Having the desired effect: submission to the AER's Draft Expenditure Incentive Guideline

20 September 2013

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Introduction

The Public Interest Advocacy Centre

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit law and policy organisation that works for a fair, just and democratic society, empowering citizens, consumers and communities by taking strategic action on public interest issues.

PIAC identifies public interest issues and, where possible and appropriate, works co-operatively with other organisations to advocate for individuals and groups affected. PIAC seeks to:

- expose and redress unjust or unsafe practices, deficient laws or policies;
- promote accountable, transparent and responsive government;
- encourage, influence and inform public debate on issues affecting legal and democratic rights; and
- promote the development of law that reflects the public interest;
- develop and assist community organisations with a public interest focus to pursue the interests of the communities they represent;
- develop models to respond to unmet legal need; and
- maintain an effective and sustainable organisation.

Established in July 1982 as an initiative of the (then) Law Foundation of New South Wales, with support from the NSW Legal Aid Commission, PIAC was the first, and remains the only broadly based public interest legal centre in Australia. Financial support for PIAC comes primarily from the NSW Public Purpose Fund and the Commonwealth and State Community Legal Services Program. PIAC also receives funding from Trade and Investment, Regional Infrastructure and Services NSW for its work on energy and water, and from Allens for its Indigenous Justice Program. PIAC also generates income from project and case grants, seminars, consultancy fees, donations and recovery of costs in legal actions.

Energy + Water Consumers' Advocacy Program

This program was established at PIAC as the Utilities Consumers' Advocacy Program in 1998 with NSW Government funding. The aim of the program is to develop policy and advocate in the interests of low-income and other residential consumers in the NSW energy and water markets. PIAC receives policy input to the program from a community-based reference group whose members include:

- Council of Social Service of NSW (NCOSS);
- St Vincent de Paul Society NSW;
- Combined Pensioners and Superannuants Association of NSW;
- Park and Village Service;
- Ethnic Communities Council NSW;
- Rural and remote consumers;
- Retirement Villages Residents Association;
- Physical Disability Council NSW; and
- Affiliated Residential Park Residents Association.

1. The current review

1.1 Background

PIAC thanks the Australian Energy Regulator (AER) for providing a further opportunity to respond to the Guidelines that are being developed as part of its Better Regulation Program.

The overarching purpose of the Better Regulation Program is to provide an improved framework for the economic regulation of network service providers (NSPs). The improved framework is focussed on delivering efficient and prudent network services that meet the long-term interests of energy consumers.

The AER, its staff and expert consultants are to be commended for their on-going efforts to engage all stakeholders in these important reforms to the National Energy Market (NEM).

The final Guidelines, which will be published in late November this year, will provide the NSPs and other interested stakeholders with information on how the AER will go about assessing the revenue proposals provided by the NSPs and what principles the AER will apply in this assessment. While the Guidelines are not mandatory they carry a strong presumption that they will be complied with and any variation from the principles and approaches set out in guidelines by either the AER or by a NSP in their proposals will need justification.

The development of these Guidelines is, therefore, a key part of the reforms to the economic regulation of electricity networks, which commenced in 2011 and culminated in the significant changes enacted by the Australian Energy Market Commission (AEMC) to Chapter 6 (the Economic Regulation of Distribution Services) and Chapter 6A (the Economic Regulation of Transmission Services) of the National Electricity Rules (NER) in November 2012.

This submission responds to the AER's Draft Guidelines that set out the AER's approach to establishing a new incentive framework for capital expenditure by NSPs and to enhancing the operation of the existing Efficiency Benefit Sharing Scheme (EBSS) that applies to operating expenditure. The AER intends that the Capital Expenditure Incentive Guideline and the EBSS apply to both electricity transmission network service providers (TNSPs) and electricity distribution network service providers (DNSPs) operating in the NEM.

PIAC's submission comments on both the Draft Capital Expenditure Incentive Guideline (Draft Capex Incentive Guideline) and the Draft EBSS Guideline. The main focus of PIAC's submission, however, is on the Draft Capex Incentive Guideline which outlines two incentive mechanisms, the capital expenditure sharing scheme (CESS) and the ex-post capital expenditure review (collectively, the 'Capex Incentive Schemes').

The focus in this submission is on capital expenditure incentives and reflects PIAC's particular concerns with the AER's proposed capex incentive schemes. Ensuring the NSPs' capital expenditure (capex) is efficient and prudent is central to the long-term interests of consumers. However:

- the approach set out in the Draft Capex Incentive Guideline has significant gaps and does not provide the necessary assurance that consumers' long-term interests are adequately protected; and
- as a result, the capital expenditure incentive objectives in the NER will not be met, that is, the regulated asset base (RAB) will continue to include inefficient capital expenditure.

The relevant documents considered by PIAC in forming this view are:

- AER Draft Capital Expenditure Incentive Guideline (Draft Capex Incentive Guideline);[1]
- AER Explanatory Statement, Draft Capital Expenditure Incentive Guideline (Draft Capex Incentive Explanatory Statement);[2]
- AER Proposed Efficiency Benefit Sharing Scheme (Proposed EBSS);[3] and
- AER Explanatory Statement, Proposed Efficiency Benefit Sharing Scheme (Proposed EBSS Explanatory Statement).[4]

1.2 The AER Issues Paper

PIAC made a detailed submission to the AER in May 2013[5] in response to the AER's initial Issues Paper on expenditure incentives[6] (the Issues Paper). The Issues Paper set out the AER's views on the key principles and issues to be addressed by the AER in developing a new capital expenditure (capex) incentive scheme and enhancing the existing operating expenditure (opex) sharing scheme, the EBSS.

In that submission, PIAC highlighted the significant concerns of consumers with the effectiveness of the AER in achieving outcomes from the economic regulation process, which were consistent with the long-term interests of consumers as required by the National Electricity Objective (NEO).

PIAC's position is not unique. It builds on the many investigations into the current economic regulatory framework, which have arisen out of the negative impact of the rapid increases in electricity network costs on business and residential consumers in the NEM.[7]

PIAC highlighted, in particular, the harm to both the short- and long-term interests of electricity consumers, which has occurred over the last decade as a result of the combined impact of higher allowances for the cost of capital, high expenditure forecast allowances and the overspending of allowed expenditures, particularly capital expenditure allowances.

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1 AER, *Better Regulation*, *Draft Capital Expenditure Incentive Guidelines*, 2013.
2 AER, *Better Regulation, Explanatory Statement Draft Capital Expenditure Incentive Guidelines*, 2013.
3 AER, *Electricity Network Service Providers, Proposed Efficiency Benefit Sharing Scheme*, 2013.
4 AER, *Better Regulation, Explanatory Statement, Proposed Efficiency Benefit Sharing Scheme*, 2013.
5 Hughson, B, and Hodge, C, *Better incentives, better outcomes; PIAC submission to the AER's Issues Paper – Expenditure Incentives Guidelines*, 2013.
6 AER, *Expenditure Incentives Guidelines – Issues Paper*, 2012.
7 See for instance: AEMC, *Economic Regulation of Network Service Providers and Price and Revenue Regulation of Gas Services, Final Position Paper*, 2012; Productivity Commission, *Electricity Network Regulatory Frameworks*, 2013.

While these interacting issues do not apply equally to all determinations by the AER, nor to all NSPs, the overall impact is one of excess investment, rapidly rising prices and loss of confidence of consumers in the very regulatory processes designed to ensure efficient and prudent expenditure in consumers' long-term interests.

PIAC also expressed its support for most elements of the AER's proposed approach, while putting forward a number of principles and recommendations to strengthen the incentive scheme and to ensure that the long-term interests of consumers are the central consideration in its design. PIAC's conclusions in its submission to the AER's Issues Paper included the following:

- strong support for the AER's proposal in the Issues Paper for an asymmetric CESS;
- the asymmetric CESS should include penalties of 50 per cent for overspending capital allowances[8] and 20–30 per cent reward for under-spending;
- support for the AER's view that the CESS should the primary tool for encouraging capex efficiency improvements and limiting overspending of capex
- the ex-post review process, while important, was limited in its actual application and served more as 'moral suasion' to deter inefficient investment; and
- the importance of strengthening the service target performance incentive scheme (STPIS) to balance the incentive for under-spending capex.

Following a review of the AER's Draft Capex Incentive Guideline, PIAC continues to support its previous conclusions for the reasons set out in this submission in Sections 3 and 4 and summarised in Section 2 below.

1.3 The Draft Capital Expenditure Incentive Guideline

PIAC strongly supported the AER's initial proposal for an asymmetric CESS, with strong penalties for overspending to reflect the harm that overspending has on the long-term interests of consumers. PIAC proposed penalties in the order of 50 per cent.

In the Draft Capex Incentive Guideline, however, the AER made some very significant changes that are of great concern to PIAC. The key changes made by the AER are as follows:

- the AER is proposing a 'symmetric scheme' with 30 per cent reward for under-spending and a 30 per cent penalty for overspending (where this overspending has not been found to be inefficient);[9]
- if the overspending is found to be inefficient, the overspending will be excluded from the RAB at the start of the next regulatory period; and
- the AER will place greater reliance on the ex-post review to ensure that it meets the capital expenditure incentive objective that the future RAB does not include inefficient capex.

