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independent competition and regulatory commission

Draft Decision

Review of efficiency and service standard incentive mechanisms

Report 5 of 2005

August 2005

The Independent Competition and Regulatory Commission (the Commission) was established by the *Independent Competition and Regulatory Commission Act 1997* (ICRC Act) to determine prices for regulated industries, advise government about industry matters, advise on access to infrastructure and determine access disputes. The Commission also has responsibilities under the Act for determining competitive neutrality complaints and providing advice about other government-regulated activities.

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Foreword

The Independent Competition and Regulatory Commission (the Commission) is responsible for the regulation of monopoly distribution networks in the ACT. These include ActewAGL's electricity and gas networks, as well as ACTEW's water and wastewater network.

In the regulation of these monopoly distribution networks, the Commission is responsible for conducting periodic reviews to determine the revenue requirement for the relevant utility. During 2004, the Commission completed reviews into all three distribution networks.

In completing these reviews, the Commission discussed with ACTEW and ActewAGL the possibility of introducing an efficiency carryover mechanism and/or a service incentive scheme. Both businesses committed to working with the Commission in an attempt to evaluate the benefits from such an introduction.

The Commission released a discussion paper as the first step in consulting interested parties over the possible introduction of such a mechanism or scheme. The discussion paper (*Incentive Mechanisms—Report 3 of 2005*) was released in March 2005.

A joint submission on the discussion paper was received from ACTEW and ActewAGL.

The Commission has considered this submission before coming to the conclusions contained in this draft decision.

The Commission is seeking views from the community, service providers and other interested parties on the Commission's draft decision.

The Commission will receive written submissions or arrange to meet with people wishing to contribute to this process. The Commission will ultimately determine an approach that, in its view, will act to maximise the effectiveness of the regulatory approach adopted in the ACT.

Paul Baxter
Senior Commissioner
August 2005

Contents

1 Introduction

The Independent Competition and Regulatory Commission (the Commission) released its final decisions on electricity distribution prices and water and wastewater service prices in March 2004 and on gas distribution prices in November 2004.[1]

In the process of conducting these investigations, the possibility of introducing some form of efficiency carryover mechanism and/or a service quality incentive scheme was raised.

While the Commission decided against adopting either an efficiency carryover mechanism or a service incentive scheme for the current regulatory periods, the Commission committed to investigating the potential benefits of the introduction of such a mechanism or scheme in the future. Both ACTEW Corporation Limited and ActewAGL Distribution, the regulated businesses operating in the ACT, stated a willingness to work with the Commission in determining whether the introduction of either system would lead to greater efficiency. The Commission notes the differences between the water and wastewater, gas and electricity distribution networks and acknowledges that, in a practical sense, these differences may require the adoption of tailored mechanisms.

An efficiency carryover mechanism aims to provide a continuous incentive for a regulated business to seek efficiencies over the whole of the regulatory period. That is, it creates a situation in which the regulated business has a constant incentive to achieve efficiency gains throughout the regulatory period, as any efficiency gains are maintained by the business for a predetermined length of time. Under the current methodology adopted in the ACT, the regulated business may have a greater incentive to achieve efficiency gains in earlier rather than later years of the regulatory period, because the regulated business can maintain these gains for the remaining length of the period.

A service incentive scheme aims to create a link between service quality and revenues. Currently, there is little incentive for a regulated distribution business to improve service quality. In fact, the only incentive at the moment is for the business to reduce costs, which may be to the detriment of service quality. A service incentive scheme aims to create a situation in which revenues adjust in response to changes in service quality, and hence provide the business with an incentive to seek the efficient level of service.

The Commission acknowledges that incentive mechanisms for either efficiency savings or service quality improvements cannot be analysed in isolation. The Commission also notes that there is a strong interrelationship between issues arising from efficiency carryover mechanisms or service incentive schemes and other aspects of utility regulation. These issues include, but are not limited to, the methodology that the regulator uses to calculate the 'X' factor and how the regulator determines forecasts for operating and capital costs.

This draft decision is based on the Commission's own analysis and on the joint submission received from ACTEW and ActewAGL on the discussion paper. The Commission is seeking comments from interested parties on the draft decision.

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[1] These documents can be accessed on the Commission's website: www.icrc.act.gov.au.

2 Efficiency carryover mechanisms

2.1 Introduction

The basis of the current regulatory approach of adopting a 'CPI minus X' adjustment is that it provides the regulated business with the proper incentive to produce efficiently. The incentive to produce efficiently is achieved by setting prices for several (usually five) years and allowing the regulated business to keep any efficiency gains achieved during this period. This regulatory regime was adopted in response to the perceived shortcomings of 'rate-of-return' regulation, in which efficiency gains were only retained by the business for a short period (often only one year).

Under the current arrangements, it has been contended that businesses may face a reduced incentive to seek efficiencies towards the end of the regulatory period. It is argued that efficiencies gained in the last year of the period are only kept by the business for that year, whereas efficiency gains in the first year of a regulatory period are kept by the business for the full length of the period. Efficiency carryover mechanisms, which were suggested as a way of addressing this issue, are intended to allow the regulated business to maintain any efficiency gains for a predetermined length of time (usually the length of the regulatory period).

The Commission is considering the introduction of some form of efficiency carryover mechanism for distribution businesses in the ACT. In determining whether to introduce such a mechanism, the Commission must be convinced that the benefits from the introduction of a mechanism outweigh the costs. In considering whether the benefits outweigh the costs, the Commission will consider the proposal put forward by ACTEW and ActewAGL, as well as mechanisms adopted in other jurisdictions.

The Commission believes an efficiency carryover mechanism must contain the following attributes.

- **Transparency:** a transparent mechanism will be clearly understood by regulated businesses, regulators and external parties.
- **Simplicity and unobtrusiveness:** a simple and unobtrusive mechanism will reduce the regulatory burden on the businesses and the regulator.
- **Repeatability**: the mechanism must be well defined and applicable to future regulatory periods.
- **Symmetry:** the mechanism should be symmetrical; that is, it should contain both rewards for efficiency gains and penalties for efficiency losses.
- **Accuracy:** the mechanism must be able accurately to reward or penalise the businesses for efficiency gains or losses; the incentives that it creates must be well understood..
- **Non distortionary:** the mechanism should not have adverse impacts on the investment decisions of the businesses.
- **Equitability:** the mechanism should provide a fair sharing of efficiency gains between regulated businesses and customers.
- **Economic efficiency:** the mechanism should encourage efficient investment and promote the use of efficient production techniques.

These are the criteria against which the ACTEW–ActewAGL proposal and mechanisms adopted in other jurisdictions will be assessed.

Section 2.2 summarises the submission from ACTEW and ActewAGL. Section 2.3 outlines mechanisms adopted in other jurisdictions. Section 2.4 contains a discussion of possible options. Section 2.5 details the Commission's draft decision.

2.2 Submission from ACTEW and ActewAGL

A joint submission was received from ACTEW in respect of its water and wastewater networks and ActewAGL in respect of its electricity and gas distribution networks.

The joint submission supported the introduction of a rolling efficiency carryover mechanism. As discussed in detail in Section 2.4.1, the key elements of the proposed mechanism are that:

- the mechanism be designed to provide a 50:50 sharing of efficiency gains between consumers and business
- that, if the carryover mechanism results in a net negative amount for a regulatory period, the carryover amount be set to zero
- a methodology be agreed for dealing with the fact that actual final year expenditure information is not available at the time of the setting of the next regulatory period's price path
- a clearly defined process be established by which future cost estimates are set
- retrospective adjustments be made to cost benchmarks by a particular amount per customer/connection (or unit of consumption) if actual customers/connections (or consumption) differs from the forecasts
- the carryover mechanism be applied both to operating and maintenance expenditure and to capital expenditure; however, ACTEW and ActewAGL state that they would initially consider adopting an operating and maintenance expenditure mechanism only and would assist the Commission in developing a capital expenditure scheme to apply later.

2.3 Other jurisdictions

2.3.1 National energy regulator

The Australian Energy Market Commission (AEMC) has recently been established to provide energy rule-making functions in conjunction with the Australian Energy Regulator (AER), which has been established to undertake regulatory functions. The AEMC and AER are expected to assume responsibility for energy distribution regulation from the various state regulatory agencies by 1 July 2006. The AER has been established as a separate legal entity, although it is a constituent part of the Australian Competition and Consumer Commission (ACCC). In December 2004, the ACCC released a statement of regulatory principles setting out its approach to the regulation of electricity transmission networks.[2] It is anticipated that the AER will adopt arrangements similar

[2] Australian Competition and Regulatory Commission (ACCC), *Decision—Statement of principles for the regulation of electricity transmission revenues,* December 2004.

to those promulgated by the ACCC; therefore, a discussion of the principles announced by the ACCC is instructive.

The ACCC's statement of regulatory principles provides for efficiency carryover arrangements for capital and operating expenditure. In relation to capital expenditure, the ACCC has adopted an 'ex ante' approach to the determination of acceptable capital expenditure programs to ensure that the regulated entities (currently, the transmission network service providers) select efficient capital projects and develop them at the lowest sustainable cost for a given level and quality of service. The ACCC agrees with the business in advance the capital expenditure that will be included in setting prices for the regulatory period. The agreed forecast capital expenditure is then set for the period and rolled into the regulatory asset base. To the extent that the business achieves efficiency gains (that is, if actual capital expenditure is less than the forecast level), the business gains the benefit of the higher ex ante estimate of capital expenditure.

In addition to the main ex ante incentive, the regime provides for separate incentives on excluded or contingent projects. The contingent project incentive program is an allowance for significant capital projects that may be developed during the regulatory period, but the likelihood and cost of which are difficult to predict with certainty at the time that the main ex ante incentive is established. Contingent projects are subject to their own regulatory incentive period, which is established shortly before the project is begun.

For operating expenditure, the ACCC has adopted a mechanism that is intended to allow the transmission network service providers to retain the benefit of incremental efficiency changes for five years after the year in which each incremental change is made. The aim has been to create a mechanism that produces a nearly constant incentive to make efficiency improvements over the course of the regulatory period. Under this mechanism, the ACCC proposes a symmetrical treatment of underspends and overspends for operating costs, and will allow the revenue cap to be reopened should unexpected events have a material impact on the service provider's costs.

