

---

**ENERGY USERS' ASSOCIATION OF AUSTRALIA  
and  
ENERGY ACTION GROUP**

---

**NEW SOUTH WALES  
2004 ELECTRICITY DISTRIBUTION REVIEW:  
SUBMISSION ON  
IPART DRAFT DECISION**

This submission was partly funded by the NEM Advocacy Panel. Assistance in preparing the document was provided by Marsden Jacob Associates Pty Ltd. However, the views expressed herein are those of the EUAA and EAG

**March 2003**

**Marsden Jacob**  
*Associates*

*Financial & Economic Consultants*

---

Level 3, 683 Burke Road, Camberwell, Victoria 3124

Tel: (03) 9882 1600 Fax: (03) 9882 1300

Email : [economists@marsdenjacob.com.au](mailto:economists@marsdenjacob.com.au)

## TABLE OF CONTENTS

	Page
<b>EXECUTIVE SUMMARY .....</b>	<b>(iii)</b>
<b>1. INTRODUCTION.....</b>	<b>1</b>
1.1. Preliminary Comment.....	5
1.2. Structure of this submission .....	5
<b>2. COMMENT ON MMA ANALYSIS OF GROWTH FORECASTS.....</b>	<b>7</b>
2.1. Impact of Air-conditioning load .....	8
2.2. Factors for the MMA Appliance usage model .....	10
<b>3. TRANSPARENCY OF IPART’S DECISION .....</b>	<b>12</b>
3.1. Problems with IPART’s Independent Analysis.....	14
3.1.1. Reliability Service Standards .....	15
3.1.2. Cost Comparisons .....	17
3.2. Treatment of above-forecast Costs in the Current RegulatorY Period .....	18
<b>4. WACC .....</b>	<b>20</b>
<b>5. SERVICE QUALITY INCENTIVES .....</b>	<b>23</b>
<b>6. DEMAND MANAGEMENT PROPOSALS.....</b>	<b>29</b>
6.1. IPART’s DM Proposals.....	29
6.2. Concerns with IPART’s DM Proposals.....	30
6.3. The DM Challenge .....	34
6.4. What IPART ShoULD Do Now .....	36
<b>7. CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>37</b>

## EXECUTIVE SUMMARY

The Energy Users' Association of Australia (EUAA) and the Energy Action Group (EAG) are pleased to have an opportunity to once again provide a submission to the Independent Pricing and Regulatory Tribunal's (IPART) review of New South Wales (NSW) electricity distribution for the regulatory period beginning on 1<sup>st</sup> July 2004.

As noted in our initial submissions,<sup>1</sup> this review is important to end-users in NSW. The review will set future distribution charges, impact service levels and otherwise provide regulatory incentives for the DNSPs through to 2009. All energy users in NSW, whether small or large, will be required to pay the charges that result from this review and will have no choice but to do so.

Our earlier submissions noted that IPART has an important obligation to end-users to ensure that network charges and service levels are competitive relative to other states and for NSW industries competing in world markets (and their employees). Ensuring that the DNSPs continue to strive for efficiency gains and deliver these to consumers is one of the main planks of energy reform.

Our earlier submissions highlighted issues of concern to end-users based on analysis of the four NSW distribution network service providers' (DNSPs) proposals, the IPART Secretariat's preliminary analysis of those proposals and Meritec's report to IPART that covered an assessment of 'prudence' of expenditure in the current regulatory period and 'efficiency' of expenditure in the next regulatory period. An overview summary of these concerns is presented in Section 1 of this submission.

We are extremely disappointed that the only references in the IPART Draft Report to our earlier submissions are in the section on WACC. These comprise a re-statement of our general concern that WACC is set too high and that the Cost of Debt proposed by the IPART Secretariat is higher than adopted by the ACCC in the Transend draft decision. Even then, IPART makes no attempt to respond effectively to either of these points.

The IPART Draft Report, disappointingly for end-users, contains no explicit reference to any of the other matters raised in our earlier submissions.

We note the overall effect of IPART's Draft Decisions is that the DNSPs be allowed some \$63M (nominal) more for total CAPEX and \$60M (nominal) more for total OPEX over 5

---

<sup>1</sup> "Stating the Obvious", *Presentation to IPART Distribution Pricing Review*, Energy Action Group, 17 July 2003.

*IPART 2004 Electricity Distribution Price Determination, Non-DNSP Presentations, The EUAA's Submission*, Energy Users Association of Australia, July 2003.

*IPART New South Wales 2004 Electricity Distribution Review – Submission (and Comments on IPART Secretariat Preliminary Analysis Report)*, Energy Users' Association of Australia and Energy Action Group, October 2003.

years than indicated in the IPART Preliminary Analysis report figures. Given that IPART has explicitly requested DNSPs to come back with revised cost forecasts that match MMA's growth forecasts, it is reasonable to expect the DNSPs to respond with higher total forecast costs again.

The impact of IPART's decisions is that the  $P_0$  increase proposed by the DNSPs has been reduced substantially (from around 13-20% to 5-7%), but the  $X$  factors for the last four years of the next period have been increased (up from around +1% to +1.4%). This means that some of the increase pegged-back by IPART in the initial year is shifted to subsequent years of the next regulatory period. The major reason that  $P_0$  reduced from the DNSPs' 'ask' is because IPART has accepted the higher consumption forecasts produced by McLennan Magazanik Associates (MMA) and this reduces the impact on average prices. There is no evidence that IPART has taken any 'tough' decisions or reduced that DNSPs' claims based on rigorous analysis. This is extremely disappointing and NSW energy users will pay higher electricity costs because of it.

IPART says that the forecast average cumulative real distribution price increases over the period to 2008/09 (compared with 2003/04 prices) will be between 5.6% for consumers connected to IE's network and 17.6% for consumers connected to the rural networks. IPART also claims that these increases "*will translate into much smaller increases in customers' final electricity bills, as distribution charges form somewhere between 20 to 40 per cent of these bills*"<sup>2</sup> and amount to no more than (approximately) "\$58 a year, or \$1.10 per week" for residential consumers.

IPART provides no estimates of the cost impact on non-residential consumers.

However, IPART also notes "*that these estimates assumes no distribution price restructuring and that all components of the final electricity bill (distribution, transmission and retail) increase for residential customers by 3 per cent real. Under the weighted average price cap DNSPs have considerable discretion as to how much individual tariffs can change subject to them complying with the overall price control formula and price limits.*"<sup>3</sup>

Given the evidence of strongly rising AC demand, and the implications of this for increasing cost pressures through the whole supply chain – and the claims being made by Transgrid in its current revenue application to the ACCC, there is a strong possibility that IPART's assumptions are optimistic and that costs will turn out to be higher than suggested by IPART.

It is our strong view that there are serious deficiencies in IPART's Draft Decisions. These deficiencies reinforce our continuing concerns that:

---

<sup>2</sup> We note that on page 12 of the Draft Report, IPART says "*(t)otal network tariffs make up around 40 per cent of a typical bill for an EnergyAustralia and Integral Energy residential customer. For large business customers, network tariffs can comprise up to 60 per cent of the final bill.*" It would be particularly helpful, and much more meaningful, if IPART would quote consistent and reliable percentage figures.

<sup>3</sup> See Footnote 4, p. 3, *Ibid.*

1. MMA provides no explanation for the derivation of air conditioning (AC) penetration rates in their report. Nor do IPART's proposals for DM appear likely to stimulate any response from small AC-users, which greatly reduces the potential value of the proposals to end-users generally.
2. IPART has failed to explain in a transparent manner how it dealt with the substantial discrepancies between cost forecasts in the DNSPs proposals and the Meritec report, or how it linked Meritec's recommendations to the cashflow forecasts adopted for the revenue Building Blocks.
3. The process used by IPART to reconcile the MMA growth forecasts and the DNSP cost forecasts is unusual compared to normal regulatory practice and likely to result in exercise of 'strategic behaviour'.
4. The only satisfactory aspect of the Draft Decisions, from the perspective of end-users, is that IPART will not allow retrospective recovery of above-forecast CAPEX or OPEX in the current regulatory period. But even here, the DNSPs will eventually recover the full value of above-forecast CAPEX through roll-forward of the inflation adjusted actual CAPEX into the regulatory asset base.
5. IPART has decided to remain the only regulator in Australia not to adopt the simpler 'Vanilla' approach to estimating WACC. The value of CAPM parameters proposed by IPART yield WACC values substantially above values adopted by UK regulators. No explanation or justification is provided for this.
6. The 'incentives' for Service Quality proposed by IPART offers little value to NSW consumers and appears to be even less useful than the limited Victorian arrangements, which uses a 'shandy' performance measure based on SAIDI (average interruption duration), SAIFI (frequency of interruption) and CAIDI (impact on individual consumers).
7. The IPART proposals for demand management (DM) may provide benefits for NSW consumers, but are still unsatisfactory.

Accordingly, we again point IPART to our submissions on these issues and strongly recommend that IPART seriously consider the material we have provided and our suggestions and recommendations to address shortcomings in the Draft Decisions. In addition to the recommendations in our earlier submissions to which IPART has made no explicit response (summarised in Section 1 of this submission), we specifically recommend that:

- IPART improve the explanation of the treatment between growth forecasts and cost forecasts.

Even though we agree with MMA's assessment that the DNSPs need to improve their growth forecasting methodology, and the DNSPs also need to provide a clearer explanation of the links between growth and costs, this is not sufficient reason for IPART to take on the role of 'network planner' and make decisions that should be taken by the DNSPs. IPART's role is to critically assess the DNSPs proposals and ensure that consumer interests are protected by setting 'challenging but achievable' efficient cost and

service benchmarks for the DNSPs. We see no evidence that IPART has executed this task satisfactorily.

- IPART improve the explanation of how it used judgements made by its consultants, and it's own analysis, to derive the cashflow forecasts for the Revenue Building Blocks.

It is our view that IPART has failed to demonstrate in its draft decision that it has adequately discharged its responsibilities in this crucial area.

- In particular, IPART should explain transparently:
  - how it accounted for the inconsistencies in logic leading to Meritec's recommendations that were detailed in our earlier submissions;
  - how it accounted for the lack of analysis supporting Meritec's conclusions;
  - how it established the cashflow forecast values presented in the Draft Report, which is of particular concern because of the nature of discrepancies in Meritec's report; and
  - how it used its own 'independent analysis', which is clearly based on inaccurate reliability data sourced from the ESAA and which clearly shows the DNSPs with much higher comparative costs than the Victorian DBs, in forming judgements on crucial issues related to service quality and cost.

In our view, it would have been more transparent to adopt MMA's 50% PoE growth forecasts and adjust the relevant DNSPs' 'Medium growth' cost forecast using the form of Meritec's recommendations (or IPART's own analysis). IPART should then have requested the DNSPs to confirm they could deliver on the proposed 'regulatory contract' or justify otherwise. This would have assumed the DNSPs were technically competent businesses capable of forecasting business conditions and exercising 'strategic behaviour'.

We do not consider that IPART has provided a robust and transparent explanation to support its judgement that the DNSPs 'need' more resources to supply NSW consumers than they asked for initially. Indeed, we do not consider that IPART has convincingly explained why the DNSPs 'need' any more resources than actually committed in the current regulatory period.

- IPART has failed to explain in clear terms:
  - Why it continues to use backward-looking analysis of CAPM parameter data to derive values of forward-looking parameters when UK regulators avoid this inconsistency by making informed judgements on the future value of those same parameters based on credible information from independent (of the utilities) financial market analysts/commentators;
  - What is the basis for regulatory judgements that financial markets see the DNSPs as being less 'efficient' (i.e. more costly to finance) than their UK counterparts;
  - Why are Australia's non-regulated, capital-intensive industries competitive in international markets if financial markets judge the Australian economy to be less efficient than overseas counterparts, and this justifies higher WACC than in the UK; and
  - How consumers benefit from 'efficiency' in financing regulated utilities if regulators consistently make 'conservative' judgements on the value of key CAPM parameter values in consecutive reviews.

- We strongly recommend that, if IPART is to introduce an *S-factor* incentive, it structure the incentive so that it is most likely to entice the DNSPs to provide services that deliver the most value to consumers.
  - As a minimum, IPART should fundamentally revise its proposed incentive to include the impact of planned outages.
  - It may even be preferable to align the incentive mechanisms in NSW with those in Victoria to maximise opportunities for promoting ‘competition by comparison’.
  - Ideally, IPART should totally reconsider its proposals and adopt the recommendations in our earlier submissions, which were that introduction of any form of financial service incentive scheme should be delayed until it is possible to ensure that the scheme can be properly administered and the ‘rewards/penalties’ facing DNSPs are based on real economic values to consumers.
- IPART’s proposals for DM contain some positive elements, but are still unsatisfactory. IPART proposes to challenge the DNSPs to do more through improved public reporting, ‘bribe’ them by guaranteeing passthrough of all costs for DM projects approved by IPART and recovery of all foregone revenue via a complex *D-factor* in the Weighted Average Price Cap formulae. But IPART’s Draft Decision on DM makes no mention of what the impact of this arrangement will be on consumers, either those providing DM or on consumers generally. Our principal recommendation is that IPART clearly state what the expected impact of its proposals will be on consumers. Specifically:
  - Which consumers will benefit, and which will not, if these proposals proceed?
  - Does IPART expect bills for different classes of consumers to go up, go down, or be unchanged by its DM proposals? If bills will change, by how much?
  - If consumers’ bills go up or remain unchanged in the short term, are they expected to go down in the long-term? If so, what mechanism will deliver the benefit to consumers, and how much is the benefit expected to be?

