IPART
New South Wales

Independent Pricing and Regulatory Tribunal

Economic regulation provisions within the National Electricity Rules

IPART submission to AEMC's Rule change process

Electricity — Submission
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1 Overview

As the economic regulator of electricity prices in NSW we set prices for small retail customers who have not entered into a market contract with a licenced retailer. In doing so we examine efficient costs that a retailer faces. Our role also involves engagement with end-use small customers.

Further, we were previously the economic regulator for NSW electricity transmission and distribution businesses and we regulate other utilities, including water.

We are, therefore, well placed to comment on the economic regulation of electricity networks and its impact on customers.

We consider that recent network costs increases[1], which are responsible for most of the recent retail price increases over the past 5 years, may be higher than necessary due to aspects of the regulatory framework which are contributing to inefficient outcomes. The cumulative effect of the economic regulatory provisions of the National Electricity Rules (NER) is rapidly increasing network prices, amounting to more than 72% over the 5 years in NSW[2], which flow through to retail prices and customer bills. Further, we are concerned about declining productivity in electricity networks.

In our view, the current regulatory framework:

- Constrains the Australian Energy Regulator's (AER) ability to apply what it considers to be the best estimate of the efficient operating and capital costs.
- Provides strong incentives for network business to invest capital in the network, potentially beyond efficient levels, because the prescriptive requirements of the NER may lead to excessive returns.
- Allows the businesses to earn a return on all capital invested regardless of its efficiency and prudency, by requiring the AER to roll all capital expenditure into the asset base. This weak incentive for productivity improvement is exacerbated by inadequate governance arrangements in NSW.

IPART recommends that the AEMC should change the National Electricity Rules:

- to allow the AER to adopt its best estimate of efficient costs
- to include only efficient expenditure in the Regulatory Asset Base so that customers do not pay for inefficient capital expenditure
- to improve the incentives for efficient expenditure under the NER for all network operators, and particularly for State-owned corporations

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1 For further information on recent increases in capital expenditure on the NSW distribution network refer to IPART, *Changes in regulated electricity retail prices from 1 July 2011 – Final Report and Determination*, June 2011.

2 Real increases in network prices in NSW from 2006/07 – 2011/12. The increase is over 90% in real terms over the 5 years to 2012/13.

- to include a range of instruments in the NER to provide the AER with options to develop an appropriate regulatory framework, including the discretion to use actual depreciation and the ability to develop incentive mechanisms
- to allow the AER to set its best estimate of the WACC.

2 Capital and operating expenditure allowances

Currently, in setting the capital and operating expenditure allowances the AER must consider the electricity transmission and distribution network service provider's (NSP) regulatory proposal and must accept that proposal if it is satisfied the total forecast reasonably reflects the relevant criteria, taking into account the relevant factors. Where the AER does not accept a forecast it must substitute that forecast with a forecast that is based on the NSP's proposal and be amended only to the extent necessary to enable it to be approved under the NER.

The AER called for more discretion in setting the capital and operating expenditure allowances at efficient levels, stating that the lack of discretion in the current rules means that it is constrained in its ability to reject inefficient expenditure forecasts and will lead to higher than necessary prices.

The AEMC sought:

- Further evidence on the drivers for increased network costs.
- Views on the appropriateness of clarifying the capital expenditure objectives to better reflect jurisdictional standards.
- Views on the appropriateness of improving the NER to better reflect policy intent.

IPART position

IPART recommends that the AEMC change the NER to allow the AER to adopt its best *estimate* of efficient costs.

We remain concerned about unnecessary price increases and consider that a regulator should be able to set its best estimate of efficient expenditure.

IPART is not best placed to demonstrate the link between the current formulation of the NER and resulting price outcomes as we were not the regulator or involved in the review processes. Moreover, the information that the AEMC seeks on limitations to AER's discretion is not likely to be available because it is an unobservable counterfactual – it effectively asks what would the AER have done if it considered it had more discretion.

We note, however, that while regulating the electricity distribution network service providers (DNSPs) (albeit under the National Electricity Code), IPART engaged consultants and replaced the forecasts put by the DNSPs with IPART's best estimate of those costs. While we have reduced expenditure from the 'opening claim' submitted by the DNSPs, in our 1999 review IPART also increased capital expenditure allowances for EnergyAustralia (now Ausgrid) compared to their original submission after identifying need for additional expenditure in the Sydney CBD.

We support the AEMC's direction to allow capital expenditure to reduce in the case of a change in the reliability standards. We encourage the AEMC to have regard to its consultant's view that the standards should be set on a probabilistic basis – necessitating the need for a change in the approach to setting reliability standards in NSW.