The approach proposed by the ACCC has yet to be proven in practice. Early indications are that a much higher proportion of capital expenditure is treated as 'contingent', rather than approved ex ante as had been intended. This means that much of the certainty and efficiency-sharing benefits are lost.

2.3.2 Victoria

The Essential Services Commission (ESC) in Victoria implemented an efficiency carryover mechanism for electricity distribution in its 2001–05 price review. This mechanism was applied both to operating expenditure and to capital expenditure.

An efficiency gain (or loss) in operating and maintenance expenditure in any year is based on the difference between the expenditure and forecast in that year and the expenditure and forecast in the previous year. A growth adjustment also exists whereby forecast operating and maintenance costs are adjusted based on customer numbers.

An efficiency gain (or loss) in capital expenditure is calculated as the regulatory weighted average cost of capital multiplied by the reduction (or increase) in capital expenditure against the capital expenditure forecast for that year. Capital expenditure forecasts associated with new customer connections are adjusted based on customer-initiated connections, and demand-related

reinforcement is adjusted based on peak demand. No adjustment is included for differences in depreciation.

The draft decision released by the ESC in June 2005 sets out how this mechanism is to be implemented.[3] The mechanism includes a five-year carryover period and retrospective adjustments to operating and capital expenditure. Negative carryover amounts calculated for the 2001–05 period will be 'retained' to possibly offset future efficiency gains.

In the draft decision, the ESC stated that it intends to modify the efficiency carryover mechanism to operate in the 2006–10 regulatory period. The most notable modification is that the carryover mechanism will apply to operating expenditure only. The ESC elected to exclude a carryover for capital expenditure because it was not confident that the reported capital expenditure efficiencies from the 2001–05 regulatory period were sustainable, considering the increased forecasts for the 2006–10 regulatory period. The ESC took the view that to grant a carryover of these unsustainable efficiencies had the potential to alter the balance of efficiency benefit sharing between customers and distributors in favour of distributors.[4]

2.3.3 South Australia

The Essential Services Commission of South Australia (ESCOSA) released its final decision on efficiency carryover mechanisms in April 2005.[5] The chosen mechanism has an efficiency carryover for both operating and maintenance, and capital efficiencies. Operating and maintenance expenditure is treated incrementally, whereas capital expenditure is calculated against the forecast costs for each year.

ESCOSA introduced the efficiency carryover mechanism for the 2001–05 regulatory period. The calculation of the carryover amount to be carried into the 2005–10 regulatory period resulted in a negative amount. ESCOSA elected to set the carryover amount to zero for the 2005–10 regulatory period, but it made a commitment to reconsider the treatment of negative carryover amounts in the future. ESCOSA intends to release a set of guidelines later in 2005, outlining how the efficiency carryover amount will operate in future regulatory periods.

2.3.4 New South Wales

The Independent Pricing and Regulatory Tribunal (IPART) in New South Wales has decided against the adoption of an efficiency carryover mechanism of the type adopted by, for example, the ESC in Victoria. Rather, in its June 2004 final report on electricity distribution pricing, IPART restated its preference for an X-factor 'glide path' or straight-line smoothing approach to creating incentives for efficiency improvements.[6]

Section 2.4.2 contains a detailed discussion of the approach adopted by IPART.

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[3] Essential Services Commission (ESC), *Electricity Distribution Price Review 2006–10—Draft Decision,* June 2005.
[4] ESC, *Electricity Distribution Price Review 2006–10—Draft Decision,* June 2005, p 351.
[5] Essential Services Commission of South Australia (ESCOSA), *2005–2010 Electricity Distribution Price Determination, Part A, Statement of Reasons,* April 2005.
[6] Independent Pricing and Regulatory Tribunal (IPART), *NSW Electricity distribution pricing 2004/05 to 2008/09*, Final report, June 2004.

2.3.5 Queensland

The Queensland Competition Authority (QCA) released an issues paper in 2004 that outlined two possible ways of applying an efficiency carryover mechanism.[7] The first was via a 'glide path', in which the total incremental efficiency gain over a regulatory period is 'glided' out over the next regulatory period (this approach should not be confused with the straight-line smoothing method adopted in New South Wales). The second suggested approach was a 'rolling' carryover mechanism whereby an efficiency gain or loss in any year is retained by the business for a set period of time, say five years. A detailed discussion of these two approaches is contained in the Commission's discussion paper.

The QCA released its final decision on electricity distribution pricing in April 2005.[8] This decision stated that the QCA was investigating efficiency carryover mechanisms in a process separate from the distribution pricing review, and that the authority would make a decision on implementation, or otherwise, in due course.

2.3.6 Tasmania

The Office of the Tasmanian Energy Regulator included an efficiency carryover mechanism in its 2003 electricity distribution prices decision.[9] The scheme only applies to operating and maintenance expenditures, with incremental efficiency gains being retained for five years.

2.3.7 United Kingdom

As part of its overall scheme, the United Kingdom's Office of Water Services (OFWAT) uses an incentive mechanism based on underspending of operating costs and capital costs, as used by Australian regulators. The OFWAT scheme also employs comparative competition between the 16 water businesses in the United Kingdom to drive efficiency gains. The comparative competition portion of the scheme involves assessing productivity for a variety of outputs both for water and for wastewater services. Measures of productivity are determined using econometric modelling. The businesses are then banded according to performance, with businesses that exceed the average being rewarded and those that are below the average being punished. The rationale for a scheme based on comparative competition is that it mimics the competitive effects that businesses face in markets with a high degree of rivalry. The OFWAT scheme has been in practice since 1995 and is currently being modified.[10]

The United Kingdom's Office of Gas and Electricity Markets (OFGEM) also employs an efficiency carryover mechanism.[11] OFGEM has developed a 'sliding scale' mechanism for capital expenditure that is intended to allow companies to choose between receiving a 'higher powered' incentive if a lower cost allowance is chosen and receiving a 'lower powered' incentive if a higher cost allowance is selected. OFGEM employs a consultant to determine a forecast 'base case' for

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[7] Queensland Competition Authority (QCA), *Efficiency carryover mechanism,* Issues paper, September 2004.
[8] QCA, *Final Determination, Regulation of electricity distribution,* April 2005.
[9] Office of the Tasmanian Energy Regulator (OTTER), *Investigation of prices for electricity distribution services and retail tariffs on mainland Tasmania Final report and proposed maximum prices*, September 2003.
[10] Office of Water Services, *Future Water and Sewerage Charges 2005–2010: Final Determinations*, 2004.
[11] Office of Gas and Electricity Markets, *Electricity Distribution Price Control Review, Final Proposals,* November 2004.

capital expenditure. The closer the distribution business's forecasts are to the base case, the higher the incentive; the further the forecast from the base case, the lower the incentive.

A more detailed discussion of the operation of efficiency carryover mechanisms is contained in the Commission's discussion paper.

2.4 Discussion of options

In the discussion paper, the Commission conceptualised efficiency gains as costless, one-off, instantaneous reductions in expenditure. An example of such an efficiency gain would be the elimination of waste from the production process. That is, resources involved in the production process are simply not being used, and their removal from the process results in an efficiency gain. An example would be reducing operating expenditure by reducing staffing levels. This view of efficiency gains is consistent with the treatment of efficiency incentives under most mechanisms in Australia, including those operated or contemplated by the ACCC, the ESC and ESCOSA. However, there is another way of considering efficiency savings that may more accurately report the types of sustainable efficiency improvements to be expected from most distribution businesses in Australia, including ACTEW and ActewAGL.

The alternative, and possibly more correct way in which efficiencies should be considered in the current context in the ACT, is as an investment decision.[12] That is, a business will invest resources in seeking efficiencies where the benefits outweigh the costs in net present value terms. It is reasonable to expect that there may be initial costs in seeking efficiencies, but that these will be outweighed by the benefits over the longer term. This may be a matter of several years and may extend over one or more regulatory periods.

An example of an efficiency gain considered in this manner would be an investment in staff education and training. The goal of the education program would be to improve worker productivity. Presumably, an education or training program would have ongoing benefits that would span an individual worker's entire career. For the program to be successful for the business, the expected benefit from the worker's improved productivity must exceed the cost of the education or training. The cost is usually incurred well before the benefits are received, and it is reasonable to view this as an investment decision. Another example would be for the business to increase its operating costs in the short run in the form of increased maintenance of capital assets to prolong the life of those assets. Again, because current expenditure results in future benefits, this could clearly be thought of as an investment decision. A third example would be installing additional capital equipment that results in a reduction in the number of employees needed. This is a classic investment decision, but can also be viewed as an efficiency gain because in the long run the cost of producing a given level of output is reduced.

If efficiency gains are considered as an investment decision, as opposed to the simple removal of waste from the production process, the issue of reduced incentives to achieve efficiency gains towards the end of the regulatory period becomes less crucial: whether the efficiency program is begun in year one of the regulatory period or year five becomes irrelevant. What becomes relevant is how the regulator's approach to setting operating and capital cost forecasts interacts with the

[12] This is consistent with the economics literature on the incentives to reduce costs or improve product quality. See Brander J and Spencer B (1983), Strategic commitment with R&D: The symmetric case, *Bell Journal of Economics*, 14:225–235.

retention of efficiency gains. The Commission believes that the regulatory arrangements in place should support these types of efficiency gains.

A necessary result of treating efficiencies in this manner is that there needs to be an understanding between the regulated business and the regulator on how to treat efficiency savings. To provide appropriate incentives for the business to seek these efficiencies, there is a need to allow the business to retain an appropriate amount of the efficiency savings. If the regulator were to immediately return these efficiencies to consumers, the business would have no incentive to seek the efficiencies. Therefore, there is a need for the regulator to consider investments in future efficiencies when setting cost forecasts in future regulatory periods.

An interesting point to note is that many efficiency programs may involve both operating and capital costs. The Commission is concerned to ensure that an efficiency carryover mechanism does not create incentives for the business inefficiently to substitute capital expenditure for operating expenditure or vice versa. Consider the examples given above, in which the business could invest in additional capital now that would reduce operating expenditure in the future, or where the business could incur additional operating costs that would prolong the life of its capital assets. An 'operating cost only' carryover mechanism would reduce the likelihood of business increasing its operating costs in the present to reduce future capital costs.