Additional concerns with IPART’s DM proposals are that:

- the proposals do not pay sufficient attention to stimulating DM response from small consumers with the most volatile load;
- the proposals are unlikely to make much difference before 2009 because it will take several years for DNSPs to develop appropriate processes and procedures and for DM proponents to develop proposals to offer to the DNSPs;
- the proposals will definitely not decrease costs to consumers at least up to 2009;
- the addition of a *D-factor* is more administratively complex than the Victorian implementation of the WAPC, which is not a good thing for regulatory transparency because it increases the difficulty that consumers face if they attempt to ‘translate’ the WAPC into information they understand;
- the arbitrary (and relatively complex) rules that IPART is proposing will confuse consumers and could allow DNSPs to exercise ‘strategic behaviour’ because the proposals rely on information collected, controlled and provided by the DNSPs;
- it will be essential for IPART to establish credible audit procedures for whatever ‘measurement’ process is implemented by the DNSPs;

- IPART has explicitly rejected supporting DM proposals with any form of research and development (R&D) component, and ‘passed the buck’ to Government, when this may offer opportunities to assist in dealing with rising AC demand from small consumers through development of low-cost interval metering and load management infrastructure;
- IPART has not taken up the offer from EUAA to assist in developing DM proposals, despite the experience it could bring from the successful Demand Side Response Facility Trial conducted in the 2002/03 summer.

In our earlier submissions, we proposed that IPART, the DNSPs and consumer groups look seriously at the possibility of developing and implementing automatic, two-way communications and load control infrastructure at low enough cost to deliver benefits to consumers willing to offer load for automatic, remote control. We also recommended, in effect, that IPART ‘encourage’ DNSPs to provide the same incentives for consumers to invest in (or take up) that technology option as are offered to DNSPs to invest in copper. The consumer incentives could be entirely negative (cost-reflective ToU pricing) or they could be positive (say subsidies for high efficiency ACs as implemented in many US jurisdictions, or appliances fitted with suitable technology to remotely control the load). Our preference is for a combination of both.

We repeat our support for this proposal and commend it to IPART.

# 1. INTRODUCTION

The Energy Users' Group of Australia (EUAA) and the Energy Action Group (EAG) are pleased to have an opportunity to once again provide a submission to the Independent Pricing and Regulatory Tribunal's (IPART) review of New South Wales (NSW) electricity distribution for the regulatory period beginning on 1<sup>st</sup> July 2004.

Our earlier submissions<sup>4</sup> highlighted issues of concern to end-users based on analysis of the four NSW distribution network service providers' (DNSPs) proposals, the IPART Secretariat's preliminary analysis of those proposals and Meritec's report to IPART that covered an assessment of 'prudence' of expenditure in the current regulatory period and 'efficiency' of expenditure in the next regulatory period.

Principal concerns identified in our earlier submissions were:

- The DNSPs proposed increases in Operating and Maintenance (OPEX) expenditure around 37% above levels allowed for the current regulatory period.
- The three largest DNSPs (EA, IE and CE) also proposed very substantial increases in Capital Expenditure (CAPEX) that was 140% more than the total CAPEX allowed for the current regulatory period.
- Despite the expressions of concern by the DNSPs about the undesirable outcomes arising from mis-forecasting in the current regulatory period, none provided detailed information on the forecasts adopted by IPART in 1999, or sufficient detail on actual demand and energy consumption for the current regulatory period. Nor did the DNSPs or IPART focus attention on detailed analysis of actual and forecast demand patterns.
- Our own analysis confirmed that the DNSPs' proposals contained a number of obvious data discrepancies that were not referred to by Meritec, and Meritec's own report contained obvious, but unexplained, discrepancies in the DNSPs' cost forecasts. These discrepancies reinforced our assessment that the DNSPs are likely to have mis-forecast at least some key building block components and that acceptance of their forecasts would produce an erroneous regulatory determination by IPART and one that is disadvantageous to end-users
- Mis-forecasting of demand/consumption/OPEX/CAPEX is a 'classic' demonstration of either poor management by regulated companies or 'strategic behaviour' (i.e. regulatory gaming) in a Price Cap regime. In particular, mis-forecasting as 'strategic behaviour' allows distributors to raise prices to energy users to higher levels than are warranted at the

---

<sup>4</sup> "Stating the Obvious", Presentation to IPART Distribution Pricing Review, Energy Action Group, 17 July 2003.

IPART 2004 Electricity Distribution Price Determination, Non-DNSP Presentations, The EUAA's Submission, Energy Users Association of Australia, July 2003.

IPART New South Wales 2004 Electricity Distribution Review – Submission (and Comments on IPART Secretariat Preliminary Analysis Report), Energy Users' Association of Australia and Energy Action Group, October 2003.

start of a new regulatory period and then ‘out-perform’ regulators’ benchmarks and claim this as an ‘efficiency gain’, which it clearly is not. This is a serious problem in the current regulatory regime and one that end-user are highly susceptible to, unless regulators are rigorous and balanced in their assessments

- In regard to the *S-factor*, or service incentive, it was our view that substantial improvement in monitoring and reporting of DNSP performance is required in NSW before any moves are made to introduce this form of incentive. We also suggested that IPART identify performance measures that deliver outcomes of direct benefit (and meaning) to consumers, ensure that the ‘reward/penalty’ incentives facing DNSPs are based on real economic value/cost to consumers and ensure that affected consumers have a reasonable chance of receiving benefits from the service incentive scheme.
- Our assessment highlighted significant problems with the DNSPs’ forecasts for the next regulatory period. Specifically:
  - the three large DNSPs are projecting lower rates of demand growth and energy consumption than either TransGrid or NEMMCO.
  - Meritec’s failure to critically analyse the DNSP cost forecasts and to support and justify its opinions/judgements with quantitative analysis and ‘hard’ evidence seems likely to allow ‘strategic behaviour’ to be exercised by the DNSPs and left IPART with insufficient information to support its key judgements on the:
    - adequacy and reasonableness of the DNSPs’ sales volume forecasts;
    - links between sales volumes and costs;
    - efficiency of CAPEX and OPEX cost projections; and
    - fairness and reasonableness of the DNSPs’ pricing proposals.
  - Our assessment showed that the DNSPs’ CAPEX proposals were excessive by a large margin. We therefore suggested IPART allow CAPEX of no more than \$3.1 billion, or \$1.7 billion less than the DNSPs’ proposed, but about the same levels committed in the current regulatory period. This would provide average CAPEX amounts similar to those adopted by the Victorian regulator in 2000 and set an ‘efficiency benchmark’ for the DNSPs.
  - Our assessment suggested that IPART should allow no more than \$3.2 billion for total OPEX, or \$0.7 billion less than proposed by the DNSPs, but again about the same levels incurred in the current regulatory period. Indeed, there were indications that IPART should set challenging targets to reduce OPEX costs below levels for the current regulatory period.

These concerns led us to recommend that IPART conduct its own rigorous quantitative analysis of all of the DNSPs’ forecasts, particularly their CAPEX and OPEX proposals, using a process similar to that adopted by OFGEM for its current review of UK electricity distribution charges. Such an approach would assist IPART explain in a transparent way how efficiency and future costs have been assessed and form a rational basis for making judgements on the allowed level of revenue for the next regulatory period.

In regard to other key aspects of the review:

- We endorsed the view that IPART should not approve any retrospective compensation for overspending in the current regulatory period. Given that IPART had, in effect, ‘rubber stamped’ the DNSPs’ proposals in 1999, it was clear that overspending was due to either poor management or poor forecasting by the DNSPs. In either case, the DNSPs must accept total responsibility for the outcome and above forecast costs not be passed onto end-users retrospectively.
- We recommended that IPART reconsider the Secretariat’s proposals for Weighted Average Cost of Capital (WACC) by -
  - adopting the simpler ‘Vanilla’, post-tax form of Capital Asset Pricing Model (CAPM) used by the ESC, ACCC and QCA, which allows for more transparent explanation of regulatory judgements and more transparent treatment of tax costs;
  - bringing the estimated cost of debt into line with that adopted by the ACCC in its decision on the Transend revenue application;
  - following an approach similar to that adopted by all UK regulators with forward-looking estimates for values of all key parameters in the CAPM, with the value of those estimates based primarily on information obtained from credible, independent financial market sources and not from sources linked to DNSPs; and
  - breaking the apparently inexorable circularity of referring to previous regulatory decisions in Australia, each of which fail to explain why WACC values in Australia are higher than the UK.

This would produce WACC (‘Vanilla’, real, post-tax) of no more than 5.0% and place the DNSPs at the efficiency frontier in Australia. Should a higher WACC value be proposed, we challenged IPART to explain in transparent terms why it judged that financial markets see the DNSPs as less efficient and more costly to finance than their UK comparators. We also challenged IPART to explain in transparent terms how consumers could benefit from efficiency in financing the DNSPs’ operations if regulators continually bias judgement on WACC in favour of DNSP shareholders.

Finally, we urged IPART and the DNSPs to reconsider pricing proposals aimed at providing incentives for consumers to moderate temperature-sensitive demand growth. Our analysis supported the view that continuing penetration of air-conditioning will be costly for NSW consumers. If the same trends continue through to 2010, as is likely, demand above 30°C could grow by as much as 2,000-2,500MW and extreme demand volatility could increase by a similar order. This will increase costs in the whole NSW electricity system. Our analysis also supported submissions made by EA and IE that residential consumers make a substantial contribution to temperature-sensitive extreme demand growth, as they do in Victoria and South Australia.<sup>5</sup>

---

<sup>5</sup> Since our submission was lodged in October 2003, it has also become apparent that the same impact is occurring in Queensland. Summer peak demand in the Energex distribution network increased 12% over the 2003/04 summer.

In keeping with the key pricing principles developed by IPART, we supported moves towards cost-reflective tariffs, providing they directly target consumers who create cost drivers for the DNSPs and directly benefit consumers who can respond to these drivers. However, we found the DNSP proposals for inclining block tariffs and seasonal block tariffs to be very blunt instruments that will not deliver their intended objectives of achieving cost-reflective pricing and promoting demand management (DM). Instead, they will impose unreasonable charges on substantial numbers of ‘low-cost’ users.

We believe that pricing should be part of a suite of options that will assist consumers activate effective DM. We also believe that tariffs must be based on the principle of cost-reflectivity and provide customers with genuine choices. This is important, not only for protecting the interests of consumers but also for maximising the effectiveness of the tariff changes in promoting more efficient patterns of consumption.

We therefore recommended that IPART, and the DNSPs, work closely with consumer groups to examine the costs and benefits for roll-out of low-cost interval meters and load management infrastructure, accompanied by a suite of price and non-price demand management incentives including time of use (ToU) tariffs, interruptible tariffs and a comprehensive public education and information campaign. If this process can demonstrate an overall benefit to NSW consumers, IPART and the DNSPs should publicly commit to workable targets for the further development of an easy-to-use load management infrastructure for small business and residential customers that is significantly more ambitious than commitments outlined by the DNSPs. Our submission also recognised that the DNSPs’ programs need to be supported by appropriate changes and additions to IPART’s regulatory framework, and means found to stimulate retailers to offer suitable products to consumers.

In order to demonstrate that these recommendations for DM had a solid basis, we drew IPART’s attention to findings from the EUAA Demand Side Response (DSR) Facility Trial conducted in the 2002-03 summer. The most relevant of these are that:

- the Trial clearly identified opportunities for DM to deliver benefits in the network sector but a lack of regulatory incentives operated to limit the willingness of distributors to respond to DSR options;
- the end-users and the distributors who participated in the Trial both emphasised the importance of ‘positive’ commercial incentives to stimulate DM; and
- although not strictly part of the DSR Trial, we expect that some, possibly many, small consumers would be prepared to offer DM if the infrastructure (eg meters, load control devices, etc) existed to allow them to do so, they were sufficiently aware of the opportunities and ‘positive’ incentives (‘carrots’) were offered to them.

This submission comments on the IPART Draft Report published on 9 January 2004. The submission includes relevant comments on McLennan Magazanik Associates Pty Ltd’s (MMA) review of the DNSPs’ growth forecasts (published in late December 2003), as well as

comments on IPART's Draft Decision on DM prepared in response to the SKM report on avoided distribution costs released on 19 February 2004.

As noted in our initial submissions, this review is important to end-users in NSW. The review will set future distribution charges, impact service levels and otherwise provide regulatory incentives for the DNSPs through to 2009. All energy users in NSW, whether small or large, will be required to pay the charges that result from this review and will have no choice but to do so. Our earlier submissions noted that IPART has an important obligation to end-users to ensure that network charges and service levels are competitive relative to other states and for NSW industries (and their employees) competing in world markets. Ensuring that the DNSPs continue to strive for efficiency gains and deliver these to consumers is one of the main planks of energy reform. The incentive-based regulatory regime applied by IPART is the main vehicle for achieving this outcome.

### **1.1. PRELIMINARY COMMENT**

Marsden Jacob Associates (MJA) has assisted the EUAA and EAG in preparing this submission. The submission refers to issues raised in our earlier submissions (that are summarised above) and is based on independent analysis of material provided by IPART, IPART's consultants and other reports, publications and data in the public domain. However, the views presented in the submission are those of the EUAA and EAG.

We also note our extreme disappointment that the only references in the IPART Draft Report to our earlier submissions are in the section on WACC. These comprise re-statement of our general concern that WACC is set too high and that the Cost of Debt proposed by the IPART Secretariat is higher than adopted by the ACCC in the Transend draft decision. Even then, IPART makes no attempt to respond effectively to either of these points. The IPART Draft Report contains no explicit reference to any of the other matters raised in our earlier submissions.

Our earlier submissions (and this one) are the product of a major commitment to providing well-considered, constructive and sensible input to IPART's review. We believe our contribution is of considerable value and expect IPART to respond to the substantial (and sometimes critical) analysis therein. IPART needs to do better in its Final Decision and show that it takes input from energy users seriously. We emphasise that such input is critical to an independent regulator making a balanced and well-informed determination.

### **1.2. STRUCTURE OF THIS SUBMISSION**

As this submission makes clear, we continue to have real concerns about negative impacts that the DNSPs' proposals and IPART's Draft Decisions would have on consumers, especially those consumers supplied by EA, IE and CE.

The overall effect of IPART's Draft Decisions is that the  $P_0$  increase proposed by the DNSPs has been reduced (from around 13-20% to 5-7%), but the X factors for the last four years of the next regulatory period have been increased (from around +1% to +1.4%). The major reason that  $P_0$  reduced from the DNSPs' 'ask' is because IPART has accepted MMA's higher consumption forecasts and this reduces the impact on average prices even though total costs have been increased. IPART has therefore taken the easy road in its Draft Determination and given NSW energy users little evidence that it is doing its job as a rigorous independent regulator.

