



Supplementary Response to Proposed Ministerial Council for Energy Framework Schedule for Transfer of Distribution and Retail Functions

*This submission was prepared
by the Energy Action Group and Energy Users' Association of Australia
with assistance from Marsden Jacob Associates. Funding assistance
was provided by the National Electricity Consumers' Advocacy Panel.
All views expressed are those of the EAG & EUAA.*

January 2006

TABLE OF CONTENTS

	Page
Executive Summary	ii
1. Introduction.....	1
2. Why economic and financial issues are important to all consumers.....	2
3. Further response to issues	5
3.1. Ensure an effective role for end-users	5
3.2. Better coordination of policy development is essential	6
3.3. Compromise with 'jurisdictional sensitivities'	7
3.4. Eliminate apparent bias (or confused focus).....	11
3.5. Connection and capital contributions – an example of policy proposals that are only nearly good enough	12
3.6. Deal with 'system' issues	14
3.7. AEMC Guidance	14
3.7.1. Asset values	15
3.7.2. Assessment of capital expenditure.....	20
3.7.3. Assessment of costs to meet legal and service obligations	21
3.7.4. Payments to embedded generators	22
3.7.5. Cost of capital.....	23
4. Conclusions	24

Executive Summary

INTRODUCTION

1. The EAG and EUAA have prepared two submissions to the MCE review of a national distribution and retail framework. As noted in Section 1 of this supplementary submission, our preliminary submission made comment, and proposed suggestions for improving NERA et al's recommendations in areas that were clearly critical to end users. This supplementary submission addresses other issues that are also directly relevant to end users.
2. The comments made in these submissions relate to economic, financial and technical matters that impact directly on the options that end users face in the energy markets, the type and level of services they receive, the prices they face and the costs they bear – and the impact that all these aspects have on economically efficient outcomes. We have no doubt that all of these issues are equally relevant to large and small energy users.
3. A primary focus has been to base our comments on outcomes from existing policies and propose improvements/changes to NERA et al's recommendations that we believe are more likely to facilitate achievement of the single market objective. Where appropriate, we have referred to specific examples of outcomes and issues based on our long participation in regulatory processes and detailed observation of the energy markets.

ISSUES IN OUR INITIAL SUBMISSION

4. In our initial submission we addressed the following issues and made recommendations along the lines summarised below. In particular, we noted:
 - Deficiencies and limitations in the consultation paper prepared by NERA et al and the difficulties this creates for end users.
 - There have been too many compromises with 'jurisdictional sensitivities, which are almost certain to compromise achievement of the single market objective (SMO). Further examples are addressed in this supplementary submission.
 - There is a need for the MCE to ensure any policy changes are linked to demonstration of (at least) a net benefit to energy users. This would be an outcome of changes in competitive markets; and it should also be an outcome from market-focussed policies.
 - There is a need for the MCE to insist that the AER align the timing and execution of regulatory reviews in electricity distribution, gas distribution (and also electricity and gas transmission) as occurs in the UK. This will go a long way towards unifying the regulatory regime and reducing the cost of regulation.
 - There is a need for explicit recognition of the nexus between technical and safety standards and the specification of service performance targets (which are to be left with the jurisdictions) and costs and service standards that are to be regulated by the AER. The MCE must ensure that maximum the possible uniformity in regulation of all standards is achieved. This will reduce the costs of regulation, allow retailers the maximum opportunity of developing uniform systems and products and allow consumers the maximum freedom to exercise choice.

- There is a need for the MCE to insist that end users' interests are reflected in standard connection agreements, and those agreements require distributors to be accountable for service standards only they can control.
- The scope of distribution price regulation should cover all services that cannot be readily procured by end users in effectively competitive markets.
- Price cap regulation for distribution services should be in the form of tariff basket arrangement.
- Regulatory requirements in relation to tariff settings should be accompanied by close scrutiny by the AER to ensure distributors do not exploit the substantial discretion available to them.
- Service performance targets should relate to standards that are meaningful to end users, be uniform across the energy markets, provide effective incentives for distributors to achieve them and be subject to routine reporting by the AER.
- Information disclosure requirements must include sufficiently precise definition to ensure the AER can effectively regulate distribution and retail service delivery; and must be accompanied by sufficient powers for the AER to enforce compliance.

ISSUES IN THIS SUPPLEMENTARY SUBMISSION

5. In this supplementary submission we commented on the following issues and made recommendations along the lines summarised below.

ECONOMIC, FINANCIAL AND TECHNICAL ISSUES ARE IMPORTANT TO ALL CONSUMERS

6. Despite the relatively small proportion of energy delivered to small consumers, economic, financial and technical matters are equally important to all energy users. Residential consumers have the most volatile demand and are allocated up to 65% of distribution costs. There is, therefore, common interest between large industrial and commercial energy users and small consumers to achieve policy outcomes that deliver secure, reliable and affordable energy.
7. We have no fundamental opposition to wide-scale implementation of cost-reflective pricing for all consumers. However, we do not believe that pricing alone will be sufficient to satisfy consumers and deliver economically efficient outcomes consistent with achievement of the SMO.
8. We believe the MCE must look at practical policy options that will allow small consumers to benefit from changes in their individual consumption behaviour that would lead to improving industry investment patterns. The MCE also needs to implement policies that will achieve outcomes that better align costs (currently dominated by temperature sensitive peak load growth measured in MW) and prices (currently linked to energy consumptions) for small consumers. The alternative is to allow the AER to 'authorise' billions of dollars of network investment to meet increasing peak load growth and increasingly rarely used peak capacity.
9. The negative consequences of such policies also need to be addressed by the MCE. As noted above, there are indications that low-income households already 'practice effective demand response'. But they have few choices left to avoid any increase in cost that may result from wider scale implementation of cost-reflective pricing. Accordingly, the

MCE must act to ensure jurisdictions implement effective Community Service Obligations and develop policies that facilitate roll-out of low-cost load control technologies across the NEM.

AN EFFECTIVE ROLE FOR END-USERS

10. There is a need for the MCE to ensure that end-users have the means, not just the opportunity, to be heard. This outcome must be achieved without stifling the effectiveness of their contribution through excessively bureaucratic funding arrangements as currently exists both nationally and in those few jurisdictions that provide funding for consumer advocacy.

BETTER COORDINATION OF POLICY DEVELOPMENT IS ESSENTIAL

11. As we noted in our preliminary submission, the disparate and uncoordinated reviews being undertaken by the MCE and AEMC make it difficult for end users to resource effective contributions and suggest a poorly planned approach to policy review and industry reform. Accordingly, we recommend that the MCE develop a more robust and efficient policy process by:
 - concatenating these reviews into a single process; or
 - amending the order of the individual processes to ensure the MCE has access to all the information necessary to make sensible policy decisions without the need to re-visit the issue at stake simply because of the process.

COMPROMISE WITH 'JURISDICTIONAL SENSITIVITIES'

12. Also as noted in our preliminary submission, it is our view that achievement of the SMO will require that service standards be unified to the maximum extent possible right across the NEM (and gas market) – with performance outcomes routinely reported by the AER on a uniform basis. This would be much more likely to give small consumers basic information they need to understand the benefits 'delivered by the market' and allow them to exert appropriate economic power.
13. It will, therefore, be crucial for the MCE to ensure consistency between technical and safety regulation and economic regulation of the costs that these standards impose on distributors and consumers. Achieving consistency in technical and safety regulations across all jurisdictions will also be critical to eliminate entry barriers for small embedded generators (including solar PV or (potentially) Fuel Cell combined heat and power units) and address issues that extend beyond individual jurisdictions.
14. If current 'consumer-appliance' developments of small embedded generation technologies proceed to the commercial market phase, it could initiate a consumer revolution in the electricity sector that requires a fundamental re-think of current arrangements for grid connection of small generator units.
15. The challenge for jurisdictional governments and the AER presented in the examples we provided in this submission lies in simplifying the process for installation and grid-connection of small embedded generators. Accordingly, we recommend this be achieved by changing the 'economic regulations' that govern the process for connection

of small embedded generators so that a small embedded generator owner is only required to notify their retailer that an embedded generator (with less than 10kW capacity):

- has been installed in accordance with 'current wiring standards' by a licensed and qualified installer;
- has an Inverter that fully complied with the appropriate Australian Standard (AS 4777) – as required by electricity industry standards; and
- has been connected to the grid and switched on by the installer after completing the required testing of the installation.

16. We believe this solution provides a model that should be investigated more widely by the supply-side and the AER (and AEMC). This could be achieved by requiring the AEMC and AER (and jurisdictional Governments) to ensure that all aspects of regulation seriously considered how to maximise benefits from consumer choice.

ELIMINATE APPARENT BIAS (OR CONFUSED FOCUS)

17. There is a need for the MCE to ensure that apparent bias (or confused focus) in favour of energy utilities is removed from policy. NERA et al's paper makes several references to the need to provide certainty to utility investors. We accept that utility investors may appreciate certainty, although it is clear to energy users that supply-side groups have adopted 'the need for investment certainty' as a 'war cry' for special pleading in an apparently successful attempt to influence regulators (and policy makers) across the nation.

18. We acknowledge that policy and regulatory uncertainty is likely to influence on investment. However, a focus on supply side investment impacts without consideration of consumer investment impacts creates an appearance of bias, or at least unbalanced focus, which is 'unhealthy' and ignores the SMO to promote '*efficient investment ... for the long term interest of consumers*'.

19. Focusing solely on investors with unreasonable expectations (i.e. that differ from the reasonable expectations of efficient capital and debt markets) is undesirable and will serve only to increase costs to consumers and reduce the international competitiveness of the Australian economy. The MCE, AEMC and AER should not ignore the economy-wide investment that comes with good regulation.

CONNECTION AND CAPITAL CONTRIBUTIONS – AN EXAMPLE OF POLICY PROPOSALS THAT ARE ONLY NEARLY GOOD ENOUGH

20. As noted earlier, we support the general approach used by NERA et al to identify policy options. The process is reasonable, logical and is likely to produce satisfactory outcomes providing consideration is given to practical impacts on end-users of the policy options. We comment on just one example (related to connection and capital contributions) where changes proposed for policies demonstrate some positive attributes, but could be improved by applying the same principles for connection of remote generator connection to the transmission system as that proposed for major customers/embedded generators. That is, all generators should face the costs they impose on the system - and be permitted direct access to benefits that derive from differences in locational costs where these arise. This would be more likely to yield more economically efficient outcomes. Not only that, but the modified proposal is

‘fairer’ and much more likely to facilitate achievement of the SMO not least because it would provide direct incentives for lowering the overall cost of all generation investment.

DEAL WITH ‘SYSTEM’ ISSUES

21. We note that the NERA *et al* paper was written in a period when the levels of consumer dissatisfaction was increasing (as indicated by the number of jurisdictional Ombudsman scheme complaints). Some of the causes of this relate to excessively complex systems that retailers are required to develop to deal with the energy market and jurisdictional preferences.
22. Accordingly, we believe that the MCE must review to cause of these difficulties and seek policy solutions that will unify systems and procedures as far as practicable so that retailers are able to more efficiently and effectively compete across the NEM.

