Australian Energy Market Commission

RULE CHANGE

DRAFT RULE DETERMINATION

National Electricity Amendment (Distribution Losses in Expenditure Forecasts) Rule 2012

Rule Proponent(s)
The Copper Development Centre

9 August 2012

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About the AEMC

The Council of Australian Governments (COAG), through its then Ministerial Council on Energy (MCE), established the Australian Energy Market Commission (AEMC) in July 2005. In June 2011 COAG announced it would establish the new Standing Council on Energy and Resources (SCER) to replace the MCE. The AEMC has two principle functions. We make and amend the national electricity, gas and energy retail rules, and we conduct independent reviews of the energy markets for the SCER.

Summary

The Australian Energy Market Commission (AEMC or Commission) has determined to make a draft rule in response to a rule change request from the Copper Development Centre (CDC or proponent) regarding distribution losses.

The draft rule will require a distribution network service provider (DNSP) to provide an explanation of how distribution losses have been taken into account in developing and implementing its asset management and investment strategy. This will form part of the Distribution Annual Planning Report (DAPR) under the national distribution network planning and expansion framework.

The draft rule is a more preferable rule than the rule proposed by the CDC in its rule change request. The Commission considers will, or is likely to, better contribute to the achievement of the National Electricity Objective (NEO).

The Commission's reasons

In making its request, the proponent sought to ensure that the cost of distribution losses is recognised in all capital and operating investment decisions made by DNSPs.

It appears to be industry practice among most DNSPs that distribution losses are already considered, as one of the many relevant inputs, when making planning and investment decisions. Noting that the minimisation of distribution losses faces a trade-off with other investment considerations, singling out distribution losses above all other relevant considerations is unlikely to achieve the NEO.

Furthermore, the proposed rule, if implemented, would elevate the issue of distribution losses to the same level of importance as the current capital and operating expenditure objectives and above all other investment drivers that are considered by a DNSP in preparing its expenditure forecasts. This may not be appropriate given the broad nature of the expenditure objectives which allow for the consideration of all relevant factors (including distribution losses) by DNSPs to recover prudent and efficient costs. As such, the regulatory framework already provides for the Australian Energy Regulator (AER) to assess whether a DNSP has considered distribution losses in preparing its expenditure forecasts.

However, without any amendment to the National Electricity Rules (NER), there may be some uncertainty for other market participants, regulatory bodies and consumers about how DNSPs take into account distribution losses when making planning and investment decisions. The draft rule will provide clarity, transparency and regulatory certainty on how DNSPs make efficient planning, operational and investment decisions. As a result, the Commission is satisfied that the draft rule will, or is likely to, better contribute to the achievement of the NEO than the proposed rule.

The Commission invites written submissions on this draft rule determination, including the draft rule, by 20 September 2012. The process for lodging a submission is outlined in section 1.5 of this draft rule determination.

Contents

1 The Copper Development Centre's rule change request

1.1 The rule change request

On 22 December 2011, the CDC submitted a rule change request to the Commission regarding distribution losses.[1] The request sought to ensure that the cost of these losses is considered in all capital and operating investment decisions made by DNSPs.

The request included a proposed rule which is described in section 1.3 below. It was also accompanied by supporting analysis entitled "*The cost of losses for future network investment in the new networks regime*".[2]

1.2 Rationale for the rule change request

In its rule change request, the proponent states that DNSPs do not consider distribution losses when making investment decisions, as the cost of these losses is not borne by DNSPs. Furthermore, the CDC claims that the economic incentives within the NER encourage DNSPs to reduce their operating and capital expenditure at the expense of increasing loss costs.

The CDC further notes that there is no requirement for the AER, when assessing a DNSP's regulatory proposal, to ensure that the cost of these losses has been considered. As a result, the proponent states that this results in an economically inefficient outcome as the long-term cost of distribution losses is not considered as a cost in the initial investment decisions of DNSPs.

1.3 Solution proposed in the rule change request

The proposed rule amends clauses 6.5.6(b) and 6.5.7(b) of the NER to require DNSPs to have regard to the cost of losses when preparing their operating and capital expenditure forecasts as part of a DNSP's regulatory proposal.[3]

In its rule change request, the CDC describes that the proposed rule would require:

- DNSPs to consider the cost of distribution losses when preparing their forecasts of operating and capital expenditure to meet the expenditure objectives; and
- the AER to assess whether the cost of distribution losses had been given appropriate consideration in a DNSP's expenditure forecasts when making a distribution determination.

1 The rule change request is available from the AEMC website: www.aemc.gov.au.

2 This paper is available from the AEMC website: www.aemc.gov.au.

3 The proposed rule is outlined on pages 14 and 15 of the CDC's rule change request.

In doing so, the CDC is seeking to ensure that the cost of distribution losses is factored into the operating and capital expenditure analysis by DNSPs, wherever that cost is material.

1.4 Commencement of rule making process

On 12 April 2012, the Commission published a notice under s. 95 of the National Electricity Law (NEL) advising of its intention to commence the rule making process and a first round of consultation in respect of this rule change request. A consultation paper, prepared by AEMC staff identifying specific issues and questions, was also published with the notice under s. 95 of the NEL. Submissions closed on 31 May 2012.

The Commission received nine submissions as part of this first round of consultation which are available on the AEMC website.[4] One submission was from the proponent, two submissions were from industry bodies and the remaining six submissions were from DNSPs across three jurisdictions (being New South Wales, Queensland and Victoria). A summary of the issues raised in submissions and the Commission's response is contained in Appendix A of this draft rule determination.

1.5 Consultation on draft rule determination

In accordance with the notice published under s. 99 of the NEL, the Commission invites submissions on this draft rule determination, which includes a draft rule, by 20 September 2012.

In accordance with s. 101(1a) of the NEL, any person or body may request that the Commission hold a hearing in relation to the draft rule determination. Any request for a hearing must be made in writing and must be received by the Commission no later than 16 August 2012.

Submissions and requests for a hearing should quote the project reference number 'ERC0142' and may be lodged online at www.aemc.gov.au or by mail to:

Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

4 See www.aemc.gov.au.

2 Draft rule determination

2.1 Commission's draft determination

In accordance with s. 99 of the NEL, the Commission makes this draft rule determination in relation to the CDC's rule change request. The Commission's draft determination is to make a more preferable rule which differs from the proposed rule.[5]

The draft rule is attached to and published with this draft rule determination. The Commission's reasons for making this draft rule determination are set out in Chapter 3 of this draft rule determination.

2.2 Commission's considerations

In assessing the rule change request, the Commission considered:

- the Commission's powers under the NEL to make the rule;
- the rule change request;
- submissions and other relevant information received during the first round of consultation; and
- the Commission's analysis as to the ways in which the proposed rule will, or is likely to, contribute to the NEO.

There is no Ministerial Council on Energy (MCE) statement of policy principles relevant to this rule change request.[6]

2.3 Commission's power to make the rule

The Commission is satisfied that the draft rule falls within the subject matter about which the Commission may make rules as it relates to matters set out in s. 34 and Schedule 1 of the NEL. The draft rule relates to:

- s. 34(1)(a)(iii) of the NEL, regarding the activities of persons participating in the National Electricity Market (NEM) or involved in the operation of the national electricity system; and

5 Under s. 91A of the NEL the AEMC may make a rule that is different (including materially different) from a market initiated proposed rule (a more preferable rule) if the AEMC is satisfied that having regard to the issue or issues that were raised by the market initiated proposed rule (to which the more preferable rule relates), the more preferable rule will or is likely to better contribute to the achievement of the NEO.

6 Under s. 33 of the NEL the AEMC must have regard to any relevant MCE statement of policy principles in making a rule.

- item 11 of Schedule 1 of the NEL, regarding the operation of distribution systems.