This submission provides further explanation of each of our concerns with IPART's Draft Decisions. The explanation is framed in the context of earlier submissions provided by EUAA and EAG and material in the IPART Draft Decisions.

Section 2 contains comments on some aspects of MMA's analysis of the DNSP growth forecasts.

Section 3 explains our concerns about the lack of transparency in some areas of IPART's Draft Decision.

Section 4 repeats our concerns about the treatment of WACC, and once again challenges IPART to explain in clear terms why it continues to judge that financial markets see NSW DNSPs as less-efficient and more-costly than their UK comparators.

Section 5 provides comments on IPART proposals for Service Quality incentives.

Section 6 addresses issues related to IPART's proposals to provide incentives for DNSPs to support demand management.

And, finally, Section 7 summarises our views on the overall impact of IPART's Draft Decisions on NSW consumers and outlines recommendations on how to improve the quality and transparency of IPART's Final Decisions.

## 2. COMMENT ON MMA ANALYSIS OF GROWTH FORECASTS

MMA was asked by IPART to review the demand forecasts submitted by the DNSPs and prepare independent forecasts of customer numbers, energy consumption and peak demand for each DNSP. Our earlier submission supported the need for such a review. This was based on our own analysis of the DNSPs' forecasts, which showed the DNSPs were forecasting lower consumption and demand than Transgrid and NEMMCo. Our analysis suggested that the DNSPs had either:

- not learnt from the outcomes for the current regulatory period about the need to improve the quality and robustness of their forecasts; or
- had learnt the potential value of exercising 'strategic behaviour' in a weighted average price cap (WAPC) regime through under-forecasting of volume (and over-forecasting of costs).

We also expressed concern that:

- none of the DNSPs had provided detailed information on the forecasts adopted by IPART in 1999, or sufficient detail on actual demand and energy consumption for the current regulatory period;
- neither the DNSPs nor IPART had focussed attention on detailed analysis of actual and forecast demand patterns;
- Meritec did not undertake a detailed review of the DNSP growth forecasts, or IPART arrange for such review to be completed, before Meritec commenced its efficiency/prudence review of costs.
- continuing AC penetration will be costly for NSW consumers if the trends of the previous decade continue through to 2010.

We expected that IPART would take these matters into account in any review of the DNSPs' growth forecasts. However, we note that the scope of MMA's review was constrained by the time allowed by IPART. MMA summarises its review in the following terms:

*"The review has been based on requesting and clarifying historical, methodological and forecast data from DNSPs and a desk-top review of other available material including further historical, demographic, weather and economic information. Because of the brevity of the study the methodology was restricted to data supplied by the DNSPs or publicly available. This meant that analysis was generally possible only in two sectors, residential and non-residential, rather than by more disaggregated customer and size classes."*<sup>6</sup>

---

<sup>6</sup> p. (i), *Review of demand forecasts for the 2004 electricity network review*, Draft report to Independent Pricing and Regulatory Tribunal of NSW, MMA, December 2003.

The limited scope of work that MMA was able to undertake is disturbing for such an important aspect of the review and does not allay our concerns because reliance on information provided by the DNSPs dilutes the level of independence of MMA's review. Despite this reservation, we generally support MMA's conclusions that the DNSPs can and should improve their forecasting methodologies, and that both energy consumption and peak demand will be higher than forecast by the DNSPs. Overall, MMA's comments and conclusions are generally consistent with the analysis contained in our earlier submissions.

## 2.1. IMPACT OF AIR-CONDITIONING LOAD

We do, however, have concerns that MMA provides no explanation for the derivation of household AC penetration rates used in its report. This is of concern because MMA's assumptions about increasing AC penetration appear low compared to both ABS data<sup>7</sup> and other data in the public domain.<sup>8</sup> For example, the ABS data referred to by MMA shows:

- 34.8% of households with AC in 1999 and 48.6% in 2002 for Australia as a whole (or 4.6% growth per year);
- AC penetration has increased significantly in NSW over the current regulatory period from 27.6% of households in 1999 to 43.5% in 2002, but AC penetration rates overall in NSW still well behind Victoria (52.9% of households) and SA (79.6% of households) suggesting the prospect of substantial future growth; and
- increasing proportions of larger capacity reverse-cycle and refrigerative AC in NSW (and other states), with the proportion of AC using households in NSW with reverse-cycle units increasing from 59.4% in 1999 to 71.4% in 2002, which is significantly higher than either SA (50.5% reverse-cycle ACs) or Victoria (just 30.3% reverse-cycle ACs).

That is, the proportion of NSW households with AC is lower than other south-east states, but the rate of increase in household AC penetration is higher and the proportion of larger capacity reverse-cycle units substantially higher than other states. These data suggest that AC 'saturation' and peaking of household AC load is still some way off for NSW.<sup>9</sup>

---

<sup>7</sup> MMA referred to data sourced from *People's Views and Practices - Environmental Issues*, ABS Report 4602.0, March 2002. This report shows data on AC penetration in Tables 4.16, 4.17 and 4.18, pp 71-73.

<sup>8</sup> See Figure 8 and Appendix B: *Smart Meters for Smart Competition? Will Current Proposals Hand Back Power to Consumers? Update 2003, A consumer-focussed comment on the Victorian Essential Services Commission Position Paper Installing Interval Meters for Electricity Customers - Costs and Benefits*, Report for the Energy Action Group, Pareto Associates Pty Ltd, March 2003.

Data summarised in the 2003 Pareto report shows AC penetration across Australia increasing from 34.2% to 51.5% of households from 1996/7 to 2002, equivalent to about 3.5%/year, which is broadly consistent with the ABS data.

<sup>9</sup> Even if AC 'saturation' (measured as the percentage of households with AC) occurs in the next regulatory period, temperature-sensitive summer demand is still likely to continue increasing as existing smaller ACs are replaced by larger capacity reverse-cycle or refrigerative units.

Application of simple arithmetic to the ABS data gives an average increase in household AC penetration of 5.3% per year for the whole of NSW. By comparison, MMA shows AC penetration increasing at just 1.64% per year for EA and 0.9% per year for IE.<sup>10</sup> MMA provides no explanation for derivation of the figures it adopted. Nor does MMA mention any impact that the increasing proportion of larger reverse-cycle units might have on the forecast maximum summer demand. However, MMA says “*it is generally considered important to correct for weather in assessing historical trends and forecasting*” and that EA and IE had “*said they could not with any accuracy separate out the impacts of weather on residential versus non-residential classes. This has made it difficult to ‘weather correct’ historical consumption by sector.*”<sup>11</sup>

This is important to end-users because analysis presented in our earlier submissions confirms that summer peak demand in NSW has been growing at much faster rates than other periods for at least the last decade on both Working Days and Non-Working Days. Continuing increases in AC penetration, and the increasing proportion of higher capacity AC units, suggests the trend of increasing AC demand will continue. This suggests that maximum summer demand could be higher than forecast by MMA.

We are aware that there are some reservations about the accuracy of the ABS survey data. However, we believe the above analysis is sufficiently robust to be taken into account by IPART. This can be done through the ‘cross-checking’ outlined below.

We have not been able to find any reliable public domain information on the size or capacity of AC units installed, but the ABS survey data for NSW shows an increase in the proportion of reverse-cycle units increasing from 59.4% of all units installed in 1999 to 71.4% of all units installed in 2002. In that same time period, the total number of dwellings with AC increased from approximately 691,000 to approximately 1,090,000<sup>12</sup>, and Maximum Peak Summer Demand on Non-Working Days increased by an average of approximately 260MW per year above demand at 20Deg C (or approximately 780MW over the three years).<sup>13</sup> This gives approximately a 2kW increase in Summer Demand per AC-using household, which is consistent with typical reverse-cycle AC loading.<sup>14</sup>

If AC penetration and the proportion of reverse-cycle units continue to increase at similar rates over the next regulatory period, Maximum Summer Demand in NSW is likely to

---

<sup>10</sup> p. 36, Table 24, MMA report to IPART.

<sup>11</sup> p. 27, MMA, *Op Cit*

<sup>12</sup> Data from the 1996 and 2001 Census reports has been combined with percentage figures for households with AC from ABS Report 4602.0 to estimate the number of households with air-conditioning because the ABS Report does not show number of households with AC in the 1999 survey.

<sup>13</sup> See Figure 9, p 24, EUAA/EAG submission to IPART, 20 Oct 2003.

<sup>14</sup> The Australian Government energy rating website ([www.energyrating.gov.au](http://www.energyrating.gov.au)) lists 1,285 different models of single-phase reverse-cycle AC available in Australia with Energy Input (energy consumption) ranging from 0.59kW to 10.3kW, and an average Energy Input of 2.0kW. There are 659 different three-phase models listed with Energy Input ranging from 0.76kW to 22.94kW.

increase by around 1,250MW over 5 years just for household AC use. This compares to MMA's estimate of increase in total peak summer demand of 1,787MW (excluding AIE). But MMA is assuming only about 1/3rd of the household AC growth indicated by the ABS data, which may mean MMA forecasts include just (say) 400-500MW increase in household AC demand.

## 2.2. FACTORS FOR THE MMA APPLIANCE USAGE MODEL

It is also of some concern that it is difficult to follow MMA's explanation of its Residential load forecasts. The appliance usage model used by MMA "to explain the historical growth in average usage" accounted for only 35% of the growth in actual average Residential consumption from 1994 to 2002, leading MMA to conclude "that in addition to the factors considered in such models, other factors are influencing usage growth". MMA suggested that "these factors could be one or more of:

- increases in the number and/or usage of minor appliances in the 'other' category.
- increases in usage of major appliances, for example due to increasing comfort levels." <sup>15</sup>

It is not clear how MMA used output from the appliance usage model in developing its forecasts. However, adopting factors to force the model to fit historical average consumption does not appear any more robust than the simple linear regression 'curve fitting' shown in Figure 9 of our own submissions. Given that IPART further 'fudged the figures' by 'correlating' MMA's forecasts with the DNSPs' cost forecasts (as discussed in more detail in the next section of this submission), this raises questions about the robustness of both the cost and growth forecasts on which IPART's Draft Determination is based.

It would appear from the way IPART used input from its consultants that:

- cost forecasts are too high for the assumed growth forecasts; but
- the growth forecasts provided by MMA, particularly the summer peak demand forecasts, are still too low.

This is not transparent regulation. It is certainly not clear that IPART's review process will produce an outcome that will protect the interests of NSW consumers. IPART clearly needs to improve the explanation of the treatment between growth forecasts and cost forecasts.

The DNSPs also need to improve the way they explain the link between their growth forecasts and their business costs. As noted above, we agree with MMA that the DNSPs' growth forecasting methodology should be improved. But this does not mean that IPART should allow higher costs because it judges that the DNSPs growth forecasts are too low.

The DNSPs' Annual System Planning Reports show significant numbers of major substations at or nearing 'safe load' capacity. This information alone is sufficient for network

---

<sup>15</sup> p16, MMA *Op Cit.*

planners to prepare rational cost forecasts that, given the incentives in a WAPC regime, are likely to include an element of ‘strategic behaviour’. We note elsewhere in this submission that there are clear and logical reasons why DNSPs would prepare forecasts that overstate costs (and understate growth).

We note that none of the DNSPs makes any attempt to explain in detail how they linked growth and cost forecasts. Nor does Meritec’s report provide a clear explanation of how it linked growth and cost forecasts.<sup>16</sup> It is at least a possibility that none of the DNSPs has an entirely robust mechanism to do this. But this is not sufficient reason for IPART to take on the role of ‘network planner’ and make decisions that should be taken by the DNSPs. IPART’s role is to critically assess the DNSPs proposals and ensure that consumer interests are protected. IPART can do this by setting ‘challenging but achievable’ efficient cost and service benchmarks for the DNSPs. We see no evidence that IPART has executed this task satisfactorily.

---

<sup>16</sup> We repeat our concern that IPART reduced the scope of work for Meritec by removing the task of reviewing the DNSPs growth forecasts. This meant Meritec had no clearly rational basis for making judgements about the link between growth and cost forecasts, further reducing the robustness of Meritec’s judgements on the ‘efficiency’ of forecast costs.

### 3. TRANSPARENCY OF IPART'S DECISION

As noted above, there are fundamental problems with the way IPART has established the link between growth forecasts and the revenue building blocks. In our view, this is primarily because IPART has relied on judgements made by its consultants and taken upon itself a 'network planning' role that is best left to the DNSPs. We do not consider it appropriate for IPART to expect its consultants to make judgements on critical issues in the review. This should be a role assumed solely by IPART. Even where IPART does rely on judgement by its consultants, it has an obligation to end-users to explain in clear terms how it took those judgements into account in forming its decision on such an important matter.

This section of the submission outlines our concerns on this aspect of the review and challenges IPART to more clearly explain how it addressed issues raised in our submissions. The primary reason these matters are of concern to end-users is that, despite indications that the DNSPs have substantially over-forecast costs for the next regulatory period, the result overall of IPART's 'judgements' on growth and cost forecasts is that the DNSPs be allowed some \$63M (nominal) more for total CAPEX and \$60M (nominal) more for total OPEX over 5 years than indicated in the IPART Preliminary Analysis report figures.<sup>17</sup>

As a result of this, the total costs facing NSW consumers have not reduced at all except for a very slight reduction in the WACC Building Block component, which the DNSPs will almost certainly dispute and want 'corrected' as part of the Final Decision. Given that IPART has explicitly requested DNSPs to come back with revised cost forecasts that match MMA's higher growth forecasts, it is reasonable to expect the DNSPs to respond with even higher total forecast costs.

We do not consider that IPART has provided a robust and transparent explanation to support its judgement that the DNSPs 'need' more resources to supply NSW consumers than they asked for initially. Indeed, we do not consider that IPART has convincingly explained why the DNSPs 'need' any more resources than actually committed in the current regulatory period.

