



Better Regulation

Draft Capital Expenditure Incentive Guidelines

August 2013

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1 Nature and authority

1.1 Introduction

Consistent with clauses 6.2.8, 6.4A, 6A.2.3 and 6A.5A of the National Electricity Rules (NER) this publication sets out the Australian Energy Regulator's (AER) capital expenditure incentive guidelines (guidelines) for electricity network service providers (NSPs). This includes the AER's capital expenditure sharing scheme (CESS) for NSPs.

1.2 Authority

Clauses 6.2.8 and 6A.2.3 of the NER require the AER to develop, in accordance with the consultation procedures under clauses 6.16 and 6A.20 of the NER, these guidelines. Clauses 6.4A(b) and 6A.5A(b) of the NER outline the issues that must be included in the guidelines.

1.3 Role of the guidelines

Under clauses 6.4A(b) and 6A.5A(b) of the NER, the guidelines must set out:

- the details of any CESS, and how the AER has considered the capital expenditure sharing scheme principles in developing the CESS
- how the AER proposes to determine whether to use depreciation based on actual or forecast capital expenditure (capex) to roll forward the regulatory asset base (RAB) at the commencement of a regulatory control period
- how the AER will assess whether to exclude inefficient capex overspends from the RAB, under clauses S6.2.2A(a) and S6A.2.2A(a)
- how the AER will assess whether third party margins are efficient and whether these should be included in the RAB, under clauses S6.2.2A(i) and S6A.2.2A(i)
- how the AER will assess whether a NSP's capex includes expenditure that was treated as opex at the time of the AER's determination, under clauses S6.2.2A(j) and S6A.2.2A(j)
- how the above schemes and proposals, both individually and taken together, are consistent with the capital expenditure incentive objective.

1.4 Definitions and interpretation

In these guidelines certain words and phrases have the meaning given to them:

- in the glossary, or
- if not defined in the glossary, in the NER.

1.5 Process for revision

The AER may amend or replace these guidelines from time to time in accordance with the consultation procedures under clauses 6.16 and 6A.20 of the NER.

1.6 Version history and effective date

A version number and an effective date of issue will identify every version of these guidelines.

2 Overview

Central to the AER's approach to regulating electricity networks is the idea of incentive based regulation. Incentive based regulation provides NSPs with incentives to pursue efficiency improvements to the benefit of both the NSP and network users. If a NSP spends less than its capex allowance, it can keep the underspend in the form of retained return on capital until the end of the regulatory control period. At the end of the regulatory control period the RAB is updated for actual capex. Consumers benefit into the future as the RAB is lower than it would have been if the NSP had spent its full allowance in delivering the service.

These guidelines aim to complement the incentives already provided through incentive based regulation. They introduce new ex ante and ex post measures to further incentivise efficient capex.

These guidelines outline the AER's approach to incentivising NSPs to undertake efficient capex during the regulatory control period. There are three main aspects to this:

1. The AER has developed a CESS to share efficiency gains and losses between NSPs and network users.
2. The AER has developed criteria for deciding whether to roll forward the regulatory asset base (RAB) using depreciation based on forecast or actual capex.
3. There are new ex post measures to ensure that network customers do not bear the costs of inefficient overspends, capitalised opex or inflated related party margins.

Ex ante measures generally allow for an expenditure target to be set up front and incentivise a NSP to beat the target by allowing it to keep some of the benefit of the underspend. The CESS outlined in these guidelines provide this incentive by allowing NSPs to retain 30 per cent of any underspend during the regulatory control period. Conversely, it provides a disincentive to overspend by making NSPs bear 30 per cent of any overspend. Alongside the CESS, the decision on whether to use depreciation based on actual capex or forecast capex to roll forward the RAB determines the ultimate power of the ex ante incentive to pursue efficient capex.

These guidelines also outlines a number of ex post measures to promote efficient capex. The AER is required to make a statement on the efficiency of capex being rolled into the RAB. The AER also has the ability to exclude certain types of capex from being included in the RAB. These ex post measures act as a disincentive for NSPs against inefficient overspending. These guidelines outline the AER's proposed approach to these measures.

The ex ante and ex post measures together provide the 'carrots and sticks' to incentivise NSPs to undertake only efficient capex.

2.1 Structure

There are three main parts to these guidelines:

- Chapter 3 outlines the AER's approach to the CESS. An example of how the CESS works is provided at appendix A.
- Chapter 4 outlines the AER's approach to deciding whether to use forecast or actual depreciation when rolling forward the RAB.

- Chapter 5 outlines the AER's approach to ex post measures to incentivise efficient capex. This includes the process for assessing whether capex has been prudent and efficient and the factors the AER will consider in deciding whether to exclude certain categories of capex from the RAB.

3 The capital expenditure sharing scheme

This chapter sets out the AER's approach to providing ex ante incentives for NSPs to undertake efficient capital expenditure during a regulatory control period. This is achieved through the operation of a CESS.

3.1 Objective

The overarching objective of the CESS is to provide NSPs with an incentive to undertake efficient capex during the regulatory control period. This is achieved by rewarding NSPs that outperform their capex allowance and penalising NSPs that spend more than their capex allowance. The scheme also provides a mechanism for overspends and underspends to be shared between NSPs and network users.