AEMC GUIDANCE

23. We accept that it is reasonable for regulated utilities to recover the efficient cost of providing services to end users. We also accept that NERA *et al*’s recommendations in respect of treatment of initial asset values, assessment of capital expenditure and inclusion of costs related to government-imposed obligations, service standards, payments to embedded generators and cost of capital are appropriate as high level principles.
24. However, regulators’ assessment of costs in each of these areas has generated considerable debate, both in jurisdictional regulatory reviews and reviews of electricity and gas transmission by the ACCC. Each area has also stimulated ‘strategic behaviour’ by utilities in regulatory review processes to the detriment of energy users (and achievement of the SMO).
25. Accordingly, we recommend that in respect of asset values:
 - The MCE examine how initial regulatory asset values were determined and further explore means to develop transparently effective incentives for utilities to achieve efficient outcomes for all their activities. The key to this is to ensure that appropriate incentives focus of delivering future benefits to end-users, not just rewarding utilities for past performance.
26. In respect of assessment of capital expenditure:
 - The MCE accept NERA *et al*’s recommendations to impose obligations on distributors to consider demand-side options when reviewing any significant network expenditure.
 - However, there are still substantial challenges to be overcome including:
 - a better understanding by end-users, distributors and retailers of the opportunities;
 - development of the operational capability of end-users that will provide a ‘service’ that adequately and reliably matches the distributors and retailers’ requirements; and

- most likely, augmenting the technical capability of load devices and metering to ensure a responsive and auditable service is provided.
- We also note that distributor interest in demand-side options is likely to be enhanced by policies that ‘encourage’ response from the most volatile segment of the market, which is Residential AC load. Without access to this demand-side’ resource, achievement of acceptable reliability standards will be very challenging.

27. In respect of assessment of costs to meet legal and service obligations:

- We accept that ‘assessed costs’ should include the efficient cost of meeting all obligations. However, the continued separation of technical and safety regulation and the setting of service standards (both of which impose substantial costs on distributors and end-users) from uniform national regulation remains a concern.
- As a minimum, the AER must be given a role in considering the cost impact of technical and safety regulation and any jurisdictional differences in these standards or service standards. The AER must also be given adequate powers to challenge or question the circumstances where these differences compromise achievement of the SMO.

28. In respect of payments to embedded generators:

- We fully endorse any encouragement for deployment of embedded generation technologies that contribute towards reducing the economic and environmental costs of energy use. Accordingly, we support NERA et al’s recommendation that distributors be permitted to recover costs associated with payments to embedded generators where costs are reduced.
- However, we note that the practical application of these arrangements could be improved substantially. To date, there has not been as much ‘success’ in these arrangements as appears warranted. The MCE may wish to consider in more detail any embedded generator ‘pass-through’ and/or ‘discount’ ‘policies’ developed by jurisdictional regulators.
- We have suggested two specific examples where close scrutiny appears warranted. These are:
 - The arrangements endorsed by the Victorian ESC for the Somerton Gas Turbine; and
 - SP Ausnet’s Solar Photovoltaic network tariff.
- In both these instances, it appears that embedded generators receive much less than any reasonably likely estimate of the ‘avoided cost’ and both arrangements have been overseen and approved by the relevant regulator.

29. In respect of Cost of capital:

Given the substantial compromise, and the difficult judgements required in making estimates of WACC, and the controversy and uncertainty associated with the key parameter values, we believe the MCE should ensure the Rules should not be more prescriptive than is currently the case. It is also our view that further guidance through the Rules is justified for regulators in estimating the WACC. We believe it is appropriate to include reference in the Rules to:

- emphasise that the WACC should be no more than that generally available in financial markets – allowing for the relatively low risk offered by ‘regulatory protection’;
- making use of all relevant and robust information in setting the WACC; and
- recognising the inevitable final need for sound (but difficult) exercise of judgement in all elements of WACC estimation.

1. Introduction

The material in this supplementary submission supports the initial submission made by the Energy Action Group (EAG) and the Energy Users Association of Australia (EUAA). The initial submission dealt with a few of the issues listed by the Ministerial Council for Energy (MCE) Standing Committee of Officials (SCO)¹ that were clearly of importance to end-users. These included:

- Deficiencies and limitations in the consultation paper prepared by NERA/Gilbert+Tobin (NERA *et al*)² and the difficulties this creates for end users.
- There have been too many compromises with ‘jurisdictional sensitivities, which are almost certain to compromise achievement of the single market objective (SMO).
- There is a need for the MCE to ensure any policy changes are linked to demonstration of (at least) a net benefit to energy users. This would be an outcome of changes in competitive markets; and it should also be an outcome from market-focussed policies.
- There is a need for the MCE to insist that the AER align the timing and execution of regulatory reviews in electricity distribution, gas distribution (and also electricity and gas transmission) as occurs in the UK. This will go a long way towards unifying the regulatory regime and reducing the cost of regulation.
- There is a need for explicit recognition of the nexus between technical and safety standards and the specification of service performance targets (which are to be left with the jurisdictions) and costs and service standards that are to be regulated by the AER. The MCE must ensure that maximum the possible uniformity in regulation of all standards is achieved. This will reduce the costs of regulation, allow retailers the maximum opportunity of developing uniform systems and products and allow consumers the maximum freedom to exercise choice.
- There is a need for the MCE to insist that end users’ interests are reflected in standard connection agreements, and those agreements require distributors to be accountable for service standards only they can control.
- The scope of distribution price regulation should cover all services that cannot be readily procured by end users in effectively competitive markets.
- Price cap regulation for distribution services should be in the form of tariff basket arrangement.
- Regulatory requirements in relation to tariff settings should be accompanied by close scrutiny by the AER to ensure distributors do not exploit the substantial discretion available to them.
- Service performance targets should relate to standards that are meaningful to end users, be uniform across the energy markets, provide effective incentives for distributors to achieve them and be subject to routine reporting by the AER.

¹ These issues were listed in a two-page document headed *Proposed Framework Schedule for Transfer of Distribution and Retail Functions*. MCE Energy Market Reform Bulletin No. 50 advised that the document contains a high-level listing of functions prepared by the SCO drawn from the NERA *et al* consultation paper.

² *Public Consultation on a National Framework for Energy Distribution and Retail Regulation*, NERA/Gilbert+Tobin, May 2005.

- Information disclosure requirements must include sufficiently precise definition to ensure the AER can effectively regulate distribution and retail service delivery; and must be accompanied by sufficient powers for the AER to enforce compliance.

The comments in this supplementary submission once again deal with issues of importance to end users and are based on further review of the NERA *et al* consultation paper. As with our preliminary submission, these comments relate primarily to the impact on end users of economic, financial and technical issues and policy proposals.

Section 2 of this supplementary submission outlines the basis for common interest amongst all consumers in respect of economic, financial and technical issues. Section 3 comments on further issues of importance to end users; and Section 4 provides a brief summary of our recommendations to the MCE.

2. Why economic and financial issues are important to all consumers

The EAG and EUAA are aware that the MCE has received a number of submissions that deal with ‘consumer protection’ issues. This submission excludes any substantive comments on those issues. We accept that an overwhelming majority of small consumers consider energy to be an essential service. We also accept that provision of reliable and affordable supply of energy is a key feature of a civilised society. There is, therefore, common interest between large industrial and commercial energy users and small consumers to achieve policy outcomes that deliver secure, reliable and affordable energy.

The comments in this submission are considered to be equally relevant to both large and small consumers, all of whom require delivery of efficiently priced, reliable service from energy distributors and retailers. The basis for holding this view is outlined below.

The recent ABARE report to the Department of Industry Tourism and Resources³ estimates:

- residential electricity consumption for the financial year 2004-05 at 193.8 PJ or 26.4% of total delivered electricity consumption (i.e. excluding losses);⁴
- residential market share for natural gas at 22.3% of total consumption (bearing in mind that natural gas has significantly lower residential market penetration in all jurisdictions than the 99.9% market penetration for electricity).

This relatively low proportion of total energy consumption may suggest that the behaviour of, and consumptions choices by, small consumers is of secondary importance when considering the economic and financial performance of the distribution and retail sectors. We hold the view that such a conclusion would be incorrect.

We note that the above figures relate to overall energy consumption, including transmission connected load. The impact of small consumers is significantly greater in the distribution

³ ABARE (2005) Energy in Australia Part B Appendix A2 p 59,

⁴ Note that ABARE estimates electricity transmission losses constitute the equivalent of 12.1% of the total final electricity consumption.

sectors. For example, data from the ESC's September 2005 electricity distribution determination shows residential consumption accounts for between 22% (for Citipower) and 43% (for SP Ausnet) of total energy delivered by distributors.

In addition, consumption comparisons tell only part of the story. Residential consumption is far more volatile than consumption for other customer segments. For example, a household in Victoria with average electricity consumption would be expected to have a Load Factor (expressed as average monthly consumption/maximum half-hourly consumption for the month) of:

- well below 5% during the summer months with an AC load significantly larger than 2kW;
- less than 10% during the summer months with a small (<2kW) AC load;
- around 15-20% without AC; and
- no more than 25-30% without AC but with Off-Peak hot water load.

By comparison, large distribution-connected industrial end users may achieve Load Factors in excess of 80% on a consistent basis.

Further more, substantially more assets are required (per unit of consumption and unit of demand) to serve small consumers partly because supply occurs at lower voltage and because demand is more volatile than for large users.

These differences in load factor and asset requirement are reflected in allocation of costs to distribution customer segments. Data from ESC's recent electricity distribution pricing review indicates that residential consumers 'pick up the tab' for up to 65% of total distribution costs.⁵ This situation is becoming 'worse' (i.e. small consumers are being allocated increasingly higher proportions of total distribution (and other) costs) because of increasing penetration and (relatively infrequent, but coincident) use of residential air conditioning (AC) across Australia.

Despite the increasing importance of small consumer behaviour to the economic and financial performance of the energy sectors, there has been negligible research over the last 2 decades, and very little informed debate by consumers or regulators, on the financial and economic impacts of small consumers' behaviour in the gas and electricity markets. Nor has there been any significant research, or informed debate, on the impact that different policy options may have on this behaviour and choice.⁶

Some useful information has been confirmed on low-income households, who represent up to 20% of the total population,⁷ and account for around 7% of total electricity consumption.

⁵ Jurisdictional regulators do not generally identify the proportion of distribution costs allocated to residential consumers. However, figures quoted in the ESC's Media Release (distribution Network charges account for around 40% of an 'average' residential bill of \$800 - or \$320), suggest that residential consumers 'pick up' between 40% (Citipower) and 65% (AGL and United Energy) of total costs

⁶ The lack of attention to the (changing) behaviour of small consumers has contributed to consistently poor quality in load (and peak demand) growth forecasts in virtually all the jurisdictional distribution business regulatory determinations in SA, Qld Victoria and NSW over the last decade.

⁷ *Hand up not handout renewing the fight against poverty*, Australian Senate Community Affairs Reference Committee, 2004.

One of the most interesting research reports⁸ noted that low-income households are price sensitive and generally implement strategies to reduce their bills. However, the energy use choices available to low-income households are severely limited (resulting in price inelastic responses) as the majority use energy literally as a basis essential service.

The EAG and EUAA believe that considerably more work needs to be carried out by the MCE to understand the role of residential and small consumers in driving regulatory and investment decisions in the energy sectors.