A principal cause of the lack of transparency is that IPART has, in effect, accepted the form of Meritec's recommendations. We say 'in effect' and 'form of' because IPART has accepted Meritec's conclusion that all past expenditure was 'prudent' and adopted, with only slight modifications, CAPEX projections recommended by Meritec, which required only minor percentage 'reductions' for EA and IE. However, apart from providing its own limited 'independent analysis' of reliability and cost comparators (in Appendix 5), IPART has not acknowledged the discrepancies between cost forecasts in the DNSP's proposals and data contained in the Meritec report. Nor has IPART explained:

---

<sup>17</sup> IPART proposes the DNSPs be allowed total CAPEX of \$4,786M (nominal) and total OPEX of \$3,841M (nominal) over 5 years. EnergyAustralia (EA) is the biggest 'winner' with an extra \$170M extra CAPEX and \$48M OPEX. Integral Energy (IE) is the biggest 'loser' with \$107M less in CAPEX offset by a \$17M increase in OPEX allowance.

- how it accounted for the inconsistencies in logic leading to Meritec’s recommendations that were detailed in our earlier submissions;
- how it accounted for the lack of analysis supporting Meritec’s conclusions;<sup>18</sup> or
- how it established the cashflow forecast values presented in the Draft Report (this is of particular concern because it relates directly to discrepancies in Meritec’s report).

An additional concern is that IPART’s ‘independent analysis’ of reliability and cost comparators provides no comfort to end-users because:

- the analysis relies on reliability performance data (for the parameters SAIDI, SAIFI and CAIDI) sourced from the ESAA that is very clearly inconsistent with data contained in IPART’s own Price and Service reports and the Victorian ESC’s Performance reports, and the implications of this are not even acknowledged by IPART;
- the analysis presents cost comparators<sup>19</sup> that clearly show the NSW DNSPs have much higher indicative costs than Victorian DBs (again the reasons for this are not explained); and
- there is no explanation of how IPART used this ‘independent analysis’ to inform its judgement of the crucial issues of service quality and cost.

The use of clearly inaccurate data and the lack of clarity and transparency about how IPART used these analyses are both particularly disturbing to energy users.

We also note that IPART has accepted growth forecasts provided by MMA, which are based on a 50% Probability of Exceedence (PoE), and which show slightly higher growth than the DNSPs’ forecasts. IPART appears to have adopted MMA’s 50% PoE consumption values and assigned these to the nearest consumption volume forecasts provided by the DNSPs, then adopted the DNSP’s cost forecast relevant to the ‘matched’ consumption volume forecast. In the case of EA (at least), this leads IPART to adopt EA’s ‘High growth’ cost forecasts for MMA’s 50% PoE growth forecast.

The process used by IPART to reconcile growth and cost forecasts is unusual (to say the least). It would have been more transparent to adopt MMA’s 50% PoE growth forecasts and adjust the relevant DNSPs ‘Medium growth’ cost forecast using the form of Meritec’s recommendations (or IPART’s own analysis).<sup>20</sup> IPART should then have requested the DNSPs to confirm they could deliver on the proposed ‘regulatory contract’ or justify

---

<sup>18</sup> IPART presents an ‘independent analysis’ in Appendix 5 of its Draft Report, but fails to explain how the results of that analysis relate to judgements on either cost or service standards.

<sup>19</sup> IPART does not explain why it based its ‘independent analysis’ of cost comparisons on the combined total of CAPEX and OPEX. This is not a ‘measure’ used by other regulators.

<sup>20</sup> It would have consistent with the decision process typically adopted by UK regulators to adopt the MMA 50% PoE forecasts and subject the DNSPs cost forecasts to a rational and systematic analysis using econometric techniques similar to those proposed by OFGEM for its coming review of UK electricity distributors.

otherwise. This would have assumed the DNSPs were technically competent businesses capable of forecasting business conditions and exercising 'strategic behaviour'.

It is highly probable that UK regulators would adopt this approach because they know that 'strategic behaviour' is real. That is, in the absence of specific evidence to the contrary, it is likely the UK regulators would assume the DNSPs were technically capable of forecasting growth and costs, and also capable of exercising 'strategic' behaviour in a rational response to incentives in the regulatory regime.<sup>21</sup>

IPART's approach is unusual not only because it casts IPART in the role of 'network planner', but also because it clearly offers the DNSPs an invitation to exercise (regulatory-endorsed) 'strategic behaviour'. The coyness by IPART in dealing with undesirable incentives in a WAPC regime contrasts to the open references to the possibility of, and problems created by, 'gaming' and 'strategic behaviour' in determinations of UK regulators and even the Victorian ESC. We find this to be an approach that appears to ignore, or at least fails to acknowledge, one of the most significant issues in so-called incentive regulation and one that energy users will be required to pay for.

Issues related to discrepancies in demand and cost forecasts are also of concern to end-users because, in addition to making some *ad hoc* adjustments to the expenditure forecasts to allow for differences between the MMA forecasts and the DNSP forecasts, IPART has 'invited' the DNSPs to come back for a 'second bite at the cherry' and provide adjusted cost forecasts to match the higher MMA growth forecasts.

We have no difficulty in accepting IPART's recognition that there is a link between demand/consumption and cost. However, IPART appears to be making decisions that will effectively protect the DNSPs from their own apparent incompetence, or 'reward' them for exercising 'strategic behaviour', rather than focussing on how to ensure the DNSPs are set 'challenging but achievable' business targets for the next regulatory period.

### **3.1. PROBLEMS WITH IPART'S INDEPENDENT ANALYSIS**

In our earlier submissions we made the point that IPART has an important obligation to end-users to ensure that network charges and service levels are 'competitive' relative to other states and for NSW industries competing in world markets. Naturally, this also affects jobs in those industries.

IPART makes no reference to interstate comparisons, or the impact of prices, or service levels, on NSW 'competitiveness' apart from including as Appendix 2B the summary of key principles and core objectives of network pricing (Clause 6 of the Code), which explicitly

---

<sup>21</sup> The Draft Report refers only to a 'theoretical incentive' for DNSPs to understate volume forecasts (p. 26), even though the Draft Report also includes a quote from Integral's submission that refers directly to 'gaming behaviour' by the DNSPs (p. 207) in the context of incentives that could be created by ex-post 'claw back' adjustments.

states that “*the distribution service pricing regulatory regime to be administered under Part D of the Code must seek to achieve promotion of competition in upstream and downstream market.*”<sup>22</sup>

In addition, Appendix 5 contains two comparisons of NSW and Victorian distributors’ performance.

### **3.1.1. RELIABILITY SERVICE STANDARDS**

IPART's Appendix 5 shows comparative reliability performance for the NSW DNSPs and the Victorian DBs based on ESAA data.

The diagrams in Appendix 5 show data that leads IPART to conclude that “*(g)enerally, NSW customers experienced smaller number of outages (SAIFI) and shorter duration (SAIDI) per annum than the customers in Victoria. However, on average each outage experienced by a NSW customer was longer than Victoria over the period as reflected in CAIDI.*”<sup>23</sup>

However, the data from the ESAA is not consistent with data in the Victorian ESC Performance Reports or data in IPART's own Price and Service reports. For example, the ESC Reports show:<sup>24</sup>

- SAIDI for all VIC DBs has never dropped below 150. IPART's diagram shows SAIDI below 100 in 2001.
- SAIFI for all VIC DBs has never exceeded 2.6; nor ever been below 1.99. IPART's diagram shows SAIFI above 4.0 in 1998 and just above 1.0 in 2001.
- CAIDI for all VIC DBs has never been below 73. IPART's diagram shows CAIDI at about 45 in 1998.

And the IPART Price & Service reports show:<sup>25</sup>

- SAIDI values for individual NSW DNSPs between 118 and 364 for FY2001, with a simple average of 295.5. IPART's Draft Report diagram shows about 120. Even a customer-weighted average is likely to be above 200 using the IPART data.
- SAIFI values for individual NSW DNSPs between 1.8 and 3.3 for FY2001, with a simple average of 3.0. IPART's Draft Report diagram shows about 1.1.
- CAIDI values for individual NSW DNSPs between 47 and 146 for FY2001 with a simple average of 121.2. IPART's Draft Report diagram shows about 80.

---

<sup>22</sup> Clause 6.10.2(h) of the National Electricity Code

<sup>23</sup> p. 187, IPART Draft Report

<sup>24</sup> p. 69, *Electricity Distribution Businesses Comparative Performance Report For The Calendar Year 2002*, Essential Services Commission, August 2003. The Victorian data includes all outage events.

<sup>25</sup> p. 18, Tables 5.3 (SAIDI), 5.4 (SAIFI) and 5.5 (CAIDI), *Price and Service Report for 2000/01 - NSW Distribution Network Service Providers*, IPART, September 2002.

That is, comparison of reliability performance measures in the regulators' own reports shows NSW DNSPs, on average, provide poorer quality service in all three measures than achieved recently by Victorian DBs. This is opposite to the conclusion reached by IPART.

We emphasise that these are not minor differences. However, it is not immediately clear what IPART does with this data and 'analysis'. Presumably, IPART is using the 'analysis' to inform its judgement on Service Standards and the DNSPs' proposals to increase costs to achieve improved reliability. If that is the case, IPART has no choice but to repeat the analysis using reliable and accurate data and explain in clear terms how it formed judgements from that analysis. In doing so, IPART should also take into account the relative estimates of cost to improve reliability. The Victorian ESC allowed an extra amount totalling just \$5.0 million extra CAPEX and \$17.8 million OPEX over 5 years<sup>26</sup> above 'business as usual' costs to achieve significant improvements in reliability performance. The DNSPs are suggesting they need to spend substantially more to achieve the same outcome.<sup>27</sup>

It is also absolutely clear that IPART should not rely on data provided by the ESAA. The lack of accuracy of ESAA data has become more obvious since the early 1990s. The ESAA data collection is entirely voluntary, there is no audit or Quality Assurance process involved and it is not clear that there are standard and precise definitions of the performance measures that are reported. On the other hand, the ESC has established standard, precise definitions, including exclusion events, and subjects the VIC DBs data collection and reporting processes to routine audit as a Distribution Licence condition.

The NSW Minister for Energy has yet to formalise such procedures for NSW DNSPs, and the DNSPs currently report several 'versions' of reliability parameters including 'raw, unadjusted' data plus several 'adjusted' figures that account for various types of exclusion events 'beyond the control of the DNSP'.<sup>28</sup> It should be noted particularly, that the wording of the definitions for reliability performance measures used by NSW DNSPs is not identical to the wording used by the ESC, although IPART's proposal to use Steering Committee on National Regulatory Reporting Requirements (SCNRRR) standards may address this issue.

---

<sup>26</sup> p. 243, Table E.2, *Electricity Distribution Price Determination 2001-05 - Volume I Statement of Purpose and Reasons*, ORG, September 2000.

<sup>27</sup> As noted in our earlier submissions, the Victorian DBs achieved very substantial improvements in reliability performance in the first regulatory period with a 'need' for additional service incentives. The only 'incentive' applied was consumer reaction to any significant outages and the ORG's Performance Reporting, which promoted 'competition by comparison'. It is highly likely that similar results could be achieved in NSW if IPART could establish a robust public reporting regime that compared the DNSPs' performance to their Victorian counterparts.

<sup>28</sup> EUAA has been very critical of the lack of rigour in the NSW service measures for some time and also of the fact that one body (IPART) regulates prices, whilst another (the Ministry) regulates service. The two cannot be logically separated. We have also noted the lack of attention to the service needs of business customers in such measures.

### 3.1.2. COST COMPARISONS

The difficulties with reliably service standards data are not the only major concerns with Appendix 5. For reasons that are not explained, IPART adopts cost comparators based on combined CAPEX and OPEX.<sup>29</sup> This is an unusual way to report comparative cost data that is not practiced by any other regulator (to our knowledge). Nor is it clear that it is a robust approach that allows meaningful comparison.

We accept there is a connection between levels of CAPEX and levels of OPEX, and that an increase in CAPEX (for example) might be expected to reduce OPEX over time. However, such a relationship would not be linear, such that an increase in CAPEX (say) could be compared directly to a decrease in OPEX. Nor would comparisons between DNSPs be meaningful within a single regulatory period, unless all distributors had virtually identical expenditure profiles. We also note that, if distributors did have virtually identical expenditure profiles, IPART's comparators would show a direct relationship with 'efficiency', which would justify substantial reduction in combined CAPEX and OPEX for the NSW DNSPs to bring their performance into line with their Victorian counterparts.

However, IPART makes no attempt to explain what significance, if any, there is in the difference between values for the DNSPs and the Victorian DBs. There is no evidence in the Draft Report that IPART has used the results of its 'analysis' to rank DNSP 'efficiency' either internally or by comparison with the Victorian DBs. Accordingly, we see little value in such an analysis.

This point aside, the comparisons presented by IPART show cost indicators for NSW DNSPs well above the Victorian DBs. A similar conclusion was presented in our own submission using more usual and more robust performance comparators adopted by the Victorian ESC in its 2000 Decision.

What is most disturbing about this analysis is that even though IPART's data suggests the NSW DNSPs are relatively inefficient compared to Victorian DBs, IPART's Draft Determination does nothing about this. This is a serious concern for end-users because these are not minor differences. For example:

- The range of combined (CAPEX+OPEX)/customer for NSW DNSPs is \$1772 to \$3343 for the current regulatory period.
- The range of combined (CAPEX+OPEX)/customer for NSW DNSPs is \$2130 to \$3187 for the next regulatory period.
- The range of Combined (CAPEX+OPEX)/customer for VIC DBs is \$1416 to \$2063 for the current regulatory period.

---

<sup>29</sup> p. 191, Table A5.6, IPART's Draft Report

That is, the cost comparator measure selected by IPART shows unit costs for NSW DNSPs about 50% higher than for Victorian DBs. Even the lowest cost comparator for a NSW DNSP is higher than the highest for a Victorian DB. To make matters worse, IPART says that “*the Essential Services Commission’s Performance Report for 2002 shows that Victorian DNSPs are spending less in capital and operating expenditure than allowed for in its last determination (see Appendix 5),*”<sup>30</sup> yet appears to ignore this entirely in making its own judgements on the ‘efficiency’ or ‘prudence’ of the NSW DNSPs current performance or forecasts.