The proposed CESS is symmetric in that for the same quantum of efficiency gain or loss, the reward and penalty will be equal. The CESS also provides equal incentives in every year of the regulatory control period by accounting for any efficiency benefits or costs that have already been held by the NSP during the regulatory control period.

3.2 Rule requirements

Clauses 6.5.8A and 6A.6.5A of the NER set out the factors that the AER must take into account in developing any CESS. Firstly, any CESS must be consistent with the capital expenditure incentive objective under clauses 6.4A and 6A.5A:

The capital expenditure incentive objective is 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.

The capital expenditure criteria are contained in clauses 6.5.7(c) and 6A.6.7(c) and require the AER to be satisfied that capex is prudent and efficient and based on realistic demand forecasts. In deciding whether it is satisfied that the capex criteria are met, the AER must consider the capital expenditure factors in clauses 6.5.7(e) and 6A.6.7(e).

In addition, in developing any CESS, the AER must take into account the capital expenditure sharing scheme principles, outlined in clauses 6.5.8A(c) and 6A.6.5A(c); these include:

- NSPs should be rewarded or penalised for improvements or declines in the efficiency of capex
- these rewards and penalties should be commensurate with the efficiencies or inefficiencies in capex, but rewards and penalties do not need to be the same.

In developing any CESS, the AER must also take into account:

- the interaction of the CESS with any other incentives the NSP has to undertake efficient capex or operating expenditure (opex)
- the capital expenditure objectives (outlined in clauses 6.5.7(a) and 6A.6.7(a)) and, if relevant, the operating expenditure incentives (outlined in clauses 6.5.6(a) and 6A.6.a(a)).

In deciding whether to apply a CESS to a NSP, and the nature and details of any CESS to apply to a NSP, the AER must:

- make that decision in a manner that contributes to the capital expenditure incentive objective
- take into account the capital expenditure sharing scheme principles, any other incentives that apply to the NSP, and the circumstances of the NSP.

3.3 General application of the scheme

This section describes how the CESS calculates efficiency gains or efficiency losses, and the method by which gains or losses are shared between NSPs and network users. This involves four steps:

1. The efficiency gains and losses are calculated in net present value (NPV) terms. This is done for each year of the regulatory period and then the total efficiency gain/loss is calculated for the regulatory control period.
2. The sharing factor is applied to the total efficiency gain/loss to calculate the NSP's share of the gain/loss.
3. Benefits/costs already accrued/borne through the period in the form of increased/decreased return on capex are calculated.
4. The net reward/penalty is calculated by subtracting the net benefit/cost already accrued/borne by the NSP from the NSP's share of the total efficiency gain/loss.

These steps are discussed in more detail below. The CESS penalty or reward will form a separate building block for the NSP's revenue allowance in the following regulatory control period.

3.3.1 Calculating efficiency gains and losses

To calculate efficiency gains or losses, a NSP's allowance is used as the best estimate of efficient capex. In this way, if the NSP spends less than its capex allowance, this is considered to be an efficiency gain for the purpose of applying the CESS. Conversely, if a NSP spends more than its allowance, this counts as an efficiency loss when applying the CESS.

To calculate the annual efficiency gain/loss, the NSP's actual capex is subtracted from its capex allowance in each year of the regulatory control period. The capex allowance is calculated as the AER approved allowance (as determined at the start of the regulatory control period), plus any AER approved adjustments from pass-throughs, reopening of capex or contingent projects. Further adjustments are required where an ex post review has resulted in capex being excluded from the RAB (discussed in section 3.5). In the case of the final year (and potentially the penultimate year) of the regulatory control period, an estimate of actual capex will be used (see section 3.4). The usual calculation for year one of the regulatory control period is provided below.

$$\text{Year 1 efficiency gain} = \text{capex allowance for year 1} - \text{actual capex in year 1}$$

To get the efficiency gain from each year into its NPV at the end of the regulatory control period, a discount rate is applied. This discount rate is calculated to account for the fact that capex is assumed to occur in the middle of the year. To get the total efficiency gain, the annual efficiency gains in NPV terms are added together.

$$\text{Total efficiency gain} = \text{NPV year 1 efficiency gain} + \text{NPV year 2 efficiency gain} + \text{NPV year 3 efficiency gain} + \text{NPV year 4 efficiency gain} + \text{NPV year 5 efficiency gain}$$

The above calculations can be represented by the following equation:

$$\text{Total efficiency gain} = \sum_{n=1}^p \frac{1}{(1 + WACC)^{n-p-0.5}} \times (F_n - A_n)$$

Where:

n is the regulatory year

WACC is the nominal weighted average cost of capital that applied during the regulatory control period

p is the length of the regulatory control period

F_n is the capex allowance for year n

A_n is actual capex for year n .

3.3.2 Applying the sharing factor

Where there is a total efficiency gain/loss, a sharing factor of 30 per cent is applied. This means that the NSP will bear 30 per cent of any loss and will retain 30 per cent of any gain. The remaining 70 per cent will go to network users.

$$\text{NSP sharing factor} = 30 \%$$

$$\text{NSP share} = \text{total efficiency gain} \times 30 \%$$

3.3.3 Accounting for benefits and costs already accrued

To ensure that the power of the incentive is the same in each year of the regulatory control period, the CESS takes into account any benefits or costs already accrued to/borne by a NSP during the regulatory control period.

Benefits are calculated as the return on the underspend since the amount of the underspend can be put to some other income generating use. Losses are similarly calculated as the financing cost of the overspend.