[8] While PIAC proposed a 50 per cent penalty for overspending, other consumer organisations proposed even higher penalties. For example, the Energy Users Association of Australia proposed a 50 per cent for privately owned networks and 70 per cent for government owned networks (reflecting their lower cost of capital compared to allowed cost of capital), the Major Energy Users proposed 100 per cent penalty, and the Total Environment Centre agreed that an incentive over 30 per cent was required. See, AER, above n 2, Table 2, 22.

[9] The NER requires that only over expenditure of capex that is found to be inefficient by the AER is excluded from the RAB. See NER cl S6.2.2A and S6A.2.2A.

Given the strong support by PIAC and other consumer representative bodies for the AER's initial position to implement an asymmetric CESS, PIAC has very considerable concern with these changes in the AER's revised approach.

In this submission, PIAC reiterates its view that an asymmetric CESS with a strong penalty for overspending is the key to delivering more efficient and prudent capex in accordance with the capex criteria and capex incentive objectives.

PIAC has come to this view after carefully considering the reasons provided by the AER for its changed views. It seems to PIAC that the AER has not made a convincing case for change to a 'symmetric' CESS. Moreover, PIAC submits that the AER has placed too much reliance on the ex-post capex review process to identify inefficient capex and to supplement the limited power of the symmetric capex incentives to drive efficient investment and meet the capital expenditure incentive objective in the NER.

This submission also considers the enhanced EBSS. The work undertaken by the AER to review the existing scheme is appreciated and PIAC largely supports the conclusions of the AER. However, given the limited data available on the historical effectiveness of the EBSS in driving efficiency in operating expenditure (opex), it would be useful for the AER to develop some mechanism for on-going assessment of the scheme, particularly in the light of the significant improvements being made in the expenditure forecast assessment processes.[10]

1.4 Recommendations

Following a review of the AER's Draft Capex Incentive Guideline, PIAC's conclusions on the central issues identified in Section 1.2 remains unchanged, as highlighted above.

PIAC considers that an asymmetric CESS will promote efficient capital management with penalties of about 50 per cent for overspending and a 20–30 per cent reward for under-spending. The CESS penalty should be supported by, but not reliant on, the ex-post efficiency review process in delivering the capex incentive objectives in the NER.

PIAC believes that this combination of an asymmetric CESS with strong penalties supported by an ex-post efficiency review provides the best balance of incentives to ensure that the capex incentive objective in the NER is met in the long-term interests of consumers.

The assumption that using a common percentage (in this case, 30 per cent) for both penalties and rewards represents a real symmetry in incentives is flawed, as is the search for symmetry as an end in its own right. PIAC considers that the AER has adopted the principle of 'symmetry' without sufficient regard to either the objectives of the capex incentive scheme in the NER to 'protect' the value of the RAB from inefficient asset investment or to the long-term interests of consumers in this outcome.

PIAC also makes a number of specific recommendations as summarised below.

[10] See the following Better Regulation Draft Guidelines: AER, *Draft Expenditure Forecast Assessment Guideline for Electricity Distribution*, 2013; AER *Draft Expenditure Forecast Assessment Guideline for Electricity Transmission*, 2013. These two Guidelines address expenditure forecasts for both capex and opex.

Recommendation 1

PIAC recommends that the AER reconsider its position in the Draft Capex Incentive Guideline and adopt an asymmetric approach in the CESS, with strong penalties for overspending capex allowances.

Recommendation 2

PIAC recommends a 50 per cent penalty for overspending on the capex allowance as this better represents a fair share of forecast risks with consumers while also conveying a strong signal to the NSPs on the imperative of efficient capital management and transparent processes.

Recommendation 3

PIAC recommends that the AER undertake further investigation of the effect of differences between the actual and allowed weighted average cost of capital on the effectiveness of the capex incentives, so that the limitations on the real incentive power of the CESS penalty for overspending are properly recognised in the CESS design.

Recommendation 4

PIAC recommends that the AER also assess the power of the penalty incentive in the CESS from the perspective of its incremental impact on a NSP, and consider whether this incremental penalty is sufficient to change behaviour and protect consumers from overspending by NSPs, which are less responsive to financial incentives.

Recommendation 5

PIAC recommends that the AER place greater weight on consideration of the real data and methodological limitations of the expenditure forecast assessment processes at this stage in its development before relying on the assessment processes to address the upward biases in demand and cost forecasts, which can distort the effectiveness of the capex and opex incentives.

Recommendation 6

PIAC recommends that the AER undertakes further investigation of the interactions of the capex, opex and service incentive schemes in order to better understand and quantify how differences in the power of the three incentives influences expenditure decisions by a NSP.

Recommendation 7

PIAC recommends that the AER considers a lower reward for under-spending in the CESS (ie, less than 30 per cent), to address the risk of under-investment. Breaking the 'nexus of symmetry' between rewards and penalties in the CESS provides flexibility for the AER to consider the risks of under-investment independently of the risks of overinvestment for consumers.

Recommendation 8

PIAC recommends that the AER place greater weight on consideration of the practical limitations of the ex-post review process, including the long time lags between the excess expenditures and the ex-post assessment and the difficulties facing the AER in assessing the information and analysis that were available to the NSP at the time of the NSP's investment decision (up to seven years prior to the AER's assessment).

Recommendation 9

PIAC recommends that the AER undertake further quantitative and qualitative assessment of the effectiveness of the EBSS in driving more efficient opex by the NSPs, and adapt the EBSS in the future accordingly.

2. Summary and conclusions

The AER outlines the key features of the CESS as follows:

- the CESS will be *comprehensive* in scope; a single CESS should apply to all NSPS, including both transmission and distribution NSPs;[11]
- the CESS will be *continuous* and *cumulative;* the power of the incentives will be the same for each year in the regulatory period and the reward/penalty will only apply to the cumulative under or overspend;[12]
- the CESS incentives will be *symmetric* with a power of 30 per cent, that is, a 30 per cent reward will apply if an NSP underspends its regulatory allowance and a 30 per cent penalty will apply if the NSP overspends its allowance;[13] and
- the CESS will use *forecast depreciation* as the default approach for roll forward the RAB except where a NSP is not subject to a CESS or has persistently overspent or inefficiently spent on capex.[14]

PIAC agrees with the AER's approach for a comprehensive, continuous and cumulative CESS. PIAC also accepts there are benefits in adopting forecast depreciation as the default option, with the option to use actual depreciation if a NSP demonstrates evidence of 'persistent overspending or inefficiency'. In these instances, the AER might deem that a higher-powered incentive is required.[15] Retaining this flexibility is a useful protection for consumers and is supported by PIAC.

PIAC does not, however, accept that the CESS scheme should be symmetric as now proposed by the AER. PIAC is most surprised by the change in position of the AER on this matter as PIAC considers that the reasons raised in the AER's Issues Paper in support of an asymmetric incentive structure continue to be valid.

After careful consideration of the AER's revised CESS, PIAC concludes that the AER's initial proposal for an asymmetric CESS was more consistent with the NEO and with the specific

11 AER, above n 2, 23-24.
12 Ibid, 17.
13 Ibid.
14 Ibid, 31.
15 Ibid, 32.

requirements of the capex incentive objective in the NER to ensure only efficient capex is included in the roll-forward of the RAB.

The AER's initial proposal is also more consistent with the important regulatory principles that the AER enunciated so effectively in the Explanatory Statement, Draft Expenditure Forecast Assessment Guideline. They are:

- the fundamental purpose of the economic regulatory regime expressed in the NEO is to 'emulate effective competitive markets;[16] and
- risk should be borne by the party best placed to manage them, which is generally not consumers.[17]

PIAC would argue that a truly competitive market places strong penalties on businesses that overspend their capital budgets; these costs cannot simply be passed on in large part to consumers. Moreover, NSPs are far better placed to manage forecast risks than are their consumers. PIAC, therefore, considers a 50/50 sharing of forecast risk in the CESS is more than fair given these two factors.

This submission also provides a detailed response to many of the criticisms made by some NSPs of the AER's initial proposal for an asymmetric scheme and to the AER's subsequent change of views in the Draft Capex Incentive Guideline. PIAC's views are set out in Section 3.2 to 3.4 and can be summarised as follows:

- a 30 per cent penalty for overspending capex is not, in practice, symmetric with a 30 per cent incentive for under-spending as the AER's approach ignores the long-term benefits to the NSP of growth in the RAB from additional capex;
- there is a history of forecast biases and overspending (by some NSPs) which then distort the effectiveness of the incentive schemes. In reducing the power of the penalty for overspending to 30 per cent, the AER places too much reliance on its ability to set efficient levels of forecast expenditure at the start of the regulatory period;
- not all NSPs overspend their capex allowances; however, this is not a reason for the AER to weaken the penalties, rather it is evidence that some NSPs require stronger incentives than currently prevail. NSPs who manage capex within their allowances do not have to be concerned with a strong penalty regime;
- although the CESS is new, this is not a reason to exclude strong penalties. Rather, the penalties in the CESS should reflect the prevailing issues for consumers and, in particular, the double jeopardy of over-forecasting and overspending of capex;
- there is no clear case made for why or how it is important to reduce penalties for over-spending in order to 'balance' the CESS with the EBSS and the STPIS; rather by breaking the 'nexus of symmetry' between the incentive schemes, the AER has the flexibility to respond to different circumstances with different mixes of incentives (while taking into account the interactions);
- by breaking the nexus of symmetry between over and under-spending capex, the AER has the flexibility to reduce the incentives for under-spending to less than 30 per cent if it believes NSPs are inefficiently cancelling or postponing capex to a later period;

16 AER, *Explanatory Statement, Draft Expenditure Forecast Assessment Guideline*, 2013, 16.
17 Ibid, 24.

- NSPs have access to a variety of regulatory mechanisms to address significant forecast risks. A strong penalty regime will encourage NSPs to use these mechanisms more appropriately and thereby enable greater transparency for the regulator and consumers; and
- the ex-post review of capex is useful. However, its practical implementation is problematic due to the time lags and the difficulties in proving that expenditure was inefficient at the time it was made (up to 7 years before). The ex-post review should not be seen as an alternative to a strong penalty for overspending in an asymmetric CESS.

