



NETWORK PLANNING AND CONNECTION ARRANGEMENTS

ENA Submission in response to NERA/Allen paper

5 October 2007

Key messages

1. The issues addressed in the NERA/Allen paper have clear linkages to the economic regulatory rules applying to network businesses that are currently under consideration by governments. It is unclear how these linkages will be addressed in the current process
2. The recommendations reflect a simplistic view of distribution infrastructure planning and investment, and are dominated by prescriptive and costly obligations that are disproportionate to the expected benefits from regulation
3. The issues addressed in this paper are complex matters of market and regulatory design, with implications beyond the network sector. The AEMC is best placed to undertake the detailed analysis required to progress these issues

1. Executive summary

The Energy Networks Association (ENA) welcomes the opportunity to comment on the NERA Economic Consulting and Allen Consulting Group paper *Network Planning and Connection Arrangements – National Frameworks for Distribution Networks*, released by the Ministerial Council on Energy (MCE) Standing Committee of Officials (SCO) in August 2007.

Approach and relationship to other MCE work programs

Several elements of the NERA/Allen paper are relevant to the development of the “economic” aspects of the *National Electricity Rules* currently being considered by governments. As ENA has not had opportunity to review the most recent draft of the *National Electricity Rules* to consider these interrelations, ENA reserves the right to make a further submission to this process once we have considered the *Rules* in detail.

ENA is concerned that the recommendations of the NERA/Allen paper build on past recommendations to the Retail Policy Working Group (RPWG), which have not been considered by governments. This risks locking in inappropriate

approaches, with high costs of changing approaches at a later stage. ENA seeks guidance from MCE SCO as to the status of this and past consultation processes, and a clear policy direction as to its approach to the RPWG process.

ENA also seeks guidance on the approach governments will use to adopt any agreed recommendation from this process, including pursuing any changes to the economic regulatory framework currently being considered. ENA seeks an undertaking from governments that it will pursue any agreed outcomes from this process within the governance framework for the energy market.

Network development and planning arrangements

ENA supports the development of nationally consistent information and planning arrangements, however the recommendations in the NERA/Allen paper are excessively onerous, and place costs on network businesses (and ultimately customers) that are disproportionate to the expected benefits of any information disclosure regime. ENA recommends that MCE SCO consider a more balanced approach to information disclosure which aligns costs with beneficiaries, through high level information requirements, and detailed information provided on a fee-for-service basis.

ENA supports the use of a “proportionate” planning and evaluation framework that reflects the relative size of distribution investments, and the expected benefits from a transparent planning approach. ENA does not consider, however, that the NERA/Allen recommendation to use the Regulatory Test, which has been principally designed to assess very large transmission projects, is appropriate for smaller distribution assets. ENA considers that it may be appropriate to develop a distribution-specific regulatory test, which takes account of the size and nature of distribution investments. The analysis of the case for a new test, as well as the development of *Rules* for the test, should be conducted by the Australian Energy Market Agreement (AEMC), at the same time as it reviews the current proposed amendments to the transmission-focused Regulatory Test.

Connection arrangements

ENA supports the development of nationally consistent connection arrangements, but has concerns with some of the detailed arrangements recommended in the NERA/Allen paper. These include the relationship between direct control and negotiated services and the appropriate use of the negotiation framework for network connections, the approach to developing the detailed provisions for network connections, and the appropriateness of some of the timeframes for distributor response to network connections. ENA recommends that the AEMC be tasked with developing rules for network connections to ensure that a broad range of stakeholder views are taken into account, the approach is consistent with the economic regulatory aspects of the rules, and any necessary changes to the economic rules can be adopted as part of a cohesive package.

Connection charges

ENA does not support the proposed approach to connection charges in the paper. The approach is inconsistent with previously recommended approaches, out of step with current practices, and many aspects are unworkable and place unacceptable obligations on network businesses. The ENA recommends that this issue be referred to the AEMC for appropriate, industry-wide consideration, taking account of the complexities and potential market impacts of network connection pricing and capital contribution issues.

Network losses

While there is scope for consideration of alternative approaches for calculating, managing and allocating network losses, the focus on network losses in this paper does not reflect the current priorities of reform relating to developing nationally consistent regulatory arrangements for distribution. ENA also considers that the NERA/Allen paper does not adequately account for the practical complexities of calculating loss factors, leading it to recommend unworkable and potentially quite costly obligations. ENA recommends that consideration of the approach to network losses be referred to the AEMC for further consideration, as part of a wider review of regulatory approaches to support demand management.

Next steps

The issues addressed in this paper are complex matters of market and regulatory design, with implications beyond the network sector. ENA therefore considers that the AEMC, as the market development body of the National Electricity Market, is best placed to develop the detailed rules with regard to network planning, connections and network losses.

2. Background

This submission responds to the NERA Economic Consulting and Allen Consulting Group paper *Network Planning and Connection Arrangements – National Frameworks for Distribution Networks*, released by the Ministerial Council on Energy (MCE) Standing Committee of Officials (SCO) on 23 August 2007. The submission structure largely follows that of the NERA/Allen paper.

Several elements of the NERA/Allen paper are relevant to the development of the “economic” aspects of the *National Electricity Rules* currently being considered by governments. The final drafting of the economic elements of the *National Electricity Rules* will also have a bearing on issues discussed in the NERA/Allen paper, in particular the approaches to negotiated services and demand management. As the Energy Networks Association (ENA) has not had opportunity to review the most recent draft of the *National Electricity Rules* to consider these interrelations in detail, ENA reserves the right to make a further submission to this process once we have considered the *Rules*.

ENA is the national representative body for gas and electricity distribution network businesses. Energy network businesses deliver electricity and gas to over 12 million homes and businesses across Australia through approximately 800 000 kilometres of electricity lines and 75 000 kilometres of gas distribution pipelines. These distribution networks are valued at more than \$35 billion, and each year energy network businesses undertake capital investment of more than \$5 billion in network reinforcement, expansions and extensions.

3. Approach and relationship to other MCE work programs

Approach to development of “non-economic” regulatory package

ENA understands that the papers released by the MCE SCO as part of this current consultation process are intended to inform the development of the national framework for distribution regulation, currently being considered by jurisdictional officials. This “non-economic” regulatory package has been the subject of several consultation papers over the past 12 months, however, ENA understands that no policy decisions have been made on the outcomes of those consultations.

ENA has previously expressed concern over the status of this consultation process, which has been undertaken under extensive disclaimers that the papers released for consultation did not represent the view of officials, but instead represented the unedited work of the consultant in question.¹ This approach means there is a lack of clear policy guidance to the consultants and to industry and consumer stakeholders as to the approach that governments will take in the development of the non-economic distribution rules. This creates considerable uncertainty, and undermines industry confidence in the reform process.