Capex is assumed to occur in the middle of each year. Hence, in the year of the underspend, the NSP will recover only half a year of benefit. In following years, the NSP will retain a full year of benefit calculated as the underspend multiplied by the WACC. This is represented in the following equation.

$$\text{Year } n \text{ financing benefit} = [(1 + WACC)^{0.5} - 1] \times (F_n - A_n) + \sum_{j=1}^{n-1} WACC \times (F_j - A_j)$$

To put the financing benefits from each year into constant terms, a discount factor is applied to the benefits from each year. This discount rate is calculated on the basis that financing benefits accrue at the end of each year. The discounted financing benefits from each year are then summed to get a net financing benefit for the regulatory control period. This calculation is given by the following equation.

$$Net\ financing\ benefit = \sum_{n=1}^p \frac{1}{(1 + WACC)^{n-p-0.5}} \times year\ n\ financing\ benefit$$

3.3.4 Net reward or penalty

The net financing benefit is then subtracted from the NSP's share of the cumulative efficiency gain to calculate the net reward or penalty payable to the NSP.

$$Net\ reward = NSP\ share - net\ financing\ benefit$$

This reward (penalty) will be applied as an additional building block adjustment to the NSP's revenue over the upcoming regulatory control period.

3.4 Final year adjustment

As revenue determinations are finalised prior to the end of the regulatory control period, actual capex for the final year of the regulatory control period will not be available when the CESS is calculated. Instead, an estimate of capex is used to calculate the efficiency gains or losses for the final regulatory year.

At the next revenue determination actual capex data will be available for that year. Where a NSP's actual capex differs from the capex estimate used to calculate the CESS, an adjustment will be required to account for the difference. This is provided below for the final year of the regulatory control period.

$$Final\ year\ adjustment = (A_p - A_p^*) \times \left[\frac{sharing\ ratio - 1}{(1 + WACC)^{0.5}} + 1 \right]$$

A discount rate will be applied to account for the time value of money. This adjustment may also be required for the penultimate year of the regulatory control period where finalised actual capex figures for that year are not available before finalising the regulatory determination.

3.5 Adjusting for an ex post exclusion from the regulatory asset base

As discussed later in these guidelines, in certain circumstances the AER has the ability to exclude capex from the RAB. Where this occurs, the CESS will require adjustment. Otherwise a NSP could bear 130 per cent of the cost of the exclusion (100 per cent through the exclusion from the RAB and 30 per cent through the CESS).

At the time of a determination, the CESS will be calculated for the regulatory control period just ending. An ex post review (which could lead to exclusions from the RAB) will also be undertaken at this time for the first three years of the regulatory control period and the last two years of the regulatory control period preceding that.

Where the AER determines that an amount of capex incurred in year 1, 2 or 3 should be excluded from the RAB, the CESS calculation will be different in that year. This involves a change to step one of the general application of the scheme. Instead of calculating the underspend as the capex allowance minus actual capex, actual capex minus the capex exclusion will be substituted for actual capex. An example is provided for where there is an ex post exclusion in year 1 of the regulatory control period.

Year 1 efficiency benefit where this is an ex post exclusion in year 1 = capex allowance for year 1 – (actual capex in year 1 – ex post exclusion in year 1)

After this calculation is completed for any ex post exclusion in years 1, 2 or 3, the process for the general application of the scheme (at the second calculation under step 1) would continue.

The adjustment will be different where the exclusion is for capex in years 4 or 5 of the preceding regulatory control period. This is because while the CESS is applied for all years of a regulatory control period at the end of the relevant regulatory control period, the ex post review of capex in years 4 and 5 will occur at the end of the following regulatory period. (That is, five years later for a five year regulatory control period.) At this later date the RAB will be adjusted so that no inefficient overspend is included in the RAB for these years. This may require an adjustment to account for the time value of money.

At the same time an adjustment will be required to the CESS. To the extent that the NSP has borne a CESS penalty on an amount of capex that is later excluded from the RAB, this will need to be removed from the CESS in the following period. In particular, the NSP will need to be refunded the 30 per cent penalty it has already borne under the CESS for the previous regulatory control period. This will be adjusted to account for the time value of money.

4 Use of actual or forecast depreciation

When the RAB is updated for actual capex, it is also depreciated. The type of depreciation used to roll forward the RAB can affect the incentives for efficient capex. Depreciation used to roll forward the RAB can be based on:

- actual capex incurred during the regulatory control period (actual depreciation), or
- the capex allowance forecast at the start of the regulatory control period (forecast depreciation).

Using actual depreciation to roll forward the RAB provides stronger incentives for efficient capex compared to using forecast depreciation:

- If there is a capex overspend, actual depreciation will be higher than forecast depreciation. This means that the RAB will increase less at the next regulatory control period than it would if forecast depreciation were used. Hence, the NSP will earn less into the future (i.e. it will bear more of the cost of the overspend into the future).
- If there is a capex underspend, actual depreciation will be lower than forecast depreciation. This means that the RAB will increase more at the next regulatory control period than it would if forecast depreciation were used. Hence, the NSP will earn more into the future (i.e. it will retain more of the benefit of an underspend into the future).

4.1 Objective

The objective in deciding whether to use depreciation based on forecast capex or actual capex to roll forward the RAB is to ensure that the overall ex ante incentives for a NSP to undertake efficient capex are appropriate.