2.4 Rule making test

Under s. 88(1) of the NEL, the Commission may only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the NEO. This is the decision making framework that the Commission must apply.

The NEO is set out in s. 7 of the NEL as follows:

> "The objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:
>
> (a) price, quality, safety, reliability and security of supply of electricity; and
>
> (b) the reliability, safety and security of the national electricity system."

For this rule change request, the Commission primarily considered whether the making of rule would promote the efficient investment in, and efficient operation and use of, electricity services with respect to price, quality, reliability and security of supply of electricity.[7]

Achieving efficient investment in, and efficient operation and use of, electricity services, in particular distribution networks, should result in lower expected total system costs which, over time, will lead to more efficient prices for consumers, while maintaining the quality, safety, reliability and security of supply.

The Commission is satisfied that the draft rule will, or is likely to, better contribute to the achievement of the NEO than the proposed rule because it will promote efficient investment and planning practices by DNSPs with respect to distribution losses.

The draft rule will require DNSPs to report on how they take into account distribution losses. By requiring DNSPs to report on this, the draft rule will promote clarity, transparency and regulatory certainty for consumers (who ultimately bear the costs of these losses) and to the AER (who assess the network planning and investment activities of DNSPs). In doing so, DNSPs may have regard to the long term costs of losses which may promote more efficient long run costs of electricity supply.

Further discussion of the draft rule and how it will, or is likely to, better contribute to the achievement of the NEO is provided in section 2.5 below.

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7 Under s. 88(2), for the purposes of s. 88(1) the AEMC may give such weight to any aspect of the NEO as it considers appropriate in all the circumstances, having regard to any relevant MCE statement of policy principles.

An assessment of the differences between the proposed rule and the draft rule is provided in section 3.3 of this draft rule determination. Further discussion of the proposed rule is also provided in Chapter 8 of this draft rule determination.

Under s. 91(8) of the NEL, the Commission may only make a rule that has effect with respect to an adoptive jurisdiction if satisfied that the proposed rule is compatible with the proper performance of the declared network functions of the Australian Energy Market Operator (AEMO). The draft rule does not impact AEMO's performance of its declared network functions, and consequently this requirement is not applicable.

2.5 More preferable rule

Under s. 91A of the NEL, the AEMC may make a rule that is different (including materially different) from a market initiated proposed rule if the AEMC is satisfied that, having regard to the issues or issues that were raised by the market initiated proposed rule, the more preferable rule will or is likely to better contribute to the achievement of the NEO.

The draft rule adds a sub-clause to the proposed Schedule 5.8 to Chapter 5 of the NER which relates to the information requirements of the DAPR. The draft rule would require a DNSP to provide an explanation of how distribution losses have been taken into account in developing and implementing its asset management and investment strategy. It is expected that this explanation would be a general, brief summary of how distribution losses are taken into account, as one of the many planning, operational and investment considerations, in a DNSP's asset management approach.

Having regard to the issues raised in the rule change request, the Commission is satisfied that the draft rule will, or is likely to, better contribute to the NEO than the proposed rule for the following reasons:

- the consideration of distribution losses tends to occur when DNSPs are undertaking detailed planning with respect to network equipment and operating practices. The draft rule will require DNSPs to include information in their DAPR on how distribution losses are taken into account in their asset management and investment strategy which informs this detailed planning analysis.[8] The proposed rule sought to require consideration of distribution losses when preparing expenditure forecasts which occurs once every five years as part of a regulatory proposal. As such, the draft rule is more likely to capture the detailed planning and investment decisions undertaken by DNSPs as they relate to distribution losses;

- the rule change request raised some uncertainty around the network planning practices of DNSPs with respect to distribution losses. The draft rule will provide clarity and transparency on how DNSPs take into account distribution losses. As a result, it is more likely to provide customers (who ultimately bear the cost of

8 The DAPR is intended to provide transparency to the outcomes of DNSPs' annual planning review and update on outcomes since the previous DAPR.

these losses) with up to date information on the planning and investment activities and practices of DNSPs; and

- the draft rule will form part of the annual planning reporting requirements under the proposed DAPR. The DAPR will be able to be used by the AER to better understand the ongoing activities undertaken by DNSPs during a regulatory control period. This information may assist the AER in carrying out its assessment of a regulatory proposal. The proposed rule sought to add a requirement to the expenditure forecasts, which the AER assesses every five years as part of a regulatory proposal for a new regulatory control period. Once an expenditure allowance is set, a DNSP may make decisions during the regulatory control period that differ from the time of preparing its forecasts due to new information and more detailed planning analysis. As such, the draft rule is more likely to provide the AER with up to date information for each regulatory year within the five year regulatory period.

2.6 Other relevant considerations

The consultation paper on this rule change request identified the revenue and pricing principles, as set out in s. 7A of the NEL, as a possible component to its assessment framework. However the draft rule is made in respect to the network planning process in Chapter 5 of the NEL, not economic regulation of DNSPs in Chapter 6 of the NEL. Consequently, the draft rule is not a rule made for, or with respect to, any matter or thing specified in items 15 to 24 and 25 to 26J of Schedule 1 of the NEL.[9] The Commission is therefore not required to take into account the revenue and pricing principles when making this draft rule.[10]

9 The making of a final rule in the form of the draft rule is subject further consultation and consideration as required by the NEL and the making of a rule in a form substantially similar to the Draft National Electricity Amendment (Distribution Network Planning and Expansion Framework) Rule 2012.

10 Under s. 88B of the NEL, the AEMC must take into account the revenue and pricing principles in making a rule for or with respect to any matter or thing specified in items 15 to 24 and 25 to 26J of Schedule 1 to the NEL.

3 Commission's reasons

The Commission has analysed the rule change request and assessed the issues arising out of it. For the reasons set out in sections 3.2 and 3.3, it has made a draft rule which is a more preferable rule.

3.1 Background

Electricity networks deliver power from generators to customers. As electricity flows through networks, energy is lost due to electrical resistance and the heating of conductors. Transmission and distribution network losses account for approximately 10 per cent of the total electricity transported through the NEM.[11] Therefore, the impact of these losses must be considered in demand forecasts so that enough electricity is generated and delivered to the market.

Most losses are defined as technical losses and may vary depending on the structure of the network, the amount of electrical energy (or load) being transported through the network and the type of network equipment (including conductors and transformers). However there are also non-technical losses which refer to theft (such as illegal connections) and metering errors.

The cost of distribution losses is accounted for in the NEM through the calculation of Distribution Loss Factors (DLFs). DLFs describe the average electrical energy losses that occur between a distribution network connection point and a transmission network connection point. DNSPs calculate DLFs in respect of their networks which are approved by the AER and published by AEMO. AEMO uses these DLFs in the settlement process to determine the adjusted gross energy amount which retailers are charged.[12] The sum of both distribution and transmission losses is then included in the retail prices that consumers pay. So while DNSPs calculate DLFs in respect of their networks and provide this information to AEMO, they are not responsible for the cost of these losses.

3.2 Assessment of issues

In its rule change request, the proponent states that DNSPs do not consider distribution losses when making investment decisions as the cost of these losses is not borne by DNSPs. Furthermore, the CDC states that the economic incentives within the NER encourage DNSPs to reduce their operating and capital expenditure at the expense of increasing loss costs.

The CDC also notes that there is no requirement for the AER, when assessing a DNSP's regulatory proposal, to ensure that the cost of these losses has been considered in

11 AEMO, '*Introduction to Australia's National Electricity Market*', July 2010, p. 16.

12 Similarly, transmission network service providers calculate transmission loss factors (both intra-regional and inter-regional) for use by AEMO in the settlement process to account for transmission losses.

preparing expenditure forecasts. As a result, the CDC believes that this results in an economically inefficient outcome as the long-term cost of distribution losses is not considered as a cost in the initial investment decisions of DNSPs.