With regard to the current consultation process, ENA is particularly concerned that the NERA/Allen paper builds on the past recommendations of relevant consultants, without clear direction from officials that this framework is, or will be, accepted. This is of particular concern as ENA considers there are considerable shortcomings in the approaches recommended in the Allens Arthur Robinson (AAR) Consultation Papers that require further consideration by government.

ENA recommendation

ENA seeks clear policy guidance from MCE SCO as to its proposed response to the earlier non-economic distribution framework recommendations, before proceeding with the issues outlined in the current NERA/Allen paper. Failure to do this will increase the costs and risks of changing integrated positions at a later stage.

ENA recommendation

ENA requests that MCE SCO release a formal agenda setting out the process, objectives and timetable for implementing the non-economic distribution framework.

¹ Energy Networks Association, *National Framework for Distribution Regulation: ENA Response to Submission to Retail Policy Working Group Consultation Paper*, 18 July 2007.

Lack of prior consultation on issues before reaching recommendations

The NERA/Allen paper includes considerable detail on the proposed approach and recommended *Rule* changes applying to both the economic and non-economic regulatory frameworks, with regard to network planning, connections, capital contributions and the treatment of network losses. These recommendations on complex technical and economic issues have been reached:

- in the context of economic rules that have not been formally released at the time of writing
- in the context of assumed reforms to distributor/retailer obligations which to our knowledge have not been considered by SCO
- without any prior industry consultation or stakeholder engagement
- on the basis of recommendations which flow from a desktop review of existing jurisdictional regulatory frameworks
- without the benefit of knowledge of the practical application of many of these frameworks and
- without a full understanding of stakeholder needs.

Many recommendations also have relevance to the development of the economic regulatory aspects of the *National Electricity Rules* currently being considered by officials and ministers, as well as potentially far reaching implications for the scope and operation of the Regulatory Test, to which changes are currently being considered by the Australian Energy Market Commission (AEMC) and the Australian Energy Regulator (AER).

ENA considers that the detailed approach recommended by NERA/Allen is not appropriate for the current stage of consultation on these issues. Industry has not been sufficiently engaged in the development of the recommendations, many of which do not reflect industry realities as to the costs and benefits of recommended approaches, and their day-to-day practicality. In many cases, approaches are recommended that are not feasible, and which would add considerable cost for consumers. These issues are highlighted throughout this submission.

Lack of clear mechanism to address recommendations

The paper, as well as the MCE SCO *Introductory Note* released with the papers, is unclear as to how (or whether) the proposed recommendations will be adopted. The *Introductory Note* canvasses both Ministerial Order and the AEMC *Rule* change process as potential mechanisms for adoption of relevant recommendations.

ENA is concerned that this uncertainty as to the mechanism and timing of policy consideration of the recommendations in the paper will cause uncertainty as to the development of the new distribution regulatory model, and stability of current *Rules*. The NERA/Allen paper includes recommendations that would change aspects of the economic regulatory *Rules* under Chapter 6, which are currently undergoing final consultation.

ENA recommendation

ENA requests that MCE SCO clearly set out its proposed process for considering the issues outlined in the paper, including its intentions to use Ministerial Orders in the future to give affect to specific *Rule* changes, as part of the formal agenda described above.

Relationship to MCE governance model

Given the complexity of the issues reviewed in the NERA/Allen paper, the lack of prior industry consultation, and potentially industry-wide impact of some of the recommendations, network businesses would be concerned if it was proposed to introduce the recommend changes through Ministerial Order.

ENA considers that the AEMC is best placed to undertake the required broad ranging review of issues raised in the NERA/Allen recommendations. Continued *ad hoc* use of Ministerial Order circumvents the market development role of the AEMC and creates significant uncertainty and risk for industry, by undermining the rationale for establishing an independent and expert rule-making body. ENA urges MCE SCO to progress any issues raised as a result of this consultation process through the AEMC *Rule* change process and not Ministerial Order, to avoid this adverse outcome.

Further, ENA does not support the stated reliance throughout the NERA/Allen paper on the potential future role of *Rule* changes to address any shortcomings of approach arising from the current consultation and *Rule* development process. The NERA/Allen paper specifically states that:

A key strength of the new institutional and legal framework is that the Rules...can be subject to continuous review and changes in a reasonably expeditious manner if, in the light of experience, certain measures are found to be inappropriate. It is because of this ability to review the regime in the future that this report is more definitive in its recommendations about the requirements of the future planning regime than otherwise may be justified.²

ENA has always supported the development of robust *Rule* change processes. The existence of such processes, however, does not justify the imposition of

² NERA Economic Consulting and The Allen Consulting Group, *Network Planning and Connection Arrangements - National Frameworks for Distribution Networks*, August 2007, pg. 9.

prescriptive and costly additional regulatory obligations on network businesses by governments without sound justification. Such an approach clearly undermines the *National Electricity Law* objective that the *Rules* be developed in such a way as to be in the long term interests of consumers. Unnecessary and overly prescriptive regulation imposes costs on consumers beyond the direct cost of regulation, including the potential to stifle innovation in energy service delivery.

Ministers and officials, where they are developing initial *Rules*, have a clear obligation to consider and address the negative implications of changes, and ensure they have a clear rationale for regulation. This principle underpinned the original Hilmer competition policy reforms, and was endorsed by the Expert Panel when considering its approach to developing rules for the economic regulation of distribution networks.³ Relying on costly and potentially lengthy industry-led *Rule* change to address problems at a later date is unacceptable and risks significant costs from inefficient arrangements and undermines industry confidence in the MCE and the policy development process.

ENA recommendation

ENA seeks a clear commitment from MCE SCO that they will consider the direct costs of regulatory obligations, as well as the potential costs of overregulation to investment, before introducing new regulatory obligations.

Network industry proposed approach

ENA supports the development of nationally consistent arrangements for distribution regulation, in accordance with the Australian Energy Market Agreement. Network businesses have, however, identified a number of significant shortcomings in the proposed approach to progressing the issues highlighted in the NERA/Allen paper. The approach lacks a clear policy framework. The framework should instead be built on past processes and recommendations that have been considered and agreed by ministers, with sufficient industry consultation, and developed in line with MCE-agreed transparent governance framework for the energy sector.

ENA recommendation

ENA considers that industry and government should, as a priority, use the work from this consultancy to jointly develop a formal MCE reference for an AEMC review of these detailed issues of regulatory design. This will permit AEMC to review the issues in detail, through a transparent consultation

³ Expert Panel on Energy Access Pricing, *Report to the Ministerial Council on Energy*, April 2006, pg. 11-12

process which then develops draft *Rules*, leveraging off similar detailed work the AEMC has undertaken in respect of transmission.