2.4.1 ACTEW and ActewAGL proposal

Sharing efficiency gains between consumers and business

The scheme proposed by ACTEW and ActewAGL includes a 50:50 sharing of efficiency gains between the regulated business and its customers. The submission states that a major weakness with the current approach adopted by the Commission is that:

> The magnitude of the reward for achieving efficiency gains is too low, particularly towards the end of the regulatory period. Under current arrangements in the ACT, the sharing ratio between business and consumers for the first year in a (5-year) regulatory period is slightly less than 30:70, with the share retained by the business declining each year (to zero by the end of the period).[13]

ACTEW and ActewAGL go on to state that:

> Assuming a linear relationship between business efficiency responsiveness and the share of gains retained by the business, a 50:50 sharing ratio (between the utility and consumers) would maximise the benefit to consumers.[14]

The claim by ACTEW and ActewAGL that a 50:50 sharing ratio would maximise benefits to consumers is based on analysis contained in the electricity distribution price determination for 2001–05 issued by Victoria's Office of the Regulator-General (ORG, now the ESC).[15] However, in the analysis drawn upon by ACTEW and ActewAGL, the ORG goes on to state that:

> there are reasonable grounds for thinking that the trade-off [between business efficiency responsiveness and the share of gains retained by the business] may be concave, rather than linear.

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[13] ACTEW and ActewAGL, *Response to ICRC discussion paper on regulatory incentive mechanisms,* May 2005, p 5.
[14] ACTEW and ActewAGL, *Response to ICRC discussion paper on regulatory incentive mechanisms,* May 2005, p 8.
[15] Office of the Regulator-General, Victoria (ORG), *Electricity Distribution Price Determination 2001–05, Volume 1, Statement of Purpose and Reasons,* September 2000, p 92.

> A concave relationship would imply that efficiency gains from further improving incentives *diminish* as the retained share increases.[16]

The ORG concludes that:

> Diminishing returns are a common assumption of economics. A concave relationship would imply an optimal share for business of less than 50 per cent (i.e. an optimal customer share of above 50 per cent).[17]

This analysis suggests that a sharing ratio of 50:50 is inappropriate. In its 2001–2005 price direction, the ORG adopted an efficiency carryover mechanism of five years, implying a sharing ratio of 30:70.

In the draft decision on electricity distribution services recently released by the ESC, the regulator maintained a five-year rolling carryover mechanism.[18] A five-year rolling efficiency gain implies a sharing ratio of approximately 30:70 between the business and consumers. The Commission also notes that the South Australian regulator, ESCOSA, has adopted a mechanism that allows the regulated businesses to retain approximately 30% of any efficiency gains.[19] The Office of the Tasmanian Energy Regulator also has a five-year carryover period, implying the same sharing of benefit.

The Commission considered the question of an appropriate sharing ratio in its discussion paper, and concluded that an unregulated monopolist would retain approximately 50% of any efficiency gain while a firm in a perfectly competitive market would receive only a small proportion of any gain. The Commission believes that a sharing ratio of 50:50 is inequitable and does not provide a fair sharing of efficiency gains between businesses and consumers.

ACTEW and ActewAGL state that, based on the example provided by the Commission in the discussion paper, a 10-year rolling efficiency carryover mechanism would be required to achieve a sharing ratio of 50:50.

Achieving a 50:50 sharing of efficiency gains between business and consumers would lead to an increase in the complexity of the regulatory regime. ACTEW and ActewAGL acknowledged the additional complexity and costs associated with achieving a 50:50 sharing ratio in their submission.[20] As ACTEW and ActewAGL state, a 50:50 sharing ratio could be achieved by allowing the regulated business to maintain efficiencies for 10 years. This would result in efficiency gains obtained in one regulatory period being retained in the following two periods: when establishing appropriate forecasts for the third regulatory period, efficiency gains from the first and second regulatory periods would need to be considered.

Another way in which a 50:50 ratio could be achieved would be to 'scale' efficiency gains. This would enable the business to retain an amount greater than the actual saving and thereby allow a 50:50 ratio to be restricted to the next regulatory period. Both of these approaches act to add

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[16] ORG, *Electricity Distribution Price Determination 2001–05, Volume 1, Statement of Purpose and Reasons,* September 2000, p 93.
[17] ORG, *Electricity Distribution Price Determination 2001–05, Volume 1, Statement of Purpose and Reasons,* September 2000, p 93.
[18] ESC, *Electricity Distribution Price Review 2006–10—Draft Decision,* June 2005, p 347.
[19] ESCOSA, *2005–10 Electricity Distribution Price Determination, Part A—Statement of Reasons,* April 2005, p 70.
[20] ACTEW and ActewAGL, *Response to ICRC discussion paper on regulatory incentive mechanisms,* May 2005, p 9.

complexity and costs to the regulatory process and increase the regulatory burden upon both the business and the regulator.

Furthermore, if efficiency gains are considered as investment decisions and not as simple reductions in waste, the appropriateness of a 50:50 sharing ratio of cost reductions becomes less relevant. A more important question is how to create the proper incentive for the regulated business to undertake investment that seeks these longer term efficiencies. There is a need to ensure that the business is confident that it can retain a sufficient share of any efficiencies generated, and therefore has an incentive to seek them. The Commission notes that this does not mean that the regulated business should be allowed to maintain all the efficiency gains. Once again, the Commission refers to the analysis from the discussion paper that demonstrated that a business in a competitive market would only keep a small proportion of any gains. The Commission considers that its treatment of efficiency gains as an investment problem accurately represents how a business with strong market rivals would consider implementing efficiency programs. Therefore, the Commission considers that the analysis in the discussion paper, showing a sharing ratio of 50:50 to be inappropriate, remains valid.

Negative carryover amount

The ACTEW–ActewAGL submission stated that it would be inappropriate to subtract negative carryover amounts from the revenue requirement for the next regulatory period because this would reduce revenue to a level below that required to recover the efficient cost of running the business.

ACTEW and ActewAGL stated that this is consistent with the approach outlined by ESCOSA in its 'working conclusions' document on efficiency carryover mechanisms.[21] The Commission notes that ESCOSA's final decision pointed out that it was not adopting an asymmetrical mechanism by setting the negative carryover from the 2000 to 2005 regulatory period to zero (that is, ESCOSA was not adopting a mechanism that rewarded efficiency gains while ignoring efficiency losses). Rather, ESCOSA indicated that it was using its discretion to set the carryover amount to zero in this case.[22] ESCOSA did not rule out the possibility of implementing negative carryovers in the future, and is due to release a guidelines document during 2005 specifying the details of the efficiency carryover mechanism for the future.

If an efficiency carryover mechanism were to be introduced in which any net negative carryover amount is to be set to zero, this would substantially reduce the revenue risk to the regulated business. Effectively, the business would face no 'downside' risk: it would be rewarded for efficiency gains via higher prices in the subsequent regulatory period, but not punished for efficiency losses.

From a consumer's perspective, the Commission does not believe that it is appropriate to approve higher prices resulting from an efficiency carryover mechanism due to efficiency gains with no prospect of a decrease in prices for reduced efficiency. In fact, a perverse situation can be imagined where, due to reduced expenditure, an efficiency gain is achieved at the expense of service levels. In this situation, the business is rewarded for the 'efficiency' gain while consumers receive a lower level of service and face higher prices.

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[21] ESCOSA, *Electricity Distribution Price Review: Efficiency Carryover Mechanism—Working Conclusions*, April 2003.
[22] ESCOSA, *2005–10 Electricity Distribution Price Determination, Part A—Statement of Reasons,* April 2005, p 71.

The Commission also notes that in the regulatory principles released recently by the ACCC, the efficiency carryover mechanism adopted for operating and maintenance expenditure allows for both positive and negative carryover amounts.[23]

The ESC draft decision on electricity distribution for 2006–10 states, in regard to negative carryover amounts:

> … where accrued negative efficiency carryover amounts for the 2001–05 regulatory period are negative in net present value (NPV) terms, the efficiency carryover amount is set to zero for each year of the 2006–10 regulatory period (with the accrued negative amount possibly being used to offset positive carryover amounts in the 2011 period). Where the NPV of the carryover amounts is positive, the NPV amount will be incorporated in the revenue requirement for the 2006–10 regulatory period.[24]

The Commission notes that the ESC is not proposing a zero carryover but rather 'retains' the negative amount potentially to be used to offset future gains.

The Commission believes that, if an efficiency carryover mechanism were to be introduced, it would be appropriate to have it apply to both positive and negative carryover amounts. This is consistent with the Commission's aim of creating a symmetrical scheme. The Commission also believes that it is inequitable to allow a mechanism that only offers consumers the prospect of facing increased prices.

Final year expenditure

ACTEW and ActewAGL note that actual expenditure data is not available for the final year of the regulatory period until the beginning of the following regulatory period, and that this requires assumptions to be made about the final year efficiencies. They state that assumptions must be made about the final year of the regulatory period or that the final year carryover should be delayed for several years until the following regulatory period.[25]

ESCOSA adopts the first of these two methods to address the final year data deficiency:

> For operating expenditure, actual expenditure in the last year of the 2000–2005 regulatory period has been assumed equal to expenditure in the previous year, multiplied by the change in efficiency embodied in the original expenditure benchmarks between those years.
>
> For capital expenditure, actual expenditure in the last year of the 2000–2005 regulatory period has been assumed to be equal to the benchmark expenditure of that year, and the asset base has been rolled forward on this basis. Any difference between actual and benchmark capital expenditure in this final year will be adjusted in the calculation of the asset base at the start of the 2010–2015 regulatory period, in the 2010 price review.[26]

If a methodology similar to ESCOSA's is adopted to forecast the final year expenditure of a regulatory period, the regulated business keeps forever any additional efficiency gain not incorporated in the forecast. For example, if the final year expenditure is forecast as $100 and is actually $90, the business retains this $10 in perpetuity because the amount is not taken into account when setting forecasts in following regulatory periods. The Commission believes that

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[23] ACCC, *Decision—Statement of principles for the regulation of electricity transmission revenues,* December 2004.
[24] ESC, *Electricity Distribution Price Review 2006–10—Draft Decision,* June 2005, p 346.
[25] ACTEW and ActewAGL, *Response to ICRC discussion paper on regulatory incentive mechanisms,* May 2005, p 9.
[26] ESC, *Electricity Distribution Price Review 2006–10—Draft Decision,* June 2005, p 72.

having to forecast final year expenditure adds to the complexity and cost of the regulatory regime while also reducing the accuracy of the mechanism.