However, most stakeholders, who provided a submission to the first round of consultation, do not support the rule change request for three main reasons:

- Most stakeholders stated that the CDC overemphasised the materiality of the issue (in terms of the ability of DNSPs to influence the level of distribution losses and whether these losses are at inefficient levels);

- Most stakeholders noted that distribution losses are accommodated in a DNSP's investment decisions through planning, design and operating considerations and as a result are already optimised and reflected in operating and capital expenditure; and

- Most stakeholders submitted that the proposed rule would not result in changes to the way capital or operating expenditure forecasts are made since these forecasts are based on the best information available at the time and planning options are subject to change. In addition, distribution losses are better considered by DNSPs when performing detailed planning analysis.

Distribution losses can be optimised to an efficient level based on the investment decisions of a DNSP. However, there is a limit to the degree to which DNSPs can influence these losses without affecting other factors such as load or the reliability of supply.[13] As such, the Commission agrees with both the proponent and stakeholders that there is a trade-off between the benefit of minimising distribution losses and the expenditure required to reduce them.

Based on information gathered during the first round of consultation, it appears that the minimisation of distribution losses is likely to be one of the many inputs considered by DNSPs in making investment and planning decisions which results in the optimisation of distribution losses. There is no industry standard regarding what an efficient level of distribution losses is and the amount of these losses on each network (and within each network) varies based on the network's particular characteristics. However, there appears to be a general undertaking of 'good industry practice' with respect to the optimisation of distribution losses.

In terms of preparing expenditure forecasts, DNSPs use the best information available at the time to prepare these forecasts, which may include the consideration of distribution losses. However, the Commission recognises that as a DNSP conducts more detailed planning analysis during the regulatory period, the details of these project options may change including more detailed analysis with respect to distribution losses. This may result in a different allocation of costs by DNSPs but these costs must still reasonably reflect prudent and efficient costs to provide electricity services.

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13 For example, the higher the load transported on a network means higher variable losses on that network. This means that a trade-off exists between load and losses.

The Commission also understands that, when assessing a DNSP's expenditure forecasts, the AER will consider a range of factors including the project options considered by the DNSP at that stage and its broader network planning practices. As such, the AER has the ability to assess whether there has been a consideration to distribution losses by a DNSP in the preparation of expenditure forecasts.

In terms of other relevant market reforms or programs, there is a range of mechanisms in place or in development which seek to ensure that DNSPs are making efficient decisions with consideration to broader market benefits including the long term cost of distribution losses to consumers. The Commission considers that the broader questions around market benefits and energy efficiency are better addressed through these mechanisms and processes. However, this rule change process can address the particular issues raised by the proponent with respect to distribution losses.

Without some changes to the NER, there may be some uncertainty for other market participants, regulatory bodies and consumers around how DNSPs take into account distribution losses when making planning and investment decisions. The Commission considers that the draft rule will provide clarity and transparency around this issue. The requirement to report on this issue in a public report will help ensure that DNSPs are taking distribution losses into account in making planning, operational and investment decisions. A description of the draft rule and how it will, or is likely to, better achieve the NEO than the proposed rule is outlined in section 3.3 below.

3.3 Differences between the proposed rule and the draft rule

The proposed rule amended Chapter 6 of the NER which relates to the economic regulation of distribution services. The draft rule amends a proposed new schedule of Chapter 5 of the NER which relates to the network planning practices of DNSPs.

The proposed rule sought to amend clauses 6.5.6(b) and 6.5.7(b) of the NER which relate to the forecast of required operating and capital expenditures of a DNSP that is included as part of a regulatory proposal. The proposed rule sought to add sub-clauses 6.5.6(b)(1A) and 6.5.7(b)(1A) to require a DNSP to pay regard to the cost of electrical energy losses in the distribution system in preparing operating and capital expenditure forecasts.

The Commission is of the view that the proposed rule, if implemented, would elevate the issue of distribution losses to the same level of importance as the current capital and operating expenditure objectives and above all other investment drivers that are considered by a DNSP in preparing its expenditure forecasts. This may not be appropriate given the broad nature of the expenditure objectives which allow for the consideration of a broad range of investment drivers, that may include the cost of distribution losses.

The Commission also notes that expenditure forecasts are prepared using the best information available at the time and that once an allowance is set, a DNSP may make decisions during the regulatory control period that differ from the time of making a forecast due to new information and more detailed planning analysis.

It is more appropriate that a rule, if made, captures the consideration of distribution losses when DNSPs are undertaking planning and investment decisions. As such, there may be benefit from creating a requirement for DNSPs to report on how they consider distribution losses in managing their assets. In doing so, the draft rule will provide better clarity and transparency to other market participants, regulatory bodies (such as the AER) and consumers (who ultimately bear the cost of these losses) on the activities undertaken by DNSPs.

On this basis, the Commission has determined to make draft rule which is a more preferable rule. The draft rule would require a DNSP to include information in the proposed DAPR of how distribution losses have been considered as part of its asset management and investment strategy. The draft rule is intended to provide clarity and transparency on the planning and investment considerations of DNSPs with respect to distribution losses. The Commission considers that the draft rule is an appropriate and proportionate response to the issues raised in this rule change request for the reasons discussed in section 3.2 and in the subsequent chapters of this draft rule determination.

The draft rule would add sub-clause S5.8(k)(1A) to the proposed new Schedule 5.8 of the NER which relates to the distribution annual planning requirements. The Commission notes that this draft rule has been prepared based on the Draft National Electricity Amendment (Distribution Network Planning and Expansion Framework) Rule 2012.[14] The proposed commencement date the National Electricity Amendment (Distribution Network Planning and Expansion Framework) Rule 2012 is 1 January 2013. It is intended that the commencement date of this rule, if made, align with the commencement of that rule.

3.4 Civil penalty provisions

The draft rule does not amend any rules that are currently classified as civil penalty provisions under the National Electricity (South Australia) Law or Regulations. The Commission does not propose to recommend to the MCE that any of the amendments in the draft rule be classified as civil penalty provisions.

14 The making of a final rule in the form of the draft rule is subject to further consultation and consideration as required by the NEL and the making of a final rule in a form substantially similar to the Draft National Electricity Amendment (Distribution Network Planning and Expansion Framework) Rule 2012.

4 Commission's assessment approach

This chapter briefly outlines the AEMC's approach to assessing the rule change request in accordance with the requirements set out in the NEL.

In assessing any rule change request, the Commission must have regard to the extent to which the rule will, or is likely to, contribute to the achievement of the NEO. In making this assessment, weight may be given to any specific aspect of the NEO as appropriate. In this respect, the Commission has considered the extent to which making a rule would promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers.

In assessing the proposed rule and the draft rule, the Commission has considered the effect of making a rule on the operational and administrative costs of DNSPs and the AER and the potential implications of making a rule on the cost of electricity services.

In assessing this rule change request, the Commission has examined the following issues:

- the network planning practices of DNSPs;
- the incentives DNSPs face in preparing expenditure forecasts;
- the existing and proposed market reforms and programs which could address the issues raised in the rule change request; and
- the assessment of the proposed rule against the NEO.

The Commission's analysis of these issues is provided in Chapters 5 to 8 of this draft rule determination.

5 Losses and distribution network planning practices

This chapter considers the issues that were raised by the proponent and stakeholders during consultation in relation to losses and the network planning practices of DNSPs. This chapter also considers additional information obtained by the AEMC in assessing these issues and provides a conclusion on the Commission's position in relation to this matter.

5.1 Proponent's view

The proponent is of the view that DNSPs do not consider the cost of distribution losses because they are not financially responsible for the cost of these losses.[15] The CDC proposed that this results in investment and planning decisions that do not minimise the long term cost of electricity services to consumers. The proponent estimated that distribution losses range between five and 15 per cent of total electricity transported on a network and this contributes around 2.5 to seven per cent of a customer's electricity bill.[16]

5.2 Stakeholder views

While stakeholders agreed that distribution losses contribute to the cost of electricity, most did not support the CDC's view that DNSPs did not consider the cost of these losses when making investment and planning decisions.