4. Network development and planning arrangements

Case for intrusive information disclosure and planning regime

The NERA/Allen paper proposes an extensive information disclosure and planning regime to apply to electricity distribution businesses. The rationale for the information and planning regime is that network businesses, in the absence of prescriptive and intrusive regulatory obligations, are poorly incentivised to pursue least cost options to meet reliability and safety obligations, including using non-network options such as demand management and distributed generation. Consequently, the paper assumes that the information disclosure and planning processes will increase the use of non-network options, as well as decrease costs for proponents of non-network options in developing proposals, delivering a net benefit to consumers.

The ENA considers that there are significant flaws in this rationale. These flaws lead NERA/Allen to recommend an information and planning regime that is disproportionate to the benefits available to the community from that regime. These issues are outlined in more detail in the following sections and arise from:

- A failure of the paper to take account of the basic incentives faced by network businesses in pursuing non-network options as an alternative to network augmentations
- No recognition of the role of network businesses as a primary proponent of non-network options and
- A lack of assessment of the evidence from current jurisdictional arrangements, evidence which suggests that the mere provision of detailed information of the type described in the paper has not delivered improved uptake of network options.

Incentives to pursue non-network options

The underlying incentives to pursue the most efficient options to deliver regulatory requirements are part of the fundamental regulatory structure. Central to these incentives is the *ex ante* regulatory approach, which allows network businesses to retain for a period the benefits arising from the capital efficiencies they achieve. This approach is considered to offer sufficient incentives for efficient network service delivery, such as not to require *ex poste* prudence review of expenditure. This regulatory approach has proved successful and has delivered considerable capital efficiency benefits to customers.

However, this approach does not offer balanced incentives when it comes to consideration of more risky efficiency options, such as the use of demand

management or distributed generation as an alternative to network augmentation. The reason is that the normal capital efficiency approach offers no premium to take account of the additional risk of some non-network options that may arise through the imposition of service standard penalties if options fail. This risk is instead priced into the cost of the non-network options at the time of project assessment.⁴

Without specific economic incentives that change the underlying risk profile of non-network options for network businesses, they will always face a higher cost hurdle in the planning process. The provision of additional information to the market will not change this as the risk is reflected in the costs of the project, making many non-network options uneconomic. It is this fact that highlights the case for specific incentives for demand management options beyond normal capital efficiency incentives.

Role of network businesses as proponents of non-network options

The focus of the NERA/Allen paper is on making information and opportunities available to external proponents of demand management and distributed generation opportunities. While external proponents can be an important contributor to demand management, the vast majority of demand management projects are conceived and developed by the distribution business itself, directly seeking demand side response from its customers. This is because:

- individual energy users find it difficult to aggregate their demand management capabilities, and often require information intensive organisation through the network business;
- demand management projects are often multifaceted and complex, and must fit into wider capital management plans (i.e. they are the product of 'economies of scope' within network planning); and
- projects may utilise already existing network infrastructure, such as ripple control systems.

The proposed information disclosure regime, including requirements to issue Requests for Proposals (RFPs) discussed later in this submission, does not recognise the significant investment that network businesses have made, and are continuing to make, in research and development to increase their understanding of demand management opportunities and risks. The proposed approach essentially requires network businesses to provide its intellectual property to other potential service providers, with the likelihood

⁴ Note that this risk is priced into non-network options regardless of who carries the risk. Where reliability risk is passed through to the proponent the proponent must increase its return on the proposal to cover the risk, thereby raising the upfront costs of the project.

that these providers will use this information to offer a more expensive option back to the service provider. For example, the Paper notes that:

One downside of publishing the likely network costs is that providers of DSR or DG may not bid the cost of their options, but rather an amount that is just below the cost of the network solution. However, even were this to occur, customers would be no worse off, as they would still pay prices that are no higher than would have applied if the network options had been employed.⁵

This approach disregards the role of the network service providers as a potential demand side response provider, and the conflicts that arise where a higher cost project is proposed (compared to what it would cost the network business to provide a similar non-network option), through the RFP process. The community would in fact be significantly worse off if network businesses were forced to adopt more expensive non-network proposals than they could provide internally.

Evidence from current jurisdictional arrangements

The NERA/Allen paper proposes that network businesses publish extensive information on upcoming network constraints, the expected cost of augmentations, areas of significant spare capacity on the network, and average and marginal distribution loss factors for points in the network. It also proposes that network businesses conduct cost-benefit analyses of proposed projects over \$0.5 million, and RFPs for projects over \$2 million. These obligations are intended to improve opportunities for non-network project proponents and prospective distributed generators to propose alternatives to augmentation. ENA assumes that these proposed obligations are intended to apply only to demand related augmentations, and not normal capital replacement activities.

ENA considers that these proposed arrangements would impose a disproportionate and costly regime on network businesses that is not justified by the benefits available for customers from that regime. Further, such arrangements would act to undermine the incentives for network businesses to create innovative solutions to network augmentations.

As noted in the NERA/Allen paper, there is currently in place a detailed information disclosure and planning regime in South Australia.⁶ However, the South Australian regime was recently reviewed in light of the fact that, despite ETSA Utilities being in full compliance with the disclosure and planning requirements set out in Guideline Number 12 for three years, no

⁵ NERA/Allen, *Network Planning and Connection Arrangements*, pp. 29.

⁶ The arrangements described in the NERA/Allen paper for New South Wales as part of the *Demand Management Code of Practice* serve as a guideline and are not enforced.

project proposals had successfully been adopted to defer a network augmentation.⁷ This fact is also recognised in the NERA/Allen Paper.⁸

Given the lack of tangible benefits from the South Australian arrangements, it is difficult to understand the justification for expanding essentially identical arrangements to the rest of Australia. As noted above, the provision of extensive information to the market does not change the underlying incentive characteristics of the regulatory regime, which fundamentally dictate the case for pursuing non-network options. Instead, the proposed approach will impose costs on to network businesses which will ultimately be passed on to customers.

Lack of proportionality of arrangements to benefits available

The NERA/Allen paper sets as a principle for developing nationally consistent information and planning arrangements the need for those arrangements to be proportionate to the expected benefits. They conclude that this approach would suggest that the information and planning regime to apply to network businesses should be a lower cost planning framework to administer than the transmission framework.⁹

The evidence available from current arrangements applying to transmission, compared to the recommended arrangements for distribution, suggest that the proposed arrangements in fact deliver a far more extensive, costly and onerous regime than that applying to transmission. This is shown in [Figure 1](#) below, which compares the number of projects subject to a rigorous cost benefit analysis for all transmission businesses over the past 12 months, to the expected number of projects that will be subject to similar arrangements through RFPs and cost benefit analyses for distribution businesses in three states; South Australia, New South Wales and Queensland.