It is unfortunate that NERA *et al's* paper does not refer to any quantitative evidence of the way in which the Rules and codes (that have been implemented by the industry – with the tacit support of regulators) impact on consumers. The existing arrangements have a substantial impact on customer service behaviour.

In particular, the current arrangements ensure that distributors have access to the financial resources needed to cater for load growth. Regulators frequently express an aspirational view (which they argue is supported by theory) that ‘light-handed’ regulation provides an incentive for distributors to support demand side measures. In order to ‘enhance’ this incentive, regulators also frequently express support for further development of cost-reflective pricing in the distribution sector. If implemented by distributors – and translated to the retail sector – this would have the effect of creating significant ‘negative incentives’ for consumers to moderate consumption (or, more particularly, demand) during high-priced periods by increasing the bills of ‘high-cost’ consumers.

But the practical reality is that regulators’ support for cost-reflective pricing has had little impact so far, leaving distributors (and retailers) free to benefit from load growth. In support of this assertion, we note that there has been:

- very little innovation in energy pricing for small consumers in either the distribution or retail sectors;
- continuing deterioration in network load-duration curves in all NEM jurisdictions over the last decade; and
- willingness by regulators to ensure the distributors have access to more than adequate resources to fund this deteriorating condition.⁹

The EAG and EUAA have no fundamental opposition to wide-scale implementation of cost-reflective pricing for all consumers. Indeed, it is possible that widespread implementation of truly cost-reflective pricing in the distribution and retail sectors may do something to improve these particular outcomes – or at least improve the equity between consumers. However, we do not believe that pricing alone will be sufficient to satisfy consumers and deliver economically efficient outcomes consistent with achievement of the SMO.

There is some controversy about the number of disadvantaged households in Australia. The highest figure quoted in the Report came from the 1999 Henderson Poverty Line report that estimated the number to be around 3.7 to 4.1 million Australians, approximately 20% of the population. .

⁸ *Domestic electricity demand elasticities, Issues for the Victorian energy market*, St Vincent De Paul Society Victoria, 2004.

⁹ The total value of capital expenditure in the electricity distribution sector approved by regulators for the current (five year) regulatory periods amounts to almost \$14 billion, with around \$4.5 billion of this ‘earmarked’ for augmentation/reinforcement of distribution networks. Concurrently, small consumers are ‘investing’ at least \$360 million per year in new AC demand. (see: *How well will Distribution Businesses manage peak demand?*, Meeting Our Power Needs This Summer & Beyond, EUAA Briefing, Melbourne, 7 December 2005.)

We believe the MCE must look at practical policy options that will allow small consumers to benefit from changes in their individual consumption behaviour that would lead to improving industry investment patterns. The MCE also needs to implement policies that will achieve outcomes that better align costs (currently dominated by temperature sensitive peak load growth measured in MW) and prices (currently linked to energy consumptions) for small consumers. The EAG and EUAA believe this is the only practical way to protect the interests of small consumers with policies that overwhelmingly support market mechanisms and recover costs from consumers.¹⁰ The alternative is to allow the AER to ‘authorise’ billions of dollars of network investment to meet increasing peak load growth and increasingly rarely used peak capacity.

The negative consequences of such policies also need to be addressed by the MCE. As noted above, there are indications that low-income households already ‘practice effective demand response’. But they have few choices left to avoid any increase in cost that may result from wider scale implementation of cost-reflective pricing. Accordingly, the MCE must act to ensure jurisdictions implement effective Community Service Obligations and develop policies that facilitate roll-out of low-cost load control technologies across the NEM.

3. Further response to issues

As noted in our preliminary submission, the EAG and EUAA generally endorse the approach taken by NERA *et al*, which attempts to propose a ‘*best practice*’ approach to regulation of energy distribution and retailing’ and seeks to:

- achieve the maximum level of consistency across the electricity and gas sectors and across jurisdictions;
- minimise the areas and extend of difference by limiting the exercise of Jurisdictional Directions;
- base recommendations on explicitly defined Policy Criteria; and
- identify transitional issues.

However, and also as noted in our preliminary submission, the NERA *et al* consultation paper has several weaknesses that reduce the value of its recommendations. Each of these has influenced the way in which comments have been frame; and generally lead to suggestions for improvement in NERA *et al*’s recommendations.

3.1. Ensure an effective role for end-users

The NERA *et al* consultation paper adopts a criterion for characterising ‘best practice’ distribution Price regulation as *accountability to all parties* (*implies a transparent processes*

¹⁰ The EAG and EUAA support for this ‘economically rational’ position is bolstered by the limited evidence contained in the recent CRA (Asia Pacific) report to ESCoSA that shows low-income households in SA do not make a significant contribution to extreme peak demand growth (see: Figure 1, p. 6, *Peak Demand on ETSA Utilities System*, CRA, February 2004).

*in which all parties have the opportunity to be heard, together with a clear and effective dispute process).*¹¹

We agree this is an essential criterion for ‘best practice’ regulation. However it will be necessary to ensure that end-users have the means, not just the opportunity, to be heard. This outcome must be achieved without stifling the effectiveness of their contribution through excessively bureaucratic funding arrangements as currently exists both nationally and in those few jurisdictions that provide funding for consumer advocacy.

Achieving this outcome must be a clear focus of the MCE when endorsing legislation to establish a national consumer advocacy funding arrangement. The EUAA has made specific recommendations to achieve this in an earlier submission to the MCE.¹²

3.2. Better coordination of policy development is essential

We note that the NERA *et al* paper says that *the issue of coverage under the access framework for regulated services is being directly considered by a separate MCE workstream*¹³ and that *the principles put forward in the consultation paper have not been developed in conjunction with that workstream, and may therefore need to be revisited once that work is complete.*

This highlights one of the serious weaknesses of the current consultation process that we identified in our preliminary submission. Execution of multiple, concurrent reviews in different forums makes it virtually impossible for end users to offer their most effective contribution. This same criticism applies in respect of:

- the MCE’s response to the Productivity Commission’s report on the Gas Code;
- NERA *et al* recommendation that the MCE direct the AEMC to undertake a review of TFP (total factor productivity) as an alternative form of regulation;
- the AEMC review of electricity transmission; and
- the MCE appointed Expert Panel Review of Revenue and Network Pricing.

which leads NERA *et al* to conclude that *the final national approach to the form of distribution price regulation may need to be determined taking all of the above work streams into account.*¹⁴

These disparate and uncoordinated reviews make it difficult for end users to resource effective contributions and suggest a poorly planned approach to policy review and industry reform. Accordingly, we recommend that the MCE develop a more robust and efficient policy process by:

- concatenating these reviews into a single process; or

¹¹ p. 11, NERA *et al*.

¹² *National Energy Market End User Advocacy Arrangements Comment on Options proposed by the MCE, EUAA, July 2005.*

¹³ p. 13, NERA *et al*.

¹⁴ p. 21, NERA *et al*.

- amending the order of the individual processes to ensure the MCE has access to all the information necessary to make sensible policy decisions without the need to re-visit the issue at stake simply because of the process.

3.3. Compromise with ‘jurisdictional sensitivities’

As we noted in our preliminary submission, the scope of the NERA *et al* consultation paper is limited by compromises made by the MCE (and CoAG) to accommodate ‘jurisdictional sensitivities’. The limited scope of the consultation paper seriously constrains NERA *et al*’s ability to propose recommendations that will achieve ‘best practice regulation’.

Further, and formal, separation of regulatory powers implied in the NERA *et al* consultation paper is only likely to aggravate the current deficiencies. Allowing jurisdictional Governments (or regulators) to implement retail pricing policies to protect small consumers from financial pressures created by any initiatives taken by the AEMC and/or electricity distributors to implement improved network pricing arrangements will do nothing to facilitate achievement of the SMO.

Similar deficiencies in NERA *et al*’s recommended approach also occur in relation to other suggestions for continuing a separate role for the jurisdictions in the national regulatory framework.¹⁵ For example:

- There is no recognition of the direct link between technical and safety regulation, which will remain with the jurisdictions, and cost impacts considered by the AER.
- While there is recognition of the link between ‘economic’ service standards and costs, the setting of service standard targets is to remain with the jurisdictions, with the cost impacts considered by the AER.¹⁶
- There is no recognition of the complex issues that will arise if jurisdictions have different non-standard metering types (or even set different standard metering types) for small consumers and the AER elects to promote pricing incentives that require (or assume) uniform metering.

As detailed in our initial submission, this problem already exists in Victoria with the ESC mandated interval meter roll-out. In our opinion, differences in metering standards and metering types across what is currently a single ‘consumer class’, which will be a prominent feature of the ESC-mandated roll-out, complicate the development of retail products and compromise achievement of economically efficient – and equitable - outcomes.¹⁷ Allowing jurisdictions to further exacerbate this problem by

¹⁵ p. 4, NERA *et al*.

¹⁶ See also p. 21-22, *Op Cit*, which discusses the role for the AEMC in developing ‘service performance incentive mechanisms’ – but does not discuss the challenge faced by the AEMC in reconciling the approaches adopted by different jurisdictions (most notably Victoria) for a range of ‘incentive mechanisms’ and the ACCC in electricity transmission. There is no point in allowing all the different versions of ‘incentive mechanisms’ to remain. They cannot all be equally effective; and in our view amount to no more than ‘bribing’ regulated businesses to do what they should be doing in any case.

¹⁷ The ESC roll-out specifically targets high consumption consumers, including those who use low-cost off-peak power; and does not specifically target low-volume, high-cost consumers using AC. In addition, the roll-out will occur over an extended period (of 6 to 8 years) and does not require replacement of all existing accumulation meters. These conditions will make it very difficult for retailers to develop uniform products that reflect the costs of different usage patterns, which would appear to be a pre-condition for providing incentives for consumers to respond to pricing signals in ways that are likely to deliver economically efficient outcomes.

specifying different metering arrangements for small consumers is certain to make it much harder - and more costly - for retailers to compete across jurisdictions.

- The proposals contemplate that separate jurisdictional gas market administrators will remain. There is no consideration given to integration of the existing arrangements into a single gas market manager with functions similar to NEMMCo.

It is our view that achievement of the SMO will require that service standards be unified to the maximum extent possible right across the NEM (and gas market) – with performance outcomes routinely reported by the AER on a uniform basis. This would be much more likely to give small consumers basic information they need to understand the benefits ‘delivered by the market’ and allow them to exert appropriate economic power.

It will be crucial to ensure consistency between technical and safety regulation and economic regulation of the costs that these standards impose on distributors and consumers. Achieving consistency in technical and safety regulations across all jurisdictions will also be critical to eliminate entry barriers for small embedded generators (including solar PV or (potentially) Fuel Cell combined heat and power units) and address issues that extend beyond individual jurisdictions. This is illustrated by the example described in the Boxes below.

For example, we note that both Ceramic Fuels Cells in Melbourne and Ballard Corporation in Vancouver are seeking manufacturing partners to incorporate their Fuel Cell stacks into heating appliances that will be sold in the residential market. Ballard has already entered into joint development agreements with several gas distribution companies in Japan, each of whom has rolled out a number of demonstration sites. It is only a matter of time before such appliances ‘hit the market’ in Australia. When this happens, consumers could purchase a hot water or space heater that also generates electricity.

