.

It is also important that the AER does not place too much reliance on uncertainty measures to address the issue of changes between actual and forecast demand or other exogenous cost drivers. In the first instance, the design of the uncertainty mechanisms is not focused specifically on addressing changes between actual and forecast demand. Secondly, the need for individual cost events to meet a high materiality threshold means that access to these mechanisms is reasonably limited. Nevertheless, Grid Australia encourages the AER to seek to obtain the full benefit of the existing uncertainty measures available to it to manage the scope for windfall gains or losses to arise. In particular, Grid Australia considers that a more flexible approach to the contingent projects mechanism, which is a category of expenditure that should not be subject to the scheme, would assist in this respect.

3.3 Time period to which the CESS applies

At the time of a revenue determination an NSP's total expenditure for the current regulatory period relative to its regulatory allowance will not have been finalised. This raises the question of whether any CESS penalty or benefit should be calculated with

[15] This issue is addressed in Grid Australia submissions to both the PC and AEMC processes, see: http://pc.gov.au/__data/assets/pdf_file/0008/121895/subdr103-electricity.pdf , and http://www.aemc.gov.au/Media/docs/Grid-Australia-a9812312-d800-4031-ac21-5213b8e2a11d-0.PDF

known data at this time (i.e. three years of the current period and two years of the preceding period) or whether it should apply over a regulatory control period with adjustments made at a different time.

Grid Australia's initial preference is that the CESS scheme align with the EBSS and apply over the regulatory control period. As with the current EBSS, forecasts or deemed values could be used when calculating the CESS where actual information is unavailable, and then adjustments made at the next review to ensure that the correct reward or penalty is applied. This ensures that an NSP has regard to the efficiency of total expenditure over a regulatory period by maintaining alignment between capital and operating expenditure incentives. However, applying the CESS only with actual known data at the time of a determination means that rewards or penalties would need to be determined against two forecast capital expenditure amounts (i.e. the two years of the proceeding period and three years of the current period). In addition to complicating the design of the scheme, it might create perverse incentives between regulatory periods and between capital and operating expenditure.

Grid Australia further notes that the AER's proposal to implement an asymmetric scheme means that it proposes to assess efficiency against the total forecast of capital expenditure rather than make an assessment on an annual basis. This has the potential to compound any issues regarding the time period to which the CESS applies and is a further reason to apply a symmetrical incentive.

3.4 Application of actual or forecast depreciation

Grid Australia supports the statements by the AER in its Issues Paper that it will only apply actual depreciation where there is no CESS in place and that in most cases forecast depreciation will be the default used. Grid Australia notes that the AER has indicated it may decide to apply both a CESS and actual depreciation in a circumstance where there is evidence of persistent 'overspending'. Grid Australia considers that this is not the correct test to apply. As indicated throughout this submission, rather than overspending the AER should focus on evidence of persistent inefficient expenditure. This reflects that spending more than forecast expenditure allowances may indeed be efficient expenditure.

4. Ex-ante measures for operating expenditure

Grid Australia supports the application of a continuous and symmetrical incentive for operating expenditure in conjunction with applying the revealed cost approach as the basis for setting expenditure forecasts. It also supports the AER considering refinements to its approach to operating expenditure incentives in conjunction with the development of the CEIG. This reflects that efficient total expenditure is of central importance rather than capital or operating expenditure in isolation.

The key aspect to achieve a balance between capital and operating expenditure is to equate the respective power of the incentive chosen for each scheme. Where there is

an equal incentive rate the incentives between capital and operating expenditure can be aligned. Grid Australia again, therefore, encourages the AER to reconsider its asymmetric incentive power for the CESS and also to give further thought overall to the appropriate power of the incentive to apply.

Should, after further analysis, the AER decide that the CESS should apply a sharing rate that is different to that which currently applies to the EBSS, this would mean a change to the EBSS sharing rate would need to made if they re to have equate power. This would require the AER to consider the mechanics of the scheme in place so that such a change could be effected. Grid Australia notes that a separate formal consultation process would need to apply to make any changes to the transmission EBSS.