In fact, the number of projects that will be subject to detailed analysis *in each business* in NSW and Queensland in the proposed distribution approach is 2-5 times greater than the *total* number of transmission projects that have undergone similar analysis in the past 12 months. Across Australia, these obligations, on conservative estimates, would mean approximately 150-180 RFPs issued each year. The projects outlined here relate only to demand-related projects. If all larger projects were subject to these arrangements, the number of RFP process would be significantly larger again.

⁷ Essential Services Commission of South Australia, *Review of Electricity Industry Guideline 12: Demand Management for Electricity Distribution networks, Discussion Paper*, July 2006, pg. 9.

⁸ NERA/Allen, *Network Planning and Connection Arrangements*, pp. 19-20.

⁹ NERA/Allen, *Network Planning and Connection Arrangements*, pg. 13

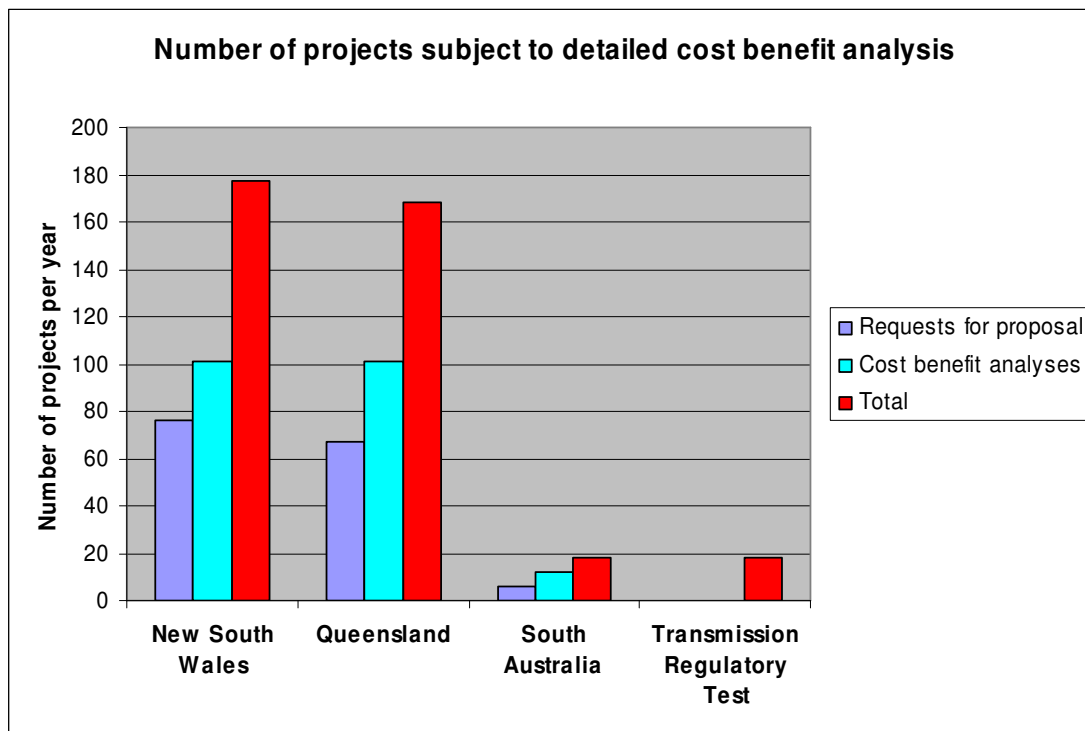


Figure 1: Number of projects expected to be subject to detailed cost benefit analyses in New South Wales, Queensland and South Australia over each year, compared to all transmission projects subject to detailed regulatory test requirements in the past 12 months

The NERA/Allen paper also notes that ESCOSA estimates the cost of issuing an RFP is \$30-35 000. If this estimate is correct, then the costs faced by network businesses of this obligation are likely to be in the order of \$5-6 million a year. These costs will be passed through to consumers through network tariffs. Given the limited success of these arrangements in delivering benefits through non-network options, it would appear that there is little justification for introducing these onerous arrangements on a national basis.

The proposed approach will also see the market flooded with RFPs, with a significant proportion of those requests seeking input on projects for which there is no feasible non-network solution. This potential outcome has led ESCOSA to conclude that publishing detailed and costly RFPs for projects without prospect of a viable non-network solution wasted the time and money of both the network business and prospective proponents, and did not assist the market. ESCOSA therefore decided to introduce a 'reasonableness test' for projects, to be applied by ETSA Utilities, requiring them to publish a short statement of reasons where a large project is deemed not to pass the reasonableness test.¹⁰ This analysis can be challenged by project proponents, but is expected to lead to a lower cost information and planning regime overall. ETSA Utilities estimates that if the reasonableness test had applied in

¹⁰ Essential Services Commission of South Australia, *Review of Electricity Industry Guideline 12: Demand Management for Electricity Distribution networks, Final Decision*, June 2007, pg. 11.

the past 12 months, only two of the six projects that went through the RFP process would have passed the test.

ENA notes that the NERA/Allen paper rejects the option of including a screening test as part of the RFP process.¹¹ ENA estimates that this will mean that project proponents will be faced with approximately 15 RFPs a month, with an expectation that only a third of those projects at most are potentially suitable for non-network solutions. This approach is clearly inefficient and is likely to cost network businesses and ultimately customers, approximately \$3-4 million in unnecessary RFP processes per year.

ENA recommendation

ENA recommends that MCE SCO give consideration to the high costs of the NERA/Allen proposal for both network businesses and consumers, and to the ENA proposed approach set out below.

Network industry proposed approach

ENA supports the development of nationally consistent information and planning arrangements. These arrangements, however, must be carefully balanced against the costs imposed by detailed and prescriptive arrangements, to ensure they deliver net benefits to customers.

The NERA/Allen paper proposes an elaborate information disclosure regime to overcome what it identifies to be low powered incentives for network efficiency. As noted above, the most effective way to encourage the pursuit of non-network alternatives is to ensure that the regulatory regime provides incentives for network businesses to do so. No information disclosure regime will change the underlying economics of demand management options faced by the network business. This fact was also identified by stakeholders responding to the earlier NERA papers on demand side management and distributed generation, where the representatives of project proponents themselves, through the Business Council for Sustainable Energy (BCSE), called for the introduction of incentives for demand management to deliver a balance between network and non-network options. In fact, the BCSE submission went further, and recommended additional grant-type funding for demand management over a short period to stimulate investment.¹² This approach would be a key step in encouraging non-network solutions as part of network planning and development, and also recognises the fact that the primary proponent for demand management options is the relevant distribution business.

¹¹ NERA/Allen, *Network Planning and Connection Arrangements*, pg. 28.

¹² Australian Business Council for Sustainable Energy, *Submission on Draft National Electricity Distribution Revenue and Pricing Rules*, 30 May 2007, pp. 1-2.