The lack of comment by IPART on the implications of this large difference in cost comparators is a serious omission. We are both alarmed and immensely disappointed by this.

As a minimum, IPART should commit to one of the fundamental requirements of 'best practice regulation' by demonstrating 'transparent decision making' and provide a clear and transparent explanation of how it dealt with this information in forming its judgement on prudence and efficiency, as required by Clause 6.10.2(i) of the Code.<sup>31</sup>

We strongly recommend that IPART re-examine these comparators in detail and explain fully and clearly how this performance by NSW DNSPs will impact on NSW end-users. Better still, IPART should adopt our recommendation to replicate the analysis proposed by the UK regulator OFGEM and create appropriate incentives for NSW DNSPs to bring their performance into line with Victorian DBs as quickly as possible.

### **3.2. TREATMENT OF ABOVE-FORCAST COSTS IN THE CURRENT REGULATORY PERIOD**

The only satisfactory aspect of the Draft Decisions, from the perspective of end-users, is that IPART will not allow any retrospective recovery of above-forecast CAPEX or OPEX in the current regulatory period. IPART will roll forward all CAPEX actually committed in the current regulatory period (that is, IPART has accepted Meritec's recommendation that all CAPEX in the current regulatory period has been prudent) and will not allow any retrospective recovery of above-forecast OPEX.

This means that the DNSPs are only permitted to recover cost forecasts included in IPART’s 1999 Determination (adjusted in accordance with the ‘Hybrid’ Revenue Cap formulae) in the current regulatory period. However, unlike companies operating in a competitive market, the DNSPs will be allowed to recover the real (inflation adjusted) value of overspent CAPEX

---

<sup>30</sup> p. 33, IPART Draft Report.

<sup>31</sup> Clause 6.10.2(i) says: “*The distribution service pricing regulatory regime to be administered under Part D of the Code must seek to achieve the following outcomes:*

*(i) reasonable regulatory accountability through transparency and public disclosure of regulatory processes and the basis of regulatory decisions.*”

through roll-forward of the real value of actual CAPEX into the regulatory asset base and through future depreciation of the overspent CAPEX amount.

This is the reciprocal treatment of CAPEX underspend adopted by the ORG in its 2000 Decision on electricity distribution, which provides the positive incentive for DNPSs to improve efficiency and guarantee they will be able to recover ‘efficient’ or ‘prudent’ CAPEX. This is of concern to the EUAA given the signals it sends to the DNSPs and the impact on NSW energy users.

The effect of this treatment on the DNSPs ‘bottom line’ also creates a clear incentive to over-forecast costs. The guarantee that DNSPs can always recover ‘efficient’ costs only delivers full value to the DNSP if they spend less (CAPEX or OPEX) than forecast at the beginning of a regulatory period. If they spend more than forecast, the DNSPs will lose some value in the current regulatory period.

In the case of CAPEX, the value lost is the amount of CAPEX overspent times WACC plus the Net Present Value of delaying Depreciation until the next regulatory period. A similar loss of value occurs when differences occur between forecast and actual OPEX costs, except in that case the difference translates directly to the ‘bottom line’. A dollar saved in OPEX produces a dollar extra profit, a dollar overspent reduces profit by a dollar.

There is no doubt that this creates a clear and very powerful incentive for DNSPs to over-forecast costs. In fact, they would be irresponsible to their shareholders not to take every reasonable measure to ensure their cost forecasts are ‘conservative’ and ‘prudent’. This would be sensible behaviour for any well-managed business. However, it is also a means to build in inefficient monopoly rent through ‘strategic behaviour’ on the part of the DNSP during the regulatory period.

This is a clear reason why regulators must take considerable care in forming their judgements on efficient levels of forecast cost. It is our view that IPART has not demonstrated in its draft decision that it has properly and adequately discharged its responsibilities in this crucial area.

## 4. WACC

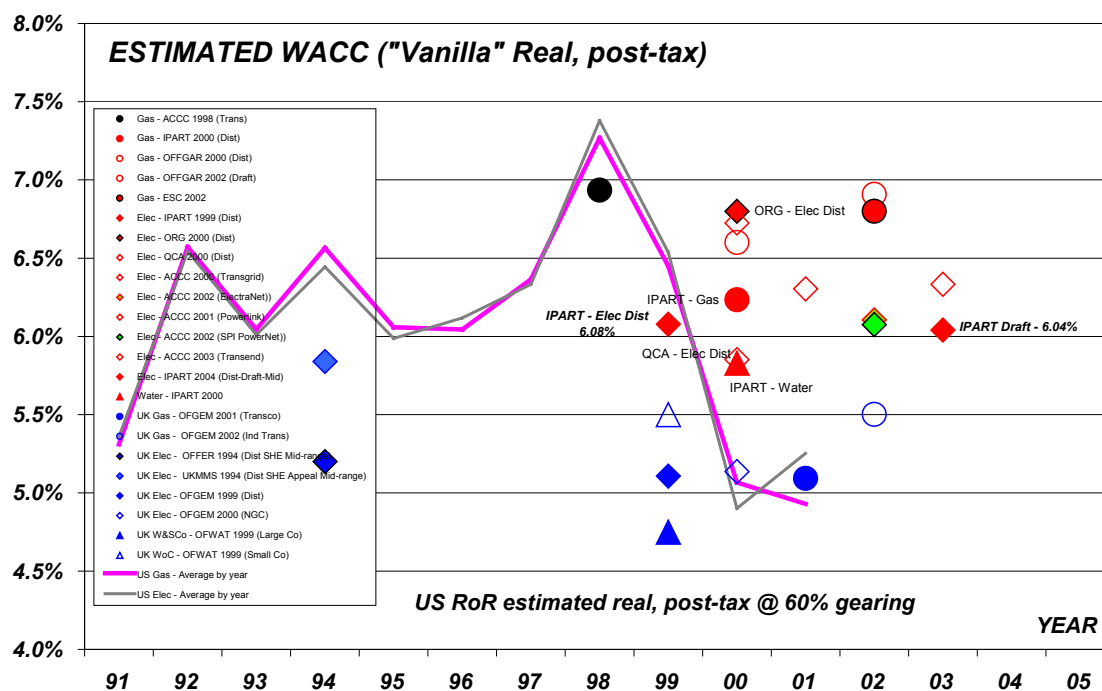
In our earlier submissions we recommended that IPART reconsider the Secretariat’s proposals for Weighted Average Cost of Capital (WACC) by -

- adopting the simpler ‘Vanilla’, post-tax form of Capital Asset Pricing Model (CAPM) used by the ESC, ACCC and QCA, which allows for more transparent explanation of regulatory judgements and more transparent treatment of tax costs;
- bringing the estimated cost of debt into line with that adopted by the ACCC in its decision on the Transend revenue application;
- following an approach similar to that adopted by all UK regulators with forward-looking estimates for values of all key parameters in the CAPM, with the value of those estimates based primarily on information obtained from credible, independent financial market sources and not from sources linked to DNSPs; and
- breaking the apparently inexorable circularity of referring to previous regulatory decisions in Australia, each of which fail to explain why WACC values in Australia are higher than the UK.

This would produce WACC (‘Vanilla’, real, post-tax) of no more than 5.0% and place the DNSPs at the efficiency frontier in Australia. Should a higher WACC value be proposed, we challenged IPART to explain in transparent terms why it judged that financial markets view the DNSPs to be less efficient and more costly to finance than their UK comparators. We also challenged IPART to explain in transparent terms how consumers were meant to benefit from efficiency gains if regulators continually bias judgement on WACC in favour of DNSP shareholders.

IPART’s treatment of WACC is another disappointing area in its draft decision. IPART has increased WACC slightly compared to the proposals in the Secretariat Preliminary Analysis report. This occurs even though IPART is proposing a slight reduction in Beta values in the CAPM formula. As shown in the diagram below, the value of CAPM parameters proposed by IPART yields an estimate of real, post-tax ‘Vanilla’ WACC of 6.04%, which is only 4 basis points lower than adopted by IPART in 1999.

IPART reported at the Stakeholders briefing on 9 January that the DNSPs are claiming this would yield WACC values that are the lowest in Australia. This claim is not correct. As shown in the diagram below, it is correct that these values are lower than those adopted in Victoria in ORG’s 2000 Decision (real, post-tax, ‘Vanilla’ WACC of 6.8%), but QCA set significantly lower values of 5.85% (real, post-tax, ‘Vanilla’ in 2000). It is also relevant to note that the QCA value is still 71 basis points (or 14%) above the values of 5.14% (real, post-tax ‘Vanilla’) set by OFFER for UK electricity distributors in 1999.



**FIGURE 1: COMPARISON OF REGULATORY JUDGEMENTS ON WACC (REAL, POST-TAX, 'VANILLA')**

We believe that it is important to note that the main reason why there are differences in the value WACC between the judgements of UK and Australian regulators is that UK regulators have accepted the views of credible, independent financial market analysts/commentators that financial markets are, and will continue to be, more 'efficient' than indicated by backward-looking analysis of historical data. That is, lenders and investors are accepting that returns to regulated utilities can be lower than they have in the past.<sup>32</sup>

But IPART has failed to address the issues we raised. This is a critical issue for end-users, particularly industrial and commercial companies competing in world markets. The outcomes presented above may well be the result of overly-cautious regulation, or regulatory error, and there is a real possibility that regulators are contributing to a reduction in the competitiveness of the Australian economy, which the EUAA considers is a critical issue for Australia's energy using and world competitive industries. Accordingly, we believe it is imperative that IPART provide a clear and transparent explanation to the following questions:

- How does IPART explain the inconsistency of using backward-looking analysis of CAPM parameter data to derive values of forward-looking parameters when UK

<sup>32</sup> UK regulators have proved their judgements on this matter are correct by lowering the cost of capital without 'discouraging' continued voluntary support of financial markets for investment in a range of industries. This has delivered substantial benefits to UK consumers and improved the competitiveness of the UK economy. The highest 'price' paid for this outcome has been that 'less efficient' sources of capital have been replaced by 'more efficient' sources through change in ownership. The 'fact' that any single utility may not change ownership is not accepted as reason to allow that utility to maintain 'less efficient' financing arrangements. UK regulators routinely set WACC (and other cost benchmarks) that should be achievable by 'efficient, well-managed firms.

regulators avoid this inconsistency by making informed judgements on the future value of those same parameters based on credible information from independent (of the utilities) financial market analysts/commentators?

- What is the basis for regulatory judgements that financial markets see the DNSPs as being less ‘efficient’ (i.e. more costly to finance) than their UK counterparts?
- If financial markets judge the Australian economy to be less efficient than overseas counterparts,<sup>33</sup> and this justifies higher WACC than in the UK, why are Australia’s non-regulated, capital-intensive industries competitive in international markets?
- How do consumers benefit from ‘efficiency’ in financing regulated utilities if regulators consistently make ‘conservative’ judgements on the value of key CAPM parameter values in consecutive reviews?

We once again challenge IPART to provide a clear and transparent answer to these critical questions.

---

<sup>33</sup> This appears to be implied in material presented by NECG and taken from *Expected returns and volatility in 135 countries*, C. Erb, C. Harvey, T. Viskanta, *Journal of Portfolio Management*, Spring 1996, pp. 46-58). However, Actual market data for Australia, the US and the UK referred to by NECG, shows expected returns for Australia (between 1979-1995) slightly below those for the US and UK. That is, the data suggests financial markets would expect the Australian economy to deliver slightly lower returns than the UK and US economies.

## 5. SERVICE QUALITY INCENTIVES

Under the form of regulation adopted in NSW, and Australia generally, there is an inextricable link between price, costs and service quality. Incentives to maximise profitability create a temptation for DNSPs to skimp on OPEX expenditure (in particular), at the expense of quality of supply to end-users. This can only be addressed by specifying sensible service quality standards for DNSPs. For this reason, we generally support the application of service standards to distributors based on their performance against quantifiable measures of the service they deliver to end-users.

We also generally support the use of (positive and negative) incentives for distributors based on their performance against these service standards. However, such incentives need to be meaningfully related to either the costs to customers of the standard not being met, or the benefit of it being exceeded. The incentives also must be based on meaningful, independent and robust measurement. These matters are important to all consumers, but are particularly relevant to large consumers operating continuous processes.

We note that Victoria introduced financial incentives to improve service quality in 2001. Other States in Australia have moved to establish service quality standards, the Regulators Forum has published a set of guidelines for such standards and most jurisdictions publish information on service standard performance.<sup>34</sup> IPART's proposals are generally consistent with the schemes already in operation in the other States and consistent with the guidelines from the Regulators Forum.

However, the 'incentives' for Service Quality proposed by IPART offers little benefit to NSW consumers. IPART will not introduce a financial incentive until 2006/07, but will extend and develop public reporting of Reliability. This is to allow the DNSPs to 'fix' their reporting systems. It appears that IPART intends to focus on SAIDI only (average total time of interruption). The magnitude of the financial incentive will be limited to 0.5% of revenue in the next regulatory period.

This proposal is even less useful than the limited Victorian arrangements, which uses a 'shandy' performance measure based on:

- SAIDI (Planned minutes off supply), with a weighting of 25%;
- SAIFI (Unplanned interruption frequency), with a weighting of 65%; and
- CAIDI (Unplanned interruption duration as a measure of impact on individual consumers), with a weighting of 10%.<sup>35</sup>

---

<sup>34</sup> However, the quality and format of this public reporting – and the robustness of the data on which the reports are based – still varies considerably, which is most disappointing.

<sup>35</sup> p. 240, *Electricity Distribution Price Determination 2001-2005 - Volume I Statement of Purpose and Reasons*, Office of the Regulator-General, September 2000.

Note that the weighting attributed to CAIDI is incorrectly shown as 100% in the ORG Decision document.