Grid Australia also notes that it is necessary for the AER to maintain its current flexible approach to applying the EBSS. This recognises that there is a need for flexibility when applying the revealed cost approach to transmission so that lumpy, or uncontrollable costs, can be properly accommodated. Appropriately, the AER's current EBSS states that it will not apply a mechanistic approach to the scheme. This means flexibility appears to already be appropriately reflected in the existing EBSS for transmission.

Grid Australia also considers that it is appropriate for the EBSS guideline to set out a standard set of categories of costs to be excluded from the scheme. This should be based on the AER and industry's experience with applying the scheme to date. For instance, Grid Australia considers that debt and equity transaction costs should continue to be excluded from the scheme. These items are pure benchmark allowances and reflect costs that are difficult to measure or attribute to specific businesses.

4.1 Treatment of realised or expected efficiency gains in the EBSS and expenditure forecasts

An issue that has recently come to light in the context of the AER's determination for ElectraNet is how the assumed trend in operating expenditure *after* the base year is established. In the ElectraNet draft determination, the AER applied an "efficiency factor" of 2.5 per cent to the base year level of expenditure as part of its calculation of the operating expenditure forecast, with this efficiency factor being justified largely on the basis that a similar rate of improvement was achieved in the last period. In its final decision the AER decided not to apply the efficiency factor, but noted instead, that this would be a matter to be addressed as part of its Better Regulation program.[16]

Grid Australia considers that in order to preserve the integrity of the EBSS and the incentives framework that an NSP's own rate of improvement in the previous period

[16] AER, *Final decision, ElectraNet transmission determination, 2013-14 to 2017-18*

should not be used to set or inform the trend or trajectory in operating expenditure after the chosen base year for forecasting purposes.

The reason for this is that if revealed efficiency gains are factored into both the setting of the starting point for operating expenditure forecasts and into the assumed change in expenditure from that point onwards then the reward (penalty) from an improvement (decline) in operating expenditure is substantially diminished. A numerical example of how these circumstances would be treated under the EBSS is contained in a letter from Jeff Balchin to ElectraNet that it submitted to the AER as part of its revised revenue proposal. Grid Australia refers the AER to that letter.[17]

It is important in the development of incentives schemes, and its approach to expenditure forecasting, that the AER address this matter so that NSPs will have confidence that expected rewards under a sharing scheme will not be eroded at the time of a determination.

4.2 EBSS and the use of external benchmarking for setting expenditure forecasts

The AER has devoted considerable attention in its Issues Paper to the approach it might apply for the EBSS if it were to rely on external benchmarking to set forecasts of operating expenditure. The AER also recently published a briefing paper and held a workshop on the interactions between expenditure forecasting and incentives.

Given that the AER has sought separate submissions on the matters addressed in its briefing paper and at the workshop, this section of the submission is focused only on the AER's comments in its Issues Paper. However, given the materiality of the issues raised in the briefing paper and the Issues Paper, as well as the limited time and resources available to develop a comprehensive approach to incentives, Grid Australia considers the AER should focus predominantly on whether refinements to the revealed cost method are needed at this time.

The AER's own analysis in the Issues Paper shows that applying an EBSS in the context of the revealed costs method has been successful in providing a continuous incentive for operating cost efficiency. Grid Australia fully supports the combination of relying predominantly on revealed costs for determining forecast expenditure with an EBSS. A key advantage of the revealed cost method with an EBSS is that it better ensures that forecast expenditure accommodates the individual circumstances of the network while also maintaining an incentive for improvements to cost efficiency.

As identified in Grid Australia's submission on the Expenditure Forecasting Assessment Guideline (EFA Guideline) there are many challenges, particularly in the

[17] See: http://www.aer.gov.au/sites/default/files/ElectraNet%20-%20Appendix%20K%20-%20PWC%20operating%20expenditure%20efficiency%20assumption%20and%20the%20efficiency%20benefit%20sharing%20scheme.pdf

context of transmission, with obtaining reliable benchmarks that can be used to set expenditure forecasts. Therefore, it is unlikely that an external benchmark approach, at least in the near future, can be applied to TNSPs.

It is also important that the AER be aware that relying on external benchmarks to set expenditure forecasts may not lead to any productive efficiency improvements for firms that do not respond to incentives. That is, if indeed there are some NSPs that do not respond to incentives, there is no reason to consider that setting their expenditure forecast on the basis of an external benchmark would suddenly lead them to strive for efficiency improvements where they did not before.