ENA accepts the premise that the market would benefit from some level of information disclosure and planning requirements on network businesses regarding upcoming constraints and proposed augmentations. Finding the appropriate level of information disclosure requires more careful consideration than is given in this current process. To be successful, it is critically important to the information disclosure and planning regime be focused on stakeholder requirements, and look more broadly at network planning and reporting, rather than focusing entirely on one small aspect of distribution planning – non-network alternatives.

The following section provides some guidance as to what may be more appropriate thresholds for information disclosure, cost-benefit analyses, and formal requests for proposals.

Specific issues with information disclosure regime

The NERA/Allen paper notes the difficulties faced by network businesses in providing detailed forecasts of load, constraints and investments over a planning horizon that may allow project proponents to develop alternative options to network augmentation.¹³ These difficulties, however, do not appear to be reflected in the recommendations. The NERA/Allen recommendation requires network businesses to publish detailed information including:

- a 5-year forecast of potential constraints, together with preliminary estimates of costs of network solutions;
- a forecast of areas of substantially under-utilised existing network transfer capability;
- a forecast of average and marginal distribution loss factors for different points in the network over the planning horizon; and
- a description of the DNSP's compliance with their planning related obligations, including:
 - a summary of case-by-case applications of the regulatory test completed in the previous year, and on the status of the relevant projects (and the status of any projects from previous years); and
 - the results of applying the regulatory test to projects below the threshold for a case-by-case process but that meet the threshold for transparent reporting and the status of the relevant projects (and the status of any projects from previous years).¹⁴

ENA considers that this approach does not adequately balance the costs of providing detailed information to the market, against the benefits that accrue to individual proponents of non-network options in using the information,

¹³ NERA/Allen, *Network Planning and Connection Arrangements*, pg. 8.

¹⁴ NERA/Allen, *Network Planning and Connection Arrangements*, pg. 24.

and those available to consumers through the adoption of more efficient network and non-network solutions. The proposed approach would mean that customers would effectively subsidise information provision to project proponents who would be expected to receive private benefits from using that information.

ENA recommendation

ENA recommends that MCE SCO consider a more balanced approach which aligns costs with beneficiaries. This may include placing an obligation on network businesses to publish high level assessments of network investment needs and opportunities, coupled with an obligation to provide detailed information on network constraints, costs and benefits to individual proponents upon application, on a regulated, fee-for-service, basis.

Network business information could be provided in a consistent form to assist proponent understanding of possible network opportunities, and be published centrally.

Specific issues with project assessment/planning regime

Network businesses support, in principle, the development of nationally consistent project assessment and planning principles for distribution. Important in the development of these principles, however, is ensuring that they:

- are proportionate to the benefits expected from conducting public planning processes; and
- use an appropriate test for determining efficient options.

As noted in a previous section, ENA does not consider that the proposed thresholds for RFPs and cost benefit analyses are appropriate. This section specifically addresses the proposed use of the Regulatory Test to assess the efficiency of potential alternatives to proposed network augmentations.

The ENA supports the use of the “proportionate” planning and evaluation framework that reflects the relative size of distribution investments, and the expected benefits from a transparent planning approach.¹⁵ ENA does not consider, however, that the use of the Regulatory Test, which has been principally designed to assess very large projects, specifically transmission investments, is an appropriate test to apply to smaller distribution assets.

The NERA/Allen paper places considerable emphasis on the fact that the design principles for the Regulatory Test require that the test:

¹⁵ NERA/Allen, *Network Planning and Connection Arrangements*, pg. 10.

Not require the level of analysis to be disproportionate to the scale and size of the new network investment.¹⁶

The Regulatory Test and application guidelines are currently being considered by the AER. This consideration, however, has been conducted principally with reference to the requirements of large transmission investments, to ensure that the processes are proportional to the needs network and proponents regarding new large network assets. No consideration has been given to the application of the test to the new area of distribution augmentations between \$2 and \$10 million, which the NERA/Allen paper proposes. Current practice, as well as the recent proposals to amend the Regulatory Test to combine the reliability and market benefit limbs, is moving the Regulatory Test more centrally towards a transmission investment test.

ENA proposed approach

ENA considers that there needs to be a detailed analysis of the appropriateness of applying the Regulatory Test to distribution businesses.

Forthcoming changes to the test, which are expected to integrate the reliability and market benefits limbs of the test, would appear to make the test less appropriate for application to network businesses, as the vast majority of distribution augmentations have no market impacts. The application of an integrated test is therefore likely to be very costly and unwieldy from a distribution perspective.

As an alternative, consideration should be given to the development of a distribution-specific regulatory test, which is proportionate to the size of distribution projects, and which takes account of the largely reliability-based augmentations that are undertaken (while still providing scope for market benefits to be considered in the very small number of cases where this is relevant).

ENA considers that the distribution sector's key role, with its direct connection to the customer and diversity of network investments, warrants a dedicated test for efficient network investment, as opposed to using a test principally designed to address large and potential market-significant investment.

The analysis of the case for a new test, as well as the development of *Rules* for the test, should be conducted by the AEMC, at the same time as it reviews proposed amendments to the transmission-focused Regulatory Test. This review should also consider appropriate thresholds for the application of the new distribution test, if this is appropriate.

¹⁶ *National Electricity Rules*, clause 5.6.5(c)(6)

ENA recommendation

ENA recommends that MCE SCO task the AEMC to consider an appropriate regulatory test for the distribution sector, as part of its forthcoming review of the Regulatory Test applying to transmission businesses.

“Cultural barriers” to DSR/DG

The NERA/Allen paper correctly identifies a number of barriers to the increased uptake of non-network options to deliver energy supply. A key one of these is a lack of confidence and understanding of the reliability characteristics of non-network options, such that they can be incorporated into network planning without detailed, project-specific, analysis. This issue will only be addressed as experience in delivering non-network options grows within the businesses and proponents, such that the reliability characteristics and issues with particular options are as well understood as network infrastructure-based approaches. There are some options that can be adopted, however, that can increase this experience.

The NERA/Allen paper recommends further consideration of two approaches. The first is support for trials and risk sharing arrangements through the regulatory regime. The second approach is the introduction of a specific mechanism to encourage innovation and investment in research and development, possibly similar to the Ofgem “Innovation Funding Incentive”. ENA considers that both of these approaches deserve further consideration.

ENA recommendation

ENA recommends that MCE SCO refer the issue of possible incentives for innovation to the AEMC for review as part of a wider consideration of appropriate incentives for demand management and demand side response across the energy market.

5. National Framework for distribution network connection

NERA/Allen proposed approach

The NERA /Allen paper proposes a new network connection process to apply to network connections other than standard small customer connections, including connection of small, medium and large distributed generators, as well as large customers. The proposed approach attempts to streamline current connection processes and the negotiation framework set out in the *National Electricity Rules*, and borrows some elements from existing dedicated jurisdictional regimes.