PIAC, therefore, strongly recommends the AER revert to its original position on this important issue and implement an asymmetric scheme with strong penalties for over-spending and lesser penalties for under-spending. PIAC recommends the penalty for over-spending is set at 50 per cent and the reward for under-spending is set between 20–30 per cent.

As a final consideration, PIAC highlights to the AER the profound impact that the changes in the electricity supply/demand will have on the electricity network industry and, therefore, the increasing importance of the AER considering these changes in the development of the CESS.

It is now apparent that the strong growth in demand that underpinned much of the rapid expansion in capital investment in the electricity networks has not materialised and the Australian Energy Market Operator (AEMO) continues to adjust its electricity demand forecasts.[18]

The combination of large capital investment growth and (relatively) declining output has resulted in significant declines in the productivity of the sector in the last 5-10 years, which has continued into 2011-12.[19] A recent report by the Australian Energy Market Commission (AEMC) also highlights the issue that arises when investment in capacity increases faster than demand in a regulated industry:

> Under a regulatory determination, the effect of changes in consumption on capital and operating expenditure will affect whether the residential network price changes by more or less than the change in electricity consumption.
>
> This means the price per kWh for a typical residential customer would be expected to rise where the revenue required by network businesses falls more slowly than electricity consumption. This would lead to a rise in the price for the typical customer. [20]

PIAC believes that the changing face of the electricity industry is another, and perhaps more strategic, reason why the AER needs to put in place an asymmetric CESS with a strong penalty for overspending. It is the combination of over-forecasting and over-spending capex that will clearly exacerbate the issues raised by the AEMC and thereby impose unacceptable long-term risks on the network businesses, their investors and consumers.

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18 See for instance, AEMO, *Electricity Statement of Opportunities*, 2013.

19 See: Productivity Commission 2013, *PC Productivity Update*, 2013. The Commission reports productivity change by industry category; for the energy, water & waste services they report the following percentage change in *average annual MFP* [Multi Factor Productivity] growth rates; 2003-04 to 2007-08 = -4.8%, 2007-08 to 2011-12 = -4.5% (Table 4, p 22) and the trend continued for 2010-11 to 2011-12 = -5.4%.

20 AEMC, *Possible future retail electricity price movements: 1 July 2012 to 30 June 2013, Electricity price trends final report*, 2013.

3. Capex incentive scheme

In this section, PIAC considers the AER's Draft Capex Incentive Guideline in terms of its two interrelated component elements: the CESS and the ex-post review for efficient capital expenditure.

As highlighted in the introduction to this submission, it is also important to consider the approach adopted in the Draft Capex Incentive Guideline in parallel with consideration of the Expenditure Forecast Assessment Guideline and the other incentive schemes, particularly the STPIS.

3.1 The requirements under the NER

3.1.1 The capex objectives and criteria in the NER

The AEMC's amendments to the NER require the AER to make and publish a Capital Expenditure Incentive Guideline[21] and to ensure that any CESS set out in the Guideline is in accordance with the capital expenditure incentive objectives in the amended NER.[22]

In forecasting the capex allowance, the NER requires the AER to be satisfied that a NSP's proposal achieves the capital expenditure objectives.[23] The AER must accept the NSP's capex proposal if it is satisfied that the total forecast expenditure proposed reasonably reflects the efficient costs that a prudent operator would require to achieve the capital expenditure objectives given a realistic expectation of the demand forecast and cost inputs required to achieve these objectives.[24]

The NER thus sets a target for forecasting capex allowances based on the reasonable forecasts of services provided in a reasonably efficient and prudent manner.

More particularly, the capex incentive regime should be understood in the context of the initial forecast that is based on 'realistic' expectations for demand and cost inputs. The incentive regime is not built around a 'challenge' target for capex, but a reasonable target for efficient costs based on realistic forecasts.

3.1.2 The capital expenditure incentive objective

The NER sets out a specific objective for the capex incentive scheme as follows:

> The capital expenditure incentive objective is to *ensure* that, where the value of the 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.[25] [PIAC's emphasis]

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21 NER cl 6.2.8 (a)(1) for distribution network services and cl 6A.2.3 for transmission network services.

22 NER cl 6.5.8A and 6A.6.5A.

23 NER cl 6.5.7 (a) and 6A.6.7. The capex objectives refer to the need to meet or manage the expected demand for standard control services, comply with applicable regulatory obligations, maintain the quality reliability and security of supply of standard control services and maintain the reliability, safety and security of the networks through the supply of standard control services.

24 NER cl 6.5.7 (c) and 6A.6.7 (c).

25 NER, cl 6.5A and 6A.5A.

In other words, the *specific role* of the capex incentive scheme is to ensure that the value of the RAB only increases by an amount that reflects the efficient capex costs of a prudent operator based on realistic forecasts of demand and cost inputs.

The design of the incentive scheme must ensure this capital incentive scheme objective is met. Protecting the value of the RAB from unnecessary increases is at its core. The capex incentive objective in the NER is less concerned with enhancing efficiency (above a 'reasonable' level of efficiency), and more concerned with preventing inefficient increases in capex that would otherwise flow through to the future value of the RAB. The capex incentive objective itself is therefore essentially asymmetric; it is concerned with excluding inefficient capex from the RAB rather than enhancing efficiency.

The CESS is one such ex-ante mechanism to encourage efficient expenditure by rewarding savings in spending and penalising overspending. The ex-post capex review is another, as it requires the AER to remove overspending that is found to be inefficient from the NSP's future RAB. The question is, what combination of these mechanisms best achieves the capex incentive objective and thereby supports the long-term interests of consumers?

The following sections provide an assessment of the two components of the proposed capex incentive scheme, the CESS and the ex-post review, in order to determine what features best deliver on the capex incentive objective.

3.2 The capital expenditure sharing scheme (CESS)

The AER has considered a number of important design features of the CESS. PIAC's submission is largely supportive of the AER's conclusions with two important exceptions. The exceptions are:

- the AER's decision to proceed with a symmetric scheme of rewards and penalties and thereby weaken the direct disincentives for capex overspending compared to the initial AER proposal; and
- the AER's decision to place greater reliance on the ex-post incentives to achieve the capital expenditure incentive objective.

These two matters are discussed in further detail in sections 3.3 and 3.4.

3.2.1 The AER's draft approach to the design features of the CESS

3.2.1.1 AER's position on the scope of the CESS

The AER considered both the scope and the content of the CESS. With respect to the scope of the CESS, the AER asked two questions:

- whether there should be one or more than one CESS scheme to reflect the different characteristics of the NSPs; and
- whether any categories of capex should be excluded from the CESS.

The AER has concluded that only one CESS scheme should apply across transmission and distribution businesses and that all categories of capex should be included in the CESS, including

capex that has been approved as part of a pass-through application by a NSP or as a contingent project.[26] The AER, for instance, rejected proposals that sought capex associated with economic conditions or regulatory obligations to be excluded from the CESS.[27]

3.2.1.2 PIAC's position on the scope of the CESS

PIAC suggested in response to the AER's Issues Paper that there should be one capex incentive scheme to apply to all NSPs.[28] However, PIAC also noted that while the basic features of the scheme should be constant, the power of the incentives might be different.

For instance, transmission NSPs have more lumpy investments and therefore may be subject to larger percentage variations from forecasts in either direction than a distribution NSP, which should be able to forecast more accurately based on long-term trends. Material overspending of capex, therefore, could mean somewhat different things about the NSPs approach to managing their capital budgets and may require different economic incentives to drive efficiency.[29]

However, this is a matter of degree not of fundamental principles and PIAC accepts the AER's conclusions that there should be one CESS to apply to all NSPs. This is certainly preferable to having multiple schemes covering different aspects of the network industry.

Similarly, PIAC accepts that there is merit in considering capex as a whole for the purposes of applying incentives, including capex incurred as a result of an approved pass-through application or contingency event. Including the capex for approved pass-through events and other approved changes to capex is consistent with PIAC's preference for encouraging NSPs to use the transparent regulatory processes available to manage forecast risk and other exogenous changes. It is also consistent with an approach that evaluates the capex as a whole package of expenditures contributing to the capex objectives and criteria.