The Energy Networks Association (ENA) and several DNSPs submitted that the cost of distribution losses is already accommodated in a DNSP's investment decisions through planning, design and operating considerations.[17] As a result, distribution losses are already optimised and reflected in operating and capital expenditure.

Many stakeholders provided information on a particular mechanism that they considered was relevant to their consideration of distribution losses. For example, Ausgrid provided examples of how distribution losses are (or will be) considered by existing and proposed mechanisms such as reliability drivers, Australian Standards and the proposed Regulatory Investment Test for Distribution (RIT-D).[18]

While SP AusNet noted that under the probabilistic approach to network planning used in Victoria, individual augmentation projects are subject to net benefit economic justification. As such, SP AusNet submitted that in its experience, the cost of distribution losses is considered in this analysis for both small and larger projects.[19]

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15 CDC, rule change request, p.5.

16 CDC, consultation paper submission, p.5.

17 ENA, consultation paper submission, p.4; Ausgrid, consultation paper submission. p.8; Ergon Energy, consultation paper submission, p.3.

18 Ausgrid, consultation paper submission, p.12.

19 SP AusNet, consultation paper submission, p.1.

SP AusNet and Jemena also noted in their submissions that the Victorian Electricity Distribution Code includes a requirement in its asset management section to minimise costs to customers while taking into account distribution losses.[20] These stakeholders noted that, as a result, they have been complying with this requirements by taking into consideration the cost of distribution loses in their investments analysis.[21]

The ENA and Ausgrid stated that the minimisation of distribution losses is also largely dependent on other factors which limit a DNSP's ability to influence these losses, including compliance with Australian Standards and Design Planning Licence Conditions.[22] Within this context, there are technical limits to the loss reduction that can be achieved for a network and that the reduction of distribution losses often involves trade-offs with other factors such as a reduction in system utilisation, increased operational and capital expenditure costs.

Ergon Energy further submitted that there is a lack of evidence to suggest that the current levels of distribution losses are inefficient.[23] It noted that it is industry practice to consider the cost of distribution losses in the development and review of purchasing and design standards.[24] Ausgrid commented that the level of network losses in Australia are comparable with global best practice and that, as such, the proponent has overstated the materiality of network losses as a problem.[25]

Ergon Energy submitted that there would be little value in requiring DNSPs to address network losses for projects which are not captured by the proposed RIT-D as the incremental losses would be unlikely to have a substantial impact on these investment decisions.[26] Jemena agreed and noted that all material costs attributed to distribution losses will be captured under the requirements of the proposed RIT-D.[27]

In their submission, Citipower and Powercor Australia agreed with the proponent that DNSPs do not undertake investment decisions which minimise distribution losses.[28]

5.3 Other relevant considerations

The AEMC has conferred with the AER on the issues raised by the rule change request and submissions to the first round of consultation on this matter. It is understood that the existing regulatory framework allows the AER to assess the investment decisions of DNSPs, including whether there has been an appropriate consideration given to the

20 See section 3.1 of the Victorian Electricity Distribution Code, version 7, May 2012, p.6.

21 Jemena, consultation paper submission, p.2; SP AusNet, consultation paper submission, p.1.

22 ENA, consultation paper submission, p.2; Ausgrid, consultation paper submission, p.3.

23 Ergon Energy, consultation paper submission, p.3.

24 Ergon Energy, consultation paper submission, p.3.

25 Ausgrid, consultation paper submission, p.4.

26 Ergon Energy, consultation paper submission, p.7.

27 Jemena, consultation paper submission, p.5.

28 Citipower and Powercor Australia, consultation paper submission, p.2.

cost of distribution losses. Further explanation of the AER's distribution determination process is provided in section 6.3 of this draft rule determination.

5.4 Commission's analysis and conclusion

Distribution losses make some contribution to the price of electricity as losses occur as part of the supply of electricity. These losses can be optimised to an efficient level based on the investment decisions of a DNSP. With that said, there is a lack of evidence showing that distribution losses are not being optimised. In fact, most DNSPs who provided a submission have demonstrated that they consider of the cost of distribution losses as part of their network planning practices (albeit through varying mechanisms). As such, it appears that the minimisation of distribution losses is one of the many inputs to be considered by DNSPs in making investment and planning decisions. Furthermore, it appears that the existing regulatory framework allows the AER to assess the investment decisions of DNSPs, including whether there has been an appropriate consideration given to the cost of distribution losses.

In terms of whether distribution losses are at efficient levels or not, it is noted that there is no specific industry standard regarding what an efficient level of these losses is since the amount of losses on each network (and within a network) varies based on the distribution network's particular characteristics. However, there appears to be a general understanding among DNSPs that the optimisation of distribution losses should be considered as part of 'good industry practice'.

Despite this practice, there appears to be a general lack of transparency and clarity around the approaches taken by DNSPs in considering the cost of losses in making investment and planning decisions. On this basis, the Commission is of the view that the draft rule will provide further clarity and transparency on these approaches. In doing so, the draft rule will help ensure that DNSPs are promoting efficient investment in, and operation and use of, distribution networks for the long term interests of consumers.

6 Expenditure forecasts

This chapter considers the issues that were raised by the proponent and stakeholders during consultation in relation to the incentives faced by DNSPs in preparing expenditure forecasts. This chapter also considers additional information obtained by the AEMC in assessing these issues and provides a conclusion on the Commission's position in relation to this matter.

6.1 Proponent's view

In the rule change request and its submission, the proponent submitted that the NER provides no requirement for DNSPs to consider distribution losses in their capital and operating investment decisions.[29] The CDC proposed that the incentives under the current regulatory framework set out under Chapter 6 of the NER (which relates to the economic regulation of distribution networks) are directed at minimising capital and operating costs. The CDC also submitted that there is no requirement for the AER, when assessing a DNSP's expenditure forecasts , to ensure that the cost of distribution losses has been considered.

6.2 Stakeholder views

The ENA and several DNSPs submitted that the current regulatory framework provides an incentive to take into account the cost of distribution losses as expenditure forecasts are required to reflect prudent and efficient costs.[30] These stakeholders noted that this could include an assessment as to whether the cost of distribution losses are reflected in a DNSP's expenditure forecasts.

Citipower and Powercor Australia agreed with the proponent that Chapter 6 of the NER does not incentivise DNSPs to undertake network investment to minimise distribution losses or require the AER to approve expenditure associated with minimising distribution losses.[31]

6.3 Other relevant considerations

The AEMC sought further clarification from the AER on the process for making a distribution determination, including its assessment of expenditure forecasts.

Once a regulatory proposal is lodged by a DNSP, the AER engages consultants to assist in the analysis of the proposal (including expenditure forecasts). This analysis is then considered by the AER as part of its process for making a distribution determination.

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29 CDC, rule change request, p.5.

30 ENA, consultation paper submission, p.4; Ausgrid, consultation paper submission, p.8; Jemena, consultation paper submission, p.3.

31 Citipower and Powercor Australia, consultation paper submission, p.2.

The Commission understands that in undertaking analysis of expenditure forecasts, a consultant will generally conduct a desktop exercise on a 'typical' project to see how the DNSP has prepared the operating and capital expenditure allowance it is seeking for that project. In general, a consultant may review around 30 to 40 per cent by value of the projects listed in a regulatory proposal. It does so across a range of large and smaller scale projects to understand the way in which a DNSP has developed its proposed revenue requirement.

The Commission also understands that during this process, a consultant will meet with the design and planning engineers of the relevant DNSP to discuss the capital projects within the regulatory proposal. The purpose of this discussion includes assessing whether the DNSP has undertaken 'good industry practice', as well as adhered to all relevant technical standards and planning requirements.