As queried by the AEMC, we consider that it would be appropriate to improve the wording of the NER to better reflect the policy intent, removing ambiguity to allow the regulator (and potentially the Australian Competition Tribunal) to better reflect that policy intent. As noted by the Productivity Commission,[3] this may facilitate greater use of benchmarking to determine operating and capital cost allowances which can reduce the problems stemming from "forensic analysis" of the network businesses proposal in the presence of information asymmetry.[4]

As a retail price regulator, we would welcome greater clarity and reporting of the drivers of network price increases. Network prices are a large component of the retail bill and customers would benefit from greater knowledge about network cost increases. At present there is little opportunity for customer involvement in the setting of network prices.

3 The Productivity Commission acknowledges that if the NER restricts the AER to examining the network business' proposal on a 'line by line assessment', then it reduces the capacity for benchmarking to determine alternative estimates. Productivity Commission, *Electricity Network Regulation – Issues Paper*, February 2012, p 21.

4 Productivity Commission, *Electricity Network Regulation – Issues Paper*, February 2012, p 21.

3 Capital expenditure incentives and related issues

The AEMC raises issues related to capital expenditure incentives. IPART supports looking at these issues in an integrated manner.

3.1 Capital expenditure incentives

Once the AER has set the forecast capital and operating expenditure, the network businesses are not prevented from spending greater or less than those allowances. Any capital expenditure that is incurred, regardless of whether it is efficient, is then included in the regulatory asset base at the next regulatory reset.

The AEMC found that capital expenditure above the allowance is not subject to any regulatory scrutiny, which creates risks that it may be inefficient. It does not support the AER's proposed 60% rule, and is considering a range of other options, including:

- An efficiency benefit sharing mechanism developed in the form of a guideline.
- An ex-post review of the prudency and efficiency of capital expenditure.
- Optimising the regulatory asset base at regulatory resets.

IPART position

IPART recommends that the AEMC change the NER:

- to include only efficient expenditure in the Regulatory Asset Base so that customers do not pay for inefficient capital expenditure by including an ex- post review of expenditure
- to improve the incentives for efficient expenditure under the NER for all network operators, and particularly for State-owned corporations.

IPART supports the AEMC's findings that there is a "supervision gap" on capital expenditure that is above the allowance. As noted by Professor Yarrow, there is neither an ex-ante or ex-post assessment of this capital expenditure.[5]

In our view, the regulatory framework and governance arrangements for State-owned businesses provide strong incentives for network businesses to invest capital in the network, but imposes little discipline on the businesses to ensure that this expenditure is efficient or prudent and valued by customers. This can lead to outcomes whereby customers are paying for capital expenditure that was incurred in previous periods that may not be efficient or prudent. This is in contrast to outcomes in a competitive market whereby customers would only pay for expenditure that is efficient or prudent and valued by customers.

5 George Yarrow, Preliminary views for the AEMC, 12 February 2012, p 14.

The capital expenditure by the NSW network businesses was significantly above the allowances in the 2004/05 - 2008/09 period, and has led to significant increases in the regulatory asset bases, and ultimately increases in network and retail prices.[6] We support the AEMC's consideration of the nature of this capital over-spend.

IPART supports including an ex-post review of the efficiency of expenditure in the NER. In our view, an ex-post review is an important tool in ensuring that customers only pay for expenditure that is prudent, efficient and valued by the customer, particularly where the setting of ex-ante allowances does not provide sufficient financial incentives for network businesses to spend below the regulatory allowance.

Ensuring that customers only pay for efficient and prudent investment is consistent with the long term interests of customers.

We have regulated under an ex-post framework and found it workable, while recognising that it needs to be appropriately defined to provide investment certainty. We support Professor Littlechild's comments that it has been used in the US and would suggest that these experiences be drawn upon. The model used for setting prices for rail access in NSW provides an example of customer involvement in the expenditures incurred by the Australian Rail Track Corporation, particularly in the treatment of capital 'over-spends'.

We support the AEMC's view that the price and service outcomes experienced by customers are a function of both the legal and regulatory framework and the corporate governance of network businesses.[7] However, in our view it is important that the legal and regulatory framework do not exacerbate the weaknesses of the governance arrangements in NSW. At present customers in NSW are likely to paying higher network prices as a result of the declining productivity of the network businesses. Establishing an ex-post framework is one way preventing this in the future.