4.2 Rule requirements

Clauses S6.2.2B(a) and S6A.2.2B(a) of the NER provide the AER with flexibility to roll forward a NSP's RAB on the basis of either actual or forecast depreciation. Under clauses 6.4A(b)(3) and 6A.5A(b)(3) of the NER, the AER is required to include in these guidelines its process for determining which form of depreciation to use in the RAB roll forward process.

Under clauses S6.2.2B and S6A.2.2B of the NER, the AER's decision on whether to use actual or forecast depreciation must be consistent with the capital expenditure incentive objective. In making this decision, the AER must have regard to:

- any other incentives the NSP has to undertake efficient capex
- substitution possibilities between assets with different lives
- the extent of overspending and inefficient overspending relative to the allowed forecast
- these guidelines
- the capital expenditure factors.

4.3 Approach

The choice of depreciation approach is one part of the overall capex incentive framework and needs to be considered in this context. Where a CESS is applied, a NSP will already have incentives to

pursue efficiency gains in relation to capex. The use of forecast depreciation would maintain these incentives whereas the use of actual depreciation would increase these incentives. However, using actual depreciation can result in different incentive powers for assets with different asset lives whereas forecast depreciation does not impact on this.

The AER's default position is to apply forecast depreciation except where:

- there is no CESS in place and therefore the power of the capex incentive may need to be strengthened, or
- a NSP's past capex performance demonstrates evidence of persistent overspending or inefficiency, meaning that a higher powered incentive is required.

In considering whether to apply actual depreciation in either of the above circumstances the AER would consider:

- the substitutability between opex and capex and the balance of incentives between opex and capex
- the balance of incentives with service performance schemes
- the substitutability of assets of different asset lives.

5 Ex post measures for efficient capital expenditure

This chapter sets out the AER's approach to ex post measures for incentivising efficient capex during a regulatory control period. There are two elements to this:

- the requirement on the AER to produce a statement on the efficiency and prudence of all capex being rolled into the RAB (an ex post statement)
- the ability of the AER to exclude certain types of capex from being included in the roll forward of the RAB.

5.1 Objectives

The overarching objective of the ex post statement of efficiency is to provide information about the efficiency or otherwise of capex being included in the RAB.

The objective of excluding certain types of capex from the RAB is to ensure that network users are only paying for the efficient capex associated with providing network services.

5.2 Rule requirements

Clauses 6.12.2(b) and 6A.14.2(b) require the AER to include in any draft or final regulatory determination decision, a statement on the extent to which the roll forward of the RAB meets the capital expenditure incentive objective (defined in clauses 6.4A and 6A.5A). This statement will be for the regulatory control period just ending.

Clauses S6.2.2A and S6A.2.2A provide that in certain circumstances the AER may reduce the amount by which a NSP's RAB is to be increased as part of the RAB roll forward:

- where a NSP has spent more than its capex allowance¹, the AER may exclude inefficient capex above the allowance from being included in the RAB
- where a NSP has incurred a margin in relation to arrangements that did not reflect arm's length terms, the AER may exclude the inefficient portion of the margin from entering the RAB
- where a NSP's capex includes expenditure that was classified as opex at the time of the regulatory determination, the AER may exclude this from the RAB.

The relevant period over which this assessment is to occur is the first three years of the regulatory control period just ending and the last two years of the preceding regulatory control period. This differs from the period for the ex post statement and the CESS.