6.4 Commission's analysis and conclusion

There is a range of inputs that a DNSP must consider in preparing expenditure forecasts, which may include consideration of distribution losses. Nevertheless, it would be expected that a DNSP acting in a manner consistent with a prudent service provider would take into account all relevant matters in developing a regulatory proposal. This would reasonably include consideration of distribution losses where relevant.

In assessing expenditure forecasts, the AER has the ability to assess how a DNSP has prepared these forecasts. There is no basis to conclude that this analysis undertaken during the assessment of a regulatory proposal should not include the consideration of details such as the cost of distribution losses. As such, it appears that the regulatory framework already provides for the AER to assess whether a DNSP has considered distribution losses in preparing its expenditure forecasts.

Accordingly, the Commission considers that under the current regulatory framework, DNSPs should take into account distribution losses in developing a regulatory proposal. And, that the AER is able to assess whether this has in fact occurred.

7 Relevant market reforms and programs

This chapter considers the issues that were raised by the proponent and stakeholders during consultation in relation to existing and proposed market reforms and programs which relate to distribution losses. This chapter also considers additional information obtained by the AEMC in assessing these issues and provides a conclusion on the Commission's position in relation to this matter.

7.1 Proponent's view

The proponent noted the while the proposed RIT-D will require DNSPs to consider changes in electrical energy losses for credible options assessed under the RIT-D, it will not apply to smaller projects which do not meet the RIT-D requirements.[32] In its submission during the first round of consultation, the CDC argued that the nature of a DNSP's expenditure is such that the RIT-D requirements will not capture the majority of a DNSP's expenditure.[33]

In its rule change request, the proponent also mentioned the Australian Government's Minimum Energy Performance Standards (MEPS) program and noted that the requirements on DNSPs in relation to distribution transformers under the MEPS program is currently being revised but that this program does not appropriately address the issues raised in the rule change request.[34]

The proponent also made reference to the AER's Efficiency Benefit Sharing Scheme (EBSS), observing that the AER does not apply an EBSS to distribution losses.[35]

The CDC also noted that the extension of the Energy Efficiency Opportunities (EEO) program would potentially provide financial incentives for DNSPs to make some decisions aimed at reducing losses.[36] However, the CDC expressed the view that the application of this scheme to distribution losses would be limited due to the narrow structure of the program.[37]

32 CDC, rule change request, p.10.

33 CDC, consultation paper submission, p. 2.

34 CDC, rule change request, p.7.

35 An EBSS is a mechanism, applied by the AER, that shares between a DNSP and its customers the efficiency gains or losses derived from the difference between a DNSP's actual operating expenditure and the forecast operating expenditure allowance for any one year. The NER also state that an EBSS may (but is not required to) cover efficiency gains and losses related to capital expenditure or distribution losses.

36 CDC, consultation paper submission, p.5.

37 CDC, consultation paper submission, p.5.

7.2 Stakeholder views

Most stakeholders acknowledged that there were a range of existing and proposed market reforms and programs which address, or will address, the issues raised by the rule change request.

The ENA noted that while the extension of the EEO program to energy networks is yet to be finalised, it is likely that this program would address some of the proponent's concerns and would provide the proponent with reassurance that distribution losses are being considered in a DNSP's investment decisions.[38] Grid Australia and SP AusNet agreed with this view and noted that the extension of the EEO program to energy networks would appear to have a similar objective to that of the rule change request.[39]

Ausgrid provided examples of how distribution losses are (or will be) considered by existing and proposed mechanisms such as reliability drivers, Australian Standards and the proposed RIT-D.[40] For example, an improvement in reliability drivers tends to result in loss reduction. [41] While Energex submitted that it would be more appropriate to consider distribution losses under the proposed RIT-D and when specifying plans to meet the MEPS.[42]

Jemena and SP AusNet submitted that they already reflect the cost of distribution losses in their capital expenditure forecasts in compliance with an obligation under the Victorian Electricity Distribution Code.[43]

The ENA, Ausgrid and Ergon Energy submitted that the issues raised by the CDC in its rule change request overlapped with the issues currently being considered by the AEMC as part of the Power of Choice review and any decision on the CDC's request should be delayed until the conclusion of the review.[44] Ausgrid noted that one of the most effective and least costly options to reduce losses is for the end user to reduce their energy consumption and that the Australian Government is undertaking analysis into technology to enable customers to manage their consumption through its 'Smart Grid, Smart City' project.[45]

38 ENA, consultation paper submission, p.5.

39 Grid Australia, consultation paper submission, p.1; SP AusNet, consultation paper submission, p.2.

40 Ausgrid, consultation paper submission, p.12.

41 Ausgrid, consultation paper submission, p.12.

42 Energex, consultation paper submission, p.1.

43 Jemena, consultation paper submission, p.2; SP AusNet, consultation paper submission, p.1.

44 ENA, consultation paper submission, p.3; Ausgrid, consultation paper submission, p.8; Ergon Energy, consultation paper submission, p.3.

45 Ausgrid, consultation paper submission, p.3.

Stakeholders also observed that the AER does not apply an EBSS to distribution losses.[46] Currently, the AER is required to publish an EBSS in relation to operating expenditure.[47] However, the NER also states that the AER may (but is not required to) publish an EBSS to cover efficiency gains and losses related to capital expenditure or distribution losses.[48]

Citipower and Powercor Australia noted that the rule proposed by the CDC would promote consistency with the proposed RIT-D.[49]

7.3 Commission's analysis and conclusion

There is a range of existing and proposed market reforms and programs that address, or will address, many of the issues raised by the CDC in its rule change request. As a general reporting requirement, the draft rule will compliment these existing and proposed reforms and programs.

The proposed implementation of a national framework for distribution network planning and expansion would see the current regulatory test replaced with the RIT-D. The RIT-D will require DNSPs to consider whether an investment option could deliver changes in electrical energy losses. The RIT-D process would apply where a distribution system limitation exists and the estimated capital cost of the most expensive option to address the relevant identified need is $5 million or more.

The efficiency performance requirements under the MEPS program are currently being reviewed, which could result in greater stringency in the requirements on distribution transformers.[50] Therefore this program will continue to address the energy efficiency of these transformers which in part addresses the issues raised by the rule change request.

As noted by the proponent and stakeholders, the AER has decided not to apply an EBSS to distribution losses.[51] During consultation, those stakeholders who responded to this issue were supportive of the AER approach.[52] In its final decision on applying the EBSS to DNSPs, the AER noted that given the lack of evidence showing that distribution losses were deviating from efficient levels, the AER considered it

46 Ausgrid, consultation paper submission, p.8; CDC, consultation paper submission, pp.4-5, ENA, consultation paper submission, pp. 4-5, Ergon Energy, consultation paper submission, p.5 and Jemena, consultation paper submission, p.3.

47 See clause 6.5.8(a) of the NER.

48 See clause 6.5.8(b) of the NER.

49 Citipower and Powercor Australia, consultation paper submission, p.2.

50 See www.energyrating.gov.au

51 AER, *Draft Decision on Proposed Electricity Distribution Network Service Providers Efficiency Benefit Sharing Scheme*, April 2008, p.6.

52 ENA, submission on proposed EBSS, p.4; Energex, submission on proposed EBSS, p.10; and Ergon Energy, submission on proposed EBSS, p.6.

appropriate not to apply the EBSS to distribution losses.[53] However, the NER contains provisions that enable the AER to apply the EBSS to distribution losses in the future if it considers it would be appropriate.

The extension of the EEO program to energy networks is currently being developed by the Australian Government and is expected to commence on 1 July 2013. While the details of the program design are yet to be finalised, it is understood that it will seek to address distribution losses. As such, it would appear that this program, once in effect, would help address some of the issues raised by the rule change request.