The other possibility suggested by ACTEW and ActewAGL is that efficiency gains achieved during the final year of a regulatory period be delayed several years until the following regulatory period. The Commission believes there are two possible ways of implementing such an arrangement. The first option would be to incorporate efficiency gains achieved in the final year of the first regulatory period, once they are known, in the second regulatory period. This would require an adjustment to be made to forecasts midway through the second regulatory period. The second alternative would be to incorporate any efficiency gains from the final year of the first regulatory period in the third regulatory period. The Commission considers that, while both these approaches would increase the accuracy of the efficiency carryover mechanism, they would substantially increase the complexity and intrusiveness of the regulatory regime.

The Commission has considered the claim by ACTEW and ActewAGL that the incentive to seek efficiencies is reduced to zero by the end of the final year of the regulatory period.[27] Hypothetically, if a regulated business is able to achieve an efficiency gain in the final year of the first regulatory period, it may be able to retain this gain for six years. This is because actual final year expenditures, and hence any final year efficiency gains, are unobserved at the time of a price review. Final year expenditure is usually forecast from the most recently available expenditure data. In this way, efficiency gains in the final year of one regulatory period are not included when setting forecasts for the next. This acts to increase the incentive to achieve efficiencies in the final year of the regulatory period because these gains can be kept for the final year of the current regulatory period as well as the whole of the following regulatory period. This contrasts with the commonly held view that the incentive to seek efficiency gains diminishes over the length of the regulatory period to zero in the final year.

The Commission considers that incorporating final year expenditure forecasts into an efficiency carryover mechanism would not only increase the complexity of the mechanism but also reduce the accuracy with which it is calculated. This is inconsistent with the principles adopted by the Commission to assess the effectiveness of such a mechanism. The alternative of delaying the final year adjustment, while increasing the accuracy of the mechanism, would lead to a substantial increase in its complexity and cost. In addition, the Commission believes that the incentive to seek efficiency gains does not diminish to zero by the end of the regulatory period.

Setting future cost estimates

ACTEW and ActewAGL stated that:

> the incentives provided by an efficiency carryover mechanism could potentially be completely eliminated by a poorly defined process for setting future cost benchmarks. In addition to providing clear guidance as to the treatment of efficiencies, the Commission would need to commit to a process for setting expenditure benchmarks in the next regulatory period.[28]

ACTEW and ActewAGL also state that the process for setting future cost estimates should not involve the use of historical costs.[29]

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[27] ACTEW and ActewAGL, *Response to ICRC discussion paper on regulatory incentive mechanisms,* May 2005, p 5.
[28] ACTEW and ActewAGL, *Response to ICRC discussion paper on regulatory incentive mechanisms,* May 2005, p 9.
[29] ACTEW and ActewAGL, *Response to ICRC discussion paper on regulatory incentive mechanisms,* May 2005, p 9.

In the discussion paper, the Commission noted that the power of the incentive mechanism is reduced if forecasts of operating costs depend in any way on historical actual costs. If forecasts are based on actual costs, a reduction in actual costs will lead to a reduced forecast for the following regulatory period.

The Commission believes that one alternative to basing forecasts on actual costs may be to adopt some form of total factor productivity approach, in which prices are linked to a productivity measure based on benchmarking. However, ACTEW and ActewAGL oppose the use of benchmarking on the grounds that it lacks robustness, transparency and objectivity, that it divorces allowed revenue from actual costs, and that there are complexities and difficulties associated with developing a benchmarking framework.[30]

Another alternative to setting future cost estimates is to establish some form of function based on the characteristics of the work to be completed, such as number of customers, kilometres of pipe or lines, and type of connections. However, this is still likely to require analysis based on historical costs and benchmarking against other businesses.

If efficiency gains are considered as an investment process, the use of historical costs may actually provide the regulated business with an increased incentive to invest in efficiency programs. If forecasts are based on historical costs, the business will retain the difference between actual and forecast costs that results when efficiency programs are undertaken in one regulatory period but the benefits accrue in the following period. This is because historical costs do not necessarily signal future efficiencies. However, if the regulated business expects that efficiencies will be taken into account when setting future costs, the business faces a reduced incentive to seek efficiencies because any efficiencies achieved reduce future cost forecasts.

The Commission considers that, in the absence of a viable alternative to taking actual costs into account when setting forecasts, there remains a need to consider the trends in actual costs and the expected productivity growth in the economy when forecasting future costs. In fact, the Commission believes that the use of actual historical costs provides the business with an increased incentive to seek efficiencies in some circumstances. The Commission believes the current approach (of basing forecast operating costs on an ex ante evaluation of forecasts submitted from the regulated business, basing forecast capital costs on an ex ante prudency and efficiency test, and basing unforeseen capital projects on an ex post prudency test) provides ACTEW and ActewAGL with sufficient certainty in the process for setting future cost forecasts. The Commission believes this approach is repeatable, transparent and relatively simple and unobtrusive.

Retrospective adjustments

ACTEW and ActewAGL argue that, as part of any incentive sharing mechanism, there is a need to minimise the number of retrospective adjustments made to cost benchmarks and that the costs of distinguishing management-induced gains from external efficiency gains exceed the benefit. However, ACTEW and ActewAGL also argue that it is necessary to allow pass-through provisions for unanticipated events that have a material effect on costs. Furthermore, ACTEW and ActewAGL state that it would be beneficial to make retrospective adjustments to cost benchmarks by a particular amount per customer/connection (or unit of consumption) if actual customers/connections (or consumption) differ from the forecasts. Their view is that, unless an

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[30] ACTEW and ActewAGL, *Response to ICRC discussion paper on regulatory incentive mechanisms,* May 2005, p 8.

adjustment mechanism exists, they could be discouraged from meeting efficient market growth and unfairly punished for customer growth beyond their control.

The Commission notes that ESCOSA considered these issues in its recent electricity decision.[31] ESCOSA decided that, although it was desirable to differentiate between management and external efficiency gains, in reality this may be difficult to achieve and therefore did not attempt to make this differentiation. ESCOSA also decided to adjust only the benchmark costs (against which efficiency is assessed) where there have been material changes to costs because of pass-through events, and where the amount of these pass-through costs has been approved. ESCOSA has decided that no adjustment to benchmarks will occur for differences between forecast and actual growth.

However, the Commission notes that the efficiency carryover mechanism adopted by the ESC in its draft decision on electricity distribution for 2006–10 incorporates adjustments to the expenditure forecasts for the 2001–05 regulatory period.[32] These include adjustments for changes in the policies on capitalisation of indirect (corporate) overheads made by the distributor and adjustments for forecast operating expenditure based on forecast growth rates, customer-initiated capital expenditure and demand-related reinforcement.

The Commission believes that introducing retrospective adjustments to account for differences between forecast and actual parameters such as customer numbers, connections or usage would unnecessarily complicate the regulatory process. In order to make the necessary adjustments, a much more detailed audit of the previous regulatory period than currently occurs would be required. While this would increase the accuracy of the regulatory process, it would substantially increase the complexity and obtrusiveness of the process and reduce the certainty associated with price determinations.

The Commission is concerned by the complexity created by the proposed ESC arrangements under which adjustments are made to expenditure forecasts. The Commission believes there may be a degree to which any additional costs incurred because of unforeseen growth may be offset via additional revenue. The Commission considers that adopting a mechanism that makes retrospective adjustments will increase the regulatory burden and reduce the transparency and simplicity of the regulatory process.

Operating cost only mechanism

ACTEW and ActewAGL suggest introducing an 'operating cost only' mechanism until further work is completed on a capital expenditure mechanism.[33] The Commission is concerned that the introduction of an operating cost only mechanism would create distortions between operating and capital expenditure.

The introduction of an operating expenditure only mechanism would increase the incentive for a regulated business to substitute away from the efficient input mix. It would create an incentive for the business to achieve 'efficiency' gains by substituting capital expenditure for operating expenditure. This would lead to an overcapitalisation of the production process.

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[31] ESCOSA, *2005–10 Electricity Distribution Price Determination, Part A—Statement of Reasons,* April 2005, p 70.
[32] ESC, *Electricity Distribution Price Review 2006–10—Draft Decision,* June 2005, p 339.
[33] ACTEW and ActewAGL, *Response to ICRC discussion paper on regulatory incentive mechanisms,* May 2005, p 11.

However, the Commission notes that there is also an incentive to overcapitalise under the current arrangements, which provide an incentive to increase capital expenditure in order to reduce operating expenditure. First, consider an increase in capital expenditure that reduces operating expenditure. The business receives the benefit of the savings on operating expenditure, with the additional capital expenditure (assuming it is prudent) rolled into the regulatory asset base. Second, consider an increase in operating expenditure that reduces capital expenditure. In this situation, the business must finance the increase in operating expenditure in order to reduce capital expenditure. The business faces a situation in which it increases operating costs but receives no benefit from the reduced capital expenditure because it does not receive the amount of the reduced capital expenditure and the amount is not included in the regulatory asset base. The regulated business has no incentive to seek capital efficiencies which are the result of increased operating expenditure. The introduction of an operating expenditure only mechanism would only increase the incentive to substitute capital expenditure for operating expenditure.

The Commission believes that if an efficiency carryover mechanism is to be introduced it should apply to both operating and capital expenditure. This would reduce the incentive to overcapitalise the production process as the business faces pressures to seek efficiencies in both operating and capital expenditure. However, if both mechanisms are introduced, there is a need to structure the two to create the incentive to achieve the efficient input mix. This would require the regulator to obtain a substantial amount of information on the operations of the regulated business, which would increase the regulatory burden on the business and regulator. The introduction of these schemes would substantially increase the complexity of the regulatory regime.

The Commission believes that the regulatory regime should not create distortions, and that the introduction of an operating expenditure only efficiency carryover mechanism would create distortions because it would produces an incentive for the regulated business to overcapitalise the production process. Therefore, the Commission considers the introduction of such a carryover mechanism to be inappropriate. The Commission notes the additional complexity and required level of obtrusiveness that the introduction of mechanism for both operating and capital expenditure would require. The Commission believes that the additional complexity and required level of obtrusiveness would mitigate the possible benefits.