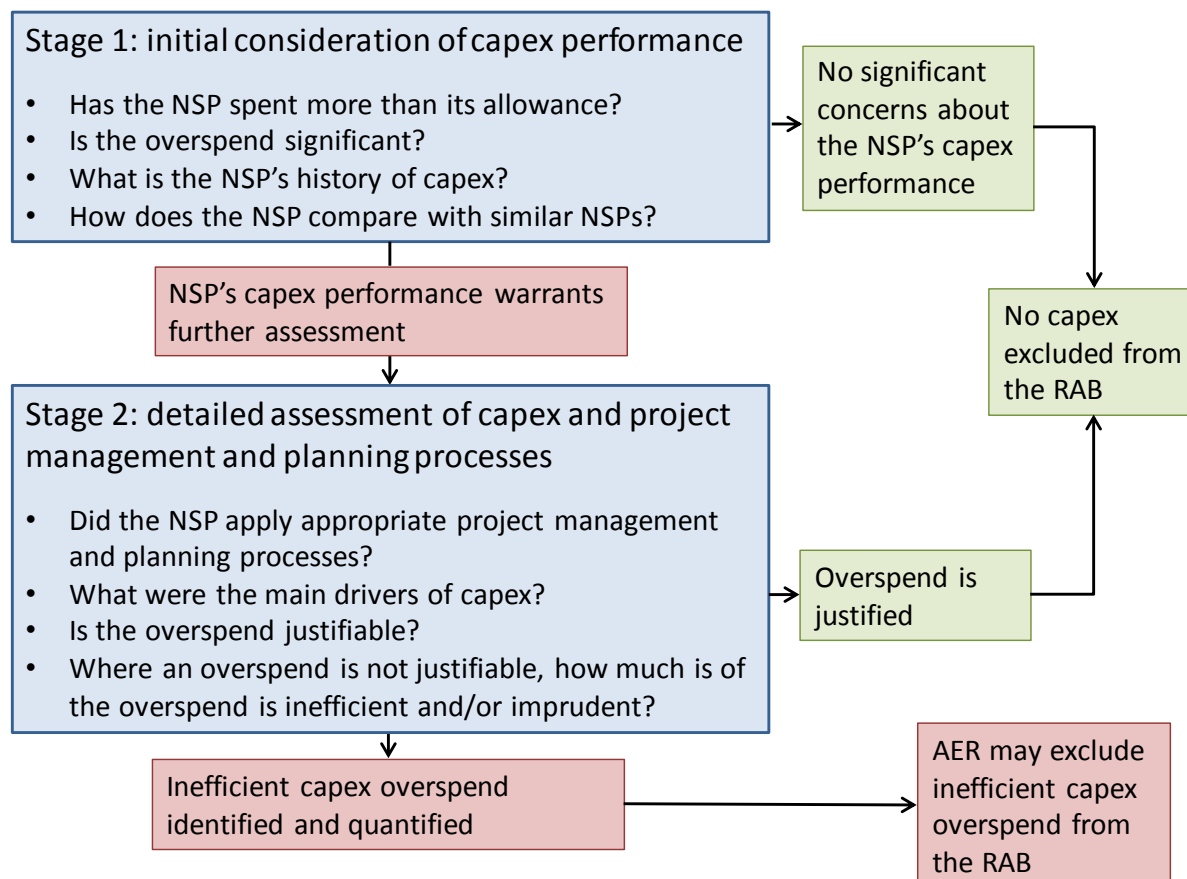
5.3 Ex post review process

The AER will undertake a staged process for the purpose of the ex post statement and in making any decisions on whether to exclude inefficient capex overspends from the RAB. This process is outlined in figure 1. NSPs would be consulted at each stage of the process.

¹ Plus (or minus) any adjustments provided for under the reopening provisions, as a pass through or as a contingent project.

Under clauses S6.2.2A(h) and S6A.2.2A(h) of the NER, in undertaking this review the AER can 'only take into account information and analysis that the NSP could reasonably be expected to have considered or undertaken at the time that it undertook the relevant capital expenditure'.

Figure 1 Staged process for ex post review



The AER's process for assessing the efficiency of a NSP's capex involves a two stage process.

5.3.1 Stage 1

The first stage is for the AER to consider the NSP's actual capex performance. The key questions are:

- Has the NSP overspent against its allowance?
- If so, is the overspend significant?
- What is the NSP's history of capex?

In some cases the AER may consider capex on a year by year basis. However, in general it will more likely consider whether there is a cumulative overspend over the period and the NSP's capex history. In investigating any overspend, the AER might consider the drivers of the overspend and whether these drivers were within the control of the NSP.

Where relevant, the AER might draw on high level benchmarking or other information to assess how the NSP has performed on capex relative to other similar NSPs. For example, if similar NSPs had faced the same exogenous factors then a comparison between the NSPs could indicate how well each NSP had responded to these factors. In addition, benchmarking could be used as a filter to

identify the key drivers of capex which could be used to target our assessment in stage 2. These comparisons would most likely be undertaken at a high level and would not replace more detailed NSP-specific analysis that would follow in stage two of the assessment process, as required.

If the AER is reasonably satisfied from this high level assessment that the NSP has not significantly overspent over the relevant period, it could deem that the NSP has been broadly efficient. In this case no further assessment of capex efficiency would be required. If not, the assessment of efficiency would progress to stage 2.

5.3.2 Stage 2

If the ex post capex review proceeds to stage 2 it is likely that the NSP has significantly overspent and the AER has not yet been convinced that there are good reasons to justify the overspend. Stage 2 involves a detailed assessment of the drivers of the NSP's capex and the NSP's management and planning tools and practices. This will likely draw on the expertise of engineers and other external consultants.

In assessing the NSP's planning and management tools and processes, the AER will have regard to whether the NSP has applied:

- for major projects, a Regulatory Investment Test (RIT-D or RIT-T) that complies with the relevant guidelines
- appropriate project management plans and processes including:
 - asset management, project delivery controls, procurement strategies, asset lifecycle management, resourcing strategies, program management and risk management
- appropriate project governance and capital governance.

It will also be important to assess whether these plans, processes and governance arrangements have actually been applied by the NSP in undertaking capex. One way in which NSPs could potentially demonstrate this would be to attain national or international accreditation in asset management.² In its assessment the AER could draw from any independent audits undertaken as part of a NSP's asset management and planning processes.

In assessing a NSP's capex drivers, the AER could consider:

- the findings of any independent audit undertaken as part of a NSP's asset management and planning processes
- Repex and Augex models for distribution NSPs to assess replacement and augmentation capex
- a sample of customer connections, or a benchmark of customer connections for multiple small connections
- any changes to demand that could have influenced capex outcomes
- IT capex
- indicators of service performance

² The United Kingdom standard for asset management (PAS 55) is soon to become an international standard (ISO 55000). Ofgem requires PAS 55 accreditation for all distribution network service providers in Great Britain.

- case-by-case or project-by-project assessments of other projects.

Once the capex drivers are identified and the AER has assessed the NSP's management and planning processes, it will consider:

- whether the NSP's reasons for the capex overspend are justifiable
- whether there are any other reasons that mitigate the NSP's level of overspend
- whether the NSP has followed appropriate processes and procedures in undertaking its capex projects to ensure it spent only the efficient and prudent level of capex required.