The Victorian *S-factor* excludes any direct incentive for improving momentary interruption frequency (MAIFI), because the ESC accepted that the DBs could not measure this parameter with sufficient accuracy.<sup>36</sup> However, the ESC did not discount the importance of momentary interruptions to end-users. Rather, it “*increased the relative weight of the incentive on unplanned interruption frequency (SAIFI) to compensate for the lack of a direct incentive on momentary interruption frequency*” on the basis that its consultant, PB Power, advised that “*reductions in unplanned interruption frequency that arise from the incentive on that indicator should also reduce the frequency of momentary interruptions*”.<sup>37</sup>

The Victorian scheme also allows for exclusions for events reasonably beyond the control of the DBs. These include:

- supply interruptions made at the request of a customer;
- load shedding due to a shortfall in generation;
- supply interruptions caused by a failure of the shared transmission network;
- supply interruptions caused by a failure of a transmission connection asset, but only to the extent that the interruptions were not due to inadequate planning of transmission connections; and
- widespread supply interruptions due to rare events which were not reasonably able to be foreseen, but only to the extent that the distributor was not reasonably able to mitigate their impact.

In addition, small consumers adversely affected by extremely poor reliability are entitled to claim a modest Guaranteed Service Level payment of \$80 for a single outage longer than 12 hours and/or more than 9 interruptions in any year (15 for rural consumers).

Another fundamental difference between IPART’s proposal and the *S-factor* incentive adopted in Victoria is that IPART is proposing to “*use the current Steering Committee on National Regulatory Reporting Requirements (SCNRRR) Normalised Distribution Network (unplanned) definition of SAIDI for the S-factor. Outages excluded from this definition should be excluded from the SAIDI statistics for purposes of the S-factor.*”<sup>38</sup> The relevant outages to be excluded include:

- transmission outages
- directed load shedding;
- outages which exceed a threshold SAIDI impact of 3 minutes;

---

<sup>36</sup> The ESC intends to review exclusion of momentary interruptions from the *S-Factor* incentive in the coming price review.

<sup>37</sup> p. 39, *Electricity Distribution Price Determination 2001-2005 - Volume I Statement of Purpose and Reasons*, Office of the Regulator-General, September 2000.

<sup>38</sup> p. 77, IPART Draft Report.

- outages caused by exceptional natural or third party events; and
- where the DNSP cannot reasonably be expected to mitigate the impact of the event on interruptions by prudent asset management.

The fundamental deficiency in the measure proposed by IPART is the exclusion of all planned outages from the *S-factor* incentive on the grounds that “(i) *planned interruptions were included, this might create a perverse incentive, discouraging DNSPs from conducting maintenance work that requires supplies to be interrupted.*”<sup>39</sup> This particular exclusion is diametrically opposite that adopted by the ESC, which includes only the impact on SAIDI due to planned outages. The exclusion of planned outages from an *S-factor* incentive demonstrates a serious lack of customer focus by IPART. To exclude events over which the DNSPs unequivocally have control from the *S-factor* incentive is illogical.

We accept that it may be appropriate to exclude factors where DNSPs can legitimately claim to have no control over an outage event, but excluding events over which they have total control, that is planned outages, provides no incentive whatsoever for the DNSPs to minimise the impacts of such outages. The cause of an outage event makes little difference to consumers. Their interest is in keeping the number and duration of outage events to a minimum. If consumers are to be required to pay for the privilege of getting service that is more reliable, it is preferable to ensure that the service provider has a clear incentive to minimise all outage events possible, especially those over which the service provider has total control.

A major concern for the EUAA is that the proposed service quality regime does not cater for the needs of larger customers, and especially continuous process industries. The standard proposed by IPART is based solely on the industry standard SAIDI and does not, even indirectly as is the case in Victoria, include incentives to improve momentary interruptions to supply — a matter of increasing importance to EUAA members and other energy users.

We see no reason why NSW should not follow the national systems proposed by the Regulators Forum. The missing elements should be included in any scheme for NSW, even if they are (initially) on a report-only basis and not included in a financial incentive scheme until adequate data is assembled.

Regulators elsewhere also have had an unfortunate tendency to accept, without further thought – and without considering information provided by end-users, the view that service standards need only take account of smaller customers. That is, regulators hold a view that large customers ‘can look after themselves’. This is a mistaken position. The experience of EUAA members, many of whom are larger users, is that they are also in need of some protection in this area, but are not getting it. In particular, the existing measures mean little to them, being largely engineering concepts that many of them find difficult to follow. This presents a number of problems for large end-users because they:

---

<sup>39</sup> p. 78, *Ibid.*

- are concerned primarily with ‘quality of supply’, which is reflected in momentary interruptions such as voltage dips, surges and flickers; but these are of secondary importance to, and poorly captured, in the present approach to service standards.<sup>40</sup>
- sometimes experience difficulty in having their concerns attended to by distributors. Their issues often need immediate or specific attention but too rarely receive it. EUAA members also confirm a consistent national problem in getting distributors to take action to deal with their problems and frequently comment on ‘how difficult it is to deal with a monopolist’.<sup>41</sup> Problems in getting information on the causes of outages (e.g. was it distribution, transmission or generation related) and in determining who was responsible are also common.<sup>42</sup>

The incentive measures adopted by regulators also suffer from a reliance on network averages, which can mask important outcomes, including significant variations around the average and geographic variations (e.g. regional area or feeder related). Some attempt has been made to respond to this by focussing particular attention to ‘hot spots’, or the worst performing areas (e.g. the worst 10% of feeders). However, this has been only partially successful, especially if it concentrates on improving SAIDI (average minutes off supply), as opposed to momentary interruptions (MAIFI), which are more difficult to measure, and as it neglects areas that are only marginally better off (e.g. the next worst 10% of feeders).

By focusing on a particular measure, or measures, and quantifying service levels of performance in a certain way, service incentive regimes also concentrate the efforts of distributors in particular matters, which may be only partially relevant to end-users and can even divert (the distributors’) resources into these areas at the expense of other service factors that are also important to users.<sup>43</sup>

Discussions with EUAA members across Australia confirm their concerns about these matters. They also confirm that connection agreements with distributors, whether standard or customer-specific, do not effectively cover the area of service standards.

We therefore believe that IPART should carefully examine, and take specific account of, the needs of larger customers in developing a service standard regime for the DNSPs. Options could include the use of measures that are of more direct concern to such users, or the

---

<sup>40</sup> Voltage dips and surges are also a significant problem for small consumers and lead to the majority of claims for appliance/equipment damage under the Victorian compensation arrangements.

<sup>41</sup> Distributors in all parts of the NEM have generally steered away from dealing directly with customers on such issues, leaving it to retailers. However, United Energy, one of the Victorian distributors (who do not have a retail arm), have introduced an innovative system where they have created “account managers” to work with larger customers in their network. Feedback from EUAA members is that this approach is appreciated and valued.

<sup>42</sup> We appreciate that sometimes customers’ equipment can affect the distribution system, although customers are often in a relatively disadvantaged position in terms of getting access to information on the causes of faults.

<sup>43</sup> The EUAA and Energy Action Group recently commissioned a study of the impacts on customers of Victoria’s service standard regime for distributors (see: *Relating Distribution Service Measures to the Real World*, presentation to EUAA Energy Price & Market Update seminar, Graeme McClure, 4 June 2003 and available from the EUAA).

development of a set of mandatory guidelines that specify rights and responsibilities in relation to matters such as network connection, service performance, benchmarking, reporting, complaints, dispute resolution and account management.<sup>44</sup>

In addition, measures segregated by voltage level (high voltage, medium voltage and low voltage), or measures targeted to specific industries, such as continuous process industries, need to be considered.

The EUAA would welcome an opportunity to work with IPART, and the DNSPs, on these options. Whilst we believe that incentives could be provided through the addition of an *S-factor* to the price capping formula, there are several important qualifications to this:

- First and foremost, the incentive must relate to a set of meaningful (for users) and measurable service standards.
- The reward/penalty needs to be sufficient to actually provide an incentive to meet (or better) the target that has been set and should broadly relate to the costs/benefits to users associated with the service.
- Preferably, the system of rewards/penalties should include a system of charges and rebates that relate to, and can be shared with, the users (or groups of users) actually benefiting from the improvements, or suffering a service level that is below par, rather than be all captured by the distributor.
- Next, distributors should not be rewarded merely for providing a level of service that is no more than appropriate to the needs of users. However, they should be penalised for lowering service below this level, or for providing customers with a level of service that is already below par.
- Care needs to be taken in determining and rewarding service standards that are in excess of the standard, lest this reward improvement that end-users do not want or value. For example, we remain quite sceptical of ‘market surveys’ and other techniques that purport to measure the willingness of customers to pay for improvements in service. These can be made to produce predetermined outcomes and do not always reveal the true preferences of customers. There is, therefore, a risk that these surveys will lead to excessive (or misdirected) investment in networks, which would be counter to the efficiency enhancing role of incentive regulation.

Accordingly, we strongly recommend that, if IPART is to introduce an *S-factor* incentive, it structure the incentive so that it is most likely to entice the DNSPs to provide services that delivers the most value to consumers.

---

<sup>44</sup> The EUAA has previously made attempts to negotiate, on behalf of its members, with NSW distributors on service levels and connection and developed a model connection agreement for this purpose (see Contracting for Connection & Sale of Electricity, Discussion Paper, by R. Jacobs & B. Byrne, Feb 1997).

The EUAA is presently giving thought to a possible future project in this area.

- As a minimum, IPART should fundamentally revise its proposed incentive to include the impact of planned outages.
- It would also be preferable to align the incentive mechanisms in NSW with those in Victoria to maximise opportunities for promoting ‘competition by comparison’.
- Ideally, IPART should totally reconsider its proposals and adopt the recommendations in our earlier submissions, which were that introduction of any form of financial service incentive scheme should ensure that:
  - the definitions of all service performance indicators/measures are consistently and explicitly defined and accepted by all DNSPs and by consumer groups;
  - such definitions are completely consistent with those adopted by other jurisdictional regulators;
  - the processes, systems and procedures of all DNSPs can be demonstrated to produce accurate, reliable and directly comparable performance data;
  - mandatory process/system audits, subject to regulatory oversight, have been introduced for all DNSPs;
  - independent assessment has been made of the cost-benefit for consumers of any proposed financial service incentive or consumer compensation scheme;
  - the ‘rewards/penalties’ facing DNSPs are based on real economic values to consumers;
  - consumers can be accurately and reliably informed of their obligations, rights and entitlements; and
  - a cost-effective mechanism is introduced by all DNSPs that ensures affected consumers have a reasonable chance of receiving any benefits of the service incentive scheme.

An additional issue that IPART must consider is that it is also a major concern that IPART has used unaudited data sourced from the ESAA for reliability measures in Appendix 5 of the Draft Report. As noted above, the numerical values of SAIDI, SAIFI and CAIFI shown in Appendix 5 of the IPART Draft Report are, quite clearly, not consistent with data published in IPART’s own Price and Service Reports or data for the Victorian DBs published by the ESC in its biannual Performance Reports. This alone provides sufficient grounds for IPART to completely review its proposals for service quality.

## 6. DEMAND MANAGEMENT PROPOSALS

The IPART proposals for DM contain some positive elements, but are still too limited. IPART proposes to challenge the DNSPs to do more through improved public reporting, give them incentives by guaranteeing passthrough of all costs for DM projects approved by IPART and provide recovery of all foregone revenue via a complex *D-factor* in the WAPC formulae. But IPART's Draft Decision on DM makes no mention of what the impact of this arrangement will be on consumers, either those providing DM or on consumers generally.

### 6.1. IPART'S DM PROPOSALS

The worst thing about IPART's Draft Decision on treatment of DM is the lack of focus on what it means to consumers.

IPART is quite clear about its objectives. It is proposing a relatively complex, but administratively acceptable (to IPART), mechanism to provide clear profit incentives for DNSPs to support DM.<sup>45</sup> These proposals allow DNSPs to earn higher profits if they support DM than they would earn if they continue to invest in traditional network assets. IPART proposes to do this by guaranteeing that the DNSPs will be able to recover all costs associated with 'new' (post 2003/04) DM projects plus any revenue forgone through activation of DM as an *ex post* passthrough approved by IPART. The proposals have the effect of removing financial risk from any DNSP investment in DM activities.

The recovery of DM costs and foregone revenue will be through an adjustment to the WAPC formulae using a *D-factor*. The only apparent limitation on the amount of total costs is that the passthrough amount must be less than the avoided distribution costs. This presumably means that consumers are 'protected' to the extent that the total costs recovered by the DNSPs will not be more than the forecast revenue building blocks on which IPART bases its Final Decision (as amended in the WAPC formulae). However, this will be a high reference cost because IPART is requesting that DNSPs base cost forecasts on the assumption that no 'new' DM projects will occur in the next regulatory period. This is disappointing and unacceptable to energy users, who will have to pay the associated higher costs of the DNSPs.

IPART's proposals are, in effect, a form of 'bribery' that removes risk (for the DNSPs) and institutionalises extraction of monopoly rent by guaranteeing recovery of forgone revenue. Even if consumers are comfortable with this form of incentive, IPART does not explain what, exactly, consumers get out of these proposals. We strongly believe that DM is an activity that has potential to deliver real value to the community generally. But while IPART makes it clear that the DNSPs would get more than their 'fair share of the cake', it does not explain

---

<sup>45</sup> It is not clear if IPART's proposals cover direct investment by DNSPs in DM projects, or direct investment in assets that could assist promotion of DM. But IPART clearly intends to review the effectiveness of the proposals at the end of the next regulatory period, which creates regulatory uncertainty that would inhibit investment in any DM activity beyond 2008/09.

what DM providers would get out of the proposals. Nor does IPART explain what non-DM providers would get.<sup>46</sup>

IPART says that “(t)he Tribunal considers that strong benefits to customers are likely to emerge from the development of an effective market for demand management services. These benefits will accrue over time if DNSPs make greater use of demand management, improving network utilisation and lowering costs.”<sup>47</sup> But there is no mention of what these benefits are, nor how they might be quantified, or what effect they would have on consumers' bills.