While PIAC is comfortable with the general principles of scope proposed by the AER above, PIAC remains concerned about the distortion of the incentive scheme that can arise when a NSP is not driven solely by financial incentives[30] and/or the actual cost of capital is less than the allowed cost of capital.[31]

The AER acknowledges the overall contention that these factors may influence the NSPs' response to the proposed CESS. However, the AER also argues that the impact is not sufficient reason to invalidate the proposed CESS particularly given the ex-post review of efficiency. The AER concludes, for instance, that the 'the ex-post review should provide some protection against customers paying for inefficient overspends'.[32]

PIAC challenges this assumption by the AER that the ex-post review will provide 'some protection' for consumers. The capex incentive objective does not talk about 'some protection';

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26 AER, above n 2, 23-24.
27 Ibid, 24-25.
28 Hughson, B and Hodge, C, above n 5, 21.
29 Ibid.
30 AER, above n 2, 23.
31 Ibid.
32 Ibid.

the objective requires the AER to 'ensure' that the value of the RAB does not increase as a result of inefficient expenditure. PIAC does not accept that the proposed ex-post review can give that assurance to consumers (see Section 3.4).

In practical terms, it may be difficult for the AER to set different penalties for different NSPs based on ownership, particularly given the views of the AEMC and others on this matter.[33] What the AER can do, and PIAC recommends, is provide a strong penalty for overspending that applies irrespective of ownership or any differential between the actual and allowed regulatory WACC.

Most NSPs currently operate within or close to their capex allowances over the regulatory period and will, therefore, not be affected by a strong penalty for overspending capex. However, consumers have the right to expect that those who do not adjust to the standard of their peers (whether government-owned or private) will incur this penalty.

Section 3.3 below provides a more extensive discussion on this issue of penalties.

3.2.1.3 The AER's position on the key design features of the CESS

There are four other features to the CESS arrangements that must be considered together as a total package of incentives to promote efficient and prudent capex by NSPs. The features that were considered by the AER in the process of developing the Draft Capex Incentive Guideline include the following:

- *continuous or discontinuous incentive*: under a continuous incentive the strength of the incentive would be the same for each year of the regulatory control period;
- *cumulative or non-cumulative assessment*: under a cumulative assessment the reward/penalty would only apply to the cumulative underspend or overspend for the entire regulatory control period;
- *symmetric or asymmetric*: under a symmetric approach penalties for overspending capex would be the same as the rewards for under-spending capex;
- *use of forecast depreciation or actual depreciation of the capex expenditure*: use of actual depreciation will increase the power of the incentive scheme through its impact on the starting RAB for the next regulatory period.[34]

The AER has proposed a continuous and cumulative scheme, using forecast rather than actual depreciation as the default option. These positions are consistent with the AER's original position set out in the AER's Issues Paper. Following further explanation of its position in the Explanatory Statement - Draft Capex Incentives Guidelines, PIAC has no dispute with these aspects of the Draft CESS.

However, the AER has changed its position on the question of a symmetric or an asymmetric CESS. In its Issues Paper, the AER proposed an asymmetric scheme with a reward of between 20 and 30 per cent and a penalty greater than 30 per cent for under and over-spending

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33 The AEMC rejected a rule change proposal by the Energy Users Association of Australia for the AER to determine the cost of capital for state-owned NSPs in a different way than for privately-owned NSPs. See AEMC, above n 7, v.

34 See AER, above n 2, 16. The treatment of depreciation is discussed in 29 – 31.

respectively. The original reasons given by the AER for proposing an asymmetric scheme in the Issues Paper included:

- concern that a high reward for under-spending could lead NSPs to under-invest or defer capex to the detriment of service standards;
- the AER considered that NSPs should usually be able to spend within their allowance because:
    - the initial determination provided them with a 'reasonable opportunity to recover at least the efficient costs' (i.e., it was not set at an efficient frontier);
    - forecasts are likely to be biased upwards given asymmetric information; and
    - reopening provisions, pass-through arrangements and contingent projects protect NSPs from significant overspends in certain circumstances.
- Some NSPs are less responsive to financial incentives meaning greater protection of consumers from overspending is warranted.[35]

PIAC largely supported the AER's initial reasoning and conclusions on this feature of the CESS, and suggested a reward of some 20 per cent for under-spending and a penalty of around 50 per cent for over-spending would be appropriate and represent a fair sharing of forecast risks. This level of incentives would also reflect:

- the asymmetric nature of the risks; that is, the greater significance of over-spending on the long-term interests of consumers compared to the shorter term benefits of under-spending;
- the history of significant over-spending of capex by some NSPs with minimal accountability; and
- the different ability of the various parties to manage this risk.[36]

PIAC is, therefore, very concerned that the AER has altered its position on this issue.

The AER is now proposing that the rewards and penalties be 'symmetric' and set at 30 per cent reward for under-spending capex and 30 per cent penalty for over-spending capex unless the AER can establish in an ex-post review that the over-spending was inefficient (in which case there is 100 per cent penalty, see Section 3.4).

Section 3.3 below considers the AER's reasons for this change in their proposed CESS. PIAC concludes that the reasons provided by the AER for its changed position do not adequately address either the AER's own initial reasons for favouring an asymmetric incentive regime or the arguments provided by PIAC (and others) in support of the AER's initial proposal.

Recommendation 1

PIAC recommends that the AER reconsider its position in the Draft Capex Incentive Guideline and adopt an asymmetric approach in the CESS, with strong penalties for overspending capex allowances.

35 Ibid,18-19.
36 Hughson, B and Hodge, C, above n 5, 17– 18.

Recommendation 2

PIAC recommends a 50 per cent penalty for overspending on the capex allowance as this better represents a fair share of forecast risks with consumers while also conveying a strong signal to the NSPs on the imperative of efficient capital management and transparent processes.

3.3 Symmetry versus asymmetry in the CESS

3.3.1 The AER's reasoning for a symmetric scheme

The AER's new approach (the 'symmetric' approach) is justified in the AER's Explanatory Statement, Draft Capex Incentive Guideline as follows:

- NSPs have contested the original claim that there was a consistent bias in the capex allowances. Similarly the NSPs have contested the claim that the AER has allowed 'generous' levels of capex under the existing arrangements;
- If there are issues with the capex allowances, this is best addressed by improving the capex expenditure assessment process as set out in the Expenditure Forecast Assessment Guideline rather than through the capex incentive schemes;
- the changes to the NER have clarified and expanded the extent of the AER's discretion in setting capex allowances and in applying the capital expenditure criteria;
- forecasting errors will be treated equally in a symmetric CESS, whether they result in an underspend or an overspend;
- not all NSPs have overspent in the past, suggesting that the case for applying an asymmetric scheme to all NSPs is not clear, and may lead to perverse outcomes for NSPs undertaking efficient overspends;
- the ex-post review, and the threat of exclusion of inefficient overspends from an NSP's RAB means that the capex incentives are already asymmetric;
- as this is the initial CESS, a symmetric scheme may be more appropriate as it is less likely to lead to perverse outcomes. The AER suggests that the incentives could be modified in future determinations; and
- a symmetric scheme would better promote efficient substitution between capex and opex, and better balance the incentives between the CESS and the EBSS and with the STPIS.[37]

The AER also acknowledged its concern that a high 'reward' for an underspend might encourage some NSPs to defer capex investment when it is inefficient and imprudent to do so. This incentive is exacerbated if the NSP is able to make a claim for the same costs in the subsequent regulatory period. However, the AER considers this is more appropriately dealt with in the context of the *powe*r of the reward incentive rather than part of the question of symmetry in the rewards and penalties.[38]

3.3.2 PIAC's response to the AER's proposal for a symmetric CESS

PIAC accepts that there are risks and benefits in both the symmetric and the asymmetric approaches to any capex incentive scheme. The task facing the AER is to adopt an approach to the CESS that best satisfies the capex incentive objective in the NER of ensuring that inefficient

37 AER, above n 2, 19–21.
38 Ibid, 21.

capex is not included in the roll-forward RAB. The solution should then provide an optimal balance between the interests of investors and consumers while delivering on the NEO.

Consumers have no control over NSPs' management of their capital allowance and are significantly more harmed by an NSP overspending capex than they benefit from an NSP under-spending capex. Investors, and the NSPs' management teams, however, have multiple ways of managing capital expenditure to meet capex allowances, whether the threats to the initial capex forecasts are internal to the NSP or exogenously derived.

PIAC continues to argue, therefore, that an asymmetric scheme is more appropriate and represents a better balance of risk and control. PIAC also considers that the claimed risks of an asymmetric scheme are over-stated and can be managed by NSPs through regulatory mechanisms and standard commercial capital management practices. The fact that a number of NSPs, facing the same forecast uncertainties of (for example) high growth in peak demand, were able to operate within their regulatory capex allowance is evidence that it can be done without measurable loss of service quality.[39]

The following sections discuss a number of the specific reasons put forward by the AER for the change in their position from an asymmetric CESS to a symmetric CESS.

3.3.2.1 A 30 per cent penalty for overspending is not symmetric in practice

A truly symmetric CESS, would require higher penalties for overspending to address the residual benefits to the NSP of capturing excess capex in the future RAB. For example, neither the Draft Capex Incentive Guideline or the Explanatory Statement fully explore the issue of the potential long-term benefits to the NSP of overspending capex (assuming the AER is not able to prove it is inefficient capex – see Section 3.4), yet this analysis should be part of the consideration of the penalty in the CESS.