Once the AER has undertaken this analysis (using a similar methodology to how it undertakes this analysis ex ante) it will form an opinion on what aspects of the NSP's capex are efficient and prudent and what aspects of the NSP's capex are not efficient and prudent.

5.4 Exclusion of capex from the RAB

The process for assessing whether to exclude capex from the RAB was discussed above. There are three cases in which the AER has the ability to exclude capex from the RAB:

1. when a NSP has overspent, the amount of capex above the allowance that does not meet the capital expenditure criteria can be excluded from the RAB
2. where there is an inflated related party margin, the inflated portion of the margin can be excluded from the RAB
3. where a change to a NSP's capitalisation policy has led opex to be capitalised, the capitalised opex can be excluded from the RAB.

The AER's decision on whether to exclude capex from the RAB in the case of an inefficient overspend will be informed by the ex post review (outlined above) and the factors and issues that it is required to consider under the NER. In this case the inefficient capex will not be included in the RAB roll forward for years 1, 2 and 3. For inefficient capex overspends in years 4 and 5, the adjustment to the RAB will be made one regulatory control period later taking into account the amount of capex that was included in the RAB previously, and the NPV adjustment required to ensure the NSP does not retain any revenue through the RAB from an inefficient overspend. An adjustment to the CESS may also be required as discussed in section 3.5 of these guidelines.

The process for assessing whether exclusions are required on the basis of a change to a NSP's capitalisation policy or for inflated related party margins is discussed below.

5.4.1 Capitalisation policy changes

This issue is only relevant where a NSP's incentives for capex and opex are not balanced. If the power of the CESS is the same as the power of the opex efficiency benefit sharing scheme (EBSS) it does not matter whether expenditure is classified as capex or opex. For example, assume a NSP is subject to a CESS and an EBSS, both with a power of 30 per cent. If a NSP capitalises opex it will benefit by 30 per cent through the EBSS but this will be offset by the 30 per cent penalty from the CESS. Hence, there will be no net difference and there is no need to consider whether a NSP has changed its capitalisation policy. In this scenario the AER will roll into the RAB whatever the NSP has classified as capex at the time of the roll forward (subject to this meeting other relevant requirements

under the ex post review). Hence, the AER's first consideration is whether the NSP's incentives for capex and opex are relatively balanced.

Where the incentives for opex and capex are not balanced, the AER will consider whether:

- a NSP has changed its capitalisation policy during the current regulatory control period, and
- whether opex has been reclassified as capex due to those changes.

To determine this, the AER will require the following information from NSPs as part of the regulatory determination process:

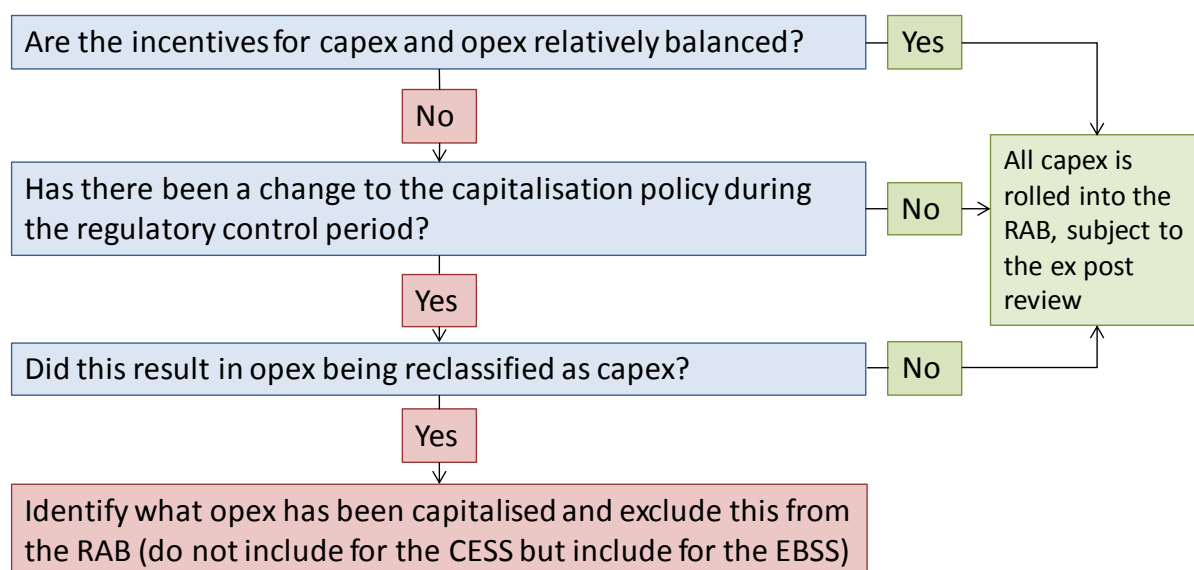
- details of any changes made to the NSP's capitalisation policy during the regulatory control period and the impact of these changes
- identification of any opex that has been capitalised as a result of the changes to the capitalisation policy.

The AER may also require the NSP to provide details of its capitalisation of expenditure as part of the annual Regulatory Information Notice/Regulatory Information Order process, including a statement of its capitalisation policy with auditor's sign-off.