A further relevant example of issues that will have to be dealt with by jurisdictions and the AER is provided by Green and Gold Energy in Adelaide, developers and manufacturers of the very competitively priced SunBall™ Solar Appliance, SunCube™ Solar Appliance and other innovative devices.¹⁸

While the initial product offerings appear to be direct competitors to existing Solar PV technology, Gold and Green Energy is also contemplating manufacture of ‘plug-in’ solar modules that could be directly, and easily, connected to a homeowner’s (or business) electrical installation. Green and Gold Energy is responding to opportunities created by existing ‘pro-market’ policies by ignoring the limited supply-side interest in this technology and going straight to consumers.

We understand that the ‘ready-to-use’ Solar PV unit will have its own built-in (low cost) Inverter and could be used as a ‘Plug-and-Play’ consumer product. That is, the product could be connected directly to home (or business) power cabling to create a 240V ‘embedded generator’.

If any of the above developments proceed to the commercial market phase, it could initiate a consumer revolution in the electricity sector that requires a fundamental re-think of current arrangements for grid connection of small generator units.

¹⁸ See: <http://www.greenandgoldenergy.com.au/>. Indicative pricing and comparative performance information on the Gold and Green Energy Website shows costs around ½ that of ‘conventional’ Solar PV systems and output around 100% higher. Indicated whole-of-life average electricity costs are around 25% of ‘conventional’ Solar PV systems (and at or below current average retail costs for Residential consumers after taking into account the value of current Australian Government Solar PV rebates and the value attributed to Renewable Energy Certificates).

Current technical and safety regulations allow distributors to nominate the metering type and installation details (which vary between distributors, even in single jurisdictions) and require small generator users to notify, and obtain approval from, distributors before connection to the grid. In addition, many distributors (and some retailers) impose higher costs on small embedded generator owners even though their load characteristics have generally similar characteristics, in terms of maximum demand and total (grid) energy consumption, to many other small-volume users (apart, of course, from possible 'export' to the grid).

The current arrangements are very bureaucratic, frequently frustrate Solar PV installers and users, and would become unmanageable if there was widespread proliferation of low-cost small embedded generation technology.

There are direct incentives for consumers to 'tolerate' the current arrangements. For example, most new Residential solar PV installations attract rebates up to \$4,000 through a process that requires notification to the distributor of the impending installation. However, the Australian Government has announced that these rebates will cease after June 2007. Without rebates, and with access to simple, (relatively) low-cost 'Plug-and-Play' technology – and in the face of the bureaucratic and frustrating 'connection' process that currently exists – many 'handyperson' consumers may be tempted to connect a 'Plug-and-Play' Solar PV unit to their electrical installations even though this would breach current technical and safety regulations.

The challenge for jurisdictional governments and the AER presented in the examples above is not to make existing regulations more draconian, or give distributors even greater powers to interfere with consumer choice. The solution lies in simplifying the process for installation and grid-connection of small embedded generators. Accordingly, we endorse the recommendation made by the Alternative Technology Association and MJA¹⁹ to address this challenge. We believe a workable solution is to treat small embedded generators more like appliances with similar load impacts. This could be achieved by changing the 'economic regulations' that govern the process for connection of small embedded generators so that a small embedded generator owner is only required to notify their retailer that an embedded generator (with less than 10kW capacity):

- has been installed in accordance with 'current wiring standards' by a licensed and qualified installer;
- has an Inverter that fully complied with the appropriate Australian Standard (AS 4777) – as required by electricity industry standards;²⁰ and
- has been connected to the grid and switched on by the installer after completing the required testing of the installation.

This process has similar attributes to significant re-wiring in a consumer's home in that the responsibility and decision to comply with the regulations rests with the consumer, but is 'implemented' by a qualified electrician. However, it is still more onerous than obligations

¹⁹ *Impediments to Grid Connection of Solar Photovoltaic: the consumer experience - Research into the challenges facing Victorians negotiating grid connection and recommendations for how these may be overcome*, Alternative Technology Association and Marsden Jacob Associates, 16 May 2005.

²⁰ AS 4777 requires, *inter alia*, that inverters automatically disconnect from the grid when power quality falls outside specified parameters; or when the grid loses power.

that apply to consumers who choose to install a 15kW AC unit (which would have much more impact on the distribution network than a small (<10kW) embedded generator.²¹

The recommended process would retain the small embedded generator owner's responsibility for compliance with safety and technical regulations,²² and require the retailer to advise the distributor of the connection. The distributor could then decide whether or not an inspection was warranted. If such inspection was carried out and the installation was found to be defective or non-compliant, the distributor would still have the right and power to disconnect the embedded generator until compliance was achieved.

We believe this solution provides a model that should be investigated more widely by the supply-side and the AER (and AEMC). This could be achieved by requiring the AEMC and AER (and jurisdictional Governments) to ensure that all aspects of regulation seriously considered how to maximise benefits from consumer choice.

The NERA *et al* paper also refers to the need to improve *the myriad of instruments of different types applying to Australian energy retailers and distributors*.²³ Wherever possible, it is proposed that these existing documents would be discontinued and replaced by new instruments developed by the AER, although the AER's instruments (and AER decisions) would still be required to consider the impact of Jurisdictional Directions. Consolidating and unifying the myriad of existing instruments is not the only requirement for improving the current arrangements. Many of the existing instruments are obtuse, legalistic and heavily influenced by supply-side input. An essential requirement for development of new instruments will be effective participation by consumers in their development. As noted above, this will require consumer representatives to be adequately resourced so that regulatory instruments truly reflect the demand-side view of the relevant issues.

A further criticism of the NERA *et al* paper is that it overstates the benefits of a transition from the existing jurisdictional derogations and Jurisdictional Directions.²⁴ The consultation paper says the recommendation for jurisdictional directions is *unlike the current National electricity code derogations and jurisdictional derogations in that the jurisdictional directions would not comprise an exemption from or a corporation to the rules*.²⁵ This is mere semantics. The scope for Jurisdictional Directions remains sufficiently broad to adversely affect achievement of the SMO under the revised arrangements proposed by NERA *et al*.

²¹ Current 'economic regulations' require consumers to notify their distributor of any significant change to connection arrangement or load characteristics. However, electrical contractors undertaking major re-wiring or installation of a large appliance (such as an AC) would (normally) only notify the distributor if the final load exceeded the capacity of the (distributor's) supply cable or main fuse.

²² Protection of the embedded generator owner would reside in general consumer protection legislation that would be most effectively achieved by the owner ensuring the installer offered a guarantee that the installation would fully comply with technical, safety and legal requirements.

²³ p. 8, NERA *et al*.

²⁴ The consultation paper also overstates the benefits in transferring specification of a national energy market arrangements to Rules by saying the Rules are typically subject to more rigorous drafting processes than are guidelines and codes (because the rules are subordinate Legislation) and consequently it is likely that obligations will be more clearly expressed. Given that future rule changes will be undertaken by yet another economic regulatory body, the AEMC, end-users will believe this claim when they see it.

²⁵ p. 8, NERA *et al*.

Just one example from the consultation paper is continuation of tariff equalisation matters, which already conflict with primary incentive mechanisms implemented by jurisdictional regulators and compromise achievement of the SMO.

Current arrangements for tariff equalisation, such as the tariff equalisation payments in Victoria, significantly distort the intent specified in the Rules of developing pricing incentives that would assist end-users facilitate achievement of economically efficient outcomes.²⁶

Jurisdictional differences that arise or exist in these areas impose a compliance and marketing burden on retailers. Ideally, the MCE should adopt a policy that allows a retailer founded in one jurisdiction to compete across all jurisdictions without modifying or adapting any product, marketing material, customer information system, billing system or metering arrangement.

3.4. Eliminate apparent bias (or confused focus)

The NERA *et al* paper contains repeated references²⁷ to the benefits to distributors of ‘regulatory certainty’ without making any attempt to comment on any balancing benefits that may (or may not) accrue to energy users.

*For example, in reference to the forms of regulation, the NERA *et al* paper says that setting out the form(s) of regulation (and when each form is to be applied) at the level of the Rules, rather than leaving the form of regulation subject to discretion by the AER, provides a greater degree of certainty to the regulated businesses. Similarly, providing substantive guidance in the Rules on the manner in which the form of regulation is to be implemented also improves regulatory certainty and predictability for the regulated businesses.²⁸*

Utility investors may appreciate certainty, although it is clear to energy users that supply-side groups have adopted ‘the need for investment certainty’ as a ‘war cry’ for special pleading in an apparently successful attempt to influence regulators (and policy makers) across the nation.

We note that nowhere does the NERA *et al* paper make any equivalent comment about the need for certainty in respect of investment by energy users. We accept that continuing investment in the energy sector is necessary for economic growth. However, investment by end-users engaged in productive activity make a far greater contribution to economic growth than the energy sector. It is equally important to ensure that the regulatory arrangements in the energy sector deliver certainty and provide a strong basis for continuing investment in productive capacity in the economy. Pandering to the ‘special pleading’ of the supply-side for ‘investment certainty’ – by focussing policy development specifically on ‘supply-side certainty’ and/or continually and repeatedly making ‘cautious’ or ‘conservative’ regulatory decisions and giving distributors more resources than is efficient – may provide certainty to

²⁶ See: *Response to Australian Energy Market Commission Issues Paper on Electricity Transmission Pricing*, Energy Action Group and Energy Users Association of Australia, January 2006.

²⁷ pp 11, 13, 19, 20 and 34, NERA *et al*.

²⁸ p. 19, NERA *et al*..

the supply-side, but it creates considerable uncertainty for investors in other areas of the economy.

The EAG and EUAA acknowledge that policy and regulatory uncertainty is likely to influence on investment. However, a focus on supply side investment impacts without consideration of consumer investment impacts creates an appearance of bias, or at least unbalanced focus, which is ‘unhealthy’ and ignores the SMO to promote ‘*efficient investment ... for the long term interest of consumers*’.

Focusing solely on investors with unreasonable expectations (i.e. that differ from the reasonable expectations of efficient capital and debt markets) is undesirable and will serve only to increase costs to consumers²⁹ and reduce the international competitiveness of the Australian economy. The MCE, AEMC and AER should not ignore the economy-wide investment that comes with good regulation.

The AEMC should be charged with a clear focus on policy development and regulatory practice that fosters investment by ‘efficient investors’, that is, those with reasonable expectations and who reasonably understand the relatively low investment risk associated with monopoly energy networks.

3.5. Connection and capital contributions – an example of policy proposals that are only nearly good enough

As noted throughout this submission, the consultation process – including limitations within the consultation paper - constrain end users making the best possible contribution to this review. A key weakness in the consultation paper is that it contains virtually no practical examples of outcomes from the existing framework that demonstrate:

- the impacts on end-users from existing policies and regulatory practices; or
- whether or not existing policies and regulatory practices are likely to contribute towards achievement of the SMO.

It is our view that this reduces the value of proposals in the consultation paper. However, as noted earlier in this submission, we support the general approach used to identify policy options. This process is reasonable, logical and is likely to produce satisfactory outcomes providing consideration is given to practical impacts on end-users of the policy options. An example where changes proposed for policies related to connection and capital contributions demonstrate some positive attributes, but could be improved is outlined below.