Notwithstanding the comments above, should an external benchmarking approach prove to be practical in the future, Grid Australia considers that the AER's suggestion to modify the EBSS to reduce the power of the incentives that are created with respect to operating expenditure has merit. In the absence of such a reduction, the power of the incentives for operating expenditure would be inappropriately high, and substantially above the incentive rate that it would be feasible to extend to capital expenditure.

Grid Australia has undertaken initial analysis of the AER's proposed application of a modified EBSS to be applied when forecast expenditure is set by external benchmarks. This initial analysis has revealed some material concerns about the proposed approach, in particular, the potential for a retrospective adjustment to the rewards or penalties under the scheme. This, and other matters, will be addressed more fully in the Grid Australia submission to the AER's briefing paper and its comments at the recent workshop.

5. Ex-post measures for capital expenditure

Grid Australia supports the AER's stated intention to rely predominantly on ex-ante incentives to promote efficient investment, with ex-post measures being used only as a backstop. Robust ex-ante incentives should encourage the experience and expertise of NSPs to be harnessed to find and implement new efficiency initiatives, and so deliver superior outcomes for consumers over time than could be achieved through regulator-driven ex-post review.

In view of the superiority of incentives for driving efficiency, it is appropriate for ex-post measures to "fill in the gap" where the incentive schemes have not operated as intended. This would include any circumstance where there is sufficient evidence to demonstrate that an NSP has not responded efficiently in the face of incentives provided.

Grid Australia also supports the staged approach to undertaking ex-post assessments that has been set out by the AER. A staged approach can assist in ensuring that ex-post assessments are proportional to concerns about the efficiency of past

expenditure. Indeed, Grid Australia supports the level of detail provided with respect to ex-post assessments to be reflected in other aspects of the guideline.

The remainder of this section addresses the following issues with the AER's proposed approach to applying ex-post capital expenditure incentive tools:

- the different considerations required when undertaking an ex-post assessment of expenditure compared to an ex-ante assessment;
- the principles that should be applied for ex-post reviews;
- the interaction between ex-ante and ex-post incentive tools; and
- the inclusion of previously disallowed expenditure into the RAB.

5.1 Ex-post versus ex-ante assessments of expenditure

Assessing expenditure after it has been incurred is a significantly different task to assessing expenditure requirements before that expenditure has been incurred. In addition, the penalty for NSPs arising from regulatory error also differs between ex-ante and ex-post post assessments. This is because ex-ante, businesses are only exposed to the limit of the sharing scheme, for instance, 30 per cent under a 30:70 sharing ratio. Whereas, ex-post, businesses are exposed to being penalised potentially by the entire cost of a project. It is vital that the AER be cognisant of these differences when outlining its proposed approach to assessing expenditure ex-post.

An ex-ante assessment of expenditure requirements seeks to project the efficient level of expenditure over a future period based on reasonable assumptions and forecasts. This means estimating demand, network conditions, generation dispatch and entry and project costs. As such, what is being assessed is the circumstances that will apply when an investment decision is made.

When looking back on what decisions were actually made the assessment is far more limited. In this circumstance what can be tested is whether the process that was applied was prudent having regard to actual circumstances. If NSPs apply good decision making processes, including undertaking necessary consultations with relevant parties, considering alternative options and procurement strategies, and efficiently managed the implementation of the project, there is little more that can be done to strive for efficiency.

It is important that the AER is also conscious that a strict application of the ex-ante capital expenditure criteria and factors is not appropriate in an ex-post context. This is because these suggest a degree of hindsight might be applied to the ex-post assessment. For instance, benchmarking analysis that might be undertaken to assist with an ex-ante assessment of costs cannot be applied in the same way ex-post. This is because it is not possible for an NSP to have regard to backward looking

benchmarking information that might be available once the ex-post review is undertaken.

In this context, the approach of extrapolating the assessment of a limited number of projects across the entire expenditure program would be inappropriate. It is important that the AER be explicit that it will not extrapolate the findings related to individual projects in its application of any ex-post assessments. Extrapolating the findings of a limited subset of projects would again expose NSPs to risks that would be difficult, if not impossible, to manage.