Broader issues relating to the incentives faced by DNSPs are being considered as part of the AEMC's Power of Choice Review.[54] While the focus of the review is on demand side participation, it is also considering the issue of how DNSPs take into account broader market benefits when making investment decisions. While there is some overlap between the review and this rule change request. The review is considering a broader range of market benefit issues and this rule change process can deal with the particular issues raised by the proponent without the need for the review (or any other rule changes that may arise from it) to conclude.

53 AER, *Final Decision on Electricity Distribution Network Service Providers Efficiency Benefit Sharing Scheme*, June 2008, p.15.

54 For further information on this project see the AEMC website: www.aemc.gov.au

8 Assessing the proposed rule against the NEO

This chapter considers the issues that were raised by the proponent and by stakeholders during consultation in relation to the assessment of the proposed rule against the NEO. This chapter also considers additional information obtained by the AEMC in assessing these issues and provides a conclusion on the Commission's position in relation to this matter.

8.1 Proponent's view

In the rule change request, the CDC stated that the proposed rule would achieve the NEO as it would lead to improved efficiency in the investment in, and operation and use of distribution networks resulting in a long-term reduction in the price of electricity supply for consumers.[55]

In terms of the costs and benefits of the proposed rule, the CDC suggested that there would be some administrative costs and an ongoing impact on DNSP capital and operating expenditure. However, this would be balanced by a long-term reduction in the cost of electricity supply for consumers.[56] Accordingly, the CDC considered that the proposed rule would achieve the NEO.[57]

In its submission to the first round of consultation, the proponent added that the proposed rule would be effective over the regulatory period.[58] Given the AER considers historic capital and operating expenditures of DNSPs, the CDC stateed that the proposed rule would empower the AER to seek information on how the cost of distribution losses had been considered by a DNSP.[59] In addition, the proponent submitted that, during the distribution determination process, the AER confirms whether a DNSP has appropriate governance processes in place to ensure that its forecast expenditure allowance will be spent efficiently over the regulatory period.[60]

8.2 Stakeholder views

While most stakeholders were supportive of the principle that DNSPs should consider broader market benefits (such as the optimisation of distribution losses) when making investment decisions, most stakeholders did not support the solution proposed by the CDC.

The ENA submitted that increasing the regulatory burden on DNSPs without the confidence in corresponding reductions to distribution losses could be seen as counter

55 CDC, rule change request, p.11.

56 CDC, rule change request, p.12

57 CDC, rule change request, p.11.

58 CDC, consultation paper submission, p.1.

59 CDC, consultation paper submission, p.1.

60 CDC, consultation paper submission, p.2.

to the NEO with costs outweighing the benefits. The ENA further submitted that explicitly considering distribution losses at the time of preparing expenditure forecasts was unrealistic and impractical given that forecasts are made using the best information available at the time. In addition, project options are likely to change during the regulatory control period from the time of making a forecast due to new information and more detailed planning analysis.[61]

The ENA also submitted that from a regulatory perspective, Chapter 6 of the NER was not an appropriate location for such an obligation. It noted that the relevant clauses of the NER which the proposed rule sought to amend specify more mechanical requirements of these forecasts rather than relating to specific components of investment decisions.[62]

Ausgrid submitted that the costs involved with the implementation and compliance of the proposed rule (particularly if applied on a project by project basis) would far outweigh any benefits achieved from the proposed rule given the materiality of distribution losses in light of the trade-offs and expenditure required to reduce losses.[63]

Ausgrid also noted that the inclusion of a specific requirement to consider the cost of distribution losses when preparing capital and operating expenditure forecasts would emphasise one aspect of efficient and prudent forecast above all others which is unnecessary.[64] It further argued that giving emphasis to distribution losses in this way may lead to an expectation that these losses be considered on a project by project basis which was not appropriate.[65] Similarly, Energex stated that the proposed rule would be unnecessarily onerous and would incur significant costs without quantifiable benefits.[66]

Ergon Energy submitted that there would be little value in requiring DNSPs to address network losses for projects which are not captured by the RIT-D as the incremental losses would be unlikely to have a substantial impact on these investment decisions.[67] Jemena agreed and noted that all material costs attributed to distribution losses will be captured under the requirements of the proposed RIT-D.[68]

Citipower and Powercor Australia expressed support for the proposed rule on the basis that it is the best way to minimise distribution losses in the absence of a national distribution loss incentive scheme.[69]

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61 ENA, consultation paper submission, p.4.

62 ENA, consultation paper submission, p.3.

63 Ausgrid, consultation paper submission, p.11.

64 Ausgrid, consultation paper submission, p.10.

65 Ausgrid, consultation paper submission, p.10.

66 Energex, consultation paper submission, p.1.

67 Ergon Energy, consultation paper submission, p.7.

68 Jemena, consultation paper submission, p.5.

69 Citipower and Powercor Australia, consultation paper submission, p.2.

8.3 Other relevant considerations

The Commission has discussed the proposed rule with the AER and understands that the rule as proposed by the CDC would inappropriately elevate the issue of distribution losses above all other components that are considered by the AER in assessing a DNSP's capital and operating expenditure forecasts.

Furthermore, the proposed rule may not be effective in achieving CDC's objective since expenditure forecasts are assessed and approved using the best information available at the time. Once an allowance is set, a DNSP may make decisions during the regulatory control period that differ from those made at the time of making a forecast due to new information and more detailed planning analysis.

8.4 Commission's analysis and conclusion

Having considered the views of stakeholders and undertaken its own analysis, the Commission does not consider that the rule as proposed by the CDC will, or is likely to, achieve the NEO. The proposed rule, if implemented, would elevate the issue of distribution losses to the same level of importance as the current capital and operating expenditure objectives and above all other investment drivers that are considered by a DNSP in preparing its expenditure forecasts. This may not be appropriate given the broad nature of the expenditure objectives which allows for the consideration of a number of factors to recover prudent and efficient costs, which would, in any event, include the cost of distribution losses.

While distribution losses contribute to the price of electricity, there is variation in the size of this contribution due to a range of factors, including customer needs, size of the network, comparability with existing network infrastructure and design standards. These are also important factors to consider when making investment decisions. Noting that the minimisation of distribution losses requires a trade-off with other investment considerations, singling out the consideration of distribution losses above all other considerations is unlikely to achieve the NEO as it relates to the price, quality, reliability and security of the supply of electricity. In light of these trade-offs, the costs associated with complying with the proposed rule are likely to outweigh its benefit.

Nevertheless, it is appropriate for DNSPs to consider the cost of distribution losses when making planning, operational and investment decisions as a part of their broader asset management approach.

While the Commission has concluded that the proposed rule should not be incorporated into the NER, the proponent has drawn attention to the issue of transparency around the treatment of distribution losses. In particular, there may be a general lack of transparency around the approaches taken by DNSPs in how they consider distribution losses when making planning and investment decisions. The Commission has concluded that this can and should be addressed.

The draft rule aims to provide further clarity and transparency on how DNSPs take into account distribution losses, while the implementation and compliance costs of

providing this information is likely to be minimal. The draft rule will require DNSPs to briefly report in their DAPR on how they take into account distribution losses. By requiring DNSPs to report on this, the draft rule will promote regulatory certainty for consumers (who ultimately bear the costs of these losses) and to the AER (who assess the network planning and investment activities of DNSPs). In doing so, DNSPs may have regard to the long term costs of these losses which may promote more efficient long run costs of electricity supply.