The positive attributes are illustrated where NERA *et al* note that *there is no economic justification for seeking a capital contribution to cover the cost of upstream augmentation when connecting small customers. If incremental network augmentation is required as a result of new small customers joining the network and the cost of this augmentation is not already covered by cob tariffs, this implies that the current network charge for that area is below the true long run marginal cost (LRMC). If charges did reflect LRMC, then the cost*

²⁹ For example, Australian regulators – particularly the ACCC and Victorian ESC – continue to ignore evidence from financial markets that strongly suggest that lower values for the Market Risk Premium and Equity Beta could be adopted in their estimates of weighted average cost of capital. The inevitable result will be higher costs than might otherwise be achieved from investors with expectations that are consistent with financial markets.

of incremental augmentation would already be factored into the charges being paid by all customers. Therefore even if the network is close to capacity and requires further and expansion, the cost of further expansion should already be factored into tariffs through prices linked to the long run marginal cost.³⁰

Consequently, in relation to capital contributions, NERA et al *et al* propose the following principles:

- *for small customers, there should be no additional capital contributions beyond those associated with direct connection costs;*
- *in particular, new small customers should not be required to pay for the incremental cost of network augmentation upstream of the connection point;*
- *for major customers/embedded generators, capital contributions should reflect the additional costs that the customer/generator imposes on the system; and*
- *where a major customer/embedded generator has paid for the cost to system augmentation and subsequently other major customers/embedded generators also connect and utilise the same assets within a specified timeframe, these customers should be required to contribute to the cost of the assets with a contributions passthrough to the original customer/embedded generator.³¹*

Desirable characteristics of this policy include:

- the proposals are consistent with fundamentally sound economic principles (in this case that prices reflect LRMC);
- the proposals are likely to deliver efficiency benefits directly to consumers (by responding to prices linked to LRMC); and
- the policies are likely to promote fair outcomes (ensuring the costs are shared between customers even where they connect at different times – providing, of course, that the *specified timeframe* suggested by NERA et al *et al* is related to the economic life of the ‘shared assets’).

However, the proposed policies could be improved by taking account of outcomes from current arrangements and ensuring there is similar treatment of both the demand-side and supply-side. For example, the proposals require major customers/embedded generators to make capital contributions that reflect costs they impose on the system. But there is no equivalent requirement for large remote generators to contribute to system costs.

Remote generators pay only for direct connection to shared transmission assets, in much the same way as small consumers pay for direct connection. However, as NERA et al *et al* correctly state, small consumers face prices linked to LRMC for the whole supply system, whereas remote generators make no contribution whatsoever to the cost of the shared transmission system.

An improved policy proposal would be achieved by applying the same principles for connection of remote generator connection to the transmission system as that proposed for major customers/embedded generators. That is, all generators should face the costs they impose on the system - and be permitted direct access to benefits that derive from differences in locational costs where these arise. This would be more likely to yield more economically

³⁰ p. 40, NERA *et al*.

³¹ *Ibid.*

efficient outcomes. Not only that, but the modified proposal is ‘fairer’ and much more likely to facilitate achievement of the SMO not least because it would provide direct incentives for lowering the overall cost of all generation investment.³²

3.6. Deal with ‘system’ issues

We note that the NERA *et al* paper was written in a period when the levels of consumer dissatisfaction was increasing (as indicated by the number of jurisdictional Ombudsman scheme complaints). The EAG has spent considerable effort examining the contribution of NEM-wide ‘systems’ issues to this outcome. The EAG’s review has confirmed that:

- difficulties have been experienced with some of the institutional arrangements implemented to support Full Retail Competition – such as iteration of a centralised market settlement arrangements;
- several retailers having significant billing system problems due to the number of mergers and acquisitions initiated to increase market share;
- imposition by jurisdictions of a centralised customer information system on the NEM;
- development by NEMMCo of a centralised Market Settlement and Transfer System (MSATS) with several sub units including Customer Administration and Transfer System linked to the centralised market settlement run by NEMMCo.³³

Accordingly, we believe that the MCE must review the cause of these difficulties and seek policy solutions that will unify systems and procedures as far as practicable so that retailers are able to more efficiently and effectively compete across the NEM.

3.7. AEMC Guidance

The NERA *et al* paper includes a set of recommendations where the Rules should provide guidance to the AEMC on various elements of costs.³⁴ These recommendations cover initial asset values, assessment of capital expenditure and inclusion of costs related to government-imposed obligations, service standards, payments to embedded generators and cost of capital.

The EAG and EUAA accept that it is reasonable for regulated utilities to recover the efficient cost of providing services to end users. We also accept that NERA *et al*’s recommendations are appropriate as high level principles. However, regulators’ assessment of costs in each of these areas has generated considerable debate, both in jurisdictional regulatory reviews and reviews of electricity and gas transmission by the ACCC. Each area has also stimulated ‘strategic behaviour’ by utilities in regulatory review processes to the detriment of energy users (and achievement of the SMO).

³² In addition, transferring part of the cost of the shared transmission system to major, remote generators would provide direct incentives for those generators to promote efficient operation of the transmission network.

³³ The EAG understands that the MSATS arrangement has been one of the sources of significant industry IT expenditure. It is also understood to have caused some disquiet around the market settlement arrangement because the use of Net System Load Profiling has led to significant cost impacts on 1st tier retailers who have to underwrite the market settlement arrangements.

³⁴ p. 22, NERA *et al*.

Accordingly, we have provided comments in each area of NERA et al's recommendations below.

3.7.1. Asset values

NERA *et al* recommend that *asset values should reflect past regulatory determinations, rolled forward on the basis of additions (that have been assessed as prudent), depreciation, disposals and inflation.*

Again, we agree in principle with the general thrust of this recommendation, with three qualifications.

The first and most obvious is that the value of assets 'rolled into' a regulatory asset base must take into account the value of assets funded directly by capital contribution from energy users or government (where this occurs, as it has in Victoria for some 'regional green field' gas distribution assets). An over-riding principle in respect of asset values is that energy users should only be expected to pay the efficiently incurred cost of providing those assets once. Regulated utilities should not derive any commercial benefit from assets that are, or have been, funded by energy users or from capital contributions paid by government.

The second qualification is that the value of easements (and any other assets that do not require replacement) should be valued at the direct historical cash cost incurred by the utility. The value of these assets should not be adjusted for depreciation, or inflation or otherwise be re-valued. Such assets do not deteriorate; they may in fact be paid for by parties other than the utility and any change in value is more likely to reflect change in land values generally than any 'value-adding' attributed to the utilities' actions.

We also note our objection to accepting without scrutiny asset values based on past regulatory determinations. In particular, we note that the position adopted by jurisdictional regulators on the question of initial regulatory asset values in the distribution sector differs between jurisdictions and has been significantly influenced by considerations unrelated to achievement of economically efficient outcomes. For example, in the electricity distribution sector:

- In 1996, IPART adopted asset values based on its own estimates that generally aligned with the "*line in the sand*"³⁵ *asset value under a recoverable amount test given the Tribunal's proposed price path.*

We note that there is an obvious circularity in this statement because the future income stream includes amount related to capital costs. However, IPART acknowledged that NSW distributors had developed initial regulatory asset value estimates *based on Treasury guidelines for optimised depreciated replacement cost.* IPART generally accepted the methodology used by the distributors, but reduced the distributors' estimates by using *lower estimates of the replacement value of the assets and excluding assets previously funded through customer contributions, which provided a*

³⁵ p. 6, *Electricity Prices, Report No 2.2*, Independent Pricing and Regulatory Tribunal, March 1996. IPART describes the 'Line in the sand' approach as yielding values asset at the net present value of future income streams.

*reduction in asset values of about 40% for rural distributors that largely reflects the proportion of capital contributions received by these distributors.*³⁶

In its 1999 determination, IPART acknowledged there had been *healthy debate surrounding the proposed asset values* and confirmed that values adopted in 1999 *were close to the depreciated optimised replacement cost (DORC) valuations*³⁷ - despite having reduced rural asset values by up to 40%. IPART also left open the option to adopt asset values based on an acceptable ‘optimised deprival value’ methodology in the next review (in 2003-04).

However, this option of re-valuing assets was rejected in the 2004 determination with IPART deciding to establish the opening RAB for the 2004-09 regulatory period using a roll-forward approach (as recommended by NERA *et al*), on the basis *that the roll-forward approach provides a greater degree of certainty for the DNSPs ... by diminishing the possibility of regulatory opportunism.*³⁸

- In its 2000 determination, the Office of the Regulator-General (ORG) was obliged to adopt initial asset values specified in Clause 5.10(b) of the Electricity Supply Industry Tariff Order (at 1 July 1994), *adjusted to take into account inflation and depreciation on the asset value as increased by inflation since 1 July 1994 and for any disposals since 1 July 1994*. In addition, ORG *valued investments made during the first regulatory period at cost (net of customer contributions)*³⁹ and, in effect, followed IPART’s first application in Australia of the ‘RAB + Roll-in’ approach to asset valuation.

The ESC repeated this same process in its recent 2005 determination once again leaving open the question of whether or not the initial regulatory asset values reflected a possibility of regulatory opportunism.

- Notwithstanding IPART’s stated concern about asset re-valuation providing possibility of regulatory opportunism, the Queensland Competition Authority (QCA) adopted the Depreciated Optimised Replacement Cost (DORC) method to value the assets employed in producing the distributors’ prescribed services in its 2001 determination⁴⁰ and again in its 2005 determination.⁴¹
- In its first (2005) determination, ESCoSA was required, by Clause 1.11 of the South Australian Electricity Pricing Order (EPO), to develop all aspects of distribution prices in accordance with the provisions of the National Electricity Code.

ESCoSA’s electricity distribution price determination referred to Clause 6.10.2(g) of the National Electricity Code which requires *that the Jurisdictional Regulator must*

³⁶ *Ibid.*

³⁷ p. 50, *Regulation of New South Wales Electricity Distribution Networks, Determination and Rules Under the National Electricity Code*, IPART, December 1999

³⁸ p. 47, *NSW Electricity Distribution Pricing 2004/05 to 2008/09 - Final Report*, IPART, June 2004.

IPART ascribed ‘regulatory opportunism’ to asset values varying with changes in unit values for assets and depending partly on the judgement of the valuer over such things as appropriate unit value levels and asset optimisation (*Ibid.*)

³⁹ p. 111, *Electricity Distribution Price Determination 2001-2005, Volume I Statement of Purpose and Reasons*, Office of the Regulator-General, September 2000.

⁴⁰ p. 10, *Final Determination - Regulation of Electricity Distribution*, Queensland Competition Authority, May 2001. Asset valuations were prepared by GHD for the distributors and confirmed as *fair and appropriate* by SKM (for QCA - see: p. 54, *Op Cit.*).

⁴¹ p. xi, *Final Determination - Regulation of Electricity Distribution*, Queensland Competition Authority, April 2005. Asset valuations were prepared by SKM for QCA only on this occasion.

give “reasonable recognition of pre-existing policies of governments which are Distribution Network Owners regarding distribution asset values, revenue paths and prices” – and adopted without question the value assigned by Government in 2000.⁴²

Neither the EPO, nor ESCoSA’s electricity distribution price determination says anything about the methodology used to develop the initial asset value, although Schedule 9 of the EPO contains a reference to ‘SKM Report values’ – but does not identify a source document.

Regulatory asset values at 2005 were developed using the ‘RAB + Roll-in’ approach (recommended by NERA et al).