5.2 Principles and criteria for ex-post assessments

The key objectives for the AER when implementing its ex-post assessment tools should be to avoid:

- distorting ex-ante incentives; and
- imposing unnecessary risks and costs.

While further guidance is needed on interpretation and expected application, Grid Australia supports statements made by the AER that it would look to only disallow expenditure where it deems the inefficiency to be material. This threshold of materiality should also extend to the extent that the roll forward of the RAB contributes to the achievement of the capital expenditure incentives objective.[18] This is to ensure that customer's expectations are appropriately managed through this process.

The ENA submission to the AEMC during the recent Rule change process on the Economic Regulation of Network Service Providers identified that principles or criteria contained in S6A.2.2 provided a broadly appropriate framework for undertaking ex-post assessments of expenditure. The criteria in this clause go to the following matters:

- the need to provide a reasonable opportunity for the recovery of efficient costs;
- the need to provide effective incentives to TNSPs to promote economic efficiency;
- whether the project was evaluated against the regulatory investment test for transmission;
- whether capital expenditure was undertaken in a manner consistent with good industry and business practice so as to practicably achieve the lowest sustainable cost of delivering network services;

[18] Clause 6A.14.2(b) of the Rules.

- the desirability of minimising investment uncertainty; and
- the need to provide incentives to TNSPs to avoid undertaking inefficient capital expenditure.

Grid Australia considers that the AER should consider applying these criteria in addition to the criterion contained in S6A.2.2A(h)(2) that, in effect, requires that hindsight not be applied. Applying these, or similar criteria, will mean that NSPs can have confidence that risks will be appropriately managed. The full contents of S6A.2.2 are restated for convenience in Appendix B.

5.3 Interaction between ex-ante and ex-post incentive tools

As previously noted, it is important that the AER give proper regard to the interaction between all the ex-ante and ex-post incentive tools it has available to encourage efficient capital expenditure. In particular, it is important that the AER be clear about how an ex-post efficiency test would operate alongside the CESS, noting the AER's intention that ex-post assessments not be the main impetus for NSPs to deliver efficient investments.

Where a sharing scheme and ex-post disallowance operate in conjunction there is the potential that NSPs are penalised twice for inefficient expenditure. They would be penalised first through the CESS and then by not being able to roll that expenditure into the RAB. In this case the penalty would actually be higher than the cost of the original investment. For instance, the penalty for $100 of imprudent expenditure would be $130 (at a minimum under the asymmetric scheme). Grid Australia considers this penalty would be far too severe and may cause NSPs to avoid undertaking an investment unless it can be 100 per cent sure that it will be deemed to be efficient by the regulator.

Grid Australia notes that the interactions between the CESS and the potential ex-post disallowance of expenditure was addressed at a recent AER workshop on the interactions between expenditure forecasting and incentives. Grid Australia supports statements made by staff that the AER's intention is that the maximum penalty that an NSP should receive is to have expenditure disallowed from entering the RAB. Grid Australia notes that this would require that any expenditure that is disallowed from entering the RAB is excluded from the operation of the CESS. Grid Australia considers that this is consistent with the requirement for the design of the CESS that rewards and penalties should be commensurate with the efficiencies or inefficiencies in capital expenditure.[19]

[19] Clause 6A.6.5(c)(2) of the Rules.

5.4 Inclusion of previously disallowed expenditure into the RAB

Grid Australia considers that the AER's guideline should address its approach where expenditure that has previously been disallowed from entering the RAB is subsequently deemed to be used and useful. Specifically, the guideline should specify how any disallowed expenditure will be carried forward so it can re-enter the RAB at a later date.

While it is important that customers do not pay for inefficient network investments, it is also important that they do pay for those assets and services that they do use. If the AER observed through an ex-post review an issue related to the timing of a project, it is likely that at some point in the future the assets associated with the expenditure will become used by customers. For this reason should previously disallowed expenditure relate to assets that are subsequently used by customers this should be accommodated in the RAB.

Importantly, the "societal cost" from a project being constructed at a different time is the financing cost over the period of difference (net of the value of additional service provided), rather than the full cost of the project. This needs to be reflected in the treatment of any amounts excluded from the RAB.