2.4.2 Alternative options

IPART has chosen not to implement a formal efficiency carryover mechanism for electricity distribution businesses in New South Wales. Rather, IPART considers that its adoption of a glide path or straight-line smoothing approach to setting the X factor (the factor by which prices adjust over the course of the regulatory period) in the CPI – X price equation creates sufficient incentives for regulated businesses to seek efficiencies.[34] IPART claims that a glide path is superior to other efficiency carryover mechanisms because it:

- is simple to apply and less information-intensive
- is symmetrical and certain
- offers stronger incentives than other cost-linked approaches to efficiency carryover
- reduces price and revenue shocks

[34] IPART, *NSW Electricity distribution pricing 2004/05 to 2008/09*, Final report, June 2004.

- is likely to offer the best balance of benefits and risks for various stakeholders.

The IPART approach is easily contrasted with the Commission's approach to determining the X factor. Both use a building-block methodology to calculate the efficient costs of providing the regulated service. The Commission determines the X factor so that the net present value of the expected revenue equals the net present value of expected costs (the notional revenue requirement) over the entire regulatory period. IPART's approach sets the X factor so that the expected revenue in the final year of the period equals the notional revenue requirement in that year.

In its recent decision on electricity distribution prices, IPART has also employed a P_0 adjustment. The P_0 adjustment is the amount that prices adjust in the first year of the new regulatory period. Under this methodology, an initial adjustment is made for the first year to adjust expected revenue closer to the notional revenue requirement. An X factor is then set for the remaining regulatory period, and acts to equalise expected revenue and the notional total revenue requirement in the final year of the period. IPART calls this the 'hybrid P_0/glide path' approach.

The increased incentive to become efficient, compared to the Commission's net present value approach, is due to the fact that the regulated business is able to retain a proportion of efficiency gains from the previous regulatory period into the following period. These efficiency gains are 'glided' out over the next period in such a way that expected revenue and the notional total revenue requirement in the final year of the period are equal. Note that this assumes no P_0 adjustment. If a P_0 adjustment were to occur, this would reduce the amount of the efficiency gains retained by the business.

One result of equating expected revenue and the notional total revenue requirement in the final year of the regulatory period is that this may result in a situation in which the regulated business does not recover the net present value of costs as calculated by the building-block approach. Depending on the amount of the total revenue requirement in intermediate years of the period, a glide path may result in the business either under- or over-recovering the total revenue requirement during a single regulatory period. This was an issue raised by the distribution businesses as part of the recent review in New South Wales. IPART stated that, although some businesses would under-recover costs in this period, they would possibly over-recover costs in others, but that on average a glide path approach would deliver a return on investment around the level of the allowed rate of return.[35]

As stated above, the glide path as adopted by IPART may result in the regulated business either under or over-recovering the total revenue requirement. While the National Electricity Code has no explicit requirement that total revenue must be neutral in net present value terms, the National Third Party Access Code for Natural Gas Pipeline Systems requires that total revenue be set to deliver a net present value of costs and revenues equal to zero. Therefore, if the Commission were to consider adopting a similar glide path for electricity distribution in the ACT, it would need to be convinced that it is appropriate to have a mechanism that only applies to electricity distribution or that it is appropriate to have different mechanisms for electricity and gas (and possibly water and wastewater).

As the glide path mechanism acts to equalise expected revenue with the revenue requirement as calculated for the final year of the regulatory period, there is a heavy reliance on correctly

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[35] IPART, *NSW Electricity distribution pricing 2004/05 to 2008/09*, Final report, June 2004, p 78.

forecasting the revenue requirement for that year. Errors in forecasting could result in the business either under- or over-recovering costs. The Commission believes that it is reasonable to assume that the forecast of the total revenue requirement for the final year of a regulatory period would be the least accurate of all the years forecast. This is because the accuracy with which predictions about future expenditure can be made is reduced with increases in the length of time over which they made. Therefore, relying heavily on the final year forecast of expenditure exposes the regulated business (and consumers) to a high level of risk. Adopting a net present value approach, which places a diminishing weight on the forecast for each successive year, reduces the risk of incorrectly forecasting the revenue requirement for the final year of a regulatory period.

The distribution businesses in New South Wales raised the point that the hybrid P_0/glide path approach adopted by IPART may not be the appropriate mechanism for increasing incentives to seek efficiency improvements, particularly towards the end of the regulatory period. The Commission acknowledges that the inclusion of a P_0 adjustment reduces the return to the business in a regulatory period from efficiency gains made during the preceding period. However, even if no P_0 adjustment were made and a simple glide path mechanism were implemented, such a mechanism would not provide the regulated business with a constant incentive to seek efficiencies across the regulatory period, as is a common aim of other efficiency carryover mechanisms.

The Commission acknowledges that the glide path mechanism adopted by IPART is simpler to administer than other efficiency carryover mechanisms, but has concerns about the matters raised above. The Commission is especially concerned with the potential for forecast error in the last year of the upcoming regulatory period, given that the price adjustments depend crucially on this value. While there may be merit in adopting a glide-path, the Commission has decided not to change its approach to calculating the X factor.

2.5 Draft decision

Efficiency carryover mechanisms were suggested as a way of addressing the perceived reduced incentive for a regulated business to seek efficiencies towards the end of the regulatory period. In order to assess the effectiveness of the efficiency carryover mechanism proposed by ACTEW and ActewAGL, the Commission determined a set of qualities that the mechanism must posses. These properties included transparency, simplicity, unobtrusiveness, repeatability, symmetry and accuracy. In addition, the Commission believes any mechanism adopted must not create distortions, must be equitable and must encourage efficient long-term investment.

The Commission has considered whether the proposals put forward by ACTEW and ActewAGL meet these criteria. In the Commission's opinion, a mechanism that includes a 50:50 sharing ratio of efficiency gains, a zero carryover amount if a negative carryover is calculated, and retrospective adjustments to benchmarks does not meet the criteria. The Commission believes that such a mechanism is not transparent, increases the obtrusiveness of the regulatory regime, is inequitable, is asymmetrical, creates distortions in production processes and does not necessarily encourage efficient long-term investment.

Furthermore, the Commission considers that the question of how to deal with the unavailability of final year expenditure information at the time of the review into the following price period is indicative of the additional complexity that comes with the introduction of any efficiency carryover mechanism.

In addition, if efficiency gains are considered as investment decisions (as opposed to one-off instantaneous reductions in waste), the problem of creating a constant incentive across the regulatory period becomes irrelevant. Rather, the important issue becomes the establishment of a regulatory regime that encourages the business to seek efficiencies where the net present value of the benefits outweighs the costs. The Commission believes that regulatory arrangements should support these types of efficiency gains and that there is a need for the regulator to consider investments in future efficiencies when setting cost forecasts in future regulatory periods.

The Commission is conscious of the fact that the AER may shortly take over the regulation of electricity and gas distribution in the ACT, possibly during the current regulatory period, and any decision on whether to introduce an efficiency carryover mechanism and the form of such a mechanism adopted may subsequently be amended by the AER. The possibility of the AER adjusting the mechanism adopted to provide an efficiency incentive creates a high level of uncertainty for regulated businesses and jurisdictional regulators. In such circumstances, it may be more appropriate to delay any formal introduction of a mechanism until the longer term regulatory arrangements are known.

The Commission considered alternatives to the more 'traditional' efficiency carryover mechanisms. Specifically, the Commission investigated whether a mechanism similar to that adopted by IPART would be appropriate for the ACT. While the IPART approach is simpler than other efficiency carryover mechanisms, the Commission was not convinced of the accuracy and equitability of the mechanism, or that it would encourage efficient long-term investment.

The Commission believes that there are genuine benefits in creating a transparent, simple and equitable regulatory regime. Such a regime will minimise the regulatory burden both for regulated businesses and for regulatory bodies. The introduction of an efficiency carryover mechanism as suggested by ACTEW and ActewAGL has the potential significantly to increase the complexity of the regulatory process while not necessarily guaranteeing an improvement in incentives to seek genuine efficiencies.

Based on these considerations, the Commission is not convinced that the benefits of adopting some form of efficiency carryover mechanism have been demonstrated. Furthermore, the Commission believes that the costs of implementing an efficiency carryover mechanism would outweigh any likely benefits.

Therefore, the Commission's draft decision is to implement no form of efficiency carryover mechanism for any of the distribution businesses in the ACT at this time.

3 Service incentive scheme

3.1 Introduction

In the current regulatory arrangements in the ACT, there is no explicit link between revenue and service standards. In the recent reviews of water and wastewater, electricity and gas distribution networks in the Territory, the Commission determined efficient costs at a level that would allow the regulated businesses to maintain service levels at an appropriate standard. Nevertheless, the businesses still have an incentive to increase profits through reduced expenditure on ensuring adequate service standards. In response to this potential disincentive to maintain service standards, the Commission monitors the compliance of distributors against service standards that are included in the ICRC Act, the Utilities Act and various industry codes. If the distributor fails to meet these requirements, it may be liable to compensate consumers through 'rebatable performance standards'. As an adjustment to the form of regulation, service incentive schemes have been suggested, and in some jurisdictions adopted, to provide additional incentive for the regulated business to ensure efficient service standards.

As part of its recent series of price path reviews and determinations, the Commission identified the issue of incentives for service standards as a matter requiring further consideration. Notwithstanding relatively high service standards evident in the regulated activities of ActewAGL and ACTEW in the ACT, the Commission indicated its intention to review this matter further.

In deciding whether the introduction of a service incentive scheme as an adjustment to the current regulatory scheme is required in the ACT, the Commission has identified the following criteria against which any scheme will be assessed:

- **Necessity:** is there a demonstrated need to alter the approach to service standards, or are the current arrangements adequate to ensure appropriate service levels?
- **Transparency:** a transparent scheme will be clearly understood by regulated businesses, regulators and external parties.
- **Simplicity and unobtrusiveness:** a simple and unobtrusive scheme will reduce the regulatory burden on regulated businesses and the regulator.
- **Accuracy:** a service incentive scheme must be able to reward (or penalise) the regulated business accurately for improvements (or reductions) in service standards.
- **Economic efficiency:** a service incentive scheme should act to provide the efficient level of service and should not distort the incentives for efficient investment and production.