Preliminary indications are that the incentive power of the penalty could be reduced by at least half of the 30 per cent if the long-term benefits to the NSP are taken into account, based on reasonable assumptions about the life of the asset and the differential between the actual and the allowed cost of capital.[40] While this is still a disincentive to overspend, it suggests that it is certainly not a symmetric incentive, which is the stated aim of the AER's new approach.

Recommendation 3

PIAC recommends that the AER undertake further investigation of the effect of differences between the actual and allowed weighted average cost of capital on the effectiveness of the capex incentives, so that the limitations on the real incentive power of the CESS penalty for overspending are properly recognised in the CESS design.

[39] For example, Victorian NSPs experienced some of the highest levels of growth in peak demand but were generally able to constrain capex to their regulatory allowance across the regulatory period.

[40] PIAC has not independently investigated the impact on the actual effective power of the incentive, but notes that it could be some 50 per cent or more, depending on the differences between actual and allowed WACC and the life of the assets. PIAC does, however, request the AER to undertake a formal investigation of the long-term benefits of overspending capex, relative to the 30 per cent penalty incurred by the NSP.

3.3.2.2 The incremental incentive issue

The adequacy of the 30 per cent penalty for overspending can be further tested by reference to the extent to which it represents an *incremental penalty* to the NSP compared to the current intrinsic penalty for capex overspending. To change behaviour, such as overspending capex, it is important to look at the *change* in the power of the incentive between the original arrangements and the new CESS, not just the absolute power of the incentive.

Under the current arrangements, a NSP has an incentive, albeit limited, to manage their capex, as they incur the financing cost for any overspending on capex during the regulatory period. The proposed CESS takes this financing cost into account in its calculation of the 30 per cent penalty.

A preliminary examination of the models provided by the AER suggests that the *incremental penalty* in the proposed CESS is considerably less than 30 per cent. On average, the incremental power of the CESS would be about 15 per cent, although it would vary with the age of the asset and the timing of the over-expenditures.[41]

The question is whether an *incremental* penalty of 15 per cent (on average) is sufficient to change the behaviour of NSPs, particularly NSPs that are not just driven by financial incentives or do not face strong commercial and financial pressures to improve their business models.[42]

As the AER noted in its Issues Paper, a key reason for asymmetric penalties was to 'protect consumers where NSPs are less responsive to financial incentives'.[43] In this case, it is important for the AER to consider not only the absolute power of the incentive but its incremental incentive power as it is this incremental incentive power that is needed to change the behaviour of NSPs who are not as driven by financial incentives.

Recommendation 4

PIAC recommends that the AER also assess the power of the penalty incentive in the CESS from the perspective of its incremental impact on a NSP, and consider whether this incremental penalty is sufficient to change behaviour and protect consumers from overspending by NSPs, which are less responsive to financial incentives.

3.3.2.3 Excess capex allowances and constant forecast biases

The NSPs appear to have given assurances to the AER that previous capex allowances were not overly 'generous'.[44] However, this statement appears contrary to the findings of many independent studies of network expenditures.

For example, PIAC refers the AER to the very careful and objective assessment by the Productivity Commission of all the empirical evidence on the efficiency of NSPs in the NEM. The Commission concluded that there were significant variations in outcomes between different NSPs

41 This is because the AER's approach to calculating the penalty for overspending first calculates the 30 per cent of the net present value (NPV) value of the overspend then deducts the financing costs to the NSP of the overspend during the regulatory period. If you assume an average length asset acquired half way through the regulatory period (and assuming it was an overspend), then the incremental penalty is around 15 per cent.

42 This may be because they are subject to multiple objectives such as a state-owned NSP; however, privately owned NSPs may also operate at lower efficiencies because of poor management or even 'easy' profits.

43 AER, above n 2, 20.

44 Ibid.

and stated as follows: 'The empirical evidence based on the best available data shows that performance, as measured by a number of indicators, varied significantly between networks'.[45]

The key points of the Productivity Commission's analysis include: [PIAC's emphasis][46]

- the scale of network capacity expansion [financed by the capex allowances] has varied by a wide margin between networks…*it is not clear that increased investment was an efficient response*;
- expanding capacity has been *more costly in some states than others*, in that larger expansions in the regulated asset base (RAB) have occurred for a given increase in network capacity;[47]
- some network businesses have benefited from exceeding regulatory allowances for capital expenditure in the previous regulatory period. Not only has this expenditure been rolled into the RAB, it has also *influenced the regulator's decisions about what is a reasonable expenditure in future periods*; and
- there are *significant differences in the behaviour of network businesses* and in the apparent efficiency between state and privately owned networks.

The Productivity Commission further highlights that 'although it is often unclear whether the level of incurred expenditure of the previous period was justified, they are often treated as such'.[48]

Although the Productivity Commission cautions against drawing final conclusions on the causes of different expenditure profiles, the evidence taken together provides a compelling reason for the AER to give serous consideration to the likelihood that consumers have been bearing the cost of both overly generous capex allowances and overspending of these allowances. An asymmetric incentive regime with strong penalties for overspending is one important component of addressing this issue seriously and ensuring that capex incentive objective in the NER is met.

3.3.2.4 Improving the capex forecast assessment process:

PIAC would not dispute the benefits of improving the capex forecast assessment process and is strongly supportive of the AER undertaking this task. PIAC highlights in a separate submission on this topic that a strong capex forecast assessment process is fundamental to ensuring the effectiveness of the CESS scheme (and the ex-post assessment process).[49]

However, this does not mean that the issue of over-forecasting NSPs' capex allowances can be immediately resolved through the planned improvements in capex forecasting. This has been

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45 Productivity Commission, above n 7, 260.

46 Summary of the 'Key Points' raised in ibid 227.

47 For example, the Productivity Commission's analysis indicates that for NSW/ACT DNSPs, there was a change in RAB from one regulatory period to the next period of approximately 75% and this was associated with a change in network capacity of around 20%. For Victorian DNSPs, the corresponding figures were a change in RAB of approximately 15% for a change in network capacity of 20%. Note, this data is estimated from Figure 6.9 'percentage changes in RAB and network capacity for distribution networks'. See Ibid 250.

48 Productivity Commission, above n 7, Vol 1, 256.

49 Hughson, B and Hodge, C, A firm basis: s*ubmission on the Draft Expenditure Forecast Assessment Guideline – Distribution*, 2013.

claimed by some NSPs[50] and appears to be supported by the AER in the following summary of its views:

> In this context, we intend to improve our methods for forecasting capex into the future. Hence, any past or present concerns about generous allowances should decline into the future. To the extent that concerns remain, this may be better addressed directly through the Expenditure Forecasting Assessment Guidelines rather than through any CESS.[51]

PIAC takes a different position. While PIAC has strongly urged the AER to implement its new tools and techniques for improved forecasting and benchmarking as soon as possible, PIAC has also consistently acknowledged that their use must be modified in the short term by the limits of the data and methodologies (at the discretion of the AER).[52]

PIAC urges the AER to critically consider this issue, taking into account the warnings of the Productivity Commission on the limits of benchmarking to set regulatory allowances at this stage, albeit benchmarking is a useful adjunct to the process and will improve over time.

For example, the Productivity Commission states in its 2013 report:

> even though benchmarking may contribute to regulatory determinations, there is little immediate scope for benchmarking to play a decisive role. Nevertheless, as data and modelling improve, and with better designed incentives arrangements, there may be greater scope to give more weight to aggregated benchmarking.[53]

There is, therefore, a very sound reason for still requiring a strong penalty to apply to overspending as an 'insurance' for consumers against continued overspending of capex by some NSPs who are not deterred by the ex-post review process (see Section 3.4).

A further difficulty with the AER's proposition is that the very existence of a CESS, and the ex-post review mechanisms (irrespective of the symmetry or otherwise of the rewards and penalties), provides an additional motivation for NSPs to use the inherent advantages of the propose-response model, their superior resources and asymmetric information to over-forecast their capex requirements.

This creates a double jeopardy for consumers that can at least in part be addressed through a strong asymmetric incentive mechanism that ensures overspending against a capex allowance that may still be generous is more heavily penalised relative to the potential rewards for under-spending.[54]

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50 AER, above n 2, 20.

51 Ibid.

52 For example, see Hughson, B and Hodge, C, Seeking better outcomes: *PIAC submission to the AER's Issues Paper – Expenditure forecast assessment guidelines,* 2013, 6.

53 Productivity Commission, above n 7, 321.

54 In this situation, rewards to the NSPs for under-spending should arguably be less than the proposed 30 per cent, as a 30 per cent reward adds further to the benefits of overforecasting (it is easier to under-spend a high forecast).

Perhaps, as suggested by the AER in quite a different context, the power of the penalty incentive could be changed (ie, reduced) in future determination rounds depending on the revealed response of the NSPs to improving expenditure forecast assessments. However, PIAC considers that the data, models and methodologies are not sufficiently mature for the AER to rely on these to set efficient capex allowances, at least in the next round of regulatory determinations.

Consumers should not be further exposed to the risks and the long-term impacts of capex overspending, albeit the issue is not equally prevalent across all the NEM regions and NSPs.

Recommendation 5

PIAC recommends that the AER place greater weight on consideration of the real data and methodological limitations of the expenditure forecast assessment processes at this stage in its development before relying on the assessment processes to address the upward biases in demand and cost forecasts, which can distort the effectiveness of the capex and opex incentives.