3.2 Actual or forecast depreciation

We recommend that the AEMC change the NER to include a range of instruments to provide the AER with options to develop an appropriate regulatory framework, including the discretion to use actual depreciation.

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6 For further information on recent increases in capital expenditure on the NSW distribution network refer to IPART, *Changes in regulated electricity retail prices from 1 July 2011 – Final Report and Determination*, June 2011.

7 We have made recommendations to improve the productivity of network businesses in NSW. The recommendations are detailed in our recent submission to the Commonwealth Government's Energy White Paper. IPART, *Strengthening the Foundation for Australia's Energy Future, IPART's submission to the Draft Energy White Paper 2011*, March 2012.

Under the building block approach to regulation, as assets depreciate they deliver a return of capital to network operators, but then no longer form part of the regulatory asset base, meaning that customers will no longer pay a return on capital to the network.

Because actual capital expenditure spent in a 5-year period usually differs from the capital expenditure that is forecast in the review process, the actual depreciation of assets usually differs from the forecast depreciation. Including actual depreciation in the regulatory asset base offers a better capital expenditure incentive than including forecast depreciation.

Currently the NER gives the AER the discretion to choose between actual and forecast depreciation in regulating the distribution networks, but requires the use of actual depreciation for transmission networks.

Using actual depreciation means that for a company that underspends, its regulatory asset base will be larger at the start of the next period than it would be using forecast depreciation. Conversely, a company that overspends will have a smaller opening regulatory asset base at the start of the next regulatory period using actual depreciation.

IPART position

IPART recommends that the AER be given the discretion to use actual depreciation.

3.3 Uncertainty regime

The AEMC has considered a range of mechanisms collectively as the 'uncertainty regime'. This includes mechanisms for contingent projects, capital expenditure reopeners and pass through events. These mechanisms deal with expenditure that is required to be undertaken during a regulatory period, but which is not able to be predicted with reasonable certainty at the start of the period. Well designed, it allows for the allocation of risks to those best able to deal with them and should limit any capital over-spend resulting from unforeseen circumstances, such as changes in reliability standards.

Currently contingent projects and capital expenditure reopeners are included in the provisions relating to transmission, but not to distribution. The contingent project mechanism allows the AER to exclude from the forecast expenditure established in the review a project which is uncertain but which has a clearly defined trigger event, but to include it later if it is required. The capital expenditure reopener mechanism allows for the inclusion of additional capital when the network business spends at least 5% more than the opening regulatory asset base.

The AER has proposed that mechanisms for contingent projects and capital expenditure reopeners be included in the distribution provisions in the NER, with specified thresholds.

IPART position

IPART supports a well-targeted and effective uncertainty regime.

We support risks being allocated to the party best able to manage that risk and therefore support a well-targeted and effective uncertainty regime. Nevertheless, as recognised by the AEMC, these mechanisms should be considered with the suite of capital expenditure incentives included in the NER.

We support the AEMC considering the pass through arrangements to ensure they still allow for risks to be allocated to the party best able to manage that risk. We consider them to be an important tool in:

- providing investment certainty to network businesses such that changing circumstances that are beyond a business' control (such as regulatory or legislative changes) can allow them to recover additional expenditure (or reduced expenditure), and
- ensuring customers pay for any additional expenditure (or receive the benefits of reduced expenditure) that is prudent and efficient when it occurs thereby reducing the need for capital over-spends to be rolled into the RAB.

Both of these are in the long term interests of customers.

We share retailers concerns that the inclusion of these mechanisms may lead to less predictability about future network prices.

We consider that the contingent projects mechanism is less suitable to distribution expenditure than it is to transmission expenditure given that distribution expenditure tends to be smaller and can be less discrete (or more integrated than. transmission capital expenditure. Further, we are concerned that the contingent projects and capital expenditure reopeners could be administratively burdensome and may also relax the disciplines on network businesses to have best-practice asset management and planning practices.

3.4 Other incentive mechanisms

We recommend that the AEMC change the NER to include a range of instruments to provide the AER with options to develop an appropriate regulatory framework, including the ability to develop incentive regimes.

The AER called for powers to develop incentive schemes outside those already provided for in the NER to enable the regulatory framework to evolve. The AER proposed some principles to take account of in developing new schemes.

IPART position

IPART supports the development of incentive mechanisms and notes a number of different mechanisms in other jurisdictions, including the menu-based approach to regulation in the UK.

We agree that the rule change process is burdensome and that it could delay or stifle the development of incentive mechanisms. We consider that, at a minimum, the AER should be able to undertake pilot schemes. However, limiting the revenue at risk in a pilot scheme might limit the incentive power of the scheme and therefore not provide a good indication of the power of the scheme.