Section 3.2 outlines ACTEW and ActewAGL's response to the discussion paper. Section 3.3 summarises the arrangements in other jurisdictions. Section 3.4 discusses the issues associated with the introduction of a specific service incentive scheme, and Section 3.5 details the Commission's draft decision.

3.2 Submission from ACTEW and ActewAGL

The submission from ActewAGL and ACTEW noted that, in preparing for the recent reviews for electricity distribution, water and wastewater services and gas access arrangements, a review of customer satisfaction and willingness to pay for existing and proposed service standards was undertaken.[36] ACTEW and ActewAGL noted that the study revealed overall high levels of satisfaction, a matter that was duly considered by the Commission when it made its price determination for the next regulatory period.

ACTEW and ActewAGL argued that, in addition to the monitoring of service standards by the Commission under the provisions of the ICRC Act, the Utilities Act and various industry codes, current service standards are protected by specific service standard requirements contained in the contracts under which water and wastewater and gas are managed and operated. In addition, ActewAGL's electricity and gas distribution systems are the subject of significant liability exposures if systems are not maintained.

ACTEW and ActewAGL argued that the high level of customer satisfaction indicated in the willingness-to-pay study implies that the current service levels are appropriate and that any service standard incentives that may be adopted should focus on the maintenance of existing service levels. In the current context, ActewAGL and ACTEW did not believe that additional service standard incentives were required and therefore did not support the adoption of such a scheme.

3.3 Other jurisdictions

3.3.1 National energy regulator

As discussed in Section 2.3.1, the Australian Energy Market Commission (the energy market rule-making body) and the Australian Energy Regulator (which will perform the regulatory functions) are due to commence operations from 1 July 2006. Initially, the AER in particular will focus on the regulatory functions for electricity and gas transmission services. However, responsibility for energy distribution will ultimately be transferred from the jurisdictional regulators to the AER.

These changes will mean that the regulatory functions for both electricity and gas will move from the Commission to the AER. The future regulation of water is unclear, and at this time responsibility will remain with the Commission. The AER has been established as a separate legal entity, but will remain a constituent part of the ACCC. This suggests that the approach adopted by the AER may be similar to that currently adopted by the ACCC. In November 2003, the ACCC released its service standard decision for electricity transmission networks.[37] This decision sets out the ACCC's thinking on service incentive schemes and how they might be operated.

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[36] NERA Consulting Pty Ltd and ACNielsen, *Willingness to Pay Research Study, A report for ACTEW Corporation and ActewAGL,* August 2003.
[37] ACCC, *Decision, Statement of principles for the regulation of transmission revenues—Service standard guidelines,* November 2003.

The scheme for electricity transmission systems adopted by the ACCC is based on the following types of indicators:

- transmission circuit availability
- average outage duration
- frequency of 'off-supply' events
- inter-regional constraints
- intra-regional constraints.

Each transmission business is subjected to its own service incentive scheme. The indicators selected and targets set differ for each transmission business, with targets being based on each business's past performance. The financial exposure under the scheme is currently capped at 1% of the business's total revenue cap. The scheme is asymmetrical: improvements in service are rewarded at a greater rate than decreases in service. This is because the ACCC believes that the current transmission businesses are operating at a high standard and that further improvements may be difficult to achieve. The scheme also incorporates 'deadbands' around the selected targets (ranges of acceptable service between which no adjustment to revenue is made).

3.3.2 Victoria

The Essential Services Commission of Victoria introduced a service standard incentive scheme (referred to as the 'S' factor) into its electricity distribution price determination for 2001–05.[38] The S factor is calculated by multiplying each year's *performance gap* for each *key service standard indicator* by an *incentive rate* for that indicator and summing the resulting figures for all the indicators.

The performance gap is the difference between the actual improvement and the target improvement in the key indicators. A positive performance gap indicates an increase in performance, and the distributor is rewarded with an increase in prices.

The key indicators of an improvement in service levels are calculated separately for the three network types (CBD, urban and rural) and consist of the following measures of service:

- unplanned interruption frequency (known as SAIFI, or system average interruption frequency index)
- unplanned interruption duration (CAIDI, or customer average interruption duration index)
- planned minutes off supply (SAIDI, or system average interruption duration index).

The incentive rates are based on the marginal cost of improvements required to meet service targets, with the indicators weighted according to consumer preferences. Improvements above the minimum standard weighted by consumer preferences attract the additional price adjustment known as the S factor. The operation of the scheme requires the ESC to determine the incentive rates and the weighting to be used.

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[38] ORG, *Electricity distribution price determination 2001–05, Volume 1—Statement of purpose and reasons,* September 2000.

The ESC released its latest draft decision on electricity distribution in June 2005.[39] This was the first review of the operation of the S factor scheme introduced in the 2001–2005 determination and included an alteration in the indicators used to determine service standards. From 2008, the indicators will be:

- unplanned interruption frequency
- unplanned minutes off supply
- momentary interruption frequency
- call centre performance.[40]

In addition, for the next regulatory period the ESC will require directors of the distribution businesses to sign off annually on a 'health card' stating that plans and processes in place for the next 12 months will ensure that the reliability of the network will meet or exceed the targeted reliability levels.[41]

The Victorian scheme includes a guaranteed service level payments scheme, under which payments are automatically made by the utility to customers where the service received by the customer falls below a specified threshold.[42]

3.3.3 South Australia

In its 2000–05 electricity distribution decision, the Essential Services Commission of South Australia was the first regulatory body in Australia to introduce some form of service incentive scheme. Under this 'performance incentive' scheme, maximum average distribution revenue was increased or decreased depending on actual performance measured against baseline targets for:

- SAIDI (system average interruption duration index)
- SAIFI (system average interruption frequency index)
- CAIDI (customer average interruption duration index)
- time to restore supply to not less than 80% of interrupted customers
- operating cost per customer.[43]

For the following regulatory period (2005–10), ESCOSA has reviewed the scheme and decided to focus attention on improving the reliability of service to the worst-served customers. This refocusing of the scheme reflects a view that the previous arrangements failed to address the 'worst performing outcomes.' Service measures under the revised scheme are based on two indicators. The first is customer minutes off supply for those customers with service reliability below the required threshold.[44] The second is based on the percentage of telephone calls to the centre responded to within 30 seconds.[45]

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[39] ESC, *Electricity Distribution Price Review 2006–10—Draft Decision,* June 2005.
[40] ESC, *Electricity Distribution Price Review 2006–10—Draft Decision,* June 2005, p 74.
[41] ESC, *Electricity Distribution Price Review 2006–10—Draft Decision,* June 2005, p 79.
[42] ESC, *Electricity Distribution Price Review 2006–10—Draft Decision,* June 2005, p 97.
[43] ESCOSA, *Electricity Distribution Code,* January 2003.
[44] ESCOSA, *2005–10 Electricity distribution price determination Part A—statement of reasons,* November 2004, p 42.
[45] ESCOSA, *2005–10 Electricity distribution price determination Part A—statement of reasons,* November 2004, p 44.

Similarly to the original scheme, points are awarded (positive or negative) based on the performance indicator results compared to the selected benchmark. A total score is calculated and is applied when calculating any allowable revenue adjustment.

The revised scheme incorporates guaranteed service level payments for customers whose service levels fall below a certain threshold.

3.3.4 New South Wales

In its final report on New South Wales electricity distribution pricing for the period from 2004–05 to 2008–09, the Independent Pricing and Regulatory Tribunal decided against the introduction of an S factor that was linked to monetary incentives for service quality.[46] Instead, the tribunal has introduced a 'paper trial' of an S factor scheme that focuses on reliability measures for the length of the regulatory period.

As well as the paper trial S factor scheme, IPART has stated that, subject to ministerial approval, it will expand the set of guaranteed customer service standards and continue to collect and publish performance statistics on service standards. It should be noted that each jurisdiction collects and publishes annual performance and compliance reports that detail utilities' compliance with licence conditions and performance against selected indicators. There is currently an effort to harmonise the reporting requirements between jurisdictions to more readily allow comparisons between utilities and jurisdictions.

IPART originally foreshadowed an intention to introduce monetary incentives for an S factor scheme from July 2006, but opted for a paper trial after concerns were raised by distributors about the accuracy and availability of data. A primary concern was the possible creation of perverse incentives. Because of data constraints, the proposed incentive rates were based on the distribution system as a whole. There were concerns that such a scheme could lead distributors to focus on 'easy wins' rather than on improving the reliability of the worst-performing parts of the network. Other concerns raised were that variation in annual performance standards might be outside the control of distributors and that data accuracy improvements might lead to a worsening of reported reliability levels because of increased capacity to record outages. Based on these concerns, IPART delayed any final decision on a full implementation of monetary incentives and is currently conducting the paper trial.

3.3.5 Queensland

In April 2004, the Queensland Competition Authority released its final decision on a service quality incentive scheme for electricity distribution services in Queensland.[47] In that decision, the QCA stated that it would develop a service quality incentive scheme with each distributor, to be incorporated into the regulatory arrangements for the next regulatory period, commencing on 1 July 2005.

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[46] IPART, *NSW Electricity distribution pricing 2004/05 to 2008/09*, Final report, June 2004.
[47] QCA, *Service quality incentive scheme for electricity distribution services in Queensland,* Final decision, April 2004.

However, in the draft determination for electricity distribution prices released in December 2004, the QCA decided against the introduction of an S factor.[48] A review of the distributors' then current level of service quality determined that these levels were less than satisfactory. The review also noted that there was a lack of minimum service standards against which performance could be assessed.

The QCA observed that an implicit assumption of any service quality scheme is that the level of service is 'about right' at the time of introduction. As the distributors were significantly below a satisfactory level of service, the introduction of an S factor scheme would be inappropriate and would only penalise the distribution businesses at the time the regulator was trying to ensure that they undertook various capital and recurrent works to improve service standards.

The QCA has stated its view that the inclusion of compulsory minimum service standards in the distribution licences should ensure that distributors have sufficient incentive to increase service levels. In addition, mandatory guaranteed service level payments relating to customer service have been introduced.