Where the AER identifies that opex has been capitalised as a result of a change to the NSP's capitalisation policy (where the incentives for capex and opex are not balanced), the corresponding expenditure will be excluded from the RAB. For the purposes of calculating the payment due under the opex efficiency benefit sharing scheme (EBSS), this expenditure will count as opex. This process is shown in figure 2.

In all other instances the RAB will be rolled forward for the NSP's entire capex spend (subject to this meeting the relevant requirements under the ex post review).

Figure 2 Process for assessing capitalisation policy changes



5.4.2 Related party margins

This assessment is only relevant where a NSP is provided services from a related party and where there is a cost margin included in the contract.

When rolling forward the RAB, our decision on whether to accept a related party margin will depend on whether the contractual arrangements have changed during the regulatory control period.

If the contract arrangement with the related party has not changed during the regulatory control period, then the AER will only allow into the RAB the related party margin that was approved by the AER at the time of the determination.

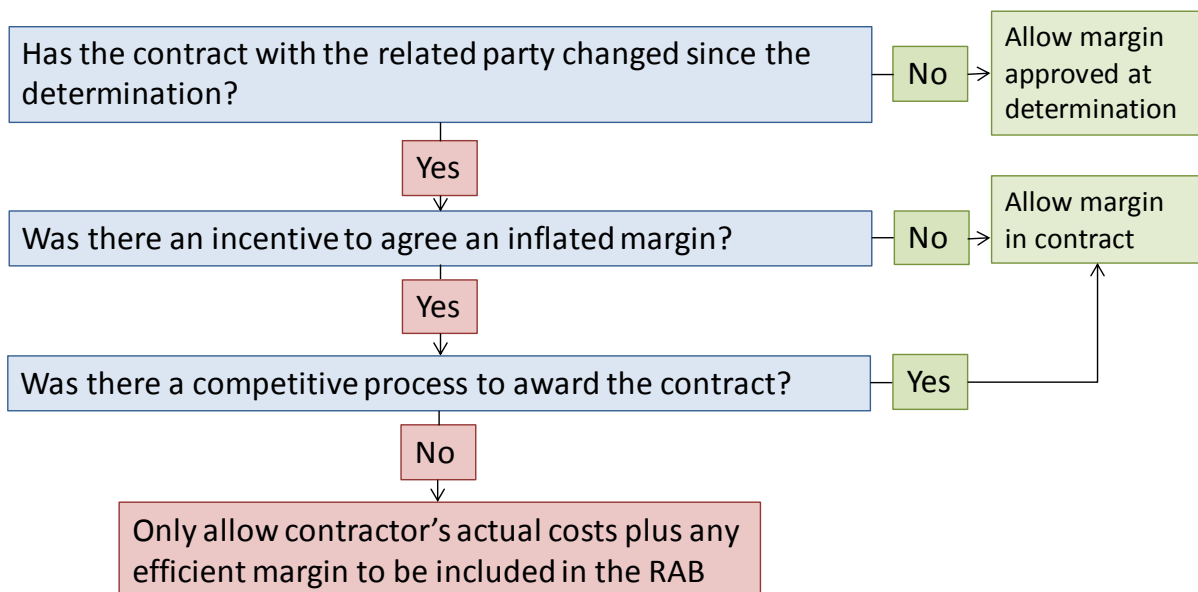
If the contractual arrangements have changed during the regulatory control period, the AER will have to undertake another assessment of the related party margin. This involves a two stage process. The first stage is a 'presumption threshold' test in which the AER considers the following:

- Did the NSP have an incentive to agree to non-arm's length terms at the time the contract was negotiated (or at its most recent re-negotiation)?
- If yes, was a competitive open tender process conducted in a competitive market?

If the answer to the first question is no or the answer to the second question is yes, the NSP passes the presumption threshold. In these circumstances, the AER assumes that the contract charge (including any associated margin above direct costs) reflects efficient costs and it accept the NSP's expenditure forecast.

Where a contract arrangement fails the presumption threshold, the AER will allow the contractor's actual costs to be rolled into the RAB. A 'margin' will only be permitted where the service provider is able to establish the efficiency and prudence of such a margin against legitimate economic reasons for the inclusion of the margin (and its quantum).³ This process is shown in figure 3.

Figure 3 Process for assessing related party margins



³ This could be to compensate for common costs, provide a return on, and of, physical and intangible assets by the contractor in the provision of the service, or to compensate for asymmetric risks.

5.5 Ex post statement

The ex post statement is to be undertaken as part of a revenue determination for the regulatory control period just ended and will draw on the ex post review process outlined above. It will coincide with the roll forward of the RAB undertaken as part of a revenue determination.

The period for the ex post statement is the usual regulatory control period. This differs from the ex post exclusion period which covers years 1, 2 and 3 of the regulatory control period just ending and years 4 and 5 of the regulatory control period preceding that.

While the same ex post review process will be used for the ex post statement and the ex post exclusion assessment, it is likely that the process will be more detailed for the years in which the ex post exclusion provisions apply.

6 How these measures are consistent with the capital expenditure incentive objective

Under clauses 6.4A(b) and 6A.5A(b) the NER, these guidelines must set out how the above schemes and proposals, both individually and taken together, are consistent with the capital expenditure incentive objective.

The capital expenditure incentive objective is given by clauses 6.4A(a) and 6A.5A(a) of the NER:

The capital expenditure incentive objective is 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.