ENA approach to previous consultations

ENA has previously commented on many of the issues raised in the NERA/Allen paper, in responding to jurisdictional consultation processes developing dedicated guidelines and codes, and most recently in response to the Utility Regulator's Forum Draft National Code of Practice for Embedded Generation (COPEG).

ENA supports the development of nationally consistent connection arrangements for embedded generation. National arrangements have the potential to significantly reduce the costs faced by both generation proponents and network businesses by improving understanding of issues involved in network connection, and reducing the current high transaction costs that characterise many embedded generator connections. As noted in the NERA/Allen paper and those that have gone before it, the scope for nationally consistent arrangements depends on the expected variation in the types of connections, and may be limited to the connection of small, standard generation units. Despite these limitations, there is still scope in the case of larger generators to harmonise and streamline the application and connection process, if not the detailed arrangements themselves.

These issues were considered in the consultation on the draft COPEG, with a number of submissions making detailed recommendations to improve the proposed arrangements. The Charles River Associates (CRA) review of these submissions, released at the same time as the current NERA/Allen paper, includes some recommendations on the approach to address issues set out in the draft COPEG which are relevant to the current process.

ENA recommendation

ENA supports the CRA recommendation that substantive provisions with respect to the connection of embedded generators be included in the *National Electricity Rules*, with only limited use of codes or guidelines to set out details relating to substantive obligations in the *Rules*.

Response to NERA/Allen Paper recommendations on connections

ENA has a number of concerns with the approaches proposed in the NERA/Allen paper. These include:

- unclear mechanisms through which recommendations may be adopted
- use of the negotiation framework in chapter 6 for non-standard connections
- no specification as to how detailed provisions may be developed and
- unrealistic timeframes for distributor response.

These issues are outlined in the following sections.

Unclear mechanisms through which recommendations may be adopted

The NERA/Allen paper proposes a number of detailed amendments to the current *National Electricity Rules* to implement standardised connection processes for all connections other than for small retail customers. As part of its recommendations, it suggests changes to the negotiating framework set out in the current draft of the *National Electricity Rules* relating to the economic regulation of distribution networks.¹⁷

This recommendation has the potential to create significant uncertainty as a result of the proposed use of Ministerial Orders to pursue the recommendations of this review. It would be inappropriate for the MCE to use its powers to give affect to detailed *Rule* changes to Chapter 6 of the *National Electricity Rules* after the adoption of the initial set of economic rules. ENA considers that an action of this type would undermine industry confidence in the energy governance structure established by the MCE, and the specific roles of the MCE and AEMC in providing high level policy guidance to the market, and development of detailed *Rules* provisions, respectively.

Use of the negotiation framework in chapter 6 for non-standard connections

ENA has some specific concerns with the proposed adoption of the negotiation framework of Draft Rule 6.7.5 to apply to the negotiated connection application process. Adopting this approach would require each distribution business to develop a negotiating framework to submit to the AER even if none of its services are categorised as negotiated distribution services under Chapter 6. This issue reflects a lack of understanding throughout the NERA/Allen paper as to the practical implications of the MCE SCO decision not to specify which services will be direct control services and which will be negotiated services in the *National Electricity Rules*.

¹⁷ NERA/Allen, *Network Planning and Connection Arrangements*, pp. 62-3.

Some degree of negotiation over connection requirements is expected as part of most generator connections, with the exception of those subject to standard connection processes and agreements. This negotiation, however, does not mean that the services are appropriately classed as a “negotiated service” within the terms of Chapter 6 of the *Rules*. This decision is made by the AER as part of the price determination process. As ENA understands it, the definition of direct control services can include services where the terms and conditions of service are agreed between the distributor and the connecting party, but are regulated on the basis of a test such as a “fair and reasonable” application of the *Rules*.

The final *Rules* for the classification of services into direct control and negotiated services are yet to be finalised, and the approach ultimately adopted will significantly influence the appropriateness of the recommendations in the sections of the NERA/Allen paper on connections and capital contributions. Because of these linkages, ENA recommends that MCE SCO refer this issue to the AEMC for further consideration and development, once the initial rules for the economic regulation of network services are established.

ENA recommendation

ENA recommends that MCE SCO refer the development of *Rules* for the negotiation of non-standard connections to the AEMC.

Development of detailed provisions

The NERA/Allen paper specifies a number of areas of the *Rules* where detailed technical and application arrangements must be developed. These include:

- defining connection obligations for micro distributed generators
- developing detailed minimum content for standard applications and contracts and
- developing proposed technical requirements for micro, small and medium generators and small and large loads.

Despite specifying these needs, the paper does not go into detail as to how these arrangements should be developed.

The ENA considers that, in accordance with the governance arrangements established by the MCE, the AEMC is best placed to develop detailed technical and application arrangements to be included in the *Rules*, where these are considered appropriate.

ENA recommendation

ENA recommends that AEMC be tasked with developing the detailed technical and application arrangements for connections, to be included in the *Rules* as appropriate.

Unrealistic timeframes for distributor response

The NERA/Allen paper sets out a proposed process and time limits for each stage of the connection process, for both negotiated and standard connections. These stages include:

- responding to an initial connection enquiry with relevant information (standard connection – 5 days; non-standard connection – 10 days);
- response to connection application (standard connection – NA; non-standard connection – 20 days);
- development of offer (standard connection – 20 days; non-standard connection – as set out in AER-approved negotiation framework);
- acceptance of offer by user before offer expires (standard and non-standard connections – 2 months).

ENA considers that many of these timeframes are unrealistic, and do not reflect the commercial realities and complexity of some generator connections. In particular, requirements to assess an application within 10 days are unreasonable, as are requirements to develop an offer within 20 days of application.

Network industry proposed approach

Many of the issues raised in this part of the submission are related to the earlier work of AAR on the development of small customer connection arrangements. It is crucially important that the arrangements that apply to all connections are complementary, and do not include inconsistencies of approach that can increase the costs of the connection application process for network businesses and users.

It is therefore important that aspects of the prior consultation through the Retail Policy Working Group on small customer connections are considered with reference to *all* network connections, and not in isolation with respect to only small customers. This work has clear links with the proposed charging arrangements for particular services addressed in the following section.

ENA recommendation

ENA recommends that MCE SCO develop rules for connection of all customers as part of a single process.

6. Connection charges

The NERA/Allen paper recommends a number of *Rule* changes with respect to determining connection charges for connections other than small customers. As noted above, ENA considers that the approach to all connections should be considered under one workstream, such that inconsistencies do not emerge for small customer connections that create additional complexity and cost.