In each of these cases, possibly except for NSW, there appears to be a need for independent and rigorous review of initial asset values established by the jurisdictions to ensure they did not reflect an opportunity for regulatory opportunism.

However, we also note that in the electricity transmission sector, the ACCC allowed re-opening of initial jurisdictional asset values (as permitted by the (then) National Electricity Code) in the first ACCC review of each TNSP. This process that delivered no benefit whatsoever to end-users. All TNSPs except Powerlink, used this as an opportunity to argue (in the most part) successfully that jurisdictional asset values should be increased. The primary argument to support these re-valuations was that this reflected asset values optimised out of the asset base initially. This delivered a commercial benefit to the TNSPs, but imposed additional costs on end-users without delivering any benefit whatsoever to end users or to efficient operation of the market. It is not at all clear to end users how ‘rewarding’ TNSPs for initially poor investment decisions made years before they were subject to regulation does anything to improve incentives for future investment. Nor is it clear that the ACCC was able to detect the opportunity for regulatory opportunism so ably grasped by the TNSP.

The EUAA has made numerous submissions to jurisdictional regulators (and the ACCC) detailing concerns with the approach to asset valuations. These concerns were detailed initially in a paper prepared in July 1998,⁴³ which has been provided to the ACCC previously and will be provided to the MCE with this submission.⁴⁴ In general terms, the key issue of concern is that end-users are being forced to pay higher than efficient costs for energy because asset values have been set at levels that are neither efficient nor fair, nor based on the most practicable asset valuation methodology. This is one of a number of ways that regulated businesses currently receive very generous treatment from regulators in Australia, the costs of which are borne by end users through inflated network charges.⁴⁵

The EUAA has long argued that the use of DORC is unfair to end-users because:

⁴² Various references, *2005 - 2010 Electricity Distribution Price Determination Part A - Statement of Reasons*, Essential Services Commission of South Australia, April 2005.

⁴³ *Energy Network Asset Valuation – Impact on Users*, Prepared for the Australian Cogeneration Association, the Australian Gas Users Group and the Energy Users Group, SA Centre for Economic Studies, July 1998.

⁴⁴ The EUAA has also previously provided submissions to the ACCC, which dealt with many of the issues covered in the *AEMC Issues Paper*. Copies of these submissions are available on the EUAA web-site or can be made available to the AEMC upon request.

⁴⁵ Several other ways in which this happens are covered elsewhere in this submission and include the setting of rates of return that always favour network businesses (relative to their low risk) and the susceptibility of regulators to strategic gaming of expenditure and demand forecasts by the businesses.

- DORC valuations are generally higher than Depreciated Actual Cost or Deprival Value;
- no account is taken in DORC methodology for payments already made by end-users for the costs of sunk assets, meaning end-users are forced to pay twice for some assets; and
- the flow-on impacts of higher than efficient asset valuations disadvantage end-users subject to the pressures of internationally competitive markets.

It is noteworthy that these regulatory practices are contrary to the stated intent to so-called ‘incentive regulation’ in Australia, which is to ‘mimic’ the outcomes expected in a competitive market (generally, competitive firms in Australia are not able to apply a DORC asset valuation) and to balance the interests of consumers with those of the industry being regulated. These practices are also contrary to achievement of the SMO which the AEMC is required to abide by. We will be interested in, and will watch carefully, how the AEMC responds to this matter.

These outcomes are compounded by adopting values for Weighted Average Cost of Capital (WACC) that are demonstrably higher than relevant international comparators – a matter on which the EUAA (and EAG) has also made numerous submissions to the ACCC and other regulators. The EUAA continues to support the views expressed in the July 1998 paper and the comments below are consistent with those views.

Other problems with the position adopted by the ACCC and jurisdictional regulators to date are:

- A key objective of the network pricing provisions of the Rules is to regulate the non-competitive market for network services in a way which seeks the same outcomes as those achieved in competitive markets.⁴⁶ A competitive market would de-value inefficient assets, but removing the threat of downward re-valuation of inefficient investments is hardly seeking the same outcomes as those achieved in competitive markets.
- As noted, the majority of distributors (and TNSPs) have already taken advantage of the ‘option’ to increase asset values without having to make any actual new investment.⁴⁷
- The move to ‘lock in’ asset values does not provide appropriate ‘incentives’ for utilities to accommodate emerging technologies in the most efficient manner, such that NSPs minimise asset-stranding risk.
- Retaining the opportunity for periodic re-valuation of assets must still address the challenge of information asymmetry (and regulatory opportunism) that means utilities have a clear incentive to exercise ‘strategic behaviour’ and:
 - only identify circumstances where assets would be re-valued upwards;⁴⁸

⁴⁶ Clause 6.1.1 (b) (3).

⁴⁷ Only Powerlink failed to benefit from the ability to revalue its assets (in 2001), but in that case the ACCC accepted the Queensland Government’s roll-forward of depreciated optimised replacement cost (DORC) valuation.

⁴⁸ The ACCC has acknowledged that TNSPs would not voluntarily identify circumstances where they had made sub-optimal investments and refers to other impacts of information asymmetry. It is also noteworthy that the ACCC acknowledged, in its January 2000 Transgrid Decision, the practical issues that prevented Transgrid from establishing a Depreciated Actual Cost valuation and SKM from establishing an Optimised Deprival Value valuation for Transgrid’s assets.

The Productivity Commission also identified practical difficulties with DORC valuation methodologies in its September 2001 Inquiry Report *Review of the National Access Regime* the most important difficulty from the

- message information required by the AER (or its consultants) to conduct an effective asset value review; and
- claim that the ‘threat’ of downward re-valuation increases business risk, thereby placing pressure on the regulator to lock-in (inflated) past asset values or assign a higher value to the WACC.

The EUAA and EAG do not have sufficient information on the success or otherwise of the alternatives. Nor do we see how the practical difficulties with valuation methodologies and information asymmetry can be effectively addressed with periodic re-valuation.

The MCE should note that the EUAA has previously taken a different position on this issue. In response to consultation on the ACCC’s Draft SRP, the EUAA supported lock-in of asset values. This was because, at that time, the EUAA decided that the risks and costs associated with continual re-valuations were far greater to end users than having the asset base locked in.⁴⁹ Further, under the new SMO, locking in the asset values in the Rules would mean utilities would have to go through the formal AEMC Review process and outline the long-term interests to consumers. If anything, this would make the utilities work harder to get their asset values re-valued upwards.

However, it is far from clear that any of the current approaches adopted in Australia are certain to facilitate achievement of the SMO.

On the one hand, it appears likely that the ESC, which is obliged by law to accept ‘locked-in’ initial regulatory asset values, has selected a position that is practicable in Victoria. The ESC has formally focussed on creation of ‘profit motivated’ incentives to minimise risk of inefficient investment and has declined to undertake an ACCC-like detailed forensic ex-post analysis of ‘prudency’ on a regular basis.⁵⁰ The evidence so far suggests that the privately-owned utilities in Victoria (who clearly have an unequivocal profit motive) will continue to respond to this policy in the way anticipated by the ESC. Each of the electricity and gas distributors has generally managed to stay well within their projected Capex allowances; or go to considerable length to explain why these allowances have (on occasion) been exceeded.

As suggested at the beginning of this section, there is also a case to argue that the ACCC’s treatment of easement valuations (to lock in values at historical actual cost) is sensible and pragmatic because it limits the ability of TNSPs to manipulate ‘land values’ in a way that has potential to protect the interests of end users.

perspective of end-users being the substantial difference in value reported by different valuers of the same assets. Each of these cases confirms difficulties for most commonly accepted valuation methodologies. Such difficulties would have to be addressed if the Rules retain the option to re-value assets.

⁴⁹ The EUAA is also aware that UK regulators in the electricity and water sectors ‘locked-in’ initial regulatory asset values at levels well below DORC without this having any discernable impact on incentives for the further massive investments that occurred after 1989.

⁵⁰ We note that Clause 7.2(e) of the South Australian EPO precludes ESCoSA from ‘stranding’ ETSA Utilities’ fixed assets in a ‘prudency review’. Notwithstanding this requirement, the ESCoSA questioned whether reserving the power to ‘strand’ assets would deliver benefits commensurate with the cost in its 2005 determination – aligning itself with the position taken in 2000 by the Victorian ORG. (See: p. 119, 2005 - 2010 *Electricity Distribution Price Determination Part A - Statement of Reasons*, ESCoSA, April 2005.)

However, there is no compelling evidence to show that government-owned utilities respond in exactly the same way as profit-motivated private utilities.⁵¹ It is also clear that poorly-managed private firms can and do make inappropriate investment decisions from time to time. In both these cases, there may be benefit to end users in leaving open the option to undertake ‘prudency’ reviews of capital expenditure and/or revisit asset values - despite the uncertainty it may create.

That is, overall, and in the Australian context with significant government ownership of assets – and with a possibility that either government-owned or privately-owned firms could make ‘imprudent’ investment decisions, we are inclined to the view that there may be benefit to end users in leaving open the option to re-visit asset valuations if any evidence arises that a utility has made an inappropriate investment decision. On the other hand there is at least some evidence (from NSW and the transmission sector) that government-owned utilities are willing to grasp the regulatory opportunities whenever asset values are open for review.

Given the uncertainty in this area, we would prefer that the MCE further explore means to develop transparently effective incentives for utilities to achieve efficient outcomes for all their activities. The key to this is to ensure that appropriate incentives focus of delivering future benefits to end-users, not just rewarding utilities for past performance.

3.7.2. Assessment of capital expenditure

NERA *et al* recommend that *in assessing additions to the capital base for prudency, the regulator may consider the extent to which the distributor has taken into account appropriate alternatives to network augmentation (eg, for electricity this may include DSM measures).*

NERA *et al* note that this recommendation replaces the current requirement in the NEC for electricity distribution businesses to apply the regulatory test. This change is justified (by NERA *et al*) by arguing that:

- formal application of the regulatory test for electricity distributors is an onerous requirement, given the relative size of the majority of distribution investments; and
- allowing the AER to take into account the extent to which the distributor has considered alternatives to network augmentation as part of the AER’s assessment of the prudency of the investment, represents a more appropriate means of ensuring that non-network alternatives are considered where relevant.

NERA *et al*’s concern with the ‘onerous’ nature of the regulatory test (for distributors) would appear to be miss-placed. We are not aware that any distributor has attempted to ‘formally’ apply the regulatory test to a distribution investment unless the estimated investment cost is substantial; and even then it is understood to only apply to the ‘reliability branch’ of the regulatory test.⁵² The ‘reliability branch’ of the regulatory test requires that the distributor minimises the net present value of the cost of meeting ‘reliability’ standards

⁵¹ Apparent concern about incentives for efficient investment led the ESC to take a for more interventionist approach in the Victorian urban water sector. The ESC not only recommended initial regulatory asset values well below DORC, but also indicated it would conduct *ex-post* reviews of capital expenditure prior to the commencement of the second regulatory period (in 2008).

⁵² That is, where the intended investment is proposed in order to meet an objectively measurable service standard linked to the technical requirements of schedule 5.1 of the Code.

specified in Schedule 5.1 of the Rules. This would appear to be no more onerous than NERA et al's recommendation – and no different to existing obligations imposed on virtually all distributors.