3.3.6 Tasmania

In its 2003 decision on electricity prices, the Office of the Tasmanian Energy Regulator incorporated a service quality incentive scheme for Aurora's distribution services.[49] In this decision, OTTER included incentives for SAIDI (the duration of outages) and SAIFI (the number of outages). Baseline performance targets for each were calculated using historical performance, and the rewards or penalty payments were based on customers' willingness to pay, which was determined from a customer value study. The total revenue bonus or penalty amount was capped at $1.6 million, which represented approximately 1.25% of Aurora's annual revenue requirement. This arrangement is still operating in Tasmania.

In addition, the Tasmanian scheme incorporates guaranteed service level payments to customers where service standards are not met.

3.4 Discussion and analysis

This section of the draft decision first sets out the objectives of a service incentive scheme. It then analyses whether such a scheme is required in the ACT, the costs and benefits of introducing it, and the adequacy of current arrangements.

The potential benefits from the introduction of a service incentive scheme are derived from a movement towards the efficient level of service. These benefits may be small if the current level of service is close to the efficient level. There are potentially two costs involved with the introduction of a scheme. First, a service incentive scheme may increase the intrusiveness and complexity of the regulatory process, thus increasing the regulatory burden. Second, an improperly calibrated scheme may move service quality in the wrong direction, further away from the efficient level. The closer the current level is to the efficient level of service, the more likely it is that the business

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[48] QCA, *Draft determination – Regulation of Electricity Distribution,* December 2004.
[49] OTTER, *Investigation of prices for electricity distribution services and retail tariffs on mainland Tasmania Final report and proposed maximum prices*, September 2003.

will be provided with incorrect incentives. The Commission is conscious of these issues, which it will consider in terms of the tests of necessity, transparency, simplicity, accuracy and economic efficiency identified in Section 3.1.

3.4.1 Objectives of a service incentive scheme

In response to the discussion paper, ACTEW and ActewAGL argued that, because of the current high levels of service provided and satisfaction of customers, the current service standard controls are adequate for maintaining current service levels.

However, an issue raised by the ACTEW and ActewAGL submission was that the discussion paper failed clearly to define the objectives of a service incentive scheme.

The Commission discussed the objectives of a service incentive scheme in the discussion paper as follows:

> Theoretically, the efficient level of service is that level at which the gain to consumers from an increase in service levels equals the cost to the business of achieving the increase. An explicit aim of any service incentive scheme should be to achieve such an outcome.
>
> The willingness-to-pay study reveals that a high proportion of ACT residents rate the utility distribution services they receive as being of a 'good' or better standard. However, the study does not shed any light on whether the current level of service is at an efficient level. It is possible that the current service level may be too low, too high or at an efficient level. Calculating the actual efficient level of service is extremely complex.
>
> As stated above, an aim of any service incentive scheme should be to achieve an outcome in which the cost of achieving an increase in service equates to the benefit from the increase in service quality.[50]

The concept of achieving an efficient level of service was also identified by ACTEW and ActewAGL, who noted:

> To efficiently manage a service incentive scheme, potential penalties and rewards must be calibrated to customers' willingness to pay for potential and actual service offerings.[51]

There therefore appears to be not much difference between ActewAGL–ACTEW's view of the objective of a service incentive scheme and that of the Commission, namely that the objective of such a scheme is to achieve the efficient level of service. The efficient level of service is the point at which the incremental cost of an additional unit of service provided by the business is exactly equal to the incremental benefit received by consumers. A service incentive scheme should therefore be designed to achieve this efficient outcome by internalising the consumer benefit from increases in service within the profits of the regulated business. It should be noted that the goal of the regulator is not to determine the efficient level of service but to provide the regulated business with the incentive to achieve this level of service.

The willingness-to-pay study conducted by ACTEW and ActewAGL could potentially be used to calibrate the rewards and penalties to the businesses from deviating from target levels of service.[52]

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[50] Independent Competition and Regulatory Commission (ICRC), *Discussion paper, Incentive Mechanisms, Report 3 of 2005,* March 2005, p 35.
[51] ACTEW and ActewAGL, *Response to ICRC discussion paper on regulatory incentive mechanisms,* May 2005, p 19.

However, the Commission believes the process involved in calibrating the service incentive scheme would significantly increase the complexity and intrusiveness of the regulatory regime. This is best demonstrated by the simple observation that if the scheme is incorrectly parameterised the resulting level of service may result in a worse outcome than having no service incentive scheme at all. So, before it is decided to implement some form of service incentive scheme, it is necessary to establish first whether there is a need to address service standards. It must be demonstrated that the current level of service is significantly different from the efficient level of service.

3.4.2 Is there a need to address service standards?

The submission on the discussion paper received from ACTEW and ActewAGL noted that:

> The [willingness-to-pay] study revealed overall high levels of satisfaction with the services offered by ACTEW and ActewAGL. In all, some 95 per cent of electricity and water and wastewater customers and some 98 per cent of gas customers rated the performance of their utility services provided by ACTEW and ActewAGL as *good* or better.[53]

ACTEW and ActewAGL also claimed that:

> High customer satisfaction implies that current service levels are appropriate, thus incentives should focus on the maintenance of service levels. Given this, ACTEW and ActewAGL believe that existing service incentives are adequate.[54]

In addition, the Commission notes that the current levels of required service received by water and wastewater, electricity and gas distribution customers as set out in the Consumer Protection Code and other industry codes are of a high standard and that ACTEW and ActewAGL in many cases exceed the minimum service standard requirements under these codes. During 2003–04, neither ACTEW nor ActewAGL recorded any material breaches of the Consumer Protection Code.[55] The number of complaints per 1,000 customers received by network businesses were 1.11, 0.08, 0.47 and 0.08 for electricity, gas, water and wastewater respectively.[56] It should be noted, however, that simply because customers are happy with the current level of service does not imply that the current level of service is efficient. It is possible that the high level of satisfaction may be an indication of excessive levels of service or lack of awareness of the possibility of improved service.

However, as noted by ACTEW and ActewAGL, there currently appears to be a high level of satisfaction with the level of service received by electricity, gas and water and wastewater customers. The Commission considers that, given the high level of satisfaction with services and drawing from the detailed audit and assessment of efficient costs for each network business conducted as part of the recent price determinations, there is no evidence to suggest that the current level of service provided by ACTEW and ActewAGL is significantly different from the

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[52] It should be noted that the service standard target set by the regulator is not necessarily the efficient level of service. The regulator is not trying to determine the efficient level of service. Rather, the regulator wishes to set the target and the rewards and penalties in such a manner as to provide the correct incentive for the regulated business to shift towards the efficient level of service.
[53] ACTEW and ActewAGL, *Response to ICRC discussion paper on regulatory incentive mechanisms,* May 2005, p 13.
[54] ACTEW and ActewAGL, *Response to ICRC discussion paper on regulatory incentive mechanisms,* May 2005, p 15.
[55] ICRC, *Compliance report for 2003–2004,* March 2005, p 9.
[56] ICRC, *Compliance report for 2003–2004,* March 2005, p 11.

efficient level of service. The Commission will continue to monitor the levels of service through its performance and compliance audits and future price reviews and assess their relationship to the apparent efficient level of service.

3.4.3 The costs and benefits of introducing a service incentive scheme

In order to justify the introduction of a service incentive scheme, it would need to be demonstrated that the benefits of adopting such a scheme would outweigh the costs.

The benefits from the introduction of a scheme would be in the form of a movement towards the efficient level of service and a subsequent increase in economic efficiency. Given that the Commission considers that the current level of service has not been demonstrated to be substantially different from the efficient level of service, these benefits are thought to be small. However, the costs of introducing a service incentive scheme may prove to be large relative to the benefits.

There are three discrete steps involved in implementing a service incentive scheme. First, how is service quality measured? Second, how is service quality calibrated into a dollar measure relative to customer values? Finally, how is a scheme designed so as to reward or penalise the business as appropriate.

Service quality is currently measured using various indicators. For electricity distribution, these include the number of planned and unplanned outages, the duration of planned and unplanned outages, voltage dips, voltage spikes, whether adequate notification was given to customers of planned outages, and response time to complaints and enquiries. Similar measures exist for gas and water and wastewater. From this array of indicators, the most appropriate ones must be selected.

Establishing the most appropriate indicators to adopt is not a trivial task. Selecting inappropriate indicators may create distortions in the regulatory regime. For example, once indicators are chosen, a situation may be created where a business can focus attention on addressing these indicators at the expense of other areas of service quality. It is possible that overall service quality may be falling while the indicators report an increase in service. The Commission believes that it is important that indicators be chosen to reflect accurately the objectives of the scheme and that incorrectly selecting indicators may actually reduce overall service standards.

After the most appropriate indicators have been selected, there is a need to determine the relative weight to be given to each indicator in determining the required single measure of service quality. This is by definition a subjective task. For example, does an increase in the responsiveness of a call centre outweigh an increased number of unplanned outages? Clearly, the issue of 'call centre response time' is an important indicator, as has been shown by the inclusion of this indicator in the Victorian S factor scheme after it was initially omitted. But what weight should be given to this indicator? Determining the weights and relative importance of different indicators adds to the complexity of any scheme, and incorrect weighting may lead to a reduction in economic efficiency.

Once the appropriate indicators have been determined, an acceptable measure of service quality has been established and an appropriate weighting of these indicators has been agreed, it is necessary to calibrate the incremental change in service quality with customers' values for the change. This enables the calculation of the reward or penalty applicable to the business for the change in service levels. The Commission considers this to be an extremely complicated process.

The Commission has concerns about the accuracy of calculations of the value customers place on changes in service quality.

Customers' valuations of changes in service levels are generally calculated using a willingness-to-pay study. These are typically conducted by posing a series of hypothetical questions to customers. Their responses are then collated, and the value of changes in service relative to the current service level can be determined. This is a complex and inherently uncertain exercise. If customers' willingness to pay for changes in service levels is inaccurately calculated, the introduction of a scheme could create distortions in the incentive for the regulated business to seek the efficient level of service. This could cause the implementation of the scheme to lead to a reduction in economic efficiency. After considering these and other complexities, IPART in New South Wales decided to implement a paper trial and delay the final decision on whether to introduce a full scheme until the complexities are addressed.