3.3.2.5 Clarification of the AER's discretion under the NER

PIAC agrees that the changes to the NER with respect to the AER's discretion to review, amend or replace a capex proposal[55] are significant and are most welcomed by consumers.

However, for the reasons outlined in Section 3.3.2.4 above, PIAC does not accept that clarifying the discretion of the AER under the NER provides a sufficient reason for the AER to assume it can set efficient forecasts for capex. Therefore, PIAC does not agree with the AER's conclusion that its enhanced discretionary powers mean that strong incentives are not needed to drive efficiency and prudency in capex spending.[56]

The AER will face many challenges in exercising its discretion including the continued (albeit reduced) asymmetry of information faced by the AER, the immaturity of the data sets and models and the natural caution that then arises when determining a capex that is 'prudent and efficient and based on realistic demand forecasts' as required by the capital expenditure criteria.

It is important that the AER is also realistic in its assessment of its own discretionary powers and information gathering capabilities, and heeds the Productivity Commission's cautions about current regulatory benchmarking capabilities noted above.

PIAC therefore considers that the greater discretion provided to the AER under the NER is not sufficient cause (at this time) to overcome the asymmetry of information and analysis between the NSP and the AER. PIAC therefore would argue that there is an on-going need for asymmetric penalties to support the capex incentive objective and the NEO.

3.3.2.6 Forecasting errors will be treated equally in a symmetric incentive scheme

The proposition that forecasting errors will be treated equally in a symmetric incentive scheme only holds true if the forecasting errors themselves are unbiased.

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55 For example, the amendments to NER cl 6.12.3(f) which removes the constraint previously placed on the AER that it could only amend an NSP's proposal to the extent necessary to enable it to be approved under the Rules. This restricted the AER in setting an efficient level of expenditure.

56 AER, above n 2, 20.

The analysis by the Productivity Commission referred to previously (among others) creates considerable doubt on whether this assumption is appropriate at this time.

PIAC suggests that it is more likely than not that there are compounding forecast errors. For instance, an over-forecast of peak demand growth by a NSP may well be combined with an over-forecast of the need for capital investment in network augmentation and/or of the unit costs of such augmentations.

The Productivity Commission, for instance, has noted that 'trends in network augmentation relative to peak demand have historically differed between states and these differences have not been created solely by the events of the last regulatory period'.[57]

The Productivity Commission further comments, based on advice received from the AEMO, that different NSPs have responded differently in the way they respond to demand growth. The AEMO advised the Productivity Commission that Victorian TNSPs have adopted a variety of strategies such as load shedding control schemes, line uprating opportunities and real time rating systems as an alternative to more expensive augmentation investment.[58] The Commission also suggests the need for further examination to see if firms have 'simply differed in the unit costs of assets and services'.[59]

PIAC, therefore, concludes that the differences in approach adopted by NSPs in their proposals suggest that there are likely to be biases in at least some of the NSPs forecasts relative to an efficient cost or demand forecast. Certainly the AER has provided no counter-evidence to support the assumption that the forecast errors are unbiased. Accordingly, PIAC submits that the AER should not rely on the claim of 'equal treatment of forecast errors' as a basis for proposing a symmetric incentive scheme.

3.3.2.7 Not all NSPs have overspent their capex allowance

PIAC has already noted that it is spurious to point to the fact that not all NSPs have overspent their capex allowance in support of an argument for symmetric rewards and penalties.

The claim has been made by NSPs, and the AER appears to now support it, that given not all NSPs have overspent their capex allowance in the past, the case for an asymmetric scheme to apply to all NSPs is 'not clear'.[60]

The essence of the penalty is to discourage overspending. It is the overspending by NSPs that inflicts the long-term harm on consumers. Indeed, the AER itself has been quoted by the Productivity Commission as stating that 'the above-allowance expenditure in New South Wales and Queensland accounted for roughly 25 per cent of the subsequent prices increases'.[61]

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57 Productivity Commission, above n 7, 244.
58 Ibid, 243.
59 Ibid, 249.
60 AER, above n 2, 20.
61 Productivity Commission, above n 7, 256.

PIAC notes that these 'above-allowance' expenditures for at least in one NSW NSP, were *in addition to* substantial pass-through allowances granted by the regulator for capital expenditures of some $624m and a further $49m opex arising from the 2005 revision to the reliability standards set in the distribution licence conditions.[62]

The fact that the AER acknowledges the very significant impact that over-spending has had on the prices to many of Australia's businesses and consumers should be sufficient in itself to accept that strong preventative action is required in the incentive scheme.

Consumers are also likely to be asymmetric in their preferences when it comes to comparing the impact of significant price increases arising from excess capex spending versus price reductions from enhanced capex efficiency. The incentive scheme should reflect this asymmetry of preferences and long-term interests.

Moreover, the fact that other NSP's have *not overspent* their capex allowance, and many of them have achieved this while facing similar challenges of demand growth and an aging network system,[63] is suggestive that there *should be strong penalties for overspending* (rather than the converse). It would seem that a number of NSPs have demonstrated that capex spending can be managed within the capex allowance even in a period of growth and change and without any apparent compromise of network performance as measured by trends in the STPIS.[64]

PIAC would also highlight that if a NSP manages its capex such that it *does not overspend* its capex allowance then the NSP does not need to be concerned with whether the penalties for overspending are symmetric or asymmetric, or how strong these penalties may be.

These NSPs appear to be already responding to the embedded incentives of reducing capex and are in a position to benefit in the future from the rewards for under-spending their capex allowance in the CESS. However, their achievements should not dilute the importance of implementing a strong penalty regime in the CESS for those NSPs not so responsive or proactive in their capital management.

3.3.2.8 Capex incentives are already asymmetric

The claim by some NSPs, that capex incentives are already asymmetric, is made on the basis that NSPs will face the threat of exclusion of any capex over-expenditure that the AER deems to be inefficient through the ex-post review mechanism, which in their view, creates an asymmetric incentive for the NSPs.[65]

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62 IPART, *NSW Distribution Network Cost Pass Through Review – Statement of Reasons for Decision,* 2006, 5. The over expenditure was therefore not a result of the higher reliability standards, but due to a number of other factors that may or may not have been efficient as there was no public assessment process.

63 Noting also that the impact of changing reliability standards on capex requirements was included in a pass through arrangement, as described above and is not therefore classed as overspending.

64 See for example, AER, *Victorian Electricity Distribution Network Service Providers, Annual Performance Report 2010*, May 2010, 13 - 19. The report summarises trends in various measures of network performance including planned and unplanned interruptions to supply. There was a general improving trend until 2009, and evidence of some recovery in performance again in 2010.

65 AER, above n 2, 19.

However, this view presupposes that the ex-post review process provides an effective driver of efficiency in the 'current' regulatory period. PIAC addresses the core issue of the problematic nature of the ex-post review process as a substitute for a strong asymmetric ex-ante CESS in Section 3.4.

In this section, however, PIAC would note that the ex-post exclusion of inefficient expenditure arises directly from the obligation of the AER under the capital expenditure incentive objective. That is, that the AER must *only increase* the value of the RAB by including capex that reasonably reflects the capital expenditure criteria of efficiency and prudency given reasonable demand forecasts.

Notwithstanding that it is an obligation on the AER to ensure that inefficient capex is excluded from the RAB, the onus of proof of inefficiency is with the AER. That is, the AER must establish 'ex-post' that a capex overspend did not meet the capital expenditure criteria (see Section 3.1 above). Given this, it is difficult to see how the ex-post capex review creates asymmetry in the ex-ante CESS penalty; they are two separate mechanisms.

However, for very different reasons, PIAC would agree that the CESS incentives are, in practice, asymmetric. As PIAC has suggested previously in this submission, any overspending that becomes part of the RAB in the next regulatory period has a long-term benefit to the NSP that is not adequately captured in the AER's modelling of the impact of the incentives. The benefit to the NSP is exacerbated where the actual weighted average cost of capital (WACC) is less than the regulated WACC allowance.

This reduces the practical power of the 30 per cent penalty to something significantly less than 30 per cent, depending on the differential between the actual and allowed WACC and the expected life of the asset. That is, under the so-called symmetric incentives, the real penalty for overspending is less than the rewards for under-spending, in some cases substantially so. PIAC has recommended above that the AER investigate this matter further before deciding on the final form of the CESS penalties and rewards.

3.3.2.9 As this is the initial CESS, a symmetric scheme may be more appropriate

PIAC is somewhat puzzled by the AER's claim that 'a symmetric scheme may also be more appropriate since this is the first time we have introduced a CESS'.[66] It would seem to PIAC that as this is the initial CESS it is important to be realistic about the limitations facing the AER in constraining the natural tendency for NSPs to reduced their risk and maximise their opportunity for reward by over-forecasting their capital expenditure (as discussed above).

More important, perhaps, is the question of where the most harm to consumers' long-term interests lies. Over time, PIAC agrees that it is important that there are positive incentives to reward NSPs who move to a more efficient capex standard. However, the immediate issue that has brought harm to many electricity consumers in the NEM are the twin problems of (i) over-forecasting capex and (ii) overspending on the forecast (albeit the issue has been more of a problem for some NSPs than for others), both of which have contributed to the rapid expansion of the NSPs' RAB.