It could be that the limits IPART has placed on the quantity of the 'bribe' (it must be less than the avoided distribution cost) will mean that IPART intends that consumers would generally be no worse off overall; and they might get some benefit if the projections on which DM projects are based are achieved. But the combination of allowing DNSPs to get more than 'efficient' costs (by recovering foregone revenue), and limiting total costs to no more than (the forecast) avoided distribution cost, means that a number of DM projects with potential to deliver efficient outcomes would not be supported by the DNSPs. This will create uncertainty and make it difficult for prospective DM providers with potentially 'efficient' DM proposals to determine whether or not it is worth developing a proposal to put to a DNSP.

## 6.2. CONCERNS WITH IPART'S DM PROPOSALS

The content of IPART's Draft Decision on DM does not explicitly address consumer benefit and without a clear statement of both costs and benefits, neither EUAA nor EAG is prepared to accept or support the proposals.

Another potential difficulty with the proposals is that IPART has explicitly rejected supporting DM proposals with any form of research and development (R&D) component.<sup>48</sup> EA proposed that IPART include cost recovery for 'learning by doing' projects. This has been rejected by IPART on the basis that “(t)he Tribunal believes that this (its Draft Decision on DM) represents a generous treatment of demand management costs that provides for the possibility of higher than expected costs as DNSPs develop their expertise in dealing with demand management options. This approach also reduces the risk to DNSPs of lower-than-expected deferral benefits.” IPART also said “(i)t does not believe it is appropriate to fund (via charges on customers) 'learning or development' costs incurred by DNSPs — this would seem a more appropriate role for government — for example, the proposed demand management fund.”<sup>49</sup>

---

<sup>46</sup> The EUAA DSR Facility Trial demonstrated that widespread DM in response to both high energy prices and network support could deliver the bulk of benefits to non-providers. But IPART's proposals appear unlikely to deliver any benefits in the form of reduced distribution charges to non-DM providers.

<sup>47</sup> p. 14, *Treatment of Demand Management in the Regulatory Framework for Electricity Distribution Pricing 2004/05 to 2008/09, Draft Decision*, IPART, February 2004.

<sup>48</sup> The ORG also explicitly rejected inclusion of funding for R&D in its December 2000 decision on Victorian electricity distribution prices. As a result, none of the Victorian DBs commits any funds to R&D activities. It is not at all clear that this is in the long term interests of Victorian consumers.

<sup>49</sup> p. 21, IPART Draft Decision on DM.

We agree that IPART's proposals are very generous indeed to the DNSPs, which should be sufficient reason for them to support some form of R&D activity. We also accept that there is a risk that DNSPs may misuse or abuse R&D funds paid for by customers unless there is some form of close scrutiny.<sup>50</sup>

Providing R&D via a government fund has some attractions, although it does not avoid the risk of wastage. But the 'buck passing' between IPART and government is not in the best interests of consumers. We are concerned that governments (or shareholders generally) are not prepared to put enough money into 'learning by doing' proposals to make a difference to DM outcomes. The problems that have emerged in supporting development of a commercial DSR Facility with even modest funding following the successful EUAA Trial that was conducted in the 2002/03 summer is just one example.

The reluctance of regulators to support R&D activity generally is relevant to end-users. There are technologies being implemented elsewhere, that might make a difference to consumers, are being supported by regulators and/or utilities in other countries, but are not being supported by anyone in Australia. Automated Meter Reading (AMR) trials in the US are one example that, at least, has the potential to allow measurement of short-term DM response by individual consumers. The universal roll-out of low-cost, two-way communications and interval meter technology by the Italian electricity distributor *ENEL Distribuzione* is another example. This technology is particularly interesting because it could be used to provide low-cost, two-way load management capability. These sorts of developments can require comparatively large investment, way beyond anything that Australian governments have ever considered funding.

We note that IPART's proposals include recognition that consumers have a roll to play in providing DM and in responding to commercial incentives. It is, however, extremely disappointing that this recognition occurs only through indirect comments buried in page 17 of IPART's Draft Decision, which say:

- (It is likely that) *'the costs incurred (by DNSPs) will represent payments to demand management service providers to manage and deliver agreed reductions in demand.'*
- *'In its draft report, the Tribunal has indicated that it will treat tariff-related demand management measures, such as rebates and payments for load reduction, as negative prices for inclusion in the weighted average price cap.'* (That is, tariff-related DM incentives are to be excluded from the arrangements discussed in IPART's proposals for DM.)

---

<sup>50</sup> A relevant comparison is the performance of the Victorian gas DBs in 'marketing' the advantages of gas to energy consumers. ORG allowed some \$35 million for gas 'marketing' by the DBs in the first Access Arrangement in 1998, yet the DBs reported spending less than half this amount of 'marketing' activities. The balance of these funds, paid for by consumers, presumably went straight to the 'bottom line'.

These comments suggest that IPART may recognise that consumers need both positive and negative incentives to offer DM, but it is very difficult to understand why these aspects are not given much greater prominence in the Draft Decision.

Even if IPART does recognise that commercial incentives, both positive and negative, are potentially important motivators for DM providers, this still leaves open the question of how effective such incentives might be in the current proposals. IPART did not include any reference in its Draft Report to the suggestion in our earlier submissions that there be specific endorsement of pricing incentives to encourage DM by the most volatile consumers (Residential AC users). Without regulatory endorsement of cost-reflective pricing the incentives provided through the WAPC regime are likely to be quite small and far less effective and, therefore, limit the take-up of DM. The basic incentives in the WAPC are for DNSPs to support load/consumption growth and, as noted in our earlier submission, the DNSPs pricing proposals are unlikely to stimulate change in behaviour by small AC-users or provide any significant benefit to consumers who do not create substantial cost pressures for DNSPs.

Outcomes from the EUAA DSR Facility Trial show that some large business and commercial consumers are both able and willing to provide DM capacity providing it is profitable to do so and they maintain control of their productive processes. The Trial demonstrated that both consumers and distributors are able to identify opportunities for DM, but both expect to, at least, recover their costs. The end-users who participated in the Trial were large commercial and industrial consumers, who were willing to respond but only if it was commercially beneficial and they were sufficiently aware of the opportunities. As we said in our earlier submissions, although not strictly part of the DSR Trial, we expect that small consumers too would be able and prepared to offer DM if the infrastructure (eg meters, automatic load control devices, etc) existed to allow them to do so, they were sufficiently aware of the opportunities (or their retailers were) and ‘positive’ incentives (‘carrots’) were offered to them.

We urged IPART to consider these matters further in framing its final decisions and would gladly assist the Tribunal in this area.

Even though there are some positive attributes to these proposals, we remain concerned that:

- IPART’s proposals do not pay sufficient attention to stimulating DM response from small consumers with the most volatile load.

If temperature-sensitive AC load continues to increase at similar rates to the last decade (at an average of 350-370MW/y), it seems unlikely that IPART’s proposals will provide the means and incentive for consumers to provide a sufficient volume of DM to make a difference.

- The proposals are unlikely to make much difference before 2009 because it will, as even IPART acknowledges, take several years for DNSPs to develop appropriate processes and procedures and for DM proponents to develop proposals to offer to the DNSPs.

- IPART’s proposals will definitely not decrease costs to consumers at least up to 2009.

If the DNSPs ‘support’ DM but cannot deliver the forecast benefits, then costs to consumers may well turn out to be higher than if the DNSPs continue to ‘invest in copper’, particularly if reliability suffers during periods of extreme peak loading due to increasing AC usage.

- The addition of a *D-factor* is more administratively complex than the Victorian implementation of the WAPC, which is not a good thing for regulatory transparency because it increases the difficulty that consumers face if they attempt to ‘translate’ the WAPC into information they understand.
- The arbitrary (and relatively complex) rules that IPART is proposing will confuse consumers and could allow DNSPs to exercise 'strategic behaviour'. The proposals rely on information collected, controlled and provided by the DNSPs. For example, IPART says “(t)he Tribunal believes there is merit in requiring the DNSP to demonstrate that volumes have been affected, preferably with reference to quantitative evidence.”<sup>51</sup>

The EUAA DSR Trial showed that auditable quantitative measurement to be an essential element for a commercial DSR Facility. Both sellers and buyers of DSR capacity required assurance about the price and quantity involved in each transaction. This lesson could be translated through into any commercial arrangements for DM involving the DNSPs, end users and retailers.

IPART’s proposals, if successful in stimulating sufficient DM to make a material difference, would require (potentially) millions of dollars per year being paid to DNSPs and (hopefully) DM providers. This makes a reliable form of quantitative assessment of DM volumes essential, particularly given the vagaries of other aspects of the proposal, aptly reflected in SKM’s concern “*that the measurement of foregone revenue due to demand management is difficult*” and which IPART proposes will be established by ‘*estimating directly from demand management projects implemented.*’<sup>52</sup>

It will also be essential for IPART to establish credible audit procedures for whatever ‘measurement’ process is implemented by the DNSPs. This is the only way to ensure that consumer interests are, and seen to be, protected.

In addition to addressing the concerns detailed above, our principal recommendation is that IPART clearly state what the expected impact of its proposals will be on consumers. Specifically:

- Which consumers will benefit, and which will not, if these proposals proceed?
- Does IPART expect bills for different classes of consumers to go up, go down, or be unchanged by its DM proposals? If bills will change, by how much?

---

<sup>51</sup> p. 16, IPART Draft Decision on DM

<sup>52</sup> p. 15, *Ibid*

- If consumers' bills go up or remain unchanged in the short term, are they expected to go down in the long-term? If so, what mechanism will deliver the benefit to consumers, and how much is the benefit expected to be?

### 6.3. THE DM CHALLENGE

A basic assumption in developing demand management capability is that some consumers are prepared to modify their consumption behaviour. This is clearly valid where DM takes the form of energy efficiency where the consumer takes action to reduce their energy bills overall; or where there is sufficient predictability to allow large consumers to offer DM for short periods without compromising their business operations. The assumption is valid under these conditions because the consumers have a means to implement the DM 'automatically', or in advance of its execution. That is, the DM is not entirely dependent on repeated manual activation by the consumer, although that may be one of the consumers' strategies for activating DM.

The validity of these assumptions reduces when DM is required to address transient constraints such as (relatively) unpredictable, and highly volatile, temperature-dependent extreme system loading.<sup>53</sup> This is because, as a rule, consumers (large or small) do not have access to load control technology that could make it convenient to provide DM capacity at short notice and in sufficient quantity to relieve a temporary constraint created by, say, a relatively large, and highly volatile AC load. In other words, it may not be practicable or sufficient to offer consumers commercial incentives to act simultaneously in sufficient numbers if the consumers must rely on purely manual means to activate DM capacity at short notice.

In our view, it may be necessary to address this problem by bringing the demand side to a similar level of technological capability as the supply side, where virtually all the HV and EHV parts of the system are controlled in real-time by computer activated two-way load control systems.<sup>54</sup> This may consumers to 'invest' in new appliances/equipment with remote

---

<sup>53</sup> For example, a small consumer who could reduce demand by 0.5kW throughout the year by changing to energy efficient appliances might hope to reduce their bills by up to \$150/year, but reducing AC demand by (say) 2kW for three hours on a peak demand day would save the consumer less than \$1 on their bill.

On the other hand, the EUAA DSR Facility Trial showed that large industrial and commercial consumers were prepared to consider offering capacity ranging from 140kW to 50MW for short periods at volume weighted average bid prices around \$1,000/MWh, which is of a similar order to expected avoided distribution costs and many times the revenue foregone by DNSPs. However, no end-user in the Trial was prepared to hand over control of load to DSR 'buyers' (retailers and distributors), and none was prepared to accept individual responsibility for guaranteeing 'firmness'.

The Trial also demonstrated how a DSR Facility could be operated to assure 'firmness' for 'buyers' through mixing, matching and substitution of 'sellers' bids. A commercial DSR Facility may provide a means of facilitating DM from large end-users, but the regulatory uncertainty created by IPART's proposal to review the arrangements in 2008/09 is also likely to act as a disincentive for both potential Facility developers and DNSPs to underwrite the development costs of the Facility.

<sup>54</sup> This may consumers to 'invest' in new appliances/equipment with remote control capability and require DNSPs (or others) to invest in low-cost, automated, two way communications and load control capability.

control capability and require DNSPs (or others) to invest in low-cost, automated, two way communications and load control capability. And this, in turn, requires policy to be developed that reflects the ‘need’ for more diverse, and more balanced, incentives for consumers and all relevant stakeholders to invest in and promote DM.

The challenge for NSW is that increasing AC penetration is creating more highly volatile, peak summer demand. The current policies (and IPART's proposals) provide incentives for some large consumers to offer DM capability if they have ‘low hanging fruit’ (i.e. they can temporarily change their consumption on demand). This is because IPART’s proposals lead DNSPs to value the DM reaction only when a constraint exists. When a DNSP can no longer find sufficient voluntary DM to overcome the constraint, the DNSP inevitably invests in ‘lumpy’ capacity to remove the constraint. Existing policy (and IPART’s proposals) ensures the DNSP can recover the cost of that investment even when it results in creation of (temporary) excess capacity. However, the policy provides only temporary incentives for consumers to offer DM and little incentive for those consumers, or any others, to invest in automating this reaction, or increasing the available capacity on offer – unless the cost can be recovered while the network constraint exists.

A further difficulty is that the policies do not provide any incentives at all for the consumers with the most volatile load to even consider voluntary DM. To this end, DM will only ever be seen by DNSPs and consumers as a partial solution; and as AC loading continues to increase, the voluntary DM capacity that might be provided by large consumers is very likely to be outweighed by the much more diverse, higher volume, and much more volatile AC demand.

The challenge in enticing retailers to participate in DM programs for large numbers of small consumers is also complex. Not only do retailers have other means to manage the financial risk created by this increasing volatility, but in the absence of fierce competition and economically empowered consumers, retailers have little commercial incentive to do anything (as a group of stakeholders with common interests) to reduce consumption by any consumer. Indeed, it can be argued that they have the opposite incentive. However, it is also clear that the biggest beneficiaries of any form of ‘conservation’ are the end-use consumers.