3.5 Shared assets

There are circumstances where assets that form part of the regulatory asset based are used for purposes other than the provision of electricity to customers. An example could be the use of poles and pits to provide access to the National Broadband Network.

Currently the NER does not provide compensation for consumers where an asset is used for providing non-regulated services (except in Queensland).

IPART position

We recommend that income from the unregulated use of regulated assets be shared with customers.

IPART supports the sharing of these benefits. We consider that it is appropriate for customers to get some benefit, but that in leaving some benefit with the network owners gives them the incentive to seek out appropriate opportunities to share its network.

4 Rate of return frameworks

IPART recommends that the AEMC change the Rules to allow the AER to set its best estimate of the WACC.

4.1 Stability of WACC parameters and timing of reviews

Currently, the electricity transmission framework does not allow changes to parameter values outside of WACC reviews undertaken every 5 years. This means the AER is not able to take into account any new evidence during determinations between WACC reviews and the WACC may not reflect current market conditions. The electricity distribution framework, on the other hand, allows the AER to undertake reviews more frequently than every 5 years.

The AEMC is seeking comment on:

- whether some weighted average cost of capital (WACC) parameter values are more stable than others and therefore can be reviewed less often
- whether AER should publish guidelines on methodologies rather than undertaking periodic WACC reviews that lock in parameter values.

IPART position

Some WACC parameters are more stable and can be reviewed less often, for example the market risk premium. The AER could still undertake periodic WACC reviews but WACC parameter values in price reviews should be updated for new evidence, if there is a material impact on the cost of capital estimate. This balances certainty for businesses and price stability with the need to estimate a cost of capital from the best available evidence.

4.2 Uncertainty and inter-relationships between parameters

The AER considers that DNSPs cherry-pick certain parameters for merit reviews. The AER argues the appeal process focus on specific parameter and do not consider the inter-relationships between WACC parameters and the overall reasonableness of the rate of return decision. This has resulted in an excessive level of precision in some parameters.

The AEMC is seeking comment on:

- whether AER should adopt a range for WACC parameter estimates
- whether the rules should recognise the inter-relationship between WACC parameters.

IPART position

The AER should adopt a range for WACC parameter values where appropriate to address uncertainty in WACC parameter estimates. The rules should recognise the inter-relationship between WACC parameters to ensure changes to individual parameter values take into account the full impact on the WACC estimate.

4.3 WACC models and use of a common WACC framework

There are currently different WACC frameworks for electricity transmission, electricity distribution and gas. Separate frameworks could produce different benchmark parameter values. AER submits that unequal parameter values may produce investment distortions.

The AER proposes a single review for calculating the cost of capital allowance for electricity distribution determinations, electricity transmission determinations and gas access arrangements.

The AEMC is seeking comment on:

- Can the distribution, transmission and gas frameworks all use a common WACC framework without requiring the same parameter values be used in all frameworks?
- Which rate of return framework best meets the requirements of the regulators for the regulated industries?

IPART position

A common WACC framework is feasible, but it is not necessary to prescribe a specific approach (eg, a nominal vanilla WACC), or require specific parameter values to be used for all industries. A regulator needs a WACC framework that can adjust for industry specific factors. The CAPM meets this requirement as it allows the regulator to take into account industry specific factors through assumptions on beta and gearing ratios. It is also a well-tested model commonly used by regulators.

5 Cost of debt

Stakeholders have questioned the relevancy of the current benchmark firm used to observe the DRP. Particularly, the Energy Users Rule change Committee (EURCC) states that no corporate bonds issued in Australia meets the characteristics of the benchmark debt term and credit rating 10-year BBB+ rated debt.

The AEMC is seeking comment on:

- The pros and cons of using a 5-year maturity profile and credit ratings in the range of BBB and BBB+ for estimating the cost of debt as compared to using a 10-year maturity profile.

IPART position

We consider the issue of maturity profile need not be prescribed in the rules. IPART moved to 5-year maturities as the reference rate in 2011. As Professor Kevin Davis advised:

- the primary asset of a regulated entity is the revenue stream for the regulated period
- adopting a maturity that matches the regulatory period ensures the firm can achieve NPV neutrality[8].

However, we recognise that regulated firms may wish to use longer or shorter maturities. Hence the maturity for a benchmark firm may differ from the regulatory period. This is a relevant factor that the regulator may wish to consider.

8 Kevin Davis, *Determining debt costs in asset pricing. A report to IPART by Kevin Davis*. December 2010.