The following issues from the NERA/Allen paper are addressed in this section:

- proposed terminology for dedicated and extension connection assets and the shared network
- inconsistency with previous reviews of connection arrangements and
- proposed arrangements for
 - dedicated connection charges
 - augmentations to shared assets
 - extension assets.

Proposed terminology for dedicated and extension connection assets and the shared network

The NERA/Allen paper proposes a new terminology and definitions to describe dedicated and connection assets, as well as the shared network. The justification for this new terminology is that current jurisdictional terminology lacks consistency.

ENA is concerned that the proposed terminology is not consistent with that developed by AEMC in its recent review of transmission pricing, and therefore has the potential to create confusion between the various connection processes for transmission and distribution networks. While adoption of the exact definitions used in the AEMC decision is not appropriate, the terminology adopted for distribution connection assets should reflect distribution-relevant corollaries to those definitions.

ENA recommendation

ENA recommends that MCE SCO commit to further work in consultation with AEMC on the development of consistent terminology.

Inconsistency with previous reviews of connection arrangements

The current NERA/Allen review constitutes the fourth review of connection arrangements by an independent consultant reporting to MCE officials in the past 2 years. Opinions have been sought from NERA Economic Consulting (twice), Gilbert+Tobin, PB Associates, Charles River Associates and Allens

Arthur Robinson, alongside reviews and consideration of similar issues relevant to transmission connection by the AEMC. ENA has provided submissions on this issue in response to three separate consultation processes to date. The profusion of opinion and advice to MCE on this issue has unsurprisingly led to a significant diversity of views as to the appropriate way forward with respect to pricing of network connections.

The current NERA/Allen consultation process is notable for the fact that it has recommended an entirely new approach to charging of connection assets which is inconsistent with all previous reviews on this issue, including the previous NERA/Gilbert+Tobin review of arrangements in May 2005. The proposed approach will significantly change the current pricing approaches, and mean that many customers will face significant increases in connection costs. Particular issues with the proposed approach, which suggests using constraints in contracts to deliver network security of supply, are raised in the relevant section below.

It is important that the approach to connection charges is consistent, wherever possible, between transmission and distribution. This approach ensures that the rules do not unnecessarily and unfairly discriminate between different types of generation. Given the linkages to the recently completed transmission pricing rules, ENA considers that the AEMC is best placed to resolve the complex and sensitive issues involved in network connection charges with respect to delivering the long term interests of consumers.

Dedicated connection charges

The NERA/Allen paper recommends that all generation and load connected to the distribution network be charged the marginal costs of providing the dedicated assets associated with that connection. This recommendation is at odds with previous reviews which have recommended that the costs of “standard” connections of small customers be included in the shared costs of the network and not charged to the individual customer.¹⁸

The approach does not recognise the quite different approaches to dedicated connection charges across jurisdictions. In some jurisdictions the customer funds the dedicated assets but the connection service is contestable. Across a number of other jurisdictions, connections are charged on the basis of the net incremental connection costs minus the incremental revenue expected from the connection.

There are pros and cons under these approaches and the divergence between them means quite significant changes for some jurisdictions if a nationally consistent approach is preferred. Given the conflicting advice before MCE SCO on this issue, and the divergence this recommendation means from

¹⁸ This discrepancy in approach is noted in the NERA/Allen paper, pp. 84-88.

current practices, ENA considers that the AEMC is best placed to determine the appropriate approach with respect to the *National Electricity Law* objective.

ENA recommendation

ENA recommends that MCE SCO refer the development of *Rules* for the pricing of connection assets to the AEMC.

Augmentations to shared assets

The NERA/Allen paper recommends that any augmentations to shared network arising from the connection of a load or generation be recovered through shared network costs. Again, this approach is contrary to that set out in past reviews of this issue by Gilbert+Tobin, AAR and in the draft COPEG. It does attempt, however, to deliver consistency with the recently completed transmission pricing rules.

The rationale for the approach is that augmentations to the upstream network required to deliver transfer capacity for the embedded generator should be paid for voluntarily by the generator, or the generator's output should be constrained to a level that ensures system security. This approach works for transmission as most transmission connected generators are dispatched by National Electricity Market Management Company (NEMMCO), in line with detailed constraint algorithms that ensure system security.

The NERA/Allen paper attempts to replicate these arrangements for the distribution network. It does this by placing an obligation on distribution businesses to ensure system security by allowing the distribution businesses to impose constraints through connection contracts. The intent is to effectively replicate through contracts the role currently played by NEMMCO through a centrally controlled dispatch engine.

The ENA considers that this "constraint" approach is inappropriate for network connected generators as:

- it creates an obligation on the relevant distribution business to manage constraints in a similar way to transmission connected generators, without the existence of a dedicated market operator and effective compliance regime; and
- it creates an unacceptable risk for the network business in system security, that is not faced by transmission businesses.

The responsibility for system security with respect to transmission connected generator output rests with NEMMCO, rather than the relevant transmission business. The NERA/Allen proposed approach places this obligation on network business with respect to embedded generators, by requiring them to calculate appropriate constraints for the generator in question, and include

these in contracts. The proposed approach does not include any guidance as to how the distribution business is expected to make these calculations and ensure they are fair to the generator in question. Indeed, it would appear that the proposed approach exacerbates rather than solves the problem of determining the exact cause of upstream transfer issues and attributing these to a specific generator connection – an issue that this approach is attempting to resolve. It also has the potential to undermine competitive neutrality between transmission and distribution connected generators, by imposing static constraints on embedded generators, where transmission connected generator dispatch responds to dynamic constraint equations.

In addition to the above practical issues, the proposed approach places considerable risks on network businesses and inappropriately forces network businesses into a monitoring and enforcement role. The approach effectively transfers management of system security away from the network business, without also transferring legal and technical responsibility. Where a distributed generator breaches constraints set out in a contract that are designed to ensure system security, the distribution business would have to pursue civil action for breach of contract to ensure compliance and extract damages. This approach in no way ensures that networks are appropriately compensated for any reliability issues and costs that arise from contract breaches, and does not address any consequent liabilities where the generator's breach of a constraint leads to constrained output of other generators. All of these issues are addressed in the *National Electricity Rules* with respect to NEMMCO managed dispatch, but are not replicated in the proposal.

ENA notes that constraints are currently used in some connection contracts particularly with respect to wind generation. This approach may work in these circumstances, as wind connections are usually on the end of long feeders, with few other customers. The expected outcome of a wind generator exceeding its constraint requirement is that its line is overloaded and forced off. In contrast, the implications of a large number of generators, potentially connected within a meshed network, is that an exceedence is likely to force a large number of customers off supply, and have wider implications for the network.

The NERA/Allen proposed approach would place significant costs on the community, through the increased risk faced by the network business, expected increases in outages, and the costs of inefficient connections where generators do not face the true costs of connection. ENA does not support the approach. As set out above, ENA considers that this issue is best addressed by the AEMC with respect to the *National Electricity Law* objective.