[66] Ibid, 21.

PIAC believes that the focus of the initial CESS should, therefore, be on maximising the incentives for NSPs to find effective ways to manage their capex allowances. Where the NSP faces special circumstances, then the NSP should be encouraged to use the regulatory mechanisms available to them such as pass-through applications, or to review and reprioritise their investments (as is common place in non-monopoly industries).

PIAC does not accept the argument that the pass-through mechanism is too restricted for practical use in managing a NSP's forecasting risk. A NSP is able to apply for a pass-through of an additional cost if it meets the hurdle of being a cost that is equal to or more than 1 per cent of average annual allowed revenue.

This is a reasonable hurdle and even smaller NSPs such as ActewAGL have in fact used the pass-through arrangements to recover costs of around $2M[67] (for the implementation of the National Energy Customer Framework), representing a total of some 1.065 per cent of ActewAGL's expected revenues.[68]

For larger NSPs, the costs of undertaking a material event pass through application relative to the revenue gain would be small and therefore not a barrier to an NSP making a genuine claim. On the other hand, if the increase in the NSPs costs from the event is *less* than one per cent of revenues then it is reasonable to expect that the NSP can manage this within their existing capex allowance through postponement, re-scoping or re-prioritisation of capex, as occurs in any other commercial organisation.

One of the great benefits of the CESS encouraging NSPs to use these other regulatory mechanisms is that these mechanisms provide greater transparency. There is an opportunity for early feedback from the AER and consumers on the value of the additional expenditures. In contrast, when a NSP presents overspending as a fait accompli at the end of the regulatory period for projects that have not undergone any prior public evaluation process, then this in turn undermines public confidence in the process itself.[69]

A strong ex-ante disincentive in the CESS for overspending is required to encourage NSPs to use the formal regulatory mechanisms and, thereby, directly address the lack of transparency in the NSP's decision-making when it decides to overspend its capex allowance.

This is particularly the case given that any additional penalties arising from the ex-post efficiency review will have very long lag times that will greatly mute its effectiveness in promoting efficient capex management by the NSP during a regulatory period.

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67 AER, *Final Determination – ActewAGL pass through for the National Energy Customer Framework Implementation*, 2013, 3.

68 Ibid, 11. The AER's report also includes an analysis of other approved pass-through events with materiality cost thresholds around 1–2% of revenue.

69 As an example, PIAC notes that a NSW NSP overspent their regulatory allowance by some $440m, of which a portion was spent on 'strategic property purchases' and the roll-out of some 400,000 Time of Use (TOU) meters. (see EnergyAustralia, *Regulatory Proposal*, June 2008, 98 and 11 respectively). It is not readily apparent that any cost benefit study of either of these options was ever made public, however, NSW consumers will continue to pay for these expenditures through the RAB over the life-time of these additional assets.

3.3.2.10 A symmetric capex incentive would achieve a better balance of the incentives

The AER appears to be suggesting that if the capex incentive was symmetric at 30 per cent for both overspending and under-spending, then this would better promote the efficient allocation of a NSP's expenditures between capex and opex.

PIAC seeks further clarification of this claim. It would seem, for instance, that the issue of allocation of expenditures between opex and capex has arisen in the past because there was a strong motivation towards the capitalisation of opex in the absence of a strong CESS. This was because capitalised opex becomes part of the NSP's future RAB, with an on going guaranteed return on the capitalised asset.

It is not clear, however, why an asymmetric penalty for *capex overspending* would further encourage the NSPs to capitalise their opex when it is inefficient to do so. Rather, PIAC would suggest that a strong penalty on capex overspend would reduce a NSPs incentive to capitalise opex as the NSP would face the risk of a larger penalty for overspending capex than they would for over-spending opex.

On the other hand, if the concern is to prevent capex items being converted to opex, there is little precedence for this. It could be argued that a strong capex penalty would encourage this in the future in order for the NSP to avoid penalties for overspending on capex. However, again it is difficult to see why an NSP would do that and give up the long-term value of growth in the RAB.

Nor would it be a major issue for consumers. While it would be better for all parties to limit overspending on both capex and opex, the impact of opex overspend is limited from a consumer perspective[70] and largely borne by the NSP's investors and management as it does not (necessarily) carry over into the next regulatory period.[71]

From PIAC's perspective, while it is important that there are reasonable incentives for both opex and capex, they do not have to be the same to achieve an efficient allocation. In addition, the AER will be directly monitoring NSPs who are found to capitalise approved opex and can reject the inclusion of this capitalised opex in the RAB.

Similarly, the AER does not have to make the *same* incentives for capex and service standards, providing both incentive schemes have reasonably strong and effective measures in place. The AER can directly monitor service standards and adjust the rewards and penalties according to the specific requirements.

Recommendation 6

PIAC recommends that the AER undertakes further investigation of the interactions of the capex, opex and service incentive schemes in order to better understand and quantify how differences in the power of the three incentives influences expenditure decisions by a NSP.

[70] If the AER applies a simple base-step-trend approach to the determination of opex in the next regulatory period there may be some impact on consumers.

[71] This assumes that the proposed opex forecast assessment approach, the 'base-step-trend' approach, is improved with the addition of new regulatory tools and benchmarks.

3.3.3 The problem of under-spending the capex allowance

Under-spending the capex allowance can be a sign of efficiency, or of neglect, and the AER recognises the dilemma facing the regulator that was first identified by the Victorian Essential Services Commission (ESC) when the ESC first introduced a capex incentive sharing scheme.[72] The ESC found that NSPs generally underspent their capex allowance (and thus received the incentive payment) but sought much higher capex allowances in the next regulatory period; a type of 'inter-period capex deferral' or, more colloquially, 'double-dipping'.

The AER now proposes that the problem can be mitigated through the use of a 'moderately' powered reward, enhanced ex-ante capex forecast assessment processes and balanced incentives for capex, opex and service.[73]

PIAC questions each of these claims. First, the proposed 30 per cent reward is not moderate—it provides quite a strong incentive for NSPs to reduce their capex for reasons other than improved efficiency. Second, the ex-ante capex assessment processes are not yet fully developed and cannot be relied upon to fully address the issue at this stage as discussed previously in this submission.

Third, and more significantly, it is not clear why the AER assumes that in a regime of balanced incentives 'any capex deferral either increases opex or reduces payments under the STPIS'.[74] The time lags between the capex deferral and opex reduction and/or higher STPIS penalties are such that in the real world, one is unlikely to drive the others. For instance, deferring capex in one regulatory period is unlikely to make a measurable difference to opex or service in that period although it may in following regulatory periods.

Balancing these incentives within a regulatory period, therefore, appears to have little practical benefit in terms of the stated objectives and should not therefore be considered a major factor in designing the capex incentive scheme.[75]

PIAC considers it more useful for the AER to 'break the nexus of symmetry' between the rewards for under-spending and the penalties for over-spending. If the notion of 'symmetry' as an end in itself is put aside, then the rewards for under-spending can be adjusted independently (and most probably downwards to less than 30 per cent) from the penalties for over-spending which need to rise to at least 50 per cent.

This approach provides the AER with the capacity to respond relatively quickly to changing circumstances or regulatory priorities. For example, an initial CESS with asymmetric incentives of 20 – 30 per cent reward for under-spending and 50 per cent penalty for over-spending, could be adjusted in the future to address trends in the performance of the NSPs. If under-spending capex

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72 The ESC's position is described in AER, above n 2, 22. The ESC subsequently removed the scheme for the 2006-10 regulatory period.

73 Ibid.

74 Ibid.

75 This is not to say that the STPIS should not be expanded; it should. And a stronger STPIS may over time provide some more immediate feed-back into capex decision making. PIAC also suggested strengthening the STPIS as part of the overall incentive arrangements in the response to the AER's Issues Paper. See Hughson, B and Hodge, C, above n 5, 7.

became a major issue, then the AER could introduce a lower reward (say 20 per cent), while leaving the 50 per cent penalty for overspending intact.

By relying too heavily on the argument that a symmetric incentive regime is a good thing in its own right, the AER is unnecessarily limiting its flexibility in the future to adjust to changing circumstances of NSP's conduct.

Recommendation 7

PIAC recommends that the AER considers a lower reward for under-spending in the CESS (ie, less than 30 per cent), to address the risk of under-investment. Breaking the 'nexus of symmetry' between rewards and penalties in the CESS provides flexibility for the AER to consider the risks of under-investment independently of the risks of overinvestment for consumers.

3.4 The ex-post capex efficiency assessment

As a flow-on from the decision to use symmetric penalties and rewards for capex over and under-spend, the AER has suggested it will also place more reliance on the ex-post capex efficiency assessment process to address the concerns of consumers with overspending.

The AER has two tasks in the ex-post efficiency assessment process. The AER's first task arises from the requirement under the NER for the AER to make a statement on whether the roll-forward of the RAB contributes to the achievement of the capital expenditure incentive objective.[76] This obligation applies to all capex spent over the past regulatory period, whether the overall regulatory allowance for capex is exceeded or not.

PIAC considers this is a useful adjunct to the regulatory task and will assist consumers' in better understanding the performance of their NSPs. However, it does not impact directly on the economic incentives facing the NSP. Therefore, this area of the ex-post efficiency review process is not discussed further in PIAC's submission.