Abbreviations

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
CDC	Copper Development Centre
Commission	See AEMC
DAPR	Distribution Annual Planning Report
DLFs	Distribution Loss Factors
DNSP	distribution network service provider
EBSS	Efficiency Benefit Sharing Scheme
EEO	Energy Efficiency Opportunities
ENA	Energy Networks Association
MCE	Ministerial Council on Energy
MEPS	Minimum Energy Performance Standards
NEL	National Electricity Law
NEM	National Electricity Market
NEO	National Electricity Objective
NER	National Electricity Rules
proponent	See CDC
RIT-D	Regulatory Investment Test for Distribution

A Summary of issues raised in submissions

Stakeholder	Issue	AEMC response
	General comments	
Energex	Energex supports the ENA's submission on this matter. Energex further submits that the proposed rule is unnecessarily onerous and would incur significant costs without quantifiable benefits.	See AEMC responses to ENA's comments.
Citipower and Powercor Australia	Citipower and Powercor Australia submit that Chapter 6 of the NER does not incentivise DNSPs to undertake network investment to minimise distribution losses or require the AER to approve expenditure associated with minimising distribution losses. These businesses support the proposed rule on the basis that it is the best way to minimise losses in the absence of a national distribution loss incentive scheme. Citipower and Powercor Australia state that they would be pleased to participate in any future industry consultation on methods for calculating distribution network losses.	It is noted that determining a method for calculating distribution losses does not form part of the rule change request.
SP AusNet	SP AusNet does not support the proposed rule. SP AusNet noted that the extension of the EEO program to energy networks would appear to have a similar objective to that of the rule change request. SP AusNet submitsthat the most effective mechanism to encourage the consideration of the cost of losses would be through a losses incentive mechanism for network service providers and encourages the AEMC to consider the inclusion of this mechanism in the regulatory framework.	See Chapter 7 of this document for discussion on the EEO program. It is noted that a loss incentive scheme does not form part of the rule change request.
	Is there evidence that DNSPs do not consider the cost of losses when making capital and operating expenditure forecasts?	
Ausgrid (p.8)	Ausgrid considers that losses are already accommodated in a DNSP's investment decisions through planning, design and operating	See Chapter 5 for further discussion of this matter.

Stakeholder	Issue	AEMC response
	considerations and as a result are already optimised and reflected in operating and capital expenditure.	
The Copper Development Centre (CDC) (p.4)	CDC considers it would be instructive for the AEMC to further investigate whether, and how, DNSPs consider the cost of electrical losses in their investment decisions. CDC mentioned that it is aware of anecdotal evidence that it is not always the case that losses are duly considered.	See Chapter 5 for further discussion of this matter.
Energy Networks Association (ENA) (p.4)	ENA submits that explicitly considering losses at the time of preparing forecasts is likely to be unrealistic and impractical because forecasts are made based on the best information at the time and that project options are likely to change from the time of making a forecast due to new information and more detailed planning analysis. It noted losses are accommodated by DNSP investment decisions through planning, design and operating considerations and as a result are already optimised and reflected in operating and capital expenditure.	See Chapter 5 for further discussion of this matter.
Ergon Energy (p.4)	Ergon Energy noted that it is acutely aware of the life cycle costs of the assets they purchase and/or design. As the cost of losses is considered in the context of standards, they are generally not explicitly considered in distribution projects, or capital and operating expenditure forecasts. Ergon submits that this is the most economically efficient watt to manage their distribution network costs.	See Chapter 5 for further discussion of this matter.
Jemena Electricity Networks (Vic) Ltd (p.2)	The costs of distribution losses are already reflected in the capital expenditure forecasts in compliance with the Victorian Electricity Distribution Code.	See Chapter 5 for further discussion of this matter.
	Do the rules provide for effective incentives for DNSPs to make efficient capital and operating expenditure decisions? If so, what are these incentives?	

Stakeholder	Issue	AEMC response
Ausgrid (p.8), ENA (p.4), Ergon Energy (pp.4-5) and Jemena (p.3)	These stakeholders submitted that the current framework provides an incentive to take into account distribution losses as forecasts are required to reflect efficient and prudent costs. They noted that the AEMC's Power of Choice review is looking into a new incentive mechanism which would allow DNSPs to deem value from market benefits. Once finalised, this could potentially provide an appropriate and effective incentive mechanism for DNSPs to consider broader market benefits when making investment decisions. Ergon Energy also notes that it has been the industry standard to consider the whole of life costs of electrical materials including, explicitly, the life cycle cost of losses.	See Chapter 6 for further discussion of this matter.
CDC (p.4)	CDC submits that the current NER provides no requirement or incentive for DNSPs to consider losses in their capital and operating investment decisions. It submits that the incentives under the current regulatory framework are directed at minimising capital and operating costs.	See Chapter 6 for further discussion of this matter.
	To what extent does the EBSS impact on a DNSP's consideration of the cost of losses?	
Ausgrid (p.8), CDC (pp.4-5), ENA (pp.4-5), Ergon Energy (p.5) and Jemena (p.3)	These stakeholders note that the EBSS does not apply to distribution losses and therefore there is no impact on the cost of losses.	See Chapter 7 for further discussion of the EBSS.
	Do distribution losses significantly contribute to the price of electricity to consumers? If so, how much do they contribute and does this materiality vary between networks?	
CDC (p.5)	CDC submits that losses account for around 2.5 to 7 per cent of the bill of a small customer.	The AEMC notes this comment.

Stakeholder	Issue	AEMC response
ENA (p.5)	ENA submits that there is significant variation in network losses between DNSPs due to a number of factors.	The AEMC notes this comment.
Ergon Energy (p.5)	Distribution losses account for approximately 5 to 10 per cent of total electricity transported and that all else being equal, this means that distribution losses contribute approximately 5 to 10 per cent to the price of electricity for consumers. However, retail tariffs could have other components which will distort their contribution to a customer's price.	The AEMC notes this comment.
Jemena (p.3)	Distribution losses represent between 3 and 10 per cent of energy sales and the difference is mainly due to the geography of the networks.	The AEMC notes this comment.
	How might the extension of the EEO program to distribution networks address the concerns raised in the rule change request by CDC?	
Ausgrid (p.9), ENA (p.5) and Jemena (p.3)	These stakeholders noted that the extension of the EEO program to DNSPs would address some of the concerns raised by CDC's rule change request as it would require a DNSP to investigate opportunities to reduce losses and publicly report on these outcomes.	See Chapter 7 for further discussion on the EEO program.
CDC (p.5)	The EEO program would potentially provide financial incentives for DNSPs but that these are likely to be significant limitations to the application of the program to losses due to the nature of losses and the structure of the program.	See Chapter 7 for further discussion on the EEO program.
Ergon Energy (p.5)	Ergon noted that since it already takes into account the cost of losses when making purchasing decisions, the extension of the EEO program will have little or no effect on Ergon's present practices or outcomes.	See Chapter 7 for further discussion on the EEO program.

Stakeholder	Issue	AEMC response
Grid Australia (p.1)	The EEO legislation has the same fundamental objective as the proposed rule change, being the reduction of energy losses.	See Chapter 7 for further discussion on the EEO program.
	To what extent do the requirements on distribution transformers under the MEPS program encourage DNSPs to minimise distribution losses?	
Ausgrid (p.9), ENA (p.5), Jemena (p.4)	DNSPs currently include MEPS in their tender specifications when procuring distribution transformers. Under this program, DNSPs can optimise (not minimise) distribution losses. As a result of the introduction of the MEPS it is no longer possible for any DNSP to purchase a high loss transformer to reduce the capital cost of the transformer.	The information provided suggests that the MEPS requirements impact on the decisions of DNSPs with respect to procuring distribution transformers. See Chapter 7 for further discussion on the MEPS program.
CDC (pp.5-6)	CDC supports the use of MEPS but noted that there are other items of equipment that also contribute to losses that are not covered by MEPS.	The AEMC notes that the MEPS program does not cover all equipment procured by a DNSP. See Chapter 7 for further discussion on the MEPS program.
Ergon Energy (p.6)	The MEPS program is unlikely to encourage it to minimise distribution losses as it will replicate calculations already undertaken in determining material standards. Ergon Energy currently considers the cost of losses when making transformer purchasing decisions, and previously had specified loss costs in place on earlier contracts.	Noted.
	Do the requirements on distribution transformers under the MEPS program influence the broader network equipment decisions of DNSPs?	
Ausgrid (p.9), CDC (pp.5-6), ENA (p.6), Ergon Energy (p.6) and Jemena (p.4)	The requirements on transformers under the MEPS program would not influence broader network equipment decisions.	Noted.