5.5 Capitalised expenditure

As indicated previously, the Rules require the AER to outline its approach to the capitalisation of expenditure in the CEIG. Grid Australia supports the principles behind the AER's proposed approach to capitalised expenditure. It is important in this context, however, that the calculation of efficiency gains and losses for operating and capital expenditure (and for the RAB to be rolled forward) is based on a consistent capitalisation policy over time for the same NSP.

Grid Australia also notes that the AER's Issues Paper raises the prospects of a standard capitalisation policy across NSPs. Grid Australia, however, does not support a common capitalisation policy across all TNSPs. This is because an individual TNSP's approach to capitalisation is largely a reflection of their structure and operating model. Allowing for differing approaches also can facilitate businesses innovating and pursing efficiencies in the context of their respective circumstances.

Appendix A: Considerations for choosing the power of the incentive

The objective of an efficiency sharing scheme is to share gains or losses between businesses and customers. As a consequence of this sharing businesses can be rewarded for efficiency improvements they make and shielded in part from the implications of spending above revenue allowances. Maximising the benefits customers receive from such an arrangement requires identifying what sharing ratio is sufficiently attractive for NSPs to strive for efficiency improvements, while being mindful not to introduce the scope for excessive windfall losses or gains into to the regulatory regime that may impact adversely on the capacity of regulated businesses to finance investment or lead to gains for businesses that are not sustainable.

The purpose of this appendix is to describe in more detail the relevant considerations for selecting the power of the incentive that is to apply to capital expenditure so to maximise benefits to customers. While the focus here is on capital expenditure, Grid Australia notes that many of these considerations are also relevant for choosing the power of the incentive for operating expenditure. This is particularly the case given the significant benefits of equating the incentives across all types of expenditure.

This elaboration of the relevant considerations for setting the power of the incentive for capital expenditure is drawn largely from material that was provided in ENA submissions to the AEMC and attached expert reports for its consideration of the Economic Regulation of Network Service Providers Rule.

Ease of achieving efficiency improvements

The motivation for an NSP to apply management effort to identify certain efficiency improvements will be linked to the expected payoffs from the efficiency initiative and the difficulty associated with identifying and implementing the relevant efficiency improving actions. However, a trade off exists because increasing the NSP's motivation to find efficiency improvements (all else constant) through providing a greater share of the benefits will imply a commensurately lower share of the benefit to customers.

It has been demonstrated that if efficiency gains are reasonably easy to find that a reasonably low incentive power will maximise the position of customers. However, where efficiency gains are more difficult to achieve, then it is in the interests of customers for NSPs to receive a greater share of the benefits that flow from their initiatives – in effect reducing the share of the gains to encourage greater gains overall. The extent that efficiency improvements are more easy to identify and implement might depend on the individual circumstances of the network or the extent

to which it may already have found and delivered efficiency initiatives in previous regulatory periods.[20]

Confidence in expenditure forecast

As indicated in the main body of the submission, the expenditure forecast is used as the benchmark against which efficiency gains or losses are assessed. However, variations between expenditure forecasts and actual expenditure can lead to windfall gains or losses where these are not the result of management decisions. Given the imprecision of forecasts, variations between forecasts and actual expenditure are inevitable. However, significant variations between actual costs and expenditure forecast can arise due considerable uncertainty when setting expenditure forecasts, regulatory error, or due to the impact of exogenous cost drivers. The impact of exogenous cost drivers and potential mechanisms to ameliorate their effect is discussed in a separate section below.

Where there is a high degree of confidence in expenditure forecasts it implies that a higher power incentive can be applied without creating the potential for unsustainable windfall gains or losses.

Uncertainty measures in the regulatory framework can work to improve the confidence in the expenditure forecasts. This is because these mechanisms remove many of the elements that can lead to unbiased error in the forecasts. For example, the contingent projects mechanism allows expenditures to only be provided in circumstances where a certain trigger event occurs. Removing these projects from the general ex-ante revenue cap means that they are not subject to the capital expenditure incentive mechanism.[21]

It is important to note that where there is less confidence in the accuracy of the expenditure forecast that the correct response is to reduce the power of the incentive or to implement measures to gain greater confidence in the expenditure forecasts (one means for which is to implement a mechanism to adjusting ex ante forecasts for material exogenous events, discussed below, or expanding the scope of contingent projects) rather than to create an asymmetric scheme. This is the case even in the circumstance where it is perceived that the bias in the forecast is in the favour of the business. Increasing the penalty for spending in excess of forecasts in this circumstance would serve only to create an imbalance between incentives and potentially trigger NSPs undertaking perverse behaviour in order to avoid triggering

[20] This may, in some ways, be dependent on how long the business has been subject to incentive regulation. At the commencement of incentive it would be expected that the easiest efficiency improvements would be identified and implemented first. However, easy gains will not always be possible. Therefore, the length of time that a business has been subject to incentive regulation might influence the difficulty associated with identifying and implementing further efficiency improvements.