In the face of rapidly increasing AC load, DNSPs will either have to invest in enough copper to cope with AC load, or consumer will have to live with periodic imposition of restrictions, or unreliable supply, when the system is unable to cope. In either case, there will be significant costs. And if there is a need to invest in copper, then IPART should be implementing regulatory incentives that focus DNSPs on maximising efficiency of the required investment, which is not the outcome of the approach adopted by IPART in its Draft Report.

In our view, IPART's proposals offer only limited additional incentives for consumers to take up DM than exist at present (and insufficient incentives for DNSPs to drive efficient outcomes). In addition, the clear focus on 'bribing' the DNSPs (by guaranteeing recovery of foregone revenue) will distort signals that already exist for some consumers to offer 'efficient'

DM. IPART's proposals are also problematic because it is clear the arrangements will be reviewed at the next price re-set (2008/09). Given that it would take the DNSPs at least 2 years to set up procedures, we cannot see how these proposals will attract enough enthusiasm from the DNSPs or potential DM providers to make any significant difference in the face of accelerating growth in AC demand.

#### **6.4. WHAT IPART SHOULD DO NOW**

In our earlier submissions, we proposed that IPART, the DNSPs and consumer groups look seriously at the possibility of cost effectively developing and implementing automatic, two-way communications and load control infrastructure. We also recommended, in effect, that IPART 'encourage' DNSPs to provide the same incentives for consumers to invest in that technology option as for the DNSPs to invest in copper. The consumer incentives could be entirely negative (cost-reflective ToU pricing), or they could be positive (say subsidies for high efficiency ACs,<sup>55</sup> or appliances fitted with suitable technology to remotely control the load).

We repeat our support for this proposal and commend it to IPART.

---

<sup>55</sup> A PacifiCorp subsidiary, Utah Power, announced in January 2004 three new programs to promote DM in response to rapidly growing AC load. These include:

- a 'Cool Cash' rebate of up to US\$300 to consumers installing high efficiency ACs;
- a 'See Ya Later Refrigerator' rebate for recycling household refrigerators; and
- out-sourcing of a remote load control 'Cool Keeper' program, which uses an intelligent device to control the AC compressor to cycle on and off and monitors customer air conditioning usage patterns. Each air conditioning unit has a unique address, which enables the utility to group or regroup addresses to form a large or small control area.

(See: 'Save Energy and Money'/'Utah Programs' at <http://www.utahpower.net/>).

## 7. CONCLUSIONS AND RECOMMENDATIONS

The overall effect of IPART's Draft Decisions is that the  $P_0$  increase proposed by the DNSPs has been reduced substantially (from around 13-20% to 5-7% (approx)), but the  $X$  factors for the last four years of the next period have been increased (up from around +1% to +1.4%). This means that some of the increase pegged-back by IPART in the initial year is shifted to subsequent years of the next regulatory period. The major reason that  $P_0$  reduced from the DNSPs' 'ask' is because MMA's higher consumption forecasts reduce the impact on average prices. There is no evidence that IPART has taken any 'tough' decisions or reduced that DNSPs' claims based on rigorous analysis. This is extremely disappointing and NSW energy users will pay higher electricity costs because of it.

In saying this, we note that IPART already approved in 2003 a 5% increase in EA's network charges based on increased CAPEX. The combined impact of this and the Draft Decision is a heavy burden energy users in EA's network, the largest in terms of customers in NSW.

IPART says that the forecast average cumulative real distribution price increases over the period to 2008/09 (compared with 2003/04 prices) will be:

DNSP	Increase
EnergyAustralia	12.6%
Integral Energy	5.6%
Country Energy	17.6%
Australian Inland	17.6%

IPART also claims that these increases “*will translate into much smaller increases in customers' final electricity bills, as distribution charges form somewhere between 20 to 40 per cent of these bills, depending on which network and retail tariffs the customer is on.*”<sup>56</sup> For example, in 2004/05 a typical (EA) residential customer living in Sydney and using 7,500kWh pa would see nominal price increase in their final bill of approximately \$46 a year, or just less than \$1 per week. Similarly, a residential customer in regional NSW using 7,500kWh pa would see nominal price increase in their final bill of approx \$58 a year, or approximately \$1.10 per week.”<sup>57</sup>

IPART provides no estimates of the cost impact on non-residential consumers.

However, IPART also notes “*that these estimates assumes no distribution price restructuring and that all components of the final electricity bill (distribution, transmission and retail)*

<sup>56</sup> We note that on page 12 of the Draft Report, IPART says “(t)otal network tariffs make up around 40 per cent of a typical bill for an EnergyAustralia and Integral Energy residential customer. For large business customers, network tariffs can comprise up to 60 per cent of the final bill.” It would be particularly helpful, and much more meaningful, if IPART would quote consistent and reliable percentage figures.

<sup>57</sup> p. 3, IPART Draft Report. Prices are ex-GST.

*increase for residential customers by 3 per cent real. Under the weighted average price cap DNSPs have considerable discretion as to how much individual tariffs can change subject to them complying with the overall price control formula and price limits.*<sup>58</sup>

Given the evidence of strongly rising AC demand, and the implications of this for increasing cost pressures through the whole supply chain – and the claims being made by Transgrid in its current revenue application to the ACCC, there is a strong possibility that IPART's assumptions are optimistic and that costs will turn out to be higher than suggested by IPART.

It is our strong view that there are serious deficiencies in IPART's Draft Decisions. These deficiencies reinforce our continuing concerns that:

1. MMA provides no explanation for the derivation of air conditioning (AC) penetration rates in their report. Nor do IPART's proposals for DM appear likely to stimulate any response from small AC-users, which greatly reduces the potential value of the proposals to end-users generally.
2. IPART has failed to explain in a transparent manner how it dealt with the substantial discrepancies between cost forecasts in the DNSPs proposals and the Meritec report, or how it linked Meritec's recommendations to the cashflow forecasts adopted for the revenue Building Blocks.
3. The process used by IPART to reconcile the MMA growth forecasts and the DNSP cost forecasts is unusual compared to normal regulatory practice and likely to result in exercise of 'strategic behaviour'.
4. The only satisfactory aspect of the Draft Decisions, from the perspective of end-users, is that IPART will not allow retrospective recovery of above-forecast CAPEX or OPEX in the current regulatory period. But even here, the DNSPs will eventually recover the full value of above-forecast CAPEX through roll-forward of the inflation adjusted actual CAPEX into the regulatory asset base.
5. The result overall of IPART's 'judgements' on growth and cost forecasts is that the DNSPs be allowed some \$63M (nominal) more for total CAPEX and \$60M (nominal) more for total OPEX over 5 years than indicated in the IPART Preliminary Analysis report figures.
6. IPART has decided to remain the only regulator in Australia not to adopt the simpler 'Vanilla' approach to estimating WACC. The value of CAPM parameters proposed by IPART yield WACC values substantially above values adopted by UK regulators. No explanation or justification is provided for this.
7. The 'incentives' for Service Quality proposed by IPART offers little value to NSW consumers and appears to be even less useful than the limited Victorian arrangements, which uses a 'shandy' performance measure based on SAIDI (average interruption duration), SAIFI (frequency of interruption) and CAIDI (impact on individual consumers).

---

<sup>58</sup> See Footnote 4, p. 3, *Ibid*.

8. The IPART proposals for demand management (DM) may provide benefits for NSW consumers, but are still unsatisfactory.

Accordingly, we again point IPART to our submissions on these issues and strongly recommend that IPART seriously consider the material we have provided and our suggestions and recommendations to address shortcomings in the Draft Decisions. In addition to the recommendations in our earlier submissions, to which IPART has made no explicit response (summarised in Section 1 of this submission), we specifically recommend that:

- IPART improve the explanation of the treatment between growth forecasts and cost forecasts.

Even though we agree with MMA's assessment that the DNSPs need to improve their growth forecasting methodology, and the DNSPs also need to provide a clearer explanation of the links between growth and costs, this is not sufficient reason for IPART to take on the role of 'network planner' and make decisions that should be taken by the DNSPs. IPART's role is to critically assess the DNSPs proposals and ensure that consumer interests are protected by setting 'challenging but achievable' efficient cost and service benchmarks for the DNSPs. We see no evidence that IPART has executed this task satisfactorily.

- IPART improve the explanation of how it used judgements made by its consultants, and its own analysis, to derive the cashflow forecasts for the Revenue Building Blocks.

It is our view that IPART has failed to demonstrate in its draft decision that it has adequately discharged its responsibilities in this crucial area.

- In particular, IPART should explain transparently:
  - how it accounted for the inconsistencies in logic leading to Meritec's recommendations that were detailed in our earlier submissions;
  - how it accounted for the lack of analysis supporting Meritec's conclusions;
  - how it established the cashflow forecast values presented in the Draft Report, which is of particular concern because of the nature of discrepancies in Meritec's report; and
  - how it used its own 'independent analysis', which is clearly based on inaccurate reliability data sourced from the ESAA and which clearly shows the DNSPs with much higher comparative costs than the Victorian DBs, in forming judgements on crucial issues related to service quality and cost.

In our view, it would have been more transparent to adopt MMA's 50% PoE growth forecasts and adjust the relevant DNSPs' 'Medium growth' cost forecast using the form of Meritec's recommendations (or IPART's own analysis). IPART should then have requested the DNSPs to confirm they could deliver on the proposed 'regulatory contract' or justify otherwise. This would have assumed the DNSPs were technically competent businesses capable of forecasting business conditions and exercising 'strategic behaviour'.

We do not consider that IPART has provided a robust and transparent explanation to support its judgement that the DNSPs 'need' more resources to supply NSW consumers than they asked for initially. Indeed, we do not consider that IPART has convincingly

explained why the DNSPS ‘need’ any more resources than actually committed in the current regulatory period.

- IPART has failed to explain in clear terms:
  - Why it continues to use backward-looking analysis of CAPM parameter data to derive values of forward-looking parameters when UK regulators avoid this inconsistency by making informed judgements on the future value of those same parameters based on credible information from independent (of the utilities) financial market analysts/commentators;
  - What is the basis for regulatory judgements that financial markets see the DNSPs as being less ‘efficient’ (i.e. more costly to finance) than their UK counterparts;
  - Why are Australia’s non-regulated, capital-intensive industries competitive in international markets if financial markets judge the Australian economy to be less efficient than overseas counterparts, and this justifies higher WACC than in the UK; and
  - How consumers benefit from ‘efficiency’ in financing regulated utilities if regulators consistently make ‘conservative’ judgements on the value of key CAPM parameter values in consecutive reviews.
- We strongly recommend that, if IPART is to introduce an *S-factor* incentive, it structure the incentive so that it is most likely to entice the DNSPs to provide services that deliver the most value to consumers.
  - As a minimum, IPART should fundamentally revise its proposed incentive to include the impact of planned outages.
  - It may even be preferable to align the incentive mechanisms in NSW with those in Victoria to maximise opportunities for promoting ‘competition by comparison’.
  - Ideally, IPART should totally reconsider its proposals and adopt the recommendations in our earlier submissions, which were that introduction of any form of financial service incentive scheme should be delayed until it is possible to ensure that the scheme can be properly administered and the ‘rewards/penalties’ facing DNSPs are based on real economic values to consumers.
- IPART’s proposals for DM contain some positive elements, but are still unsatisfactory. IPART proposes to challenge the DNSPs to do more through improved public reporting, ‘bribe’ them by guaranteeing passthrough of all costs for DM projects approved by IPART and recovery of all foregone revenue via a complex *D-factor* in the Weighted Average Price Cap formulae. But IPART’s Draft Decision on DM makes no mention of what the impact of this arrangement will be on consumers, either those providing DM or on consumers generally. Our principal recommendation is that IPART clearly state what the expected impact of its proposals will be on consumers. Specifically:
  - Which consumers will benefit, and which will not, if these proposals proceed?
  - Does IPART expect bills for different classes of consumers to go up, go down, or be unchanged by its DM proposals? If bills will change, by how much?
  - If consumers’ bills go up or remain unchanged in the short term, are they expected to go down in the long-term? If so, what mechanism will deliver the benefit to consumers, and how much is the benefit expected to be?

Additional concerns with IPART's DM proposals are that:

- the proposals do not pay sufficient attention to stimulating DM response from small consumers with the most volatile load;
- the proposals are unlikely to make much difference before 2009 because it will take several years for DNSPs to develop appropriate processes and procedures and for DM proponents to develop proposals to offer to the DNSPs;
- the proposals will definitely not decrease costs to consumers at least up to 2009;
- the addition of a *D-factor* is more administratively complex than the Victorian implementation of the WAPC, which is not a good thing for regulatory transparency because it increases the difficulty that consumers face if they attempt to 'translate' the WAPC into information they understand;
- the arbitrary (and relatively complex) rules that IPART is proposing will confuse consumers and could allow DNSPs to exercise 'strategic behaviour' because the proposals rely on information collected, controlled and provided by the DNSPs;
- it will be essential for IPART to establish credible audit procedures for whatever 'measurement' process is implemented by the DNSPs;
- IPART has explicitly rejected supporting DM proposals with any form of research and development (R&D) component, and 'passed the buck' to Government, when this may offer opportunities to assist in dealing with rising AC demand from small consumers through development of low-cost interval metering and load management infrastructure;
- IPART has not taken up the offer from EUAA to assist in developing DM proposals, despite the experience it could bring from the successful Demand Side Response Facility Trial conducted in the 2002/03 summer.

In our earlier submissions, we proposed that IPART, the DNSPs and consumer groups look seriously at the possibility of developing and implementing automatic, two-way communications and load control infrastructure at low enough cost to deliver benefits to consumers willing to offer load for automatic, remote control. We also recommended, in effect, that IPART 'encourage' DNSPs to provide the same incentives for consumers to invest in (or take up) that technology option as are offered to DNSPs to invest in copper. The consumer incentives could be entirely negative (cost-reflective ToU pricing) or they could be positive (say subsidies for high efficiency ACs as implemented in many US jurisdictions, or appliances fitted with suitable technology to remotely control the load). Our preference is for a combination of both.

We repeat our support for this proposal and commend it to IPART.