Stakeholder	Issue	AEMC response
	Will the proposed rule result in DNSPs considering the cost of network losses in preparing their capital and operating expenditure forecasts?	
Ausgrid (p.10), ENA (p.6), Ergon Energy (p.6) and Jemena (p.4)	These stakeholders state that the proposed rule will not result in changes to the way capital or operating expenditure forecasts are made. ENA further submits that project options can change when performing the detailed planning analysis, and losses are considered at that time. Therefore to require losses are considered at the time of proposing capital and operating expenditure forecasts is unrealistic and impractical, ultimately overstating the influence either of these forecasts has on reduction of network losses. Ergon notes that the cost of losses is already considered in its current practices. Jemena notes that the cost of losses is considered in the preparation of expenditure forecasts in accordance with the requirement in the Victorian Electricity Distribution Code.	The information provided by DNSPs indicates that the cost of distribution losses is broadly taken into account in planning decisions. See Chapter 8 for further discussion on the proposed rule.
CDC (pp.6-7)	CDC is of the view that the proposed rule will result in DNSPs considering the cost of network losses in preparing their capital and operating expenditure forecasts.	See Chapter 8 for further discussion on the proposed rule.
	Are there any alternatives to the proposed rule that may better address the issues raised in the rule change request?	
Ausgrid (p.10), ENA (p.6) and Jemena (p.4)	These stakeholders would be more supportive of network losses being considered under the proposed RIT-D requirements to cover treatment of network losses at a network project level.	The AEMC has found that Chapter 5 of the NER is a more appropriate location for a rule change to be made to address the issues raised by the rule change request.

Stakeholder	Issue	AEMC response
	Alternatively, a more appropriate place for a rule on this matter would be in Chapter 5 of the NER to focus on investment decisions. Ausgrid notes that the intent of the request would be better achieved through existing market reforms.	
CDC (p.7)	CDC suggests two alternatives. First, financial incentive based on a DNSP's distribution system losses which CDC considers would be ineffective. Second, loss purchases by DNSPs which CDC considers would require a fundamental rearrangement of the current regulatory framework as such was not proposed.	These alternatives were not part of the rule change request and would require significant changes to the NER.
Ergon Enegry (pp.6-7)	DNSPs should continue the practice of considering network losses when making purchasing and large project decisions.	Noted.
	Should a similar requirement to the proposed rule be considered for transmission networks?	
CDC (p.7)	The Regulatory Investment Test for Transmission requires the consideration of market costs and benefits and thus the cost of losses. CDC further notes that transmission network service providers are not faced with a great number of small investment decisions like DNSPs. In addition, the AER's Service Performance Indicator Scheme applies to transmission network service providers.	The rule change request did not seek to amend the requirements for transmission businesses. At present, the AEMC is satisfied that there would be little benefit in a similar requirement to the draft rule to apply to these businesses.
Grid Australia (p.2)	Grid Australia considers that the Regulatory Investment Test for Transmission already essentially delivers the intended outcome of the proposed rule to transmission networks. Therefore it does not support a similar requirement to the proposed rule being applied to transmission networks.	See above.
	What are the likely implementation and ongoing costs associated with the proposed rule for DNSPs and the AER?	

Stakeholder	Issue	AEMC response
Ausgrid (p.11), ENA (p.6) and Ergon Energy (p.7)	These stakeholders submits that the costs involved with the proposed rule (in terms of monitoring, compliance and administrative costs) would outweigh any benefits achieved given the materiality of losses in light of the inherent trade-offs and expenditure required to reduce losses.	Chapter 8 discusses the costs and benefits of the draft rule and the proposed rule.
CDC (p.7)	The proposed rule would represent an incremental change to the existing requirements on DNSPs and the AER to forecast.	See Chapter 8.
Jemena (p.4)	Jemena submits that the proposed rule would add complexity to the process of determining expenditure forecasts in regulatory proposals. It further submits that should the AER require ongoing information through the regulatory information notice reporting process, then there will be ongoing costs related to monitoring and audit.	See Chapter 8.
	Is the proposed rule likely to result in more efficient expenditure which could lead to lower electricity prices for consumers over the long term?	
Ausgrid (p.11)	Ausgrid does not believe that the proposed rule will lead to more efficient expenditure and prices to consumers in the long term. Given the materiality of the cost of network losses in light of the infrastructure necessary to achieve loss reductions. Ausgrid argue that the proposed rule would lead to the occurrence of significant price shocks to consumers. Itis therefore undesirable.	See Chapter 8.
CDC (p.7)	The proposed rule would result in more efficient expenditure by DNSPs which would flow through to consumers as lower prices in the short term in the case of operating decisions and in the long term in the case of capital decisions.	See Chapter 8.
ENA (p.6)	ENA submits that increasing the regulatory burden on DNSPs without the confidence in corresponding reductions to network losses is	See Chapter 8.

Stakeholder	Issue	AEMC response
	counter to the national electricity objective.	
Ergon Energy (p.7)	The proposed rule is unlikely to result in more efficient expenditures. Ergon submits that it already considers network losses in the development of purchasing and design standards. Ergon further submits that a requirement in the NER will effectively duplicate efforts and costs arising under the extension of the MEPS program.	See Chapter 8.
Jemena (p.4)	Jemena notes that it is already taking into consideration the costs of distribution losses in its investment decisions through planning design and operating considerations under the Victorian Electricity Distribution Code.	See Chapter 8.
	How material is the cost of losses to the expenditure by DNSPs that would not be captured under the requirements of the proposed RIT-D?	
Ausgrid (p.11), ENA (p.7) and Jemena (p.5)	All material costs attributed to distribution losses will be captured under the requirements of the proposed RIT-D.	The RIT-D will apply to projects that meet the RIT-D requirements. The draft rule will require DNSPs to explain how they take into account distribution losses. This explanation is expected to be a summary of the general approach taken in making planning and investment decisions (including those that are not subject to the RIT-D).
CDC (p.8)	CDC submits that the nature of DNSP businesses is that the RIT-D requirement will only capture a small proportion of DNSP expenditures.	See above.
Ergon Energy (p.7)	Ergon Energy submits that since it already considers the cost of losses in the development of purchasing and design standards, there would be an immaterial effect on small projects not captured by the RIT-D.	The AEMC acknowledges that most DNSPs appear to take distribution losses into account where relevant.

Stakeholder	Issue	AEMC response
	To what extent would the guidance and worked examples proposed to be provided by the AER in the RIT-D application guidelines help determine the value ascribed by DNSPs under this proposed rule if implemented?	
Ausgrid (p.11), ENA (p.7) and Jemena (p.5)	These stakeholders noted that guidance by way of worked examples using the long run marginal cost of energy in the AER's RIT-D application guidelines would be useful to value distribution losses.	The AEMC acknowledges that the RIT-D application guidelines, once drafted, could be used by DNSPs to help value distribution losses.
CDC (p.8)	CDC envisages that the AER would provide guidance to DNSPs on the long run cost of losses, in a similar manner to the approach currently used to provide guidance to transmission network service providers on loss costs.	See above.
Ergon Energy p.7)	Ergon Energy believes the guidelines may assist in determining the value ascribed by DNSPs under the CDC's proposed rule (if implemented). However, Ergon notes that care would need to be taken to ensure the methodologies can be easily transferred and applied to projects below the proposed RIT-D cost threshold of $5 million.	See above.