The final step of implementing a service incentive scheme is to design the mechanism by which the rewards or penalties are passed on to the business. The two most common ways use either a direct revenue adjustment or an S factor. A direct revenue adjustment operates as an adjustment to the total revenue requirement if the business is able to outperform the expected service outcomes. An S factor is included by expanding the price path adjustment factor to (1 + CPI – X + S). The introduction of either a direct revenue adjustment or an S factor increases the information requirements of the regulatory regime and adds another layer of complexity to the regime. A direct, quantified, revenue adjustment is relatively easier to administer, but both a direct revenue adjustment and an S factor adjustment increase the regulatory burden on the regulated business and the regulator.

There are many additional features that can be considered in the implementation of either a direct revenue adjustment or an S factor.

A feature of some service incentive schemes adopted in other jurisdictions is deadbands around service standard targets. A deadband provides a range of acceptable service between which there is no adjustment to revenue. An adjustment occurs only if the service level falls outside the target range. The use of deadbands reduces the incentive for the business to seek changes in service levels at the margin and so acts to defeat the goal of encouraging the business to achieve an efficient level of service. However, their use acknowledges the inherent data problems in measuring service standard changes.

A related issue to that of deadbands is the use of bounds (that is, upper or lower bounds outside which no adjustment is made). While this may reduce the amount of revenue at risk to the business, it may also reduce the incentive properties of the scheme. The Commission has concerns with the design of any service incentive scheme and with how accurately the scheme could determine the appropriate level, if any, of deadbands or bounds and the amount of revenue at risk. The Commission notes the relatively arbitrary nature of these adjustments as used in other jurisdictions.

For example, ESCOSA awards points to the regulated businesses for the percentage of telephone calls answered within 30 seconds. The target is to answer 85% of calls within this time; the deadband ranges from 84% to 86%. The business receives one point if it answers between 86% and 87% of calls within 30 seconds, two points if it answers between 87% and 88%, and three

points if it answers more than 88%. Equivalent negative points are awarded if less than 84% of calls are answered within the required time.[57] These points are then translated into revenue adjustments, with a capped maximum revenue adjustment in any one year.[58]

The adoption of a service incentives schemes along these lines substantially increases the complexity of the regulatory regime. They also create an incentive for the regulated business to focus only on achieving a specific level of service (usually set by the regulator), as opposed to creating an incentive to alter service quality at the margin to achieve the efficient level of service.

In addition, the operation of such mechanistic arrangements creates the need to address the possible exclusion of specific events when determining performance against the selected indicators. The exclusion of specific events, while appropriate in some situations for events beyond the control of the business, adds to the complexity of any scheme and reduces the transparency of the scheme to external parties.

In their response to the discussion paper, ACTEW and ActewAGL argued that:

> The ultimate test of necessity for the proposed incentive mechanisms is the net benefit they provide to the ACT community over existing arrangements by encouraging the early adoption of additional, unanticipated efficiencies in utility service provision without sacrificing service standards.[59]

Furthermore, ACTEW and ActewAGL expressed the view that:

> The mechanisms proposed in the [Commission's] discussion paper, depending on the extent of their implementation, have the potential to impose significant additional administrative and compliance burdens that would ultimately be borne by consumers in the prices of utility services.[60]

The Commission shares the views of ActewAGL and ACTEW. In addition, the Commission is concerned that if the scheme is incorrectly defined in any way it may distort the goals of the regulated businesses and lead to a reduction in economic efficiency. Given the costs associated with the introduction of a scheme and the distortions that might be created, the Commission believes that in order to justify the introduction of a service incentive scheme, it would need to be demonstrated that the current arrangements do not adequately ensure that the efficient levels of service standards are being met.

3.4.4 Current arrangements

The Commission monitors the compliance of distributors against required service standards that are included in the ICRC Act, the Utilities Act and various industry codes. If the distributor fails to meet these requirements, it may be liable to compensate consumers through rebatable performance payments, which are specified under the codes and associated regulations and legislation.

ACTEW and ActewAGL argued that:

> In addition to measures imposed by the Commission, current service standards are protected by the operation of specified service standard requirements within the agreements under which water and wastewater services of ACTEW and gas distribution services of ActewAGL are managed and

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[57] ESCOSA, *2005–10 Electricity distribution price determination Part A—statement of reasons,* November 2004, p 45.
[58] ESCOSA, *2005–10 Electricity distribution price determination Part A—statement of reasons,* November 2004, p 48.
[59] ACTEW and ActewAGL, *Response to ICRC discussion paper on regulatory incentive mechanisms,* May 2005, p 3.
[60] ACTEW and ActewAGL, *Response to ICRC discussion paper on regulatory incentive mechanisms,* May 2005, p 3.

> operated under contract. In addition, ActewAGL's electricity and gas distribution are subject to very serious liability exposures if systems are not maintained to a high level of safety. ActewAGL is therefore highly motivated to manage its liability exposures in this area and high service standards are often a by-product of this.[61]

The Commission has recently completed a public review of the Consumer Protection Code for the supply of public utility services. The Consumer Protection Code is an industry code determined by the Commission and outlines the basic rights of customers, consumers and utilities with respect to access and provision of utility services. It also prescribes a series of standards for the delivery of utility services; the standards are the minimum level of service to be available to all customers in the ACT.

In completing the review of the Consumer Protection Code, the Commission consulted widely and received submissions from the minister, the technical regulator, the Essential Services Consumer Commission, ActewAGL and other licensees. The Commission envisages that the amendments to the code will act to clarify service and related consumer standards and will continue to ensure that an appropriate minimum level of service is required and received by consumers.

In the discussion paper, the Commission raised the possibility of modifying the existing industry code and licensing arrangements, which set minimum standard requirements and rebate provisions. The options included introducing additional penalties for non-compliance with service standards, raising the level of minimum standards over time and making the business responsible for rebatable performance payments. These issues were addressed as part of the review of the Consumer Protection Code. The Commission has adjusted the level of penalties under the amendments that have now been announced, has decided against raising the minimum standards over time and has chosen not to make the business responsible for making rebatable performance payments.

The Commission considers that the arrangements now in place are adequate to maintain the current high level of service in the ACT. Furthermore, the recent review of the Consumer Protection Code carefully considered many of the issues related to service standards. The review focused on ensuring that the rights of customers, consumers and utilities are well defined and applicable to the ACT.

3.5 Draft decision

The Commission has considered whether the introduction of a service incentive scheme is appropriate for the ACT.

The explicit goal of any service incentive scheme should be to achieve the efficient level of service. The Commission has therefore considered whether there is a need to address the current level of service provided in the ACT. The results of the willingness-to-pay study conducted by ACTEW and ActewAGL indicate that customers are currently satisfied with the level of service provided. In addition, the Commission notes that the current levels of service are of a high standard and in many cases exceed the minimum service standard requirements as set out in the Consumer Protection Code and other industry codes. Therefore, the Commission has concluded that, given the satisfaction with current levels of service and the absence of evidence that the

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[61] ACTEW and ActewAGL, *Response to ICRC discussion paper on regulatory incentive mechanisms,* May 2005, p 13.

current level of service is substantially different from the efficient level of service, the benefits of introducing a service incentive scheme would need to be shown to outweigh the costs.

In its analysis of the costs and benefits of the introduction of a service incentive scheme, the Commission noted the difficulty of measuring service standards, calibrating the level of service into a dollar measure based on customer values, and designing a scheme to reward or penalise the business. The Commission highlighted the complexity associated with the implementation of a scheme and the distortions that may be created if the scheme is incorrectly calibrated. The Commission went on to discuss the current arrangements in place in the ACT, including the recent review of the Consumer Protection Code, and concluded that the current arrangements are adequate for maintaining the current level of service.

The Commission notes that ActewAGL and ACTEW have not requested the introduction of a service incentive scheme. The Commission is conscious that the Australian Energy Regulator may soon take over the regulation of electricity and gas distribution in the ACT. If the AER were to take over the regulation of these businesses during the current regulatory period, any decision made by the Commission on whether to introduce a service incentive scheme may subsequently be amended. The possibility of the AER adjusting the scheme adopted increases uncertainty for regulated businesses and jurisdictional regulators. In such circumstances, it may be more appropriate to delay any formal introduction of a service incentive scheme until the longer term regulatory arrangements are known.

The Commission believes that there is currently no need to introduce a service incentive scheme in the ACT. In coming to this decision, the Commission has no evidence that the current level of service is dramatically different from the efficient level of service and that therefore it is likely that, if a service incentive scheme were introduced, the costs imposed in implementing the scheme would outweigh the benefits.

Because of the current high standard of service, the overall satisfaction with the services provided, the requirements contained in the Consumer Protection Code and other codes, and the possible costs of implementing a scheme, the Commission is confident that there is no current justification for implementing a service incentive scheme in the ACT.

4 Call for submissions

The Commission has detailed its approach both to efficiency carryover mechanisms and to service incentive schemes and wishes to receive submissions on the draft decision by no later than 31 August 2005.

The Commission proposes to adopt the following timeframes for the remainder of the process:

Submission on draft decision due: 31 August 2005

Release of final decision: 31 October 2005

Submissions, correspondence or other enquiries may be directed to the Commission at the following addresses.

The Independent Competition and Regulatory Commission

PO Box 975
CIVIC SQUARE ACT 2608

Level 7 Eclipse House
197 London Circuit
CIVIC ACT

The secretariat may also be contacted by telephone on 6205 0799 or by fax on 6207 5887. The Commission's website is at www.icrc.act.gov.au and its email address is icrc@act.gov.au

For further information on this matter, please contact Ian Primrose, Chief Executive Officer, on 6205 0779.

Glossary and abbreviations

ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
Commission, the	Independent Competition and Regulatory Commission
ESC	Essential Services Commission, Victoria
ESCOSA	Essential Services Commission of South Australia
ICRC Act	*Independent Competition and Regulatory Commission Act 1997*
IPART	Independent Pricing and Regulatory Tribunal
OFGEM	Office of Gas and Electricity Markets (United Kingdom)
OFWAT	Office of Water Services (United Kingdom)
ORG	Office of the Regulator-General, Victoria (now the ESC)
OTTER	Office of the Tasmanian Energy Regulator
QCA	Queensland Competition Authority