We support any measure which clearly imposes an obligation on distributors to consider demand-side options. However, 'development' of a fully effective 'demand-side' market is likely to require far more encouragement by governments and regulators than a mere change in wording in the Rules. The EUAA has long campaigned for direct support for demand-side participation in the energy sectors. There is no doubt that there is a substantial level of interest from larger commercial and industrial end-users in opportunities to provide demand-side response – where this is commercially sensible. However, there are still substantial challenges to be overcome including:

- a better understanding by end-users, distributors and retailers of the opportunities;
- development of the operational capability of end-users that will provide a 'service' that adequately and reliably matches the distributors and retailers' requirements; and
- most likely, augmenting the technical capability of load devices and metering to ensure a responsive and auditable service is provided.

We believe it is fair to say that distributors show very little interest in providing a level of support or interest that will encourage development of demand-side options. It is also fair to say that most large end-users who are interested in offering demand-side response will do so only as an 'opportunistic' service. That is, they are prepared to offer demand-side response if it is financially rewarding to do so, not too inconvenient and does not compromise their productive capability. Most are reluctant to make any significant investment to facilitate demand-side response, such as through plant/equipment automation or advanced metering capability, because of lack of certainty about investment returns.

We also note that distributor interest in demand-side options is likely to be enhanced by policies that 'encourage' response from the most volatile segment of the market, which is Residential AC load. Without access to this demand-side resource, achievement of acceptable reliability standards will be very challenging. For example, the summer hot weather demand in South Australia (primarily from Residential consumers) is equal to or greater than total industrial and commercial load – and it is still growing strongly. Activation of demand-side response from large industrial and commercial end-users is never likely to match Residential AC response; and is also likely to be in the 'wrong' part of distribution networks on many occasions.

3.7.3. Assessment of costs to meet legal and service obligations

NERA et al recommend that *the business's assessed costs should reflect the cost of complying with government obligations as outlined in the Jurisdictional Direction and obligations arising as a result of other elements of the regulatory framework, eg, metering; service standard requirements.*

The EAG and EUAA accept that 'assessed costs' should include the efficient cost of meeting all obligations. However, the continued separation of technical and safety regulation and the setting of service standards (both of which impose substantial costs on distributors and end-users) from uniform national regulation remains a concern.

As a minimum, the AER must be given a role in considering the cost impact of technical and safety regulation and any jurisdictional differences in these standards or service standards. The AER must also be given adequate powers to challenge or question the circumstances where these differences compromise achievement of the SMO.

3.7.4. Payments to embedded generators

NERA *et al* recommend that *for electricity distribution businesses, any payments made to embedded generators to reflect reductions in TUOS costs and avoided network augmentation should be able to be recovered via distribution charges.*

The EAG and EUAA fully endorse any encouragement for deployment of embedded generation technologies that contribute towards reducing the economic and environmental costs of energy use. Accordingly, we support this recommendation.

However, we note that the practical application of these arrangements could be improved substantially. We are aware of only a few completed ‘negotiations’ on payment of ‘avoided network cost’ to embedded generators; the two most obvious being arrangements for the Somerton and Bairnsdale gas turbines. In both cases the ‘negotiations’ were conducted between ‘related’ supply side parties.⁵³ We are not aware of any successful ‘negotiations’ being completed between distributors and ‘independent’ (or end-user) embedded generators, although we concede this may be because there is no public domain information on such arrangements.

To date, there has not been as much ‘success’ in these arrangements as appears warranted. The MCE may wish to consider in more detail any embedded generator ‘pass-through’ and/or ‘discount’ ‘policies’ developed by jurisdictional regulators. It may be particularly worthwhile for the MCE to review:

- correspondence posted on the Victorian ESC Website⁵⁴ in respect of ‘price discounts’ arranged for the Somerton gas turbine to ensure that consistent principals can be developed for the transmission and distribution sectors; and
- network tariff pricing for small embedded generators, particularly the tariffs implemented by SP Ausnet⁵⁵ in Victoria that impose higher costs on Solar PV users than ‘ordinary’ consumers with generally similar load characteristics.

We emphasise that in both these instances, it appears that embedded generators receive much less than any reasonably likely estimate of the ‘avoided cost’ and both arrangements have been overseen and approved by the relevant regulator.

⁵³ The Somerton arrangements involved various ‘divisions’ of AGL; and the Bairnsdale arrangement involved Eastern Energy (then owned by TXU) and a Joint Venture vehicle 50% owned by TXU, which was later sold to Duke Energy and then Alinta.

⁵⁴ See: <http://www.esc.vic.gov.au/electricity286.html>. MJA notes that the Office of the Regulator-General’s (ORG) response to AGL Network’s attempt to ‘seek regulatory clarification’ of the basis for discounts for the Somerton gas turbine, has set an undesirable precedent in Victoria. This demonstrates the ‘dead hand’ effect of regulatory involvement in the negotiation process.

⁵⁵ The relevant Tariff Schedules and Tariff Reports are available on the Victorian ESC Website at <http://www.esc.vic.gov.au/electricity210.html>.

There was no requirement for AGL Network to seek regulatory intervention in the Somerton Gas Turbine arrangement, even though it involved a ‘negotiation’ between AGL Power Generation and AGL Networks. For reasons that were not clearly articulated in the correspondence, the ORG insisted that AGL Network allow 50% of the locational distribution benefits to be ‘retained’ by the distributor and subsequently passed through to consumers in network prices. There appears to be no rational argument to support this requirement. The ‘general consumer body’ had done nothing to ‘earn’ such a benefit, since any such benefit would only have occurred because of AGL Power Generation’s investment in the embedded generator. Nor is there any direct evidence that the ESC managed to pass through any benefit to consumers generally. Any amount of such pass-through was subsumed within the general cost-revenue requirement determined in the subsequent distribution price review (and AGL’s ‘strategic behaviour’ which clearly lead to overstating all elements of cost).

The most undesirable outcome of this initiative is that it has resulted in all Victorian DBs using the ORG’s ‘decision’ as an ‘excuse’ to only offer 50% of the distribution locational benefit in negotiation with embedded generators.

The SP Ausnet Photovoltaic network tariff (NEE23) has a Standing Charge that is \$39.60/year (or 72%) higher than the Small Residential two rate network tariff (NEE20) and an Off-Peak rate some 55% higher, with a Summer peak payment rate (for export to the grid) of just 0.25c/kWh (only 4%) above the ‘standard’ peak consumption rate. SP Ausnet (then TXU) had the temerity to suggest that this tariff left Solar PV users no worse off, when the tariff was first introduced. The latest SP Ausnet Tariff Report has corrected that statement.

It may also be appropriate for the MCE to examine outcomes from the AEMC review of transmission revenue and pricing arrangements before finalising deliberations on this matter. We note for example, that the current ‘pass-through’ arrangements in the Rules relate only to ‘avoided’ network costs, which generally appears to be interpreted (by utilities and even regulators) to refer to variable price components of transmission and distribution tariffs. We believe it would be more appropriate to specify in the Rules that ‘avoided costs’ should related to long-run avoided costs

3.7.5. Cost of capital

NERA *et al* recommend that *the regulator should use market based rates of return.*

The NERA *et al* consultation paper makes no reference to the fact that current regulatory practice associated with estimating the cost of capital is controversial and the outcomes are peppered with shortcomings that place additional (unjustified) cost burdens on energy users and ‘over-reward’ energy networks.

Given the substantial compromise, and the difficult judgements required in making estimates of WACC, and the controversy and uncertainty associated with the key parameter values, we believe the Rules should not be more prescriptive than is currently the case. It is our view that further guidance through the Rules is justified for regulators in estimating the WACC. We believe it is appropriate to include reference in the Rules to:

- emphasise that the WACC should be no more than that generally available in financial markets – allowing for the relatively low risk offered by ‘regulatory protection’;

- making use of all relevant and robust information in setting the WACC; and
- recognising the inevitable final need for sound (but difficult) exercise of judgement in all elements of WACC estimation.

The Rules should prescribe both the form of WACC and the model used to estimate its value, with the ‘*Vanilla*’, *real, post-tax WACC* being the prescribed form and application of the Capital Asset Pricing Model (CAPM) being the prescribed model.

We do not accept that the current approaches adopted by Australian regulators adequately reflect the marked difference in views between academics and consultants (who tend to focus on complex statistical analysis of long-term historical market data) and the views of financial market analysts and practitioners (who tend to focus on forward-looking expectations in the financial markets). This is one important area where the existing regulatory practice needs to be given scope to improve and develop.

We also believe there is benefit in retaining a benchmark capital structure when estimating WACC as, properly constructed, this will provide an incentive for utilities to pursue efficient financing arrangement, the benefits of which should (eventually) be passed through to end-users. However, the Rules should also require the AER to provide a clear explanation of the basis for establishing the ‘benchmark’ arrangements that is capable of demonstrating to end-users (and utilities) the benefits that derive from the ‘benchmark’ structure.

The ‘principles’ contained in the AER’s current Statement of Regulatory Principles (SRP) should not be accepted by the MCE (or the AEMC), and should not be elevated to the Rules in their current format. We believe the ACCC ‘jumped the gun’ by suggesting it is possible to define values and ‘lock them into the SRP’ for key parameters, notably the Market Risk Premium and Equity Beta. The EUAA and EAG do not accept that sufficient information is available to support the values of 6.0% and 1.0 respectively adopted by the ACCC. Our firm view is that not only are the present parameters impossible to justify they are set far too high and are contrary to the SMO.

We also believe it is overly complex, onerous and costly for Australian regulators to undertake a comprehensive review of WACC parameters for each energy utility review under the current arrangements. As noted below, the reviews for all common utilities should be aligned with all aspects relating to the cost of capital reviewed only once every 5 years.

The Rules should not allow for the determination to be re-opened if market or economic conditions change. Utilities have adequate opportunities to insulate themselves from these effects by active participation in debt, bond and equity markets, which justifies the AER adopting a ‘benchmark financial structure’. There is never likely to be any benefit conferred on end-users by allowing re-opening of a determination process; and no need to do so where prudent, well-managed firms have access to adequate ‘hedge arrangements’ to protect against expected volatility.

4. Conclusions

The EAG and EUAA have prepared two submissions to the MCE review of a national distribution and retail framework. As noted in Section 1 of this supplementary submission,

our preliminary submission made comment, and proposed suggestions for improving NERA *et al*'s recommendations in areas that were clearly critical to end users. This supplementary submission addresses other issues that are also directly relevant to end users.

The comments made in these submissions relate to economic, financial and technical matters that impact directly on the options that end users face in the energy markets, the type and level of services they receive, the prices they face and the costs they bear – and the impact that all these aspects have on economically efficient outcomes. We have no doubt that all of these issues are equally relevant to large and small energy users.

A primary focus has been to base our comments on outcomes from existing policies and propose improvements/changes to NERA *et al*'s recommendations that we believe are more likely to facilitate achievement of the single market objective. Where appropriate, we have referred to specific examples of outcomes and issues based on our long participation in regulatory processes and detailed observation of the energy markets.