The capital expenditure criteria are contained in clauses 6A.6.7(c) and 6.5.7(c) of the NER and require that capex should reflect:

- the efficient costs of achieving the capital expenditure objectives
- the costs that a prudent NSP would require to achieve the capital expenditure objectives
- a realistic expectation of the demand forecast and cost inputs required to achieve the capital expenditure objectives.

The capital expenditure objectives are contained in clauses in 6.5.7(a) and 6A.6.7(a) of the NER:

(a) A building block proposal must include the total forecast capital expenditure for the relevant regulatory control period which the Distribution Network Service Provider [TNSP] considers is required in order to achieve each of the following (the *capital expenditure objectives*):

- (1) meet or manage the expected demand for standard control services over that period;
- (2) comply with all applicable regulatory obligations or requirements associated with the provision of standard control services;
- (3) maintain the quality, reliability and security of supply of standard control services; and
- (4) maintain the reliability, safety and security of the distribution system through the supply of standard control services.

A discussion of how the measures outlined in these guidelines, both individually and taken together, are consistent with this objective is provided below.

6.1 The capital expenditure sharing scheme

The CESS provides NSPs with an ex ante incentive to spend only efficient capex. Under the proposed CESS, NSPs that make efficiency gains will be rewarded through the CESS. Conversely, NSPs that make efficiency losses will be penalised through the CESS. In this way, NSPs will be more likely to incur only efficient capex when subject to a CESS. This should assist in ensuring that any capex included in the RAB reflects the capex criteria. In particular, if a NSP is subject to the CESS, its capex is more likely to be efficient and to reflect the costs of a prudent NSP.

6.2 Use of actual or forecast depreciation

In most circumstances forecast depreciation will be used to roll forward the RAB. In particular, if a NSP is already subject to the CESS and there is no evidence of persistent overspending or

inefficiency, forecast depreciation will be used to roll forward the RAB. Alongside the operation of the CESS, this will ensure that a NSP faces clear and equal incentives for efficient capex irrespective of what type of capex asset is being funded and when the capex occurs.

Where a CESS does not apply, or stronger incentives are required, using actual depreciation to roll forward the RAB would strengthen a NSP's incentives for efficient capex. In both scenarios a NSP will have incentives to ensure their capex is efficient and reflects the costs that a prudent NSP would incur.

6.3 Ex post statement and exclusions from the regulatory asset base

The ex post exclusion of inefficient overspends from the RAB goes to the heart of the capex incentive objective. In particular, the AER will specifically be able to assess whether capex overspends have met the relevant capex criteria. If not, the AER can exclude these costs from the RAB. In addition, the ability to exclude inflated related party margins and capitalised opex will ensure that consumers do not pay for these costs where they do not reflect the capex criteria.

6.4 How the measures together are consistent with the objective

The application of the CESS alongside forecast depreciation will provide NSPs with clear ex ante incentives to ensure they spend only efficient capex. Where these measures are not sufficient, the AER may choose to strengthen the ex ante incentives by using actual depreciation to roll forward the RAB. In this way the AER has a number of tools for providing NSPs with ex ante incentives for efficient capex.

The ex post measures outlined in these guidelines complement the ex ante measures. In particular, if a NSP has not responded to the ex ante incentives, the AER will still have the ability to review the NSP's actual capex. Where a NSP has overspent, the AER can exclude the overspend from the RAB where it does not meet the capex criteria.

In this way, these guidelines provide a suite of measures to incentivise NSPs to undertake only efficient capex. Ultimately this should go towards achieving the capex incentive objective.

Glossary

These guidelines use the following definitions and acronyms.

Term	Definition
AER	Australian Energy Regulator
augex	Augmentation expenditure
capex	Capital expenditure
CESS	Capital Expenditure Sharing Scheme
EBSS	Efficiency Benefit Sharing Scheme
guidelines	Capital Expenditure Incentive Guidelines
NER	The National Electricity Rules as defined in the National Electricity Law.
NSP	Network Service Provider
opex	Operating expenditure
RAB	Regulatory asset base
repx	Replacement expenditure
RIT-D	Regulatory Investment Test - Distribution
RIT-T	Regulatory Investment Test - Transmission
WACC	Weighted Average Cost of Capital

A Capital expenditure sharing scheme example

This appendix provides a worked example of how the general CESS would work. Numbers other than percentages are in millions of dollars.

Discount rate:	6%
NSP share of overspend:	30%
NSP share of underspend:	30%

Year	1	2	3	4	5
Capex allowance	300	330	270	300	330
Actual capex	280	310	300	290	320
Underspend	20	20	-30	10	10
Year 1 benefit	0.59	1.20	1.20	1.20	1.20
Year 2 benefit		0.59	1.20	1.20	1.20
Year 3 benefit			-0.89	-1.80	-1.80
Year 4 benefit				0.30	0.60
Year 5 benefit					0.30
Total financing benefit	0.59	1.79	1.51	0.90	1.50
Discount factor (middle of year)	1.30	1.23	1.16	1.09	1.03
Discount factor (end of year)	1.26	1.19	1.12	1.06	1.00
NPV underspend	26.00	24.52	-34.70	10.91	10.30
NPV financing benefit	0.75	2.13	1.70	0.95	1.50

Total underspend (NPV)	37.03
Relevant sharing ratio	30%
Customer share	25.92
NSP share	11.11
Total NSP financing benefit (NPV)	7.03
CESS benefit	4.08