[21] Although incentives still remain to minimise the costs of delivering these projects.

the higher penalty. Neither of these outcomes would be in the long-term interests of consumers.

Aligning the power with other incentive schemes

The effect of an incentive scheme is simultaneously to reward a business for each dollar it saves, and penalising the business for each additional dollar it spends. It follows, therefore, that if the (reward) penalty associated with saving (spending) a dollar on one type of expenditure is higher than for another, a prudent business would shift costs, to the extent possible, to the type of expenditure that incurs the lowest reward (penalty).

The objective for the AER, therefore, should be to promote NSPs undertaking efficiency in capital and operating expenditure combined. This means encouraging businesses to make an efficient choice between capital projects and operating activities where possible. Achieving this requires that the incentive power is equated between capital and operating expenditure.

Interactions with service performance schemes and obligations

It has been observed by many commentators that, absent other arrangements, one way for businesses to increase profits is to avoid capital expenditure at the possible expense of service quality. The incentive to avoid undertaking capital expenditure increases as the power of the incentive increases as the reward for avoiding expenditure (and simultaneous penalty for spending) increases.

Before implementing higher powered incentives it is necessary to consider the comprehensiveness and effectiveness or otherwise of service performance incentives and obligations. These are the tools that seek to 'push back' against financial incentives to minimise costs.

Financial incentives linked to service performance are intended to motivate NSPs to have regard to service performance by providing rewards or penalties related to achieving certain levels of service performance. Similar to operating expenditure incentives, alignment between capital expenditure incentives and service performance incentives can encourage NSPs to optimise the choice between expenditure levels and service performance, thus avoiding either "gold plating" or an inadequate provision of service.

Equally, explicit obligations on NSPs to achieve minimum standards will prevent the NSP from reducing expenditure below the level needed to meet the relevant standard. In addition, NSPs face reputational risks associated with service performance, which will also provide an offset to the financial incentive to reduce cost.

To the extent that there are material gaps in the comprehensiveness or measures to encourage service performance or valid concerns about the effectiveness of some of

those measures, then it may be appropriate to apply a regime with lower incentive power than otherwise. Grid Australia notes that this is often an important consideration in the transmission context.

Impact of exogenous factors on cost

Factors that influence cost that are largely outside of the control of NSPs can impact on the potential for the scheme to result in unsustainable windfall gains or losses. As identified in the submission, one exogenous factor that has recently been the focus of attention is the impact of changes in demand on costs.

The potential for windfalls to be created by exogenous factors can be limited by limiting the power of the incentive scheme. This approach, however, would also impact on the power of the incentive for those costs that are within the control of management. Therefore, it may not be the preferred solution.

An alternative response to reducing the power of the incentive is to make adjustments to either expenditure forecasts or through the incentive scheme to take account of the effect of exogenous factors. As noted by the AER in its Issues Paper, adjustments have been made in the past to the EBSS for distribution to account for variations between actual and forecast connections. Similar adjustments could be made for variations between actual and forecast demand. That said, a critically important element of any incentive scheme is that the gain or loss resulting from a certain action is predictable (and NSPs have confidence that the gain or loss will accrue), which requires the mechanism that would be used to make such an adjustment to be fully specified in advance of the regulatory period to which it applies. In addition, such a mechanism would only be effective in reducing the scope for windfall gains or losses if the adjustment that was applied to the original forecasts provided a sufficiently close representation of how efficient costs would change with that exogenous cost driver.

As noted above, uncertainty measures also apply in the current framework. Where these address exogenous costs, such as those that might be classes as a pass-through, this will also limit the extent that businesses are exposed to the risks associated with of cost drivers that are outside of their control.