In our initial submission we addressed the following issues and made recommendations along the lines summarised below. In particular, we noted:

- Deficiencies and limitations in the consultation paper prepared by NERA *et al* and the difficulties this creates for end users.
- There have been too many compromises with 'jurisdictional sensitivities, which are almost certain to compromise achievement of the single market objective (SMO). Further examples are addressed in this supplementary submission.
- There is a need for the MCE to ensure any policy changes are linked to demonstration of (at least) a net benefit to energy users. This would be an outcome of changes in competitive markets; and it should also be an outcome from market-focussed policies.
- There is a need for the MCE to insist that the AER align the timing and execution of regulatory reviews in electricity distribution, gas distribution (and also electricity and gas transmission) as occurs in the UK. This will go a long way towards unifying the regulatory regime and reducing the cost of regulation.
- There is a need for explicit recognition of the nexus between technical and safety standards and the specification of service performance targets (which are to be left with the jurisdictions) and costs and service standards that are to be regulated by the AER. The MCE must ensure that maximum the possible uniformity in regulation of all standards is achieved. This will reduce the costs of regulation, allow retailers the maximum opportunity of developing uniform systems and products and allow consumers the maximum freedom to exercise choice.
- There is a need for the MCE to insist that end users' interests are reflected in standard connection agreements, and those agreements require distributors to be accountable for service standards only they can control.
- The scope of distribution price regulation should cover all services that cannot be readily procured by end users in effectively competitive markets.
- Price cap regulation for distribution services should be in the form of tariff basket arrangement.

- Regulatory requirements in relation to tariff settings should be accompanied by close scrutiny by the AER to ensure distributors do not exploit the substantial discretion available to them.
- Service performance targets should relate to standards that are meaningful to end users, be uniform across the energy markets, provide effective incentives for distributors to achieve them and be subject to routine reporting by the AER.
- Information disclosure requirements must include sufficiently precise definition to ensure the AER can effectively regulate distribution and retail service delivery; and must be accompanied by sufficient powers for the AER to enforce compliance.

In this supplementary submission we commented on the following issues and made recommendations along the lines summarised below:

- Despite the relatively small proportion of energy delivered to small consumers, economic, financial and technical matters are equally important to all energy users. Residential consumers have the most volatile demand and are allocated up to 65% of distribution costs. There is, therefore, common interest between large industrial and commercial energy users and small consumers to achieve policy outcomes that deliver secure, reliable and affordable energy.

We have no fundamental opposition to wide-scale implementation of cost-reflective pricing for all consumers. However, we do not believe that pricing alone will be sufficient to satisfy consumers and deliver economically efficient outcomes consistent with achievement of the SMO.

We believe the MCE must look at practical policy options that will allow small consumers to benefit from changes in their individual consumption behaviour that would lead to improving industry investment patterns. The MCE also needs to implement policies that will achieve outcomes that better align costs (currently dominated by temperature sensitive peak load growth measured in MW) and prices (currently linked to energy consumptions) for small consumers. The alternative is to allow the AER to ‘authorise’ billions of dollars of network investment to meet increasing peak load growth and increasingly rarely used peak capacity.

The negative consequences of such policies also need to be addressed by the MCE. As noted above, there are indications that low-income households already ‘practice effective demand response’. But they have few choices left to avoid any increase in cost that may result from wider scale implementation of cost-reflective pricing. Accordingly, the MCE must act to ensure jurisdictions implement effective Community Service Obligations and develop policies that facilitate roll-out of low-cost load control technologies across the NEM.

- There is a need for the MCE to ensure that end-users have the means, not just the opportunity, to be heard. This outcome must be achieved without stifling the effectiveness of their contribution through excessively bureaucratic funding arrangements as currently exists both nationally and in those few jurisdictions that provide funding for consumer advocacy.
- As we noted in our preliminary submission, the disparate and uncoordinated reviews being undertaken by the MCE and AEMC make it difficult for end users to resource effective contributions and suggest a poorly planned approach to policy review and

industry reform. Accordingly, we recommend that the MCE develop a more robust and efficient policy process by:

- concatenating these reviews into a single process; or
 - amending the order of the individual processes to ensure the MCE has access to all the information necessary to make sensible policy decisions without the need to re-visit the issue at stake simply because of the process.
- Also as noted in our preliminary submission, it is our view that achievement of the SMO will require that service standards be unified to the maximum extent possible right across the NEM (and gas market) – with performance outcomes routinely reported by the AER on a uniform basis. This would be much more likely to give small consumers basic information they need to understand the benefits ‘delivered by the market’ and allow them to exert appropriate economic power.

It will, therefore, be crucial for the MCE to ensure consistency between technical and safety regulation and economic regulation of the costs that these standards impose on distributors and consumers. Achieving consistency in technical and safety regulations across all jurisdictions will also be critical to eliminate entry barriers for small embedded generators (including solar PV or (potentially) Fuel Cell combined heat and power units) and address issues that extend beyond individual jurisdictions.

If current ‘consumer-appliance’ developments of small embedded generation technologies proceed to the commercial market phase, it could initiate a consumer revolution in the electricity sector that requires a fundamental re-think of current arrangements for grid connection of small generator units.

The challenge for jurisdictional governments and the AER presented in the examples we provided in this submission lies in simplifying the process for installation and grid-connection of small embedded generators. Accordingly, we recommend this be achieved by changing the ‘economic regulations’ that govern the process for connection of small embedded generators so that a small embedded generator owner is only required to notify their retailer that an embedded generator (with less than 10kW capacity):

- has been installed in accordance with ‘current wiring standards’ by a licensed and qualified installer;
- has an Inverter that fully complied with the appropriate Australian Standard (AS 4777) – as required by electricity industry standards; and
- has been connected to the grid and switched on by the installer after completing the required testing of the installation.

We believe this solution provides a model that should be investigated more widely by the supply-side and the AER (and AEMC). This could be achieved by requiring the AEMC and AER (and jurisdictional Governments) to ensure that all aspects of regulation seriously considered how to maximise benefits from consumer choice.

- There is a need for the MCE to ensure that apparent bias (or confused focus) in favour of energy utilities is removed from policy. NERA et al’s paper makes several references to the need to provide certainty to utility investors. We accept that utility investors may appreciate certainty, although it is clear to energy users that supply-side groups have adopted ‘the need for investment certainty’ as a ‘war cry’ for special pleading in an

apparently successful attempt to influence regulators (and policy makers) across the nation.

We acknowledge that policy and regulatory uncertainty is likely to influence on investment. However, a focus on supply side investment impacts without consideration of consumer investment impacts creates an appearance of bias, or at least unbalanced focus, which is ‘unhealthy’ and ignores the SMO to promote ‘*efficient investment ... for the long term interest of consumers*’.

Focusing solely on investors with unreasonable expectations (i.e. that differ from the reasonable expectations of efficient capital and debt markets) is undesirable and will serve only to increase costs to consumers and reduce the international competitiveness of the Australian economy. The MCE, AEMC and AER should not ignore the economy-wide investment that comes with good regulation.

- As noted earlier, we support the general approach used by NERA *et al* to identify policy options. The process is reasonable, logical and is likely to produce satisfactory outcomes providing consideration is given to practical impacts on end-users of the policy options. We comment on just one example (related to connection and capital contributions) where changes proposed for policies demonstrate some positive attributes, but could be improved by applying the same principles for connection of remote generator connection to the transmission system as that proposed for major customers/embedded generators. That is, all generators should face the costs they impose on the system - and be permitted direct access to benefits that derive from differences in locational costs where these arise. This would be more likely to yield more economically efficient outcomes. Not only that, but the modified proposal is ‘fairer’ and much more likely to facilitate achievement of the SMO not least because it would provide direct incentives for lowering the overall cost of all generation investment.
- We note that the NERA *et al* paper was written in a period when the levels of consumer dissatisfaction was increasing (as indicated by the number of jurisdictional Ombudsman scheme complaints). Some of the causes of this relate to excessively complex systems that retailers are required to develop to deal with the energy market and jurisdictional preferences.

Accordingly, we believe that the MCE must review to cause of these difficulties and seek policy solutions that will unify systems and procedures as far as practicable so that retailers are able to more efficiently and effectively compete across the NEM.

- We accept that it is reasonable for regulated utilities to recover the efficient cost of providing services to end users. We also accept that NERA *et al*'s recommendations in respect of treatment of initial asset values, assessment of capital expenditure and inclusion of costs related to government-imposed obligations, service standards, payments to embedded generators and cost of capital are appropriate as high level principles.

However, regulators’ assessment of costs in each of these areas has generated considerable debate, both in jurisdictional regulatory reviews and reviews of electricity and gas transmission by the ACCC. Each area has also stimulated ‘strategic behaviour’ by utilities in regulatory review processes to the detriment of energy users (and achievement of the SMO).

Accordingly, we recommend that:

- The MCE examine how initial regulatory asset values were determined and further explore means to develop transparently effective incentives for utilities to achieve efficient outcomes for all their activities. The key to this is to ensure that appropriate incentives focus of delivering future benefits to end-users, not just rewarding utilities for past performance.

The MCE accept NERA *et al's* recommendations to impose obligations on distributors to consider demand-side options when reviewing any significant network expenditure. However, there are still substantial challenges to be overcome including:

- a better understanding by end-users, distributors and retailers of the opportunities;
- development of the operational capability of end-users that will provide a 'service' that adequately and reliably matches the distributors and retailers' requirements; and
- most likely, augmenting the technical capability of load devices and metering to ensure a responsive and auditable service is provided.

We also note that distributor interest in demand-side options is likely to be enhanced by policies that 'encourage' response from the most volatile segment of the market, which is Residential AC load. Without access to this demand-side' resource, achievement of acceptable reliability standards will be very challenging.

We accept that 'assessed costs' should include the efficient cost of meeting all obligations. However, the continued separation of technical and safety regulation and the setting of service standards (both of which impose substantial costs on distributors and end-users) from uniform national regulation remains a concern.

As a minimum, the AER must be given a role in considering the cost impact of technical and safety regulation and any jurisdictional differences in these standards or service standards. The AER must also be given adequate powers to challenge or question the circumstances where these differences compromise achievement of the SMO.

- We fully endorse any encouragement for deployment of embedded generation technologies that contribute towards reducing the economic and environmental costs of energy use. Accordingly, we support NERA *et al's* recommendation that distributors be permitted to recover costs associated with payments to embedded generators where costs are reduced.

However, we note that the practical application of these arrangements could be improved substantially. To date, there has not been as much 'success' in these arrangements as appears warranted. The MCE may wish to consider in more detail any embedded generator 'pass-through' and/or 'discount' 'policies' developed by jurisdictional regulators. We have suggested two specific examples where close scrutiny appears warranted. These are:

- The arrangements endorse by the Victorian ESC for the Somerton Gas Turbine; and
- SP Ausnet's Solar Photovoltaic network tariff.

In both these instances, it appears that embedded generators receive much less than any reasonably likely estimate of the 'avoided cost' and both arrangements have been overseen and approved by the relevant regulator.

Given the substantial compromise, and the difficult judgements required in making estimates of WACC, and the controversy and uncertainty associated with the key parameter values, we believe the MCE should ensure the Rules should not be more prescriptive than is currently the case. It is also our view that further guidance through the Rules is justified for regulators in estimating the WACC. We believe it is appropriate to include reference in the Rules to:

- emphasise that the WACC should be no more than that generally available in financial markets – allowing for the relatively low risk offered by ‘regulatory protection’;
- making use of all relevant and robust information in setting the WACC; and
- recognising the inevitable final need for sound (but difficult) exercise of judgement in all elements of WACC estimation.