The second task is, however, a key issue for PIAC. The capex incentive objective in the NER now requires the AER to ensure that only efficient and prudent capex is included in the roll-forward of the RAB. Where an NSP has spent more than its allowed capex, the AER may exclude this from the roll-forward if it is found to be inefficient and does not meet the capital expenditure criteria and incentive objective.[77] Thus, the AER is able to claim that inefficient or imprudent capex overspend has a '100 per cent penalty' attached to it.

This is an important development, and one which provides some 'moral suasion' to constrain the type of over-spending seen by some NSPs in the past. However, the ex-post review process is also one that faces significant implementation hurdles as PIAC has previously identified in its submission to the AER's Issues Paper.[78]

The AER's proposals in the Draft Capex Incentive Guideline has served to further increase PIAC's concern with the difficulties of implementing the ex-post efficiency review, particularly

[76] NER, cl 6.12.2(b) and 6A.14.2(b).
[77] NER, cl S6.2.2A and S6A.2.2A.
[78] Hughson, B and Hodge, C, above n 5, 9.

given that the AER's greater reliance on the ex-post review to constrain overspending by the NSPs.

In the first instance, the ex-post review applies only when the overall capex is in excess of the regulatory allowance and the amount removed is capped to ensure the NSP can recover at least its allowed capex. However, this overall capex will in all probability contain a mix of efficient and inefficient activities; how will these be differentiated; how will they be treated from a timing perspective – there are many practical areas to consider here in making a determination.

The task is made even more difficult by the requirement under the NER that when assessing the efficiency and prudency of the investments, the AER can 'only take into account information and analysis that the NSP could reasonably have expected to have considered or undertaken at the time that it undertook the relevant capital expenditure'.[79]

In other words, the AER is required to place itself in the shoes of the relevant NSP at the time when the NSP was making its decision, and to understand what information and analysis would have been reasonably available to the NSP at the time it undertook the capex program. In PIAC's view, this is a complex task that could result in protracted and costly processes at the regulatory decision-making stage and potentially as part of the Merits Review process.

Second, the timing of this process exacerbates the problems outlined above. The assessment process is constrained by the necessity of having actual expenditure data to investigate. As a result, the AER is required to make its ex-post assessment by using a combination of Years 4 and 5 of the preceding regulatory period and Years 1, 2 and 3 of the regulatory period just ended.[80] Two periods, two different determinations, two different costs of capital, two sets of regulatory forecasts and information sets.

It is PIAC's view that in the face of these practical difficulties, only the most egregious of any NSP's overspending would be set aside as inefficient and imprudent given the requirement to consider the capex in the context of the information and analysis available at the time.

The effectiveness of the ex-post assessment as a tool to discourage overspending continues to be in the 'threat of action' rather than the reality. It is not an adequate substitute in PIAC's view for a strong ex-ante penalty on overspending.

Recommendation 8

PIAC recommends that the AER place greater weight on consideration of the practical limitations of the ex-post review process, including the long time lags between the excess expenditures and the ex-post assessment and the difficulties facing the AER in assessing the information and analysis that were available to the NSP at the time of the NSP's investment decision (up to seven years prior to the AER's assessment).

79 NER, cl S6.2.2A(h) and S6A.2.2A(h).
80 AER, above n 2, 33.

4. The Expenditure Benefit Sharing Scheme

4.1 Overview of the EBSS

The AER states that the aim of the EBSS is to:

> provide an incentive for NSPs to pursue efficiency improvements in opex and to share efficiency gains between NSPs and network users. This is achieved by rewarding NSPs that can outperform their allowance and penalising NSPs that overspend against their allowances.[81]

The AER also notes that there is already an EBSS in place for NSPs.[82] The design of the current EBSS includes the following features:

- the benefits of any increase or decrease in opex is shared 'approximately 30:70 between NSPs and consumers';[83]
- the incentive is continuous so that incremental efficiency gains or losses are retained by the NSP for exactly five years after the gain or loss; this is designed to reduce any benefits to the NSP of inflating their base year opex;[84] and
- the current EBSS is 'intrinsically' linked to a 'base-step-trend' forecasting approach;[85] this is the approach that the AER is proposing should continue to be adopted for the opex forecast assessment process.[86]

The AER concludes that the 'current EBSS should largely remain unchanged'.[87] The changes proposed by the AER relate to adjustments of the base year and exclusions from the EBSS. Of particular note from PIAC's perspective are the following:

- the AER's approach is based on applying the incentives to the forecast opex established through the base-step-trend approach and, if necessary, adjusting the base year if opex is found to be materially inefficient;[88]
- the AER's approach will no longer allow specific exclusions for uncontrollable opex, or adjustments in the carryover amounts for changes in opex due to unexpected increases or decreases in network growth;[89]
- the AER's approach will allow ex-post adjustments to the carryover amounts in some circumstances;[90] and
- the AER proposes to merge the EBSS for distribution NSPs with the EBSS for transmission NSPs into a single scheme.[91]

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81 AER, above n 4,14.

82 AER, *Efficiency Benefit Sharing Scheme – Distribution Network Service Providers,* 2008; AER, *Efficiency Benefit sharing Scheme – Transmission Network Service Providers,* 2007.

83 AER, above n 4, 26.

84 Ibid, 9-10. The base year is generally the fourth year of the regulatory period, and provides the base for the forecast opex for the next regulatory period with appropriate adjustments.

85 Ibid, 15. The base-step-trend approach uses the fourth year of the most recent regulatory period (see note above) as the base year then uses a 'step and trend' to forecast opex for the next regulatory period.

86 AER, *Draft Expenditure Forecast Assessment Guideline – Distribution*, 2013, 15–16.

87 AER, above n 4, 7.

88 Ibid.

89 Ibid, 26.

90 Ibid.

4.2 PIAC's response

PIAC largely agrees with the AER's proposal, including the proposed 30:70 sharing of gains and losses. PIAC has no objection to a symmetric EBSS as there are not the same issues of significant and systematic overspending of the opex allowance. Nor does overspending impact on long-term interests of consumers through the increase in the RAB.

The removal of specific exclusions and adjustments is also particularly welcome. PIAC's additional comments on the proposed EBSS are restricted to a few specific areas of the EBSS.

4.2.1 Assessing the effectiveness of the current EBSS

PIAC would continue to encourage the AER to develop a plan to undertake further systematic testing of the effectiveness of the current EBSS as suggested in PIAC's response to the AER's Issues Paper.[92]

In particular, PIAC notes that the AER supports its policy of continuing with the current EBSS by claiming that 'we consider the current EBSS is an effective mechanism for constraining a NSP's incentive to increase its opex in the expected base year'.[93] However, the AER elsewhere states that 'there is limited available data to measure how effective the current EBSS has been'.[94]

PIAC finds these statements somewhat contradictory with respect to the 'success' of the EBSS in constraining over-expenditures in the base year. It is important that these conflicting perspectives are tested as the assumptions about the efficiency of the base year opex are fundamental to the success of the EBSS in its current format.

More generally, as indicated in PIAC's submission to the AER's Issues Paper (noted above), there is no evidence provided that the current EBSS has been effective in driving down opex across the regulatory period or at least preventing persistent overspending of opex. PIAC would, therefore, continue to look to the AER to assess this important aspect of the EBSS as well.

4.2.2 Removing exclusions for uncontrollable events

In PIAC's submission to the AER's Issues Paper, PIAC indicated that there should be a default assumption that there is no automatic adjustment for uncontrollable events; to do so would open a Pandora's box of issues and arguments.[95]

PIAC, therefore, supports the AER's reconsideration of its approach to adjustments for uncontrollable opex and growth. The AER's reasoning for removing this aspect of the current EBSS is sound in principle and practice, namely:

- the AER correctly recognises that there is no reason why forecasting risk associated with uncontrollable opex or growth should be shared differently than the forecasting risk associated with controllable opex is shared (30:70);

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91 Ibid, 8.
92 Hughson, B and Hodge, C above n 5, 25 – 26.
93 AER, above n 4, 15.
94 Ibid, 14.
95 Hughson, B and Hodge, C, above n 5, 27.

- if the cost of an uncontrollable event is significant, a NSP may apply for it to be recognised as a pass-through event and, if approved, the EBSS will be adjusted accordingly;
- the NER, when defining efficiency gain and loss,[96] does not distinguish between uncontrollable and controllable opex when determining efficiency gains and losses; and
- the recommended approach is consistent with the AER's proposed treatment of uncontrollable capex and growth under the CESS.[97]

PIAC agrees and would again emphasise the principles that the AER has so well enunciated in the Draft Expenditure Forecast Assessment Guideline, and highlighted earlier in this submission. They include:

- the purpose of the economic regulation of monopoly businesses is to 'emulate effective competitive markets'; and
- risks should be borne by those best placed to meet them, and consumers are not best placed.

The amendments to the EBSS approach to remove the adjustments for the so-called 'uncontrollable events' is in line with these principles. In competitive markets, businesses manage uncontrollable risk, not simply pass the cost through to consumers.

Recommendation 9

PIAC recommends that the AER undertake further quantitative and qualitative assessment of the effectiveness of the EBSS in driving more efficient opex by the NSPs, and adapt the EBSS in the future accordingly.

96 NER, cl 6.5.8 and 6A.6.5.
97 AER, above n 4, 26.