Appendix B: Rules criteria for assessing the prudency and efficiency of capital expenditure

S6A.2.2 Prudency and efficiency of capital expenditure

In determining the prudency or efficiency of capital expenditure under clause S6A.2.1(d)(2) or S6A.2.1(e)(2), the *AER* must have regard to:

(1) the need to provide a reasonable opportunity for the relevant *Transmission Network Service Provider* to recover the efficient costs of complying with all applicable *regulatory obligations or requirements* associated with the provision of *prescribed transmission services*;

(2) the need to provide effective incentives to the *Transmission Network Service Provider* to promote economic efficiency in the provision of *prescribed transmission services*;

(3) whether the relevant project in respect of which capital expenditure was made was evaluated against, and satisfied, the *regulatory test* or *regulatory investment test for transmission* (as the case may be);

(4) whether the *Transmission Network Service Provider* undertook the capital expenditure in a manner consistent with good business practice and so as to practicably achieve the lowest sustainable cost of delivering the *prescribed transmission services* to be provided as a consequence of that capital expenditure;

(5) the desirability of minimising investment uncertainty for the *Transmission Network Service Provider*; and

(6) the need to provide incentives to the *Transmission Network Service Provider* to avoid undertaking inefficient capital expenditure.

In determining the prudency or efficiency of capital expenditure the *AER* must only take into account information and analysis that the provider could reasonably be expected to have considered or undertaken at the time that it undertook the relevant capital expenditure.

Response to Specific Questions Raised in Issues Paper

Question	Submission reference or response
Question 1 Do stakeholders agree with the issues that we have identified about declining incentives for efficient capex? Are there any other issues that could arise from declining incentives for efficient capex? If so, what are these?	Section 2
Question 2 Do stakeholders support our initial view that any capex sharing scheme should provide continuous incentives in each year of a regulatory control period? Please give reasons to support your view.	Section 3
Question 3 Do stakeholders support our initial view that any capex sharing scheme should provide a reward for underspending of between 20 and 30 per cent? Please give reasons	Section 3.1.1
Question 4 Do stakeholders agree with our initial position that the penalty for overspending should be greater than 30 per cent? Please give reasons to support your view.	Section 3.1.1
Question 5 Do stakeholders agree with our initial position that one capital expenditure sharing scheme should apply to all NSPs? Please give reasons to support your view	Section 2.2
Question 6 If we were to tailor different schemes for individual NSPs, what criteria should we use to differentiate between NSPs?	Section 3.2.1 addresses considerations for deciding on the power of the incentive scheme that are relevant to this decision.

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Question 7 Are there any categories of capex that should not be covered by a capital expenditure sharing scheme? Why?	Grid Australia accepts that it is desirable to have the scheme as comprehensive as possible so that an incentive is provided to target all categories of expenditure, but that there may be categories that are reasonable to exclude, for example, on the grounds of reducing the potential for unsustainable windfall gains or losses. Contingent projects are a category of expenditure that should not be subject to the scheme (noting that a CESS already applies to such projects once a trigger occurs). Other categories may also be identified. It is observed that whether categories of capital expenditure need to be removed from the scheme depends in part upon the feasibility of adjusting the CESS calculation to take account of changes in exogenous factors that are material to forecasts as discussed in section 3.2.3 of the submission.
Question 8 When, if at all, might it be appropriate to make adjustments to a type of capex before applying a CESS? Why?	Section 3.2.3
Question 9 Do stakeholders agree with our initial position to apply a continuous asymmetric capex scheme with higher penalties for overspending than rewards for underspending? Please provide reasons.	Section 3.1.1
Question 10 Do stakeholders agree with our initial position that the penalties and rewards for a capex scheme should be included in the guidelines rather than determined as part of a determination? Please provide reasons.	Section 2.1
Question 11 Do stakeholders agree that forecast depreciation should be the default form of depreciation used to roll forward the RAB except where there is no capex sharing scheme in place or where there is persistent overspending by a NSP?	Section 3.4