ENA recommendation

ENA recommends that MCE SCO refer the development of appropriate *Rules* for network connections to the AEMC.

Extension assets

The NERA/Allen paper recommends the development of a guideline to govern the approach for refunding an initial investor for extension assets that subsequently become shared. The Paper does not make specific recommendations as to what these arrangements should be, beyond a recommendation as to the timeframe over which a refund could be recovered.

ENA has in the past highlighted this problem, and the inefficiencies contained in current jurisdictional arrangements.

ENA recommendation

ENA supports the development of clear arrangements for “refunds” of connection asset costs, subject to further consideration of appropriate detailed arrangements, developed in consultation with industry.

7. Network losses

In its final section, the NERA/Allen paper includes consideration of network losses, and outlines possible economic and rule-based mechanisms to ensure the current approach to losses is efficient. ENA is particularly concerned with the inclusion of this issue in the current consultation process as:

- there is no mandate for consideration of this issue through the Australian Energy Market Agreement, unlike other issues outlined above and
- the discussion of network losses does not recognise the complexity of the issue and seeks to impose unworkable disclosure and incentive mechanisms around network losses.

These issues are outlined in the following sections.

Inclusion of consideration of network losses in framework

The current timetable of reform is very tight. Completion of national rules for the economic regulation of distribution networks, as well as the non-economic rules being considered by the Retail Policy Working Group, are time-critical because of their implications for upcoming distribution price reviews. Significant industry resources are currently focused on providing comprehensive and timely advice on these arrangements to ensure they can be introduced into the South Australian Parliament within MCE-agreed timetables. The same time pressures do not exist for the consideration of network losses.

ENA recommendation

ENA supports further investigation into the issue of network losses. ENA recommends that this work be delayed until completion of the current time-critical law and rule development processes.

Inappropriate imposition of unworkable disclosure obligations

While noting the complexity of network losses, the NERA/Allen paper makes a number of detailed recommendations regarding information disclosure of network loss figures as well as calculating network losses for individual sites.

In particular, the paper recommends that the information disclosure regime discussed earlier in this submission include calculations of losses on both an average and marginal basis for points in the network to allow distributed generators to use this information in determining the most efficient place to locate their facility. This recommendation is of concern since, as part of the discussion on network losses in this section, the paper states that “calculating

marginal loss factors for a large number of customers is computationally difficult (and hence more expensive)."¹⁹

The NERA/Allen paper does not appear to have taken account of the difficulty and cost of calculating marginal loss factors (which are noted in section 5 of the NERA/Allen paper) in developing recommendations for information and disclosure regime set out in section 2 of the paper.

The public information disclosure regime discussed above also intersects with proposed requirements to calculate losses for particular sites for the purposes of connection of embedded generation. The paper recommends that marginal loss factors be calculated for particular generators in determining its output. The paper notes, however:

For the small sites – for which computational tractability would continue to require the use of an ‘averaged’ DLF, it is still proposed that a loss factor that reflects a marginal loss factor (averaged across the relevant part of the network) would be employed. However, it is noted that a practicable means of estimating such an average ‘marginal’ loss factor would need to be established.²⁰

This recommendation, if adopted, would have the effect of imposing on to distribution businesses an obligation for which there is no established or understood mechanism for compliance. This is an unacceptable outcome and cannot be supported.

ENA proposed approach

Calculation of individual loss factors

While the availability of information on network loss factors could deliver improved economic benefits to individual generators, it is unclear that the widespread calculation of distribution loss factors for the network would deliver long term benefits to consumers. This is because of complexity of such calculations, compared to the likelihood that they will give rise to a particular connection that takes advantage of this information. A preferable approach may require network businesses to, where possible, calculate specific network loss factors for particular sites on request on a fee-for-service basis, as is currently provided for in the *Rules*.

ENA recommendation

ENA recommends that MCE SCO consider a more balanced approach which aligns costs with beneficiaries. This may include a requirement for network businesses to, where possible, calculate specific network loss factors for particular sites on request on a fee-for-service basis.

¹⁹ NERA/Allen, *Network Planning and Connection Arrangements*, pp. 98.

²⁰ NERA/Allen, *Network Planning and Connection Arrangements*, pp. 99-100.

Scope for detailed review of approach to network losses

The treatment of network losses potentially impacts on all parts of the energy supply chain, and therefore targeted, economic consideration of options with respect to a single sector, cannot appropriately address the issue. ENA would support the initiation of a detailed, market-wide review of the approach to network losses, which considered whether the current technical and economic arrangements deliver efficient outcomes, or whether alternative approaches may be appropriate.

ENA considers that this review should be conducted by the AEMC as part of its market development role, and should be part of wider review of market and regulatory arrangements appropriate for increasing the role of demand side response and demand management in the market.

ENA recommendation

ENA recommends that AEMC be tasked with reviewing network losses as part of a wider review of market and regulatory arrangements appropriate for increasing the role of demand side response and demand management in the market.

8. Next steps

ENA recognises that this consultation process is part of the development of nationally consistent arrangements in the areas outlined in the Australian Energy Market Agreement. ENA supports the development of these arrangements, and considers that significant efficiencies may be achieved if appropriate, nationally consistent arrangements are adopted.

For this to occur, however, the approaches must be consistent with, and work within, the national regulatory framework already in place. Critically, it must mesh with the economic regulatory rules being developed for the distribution sector. ENA does not consider that the proposed arrangements in the NERA/Allen paper successfully achieve this outcome.

With respect to the connection of generation to the network, principles of competitive neutrality require that the arrangements complement those applying to transmission connected generators. They must also recognise the unique characteristics of network connected generation, however, which means that many connections are of combined generation and load customers. Connection, pricing and negotiation arrangements must accommodate this fact. This is critically linked to the economic regulatory framework, as well as the “non-economic” rules relating to small domestic customers. Again, ENA does not consider that the NERA/Allen paper sufficiently addresses these issues.

The issues addressed in this paper are complex matters of market and regulatory design, with implications beyond the network sector. ENA therefore considers that the AEMC, as the market development body of the National Electricity Market, is best placed to develop the detailed rules with regard to network planning, connections and network losses. This role would fit within forthcoming reviews by the AEMC into the Regulatory Test and aspects of demand management. It would also complement recent AEMC work on transmission pricing and economic regulation.

ENA recommendation

ENA considers that industry and government should, as a priority, use the work from this consultancy to jointly develop a formal MCE reference for an AEMC review of these detailed issues of regulatory design. This will permit the AEMC to review the issues in detail, through a transparent consultation process which then develops draft *Rules*, leveraging off similar detailed work the AEMC has undertaken in respect of transmission.