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Question 12 Do stakeholders agree with the factors that we have identified for consideration in determining whether to apply forecast or actual depreciation?	Section 3.4
Question 13 If we continue to use a revealed cost approach to forecast opex, should the same EBSSs remain largely in place, or are more significant changes required?	Section 4
Question 14 Does an incentive power of 30 per cent provide a sufficient incentive to achieve efficiency gains?	Section 3.2.1
Question 15 Are there any circumstances where balancing the opex incentive with the capex and service level incentives may not encourage economic efficiency?	Section 3.1
Question 16 Do stakeholders agree the EBSSs should provide a continuous incentive in each year of a regulatory control period? Are there any circumstances where a continuous incentive may not encourage economic efficiency?	Grid Australia supports a continuous EBSS. Further, there is no clear justification for anything other than a continuous incentive to apply to operating expenditure.
Question 17 Do stakeholders agree the EBSS rewards and penalties should be symmetrical, regardless of the forecasting approach?	Section 4
Question 18 Should uncontrollable costs be excluded from the operation of the EBSSs?	Uncontrollable costs should continue to be excluded from the EBSS. Grid Australia notes that it has asked the AER in the context of the CESS to give further consideration to those exogenous factors that could cause either unsustainable windfall gains or losses under an incentive sharing scheme. In principle, this is a consideration that needs to be undertaken in the context of both capital and operating expenditure schemes. Grid Australia notes, however, that the current transmission EBSS scheme requires the original forecasts to

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	be adjusted for the cost consequences of the difference between forecast and actual demand, and provides a general ability to have further adjustment mechanisms agreed and applied. Grid Australia considers that the current flexibility in the EBSS in this regard is appropriate.
Question 19 Should the approach to addressing uncontrollable costs differ depending on the forecasting approach?	The risks of windfall gains and losses from uncontrollable costs might increase where a forecasting approach is applied that is further detached from the individual circumstances of the business, for example, if a high level forecasting approach is taken that does not differentiate between controllable and uncontrollable costs.
Question 20 Are there any other reasons to exclude costs from the operation of the EBSSs?	As noted above, factors exogenous to the TNSPs may cause either unsustainable windfall gains or losses under an incentive sharing scheme. Whether it proves necessary to exclude categories of costs depends in part on the feasibility of adjusting for exogenous factors as well as the incentive power of the scheme. In addition, as the AER has noted, debt and equity transactions costs are currently excluded from the scheme. Grid Australia considers that these items – which are pure benchmark allowances and reflect costs that are difficult to measure or attribute for specific businesses – should continue to be excluded from the scheme.
Question 21 Should the EBSSs define specific costs to be excluded from its operation? If yes, which costs should be excluded from the scheme? If no, should criteria be defined which would guide which costs would be nominated as excluded costs?	Grid Australia considers that it would be appropriate for the EBSS Guideline to set out a standard set of categories of costs to be excluded, based upon the experience with applying the scheme to date. In addition, it is appropriate for the current flexibility to have further categories of cost identified and agreed for exclusion. The current criteria – focussing upon uncontrollability – are appropriate and should be maintained.
Question 22 Should all excluded cost categories be determined prior to the commencement of the regulatory control period in which the scheme applies?	Defining excluded cost categories prior to the commencement of the regulatory control period increases the certainty and predictability of the framework. In doing so it strengthens the effectiveness of ex-ante incentives.

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Question 23 Should the EBSSs provide greater flexibility as to how opex forecasts are adjusted for the purposes of calculating rewards and penalties under the scheme?	See response to question 18 and section 4.2
Question 24 Do stakeholders agree with having a staged approach to the ex post review?	Section 5
Question 25 Are the issues that the AER proposes to consider as part of the ex post review appropriate?	Section 5.2
Question 26 Are there any other factors that the AER should consider in conducting an ex post review?	Section 5,2
Question 27 Are there any additional factors that we should consider before excluding an amount of an overspend from a NSP's RAB?	Section 5.2
Question 28 Do you think our approach for the assessment of related party margins is reasonable? What other approaches may be appropriate?	The proposed approach to the assessment of related party margins appears to be broadly reasonable.
Question 29 Do you think our approach for the assessment of capitalisation requirements is reasonable? What other approach may be appropriate?	Grid Australia supports the principle of calculating efficiency gains and losses for operating and capital expenditure (and for the RAB to be rolled forward) based on a consistent capitalisation policy over time for the same NSP. To the extent it is being considered, Grid Australia does not support a common capitalisation policy across all TNSPs.