

## **Distribution Network Planning and Expansion Framework Rule Change Request**

Implementation of the Rule change recommendations from the Australian Energy Market Commission's Review of the National Framework for Electricity Distribution Network Planning and Expansion

January 2011

# 1 Background and Context for the Rule Change Request

On 17 December 2008, the Ministerial Council on Energy (MCE) directed the Australian Energy Market Commission (AEMC) to undertake a review into the current electricity distribution network planning and expansion arrangements in the National Electricity Market (NEM), and propose recommendations to establish a national framework for electricity distribution network planning and expansion.<sup>1</sup> In its terms of reference, the MCE stated that the national framework for distribution network planning and expansion shall include:

- a requirement on distribution network service providers (DNSPs) to perform an annual planning process;
- a requirement on DNSPs to produce and make publicly available an annual planning report which has a 5 year planning horizon. At a minimum the annual plan must forecast distribution network constraints;
- a requirement for DNSPs to undertake a case by case project assessment process to identify the most economic option when considering network expansions and augmentations; and
- a dispute resolution process.<sup>2</sup>

The MCE also requested that the AEMC provide detailed advice on the implementation of any recommendations to establish the national framework, including, where appropriate, proposed changes to the National Electricity Rules (Rules).<sup>3</sup>

The AEMC submitted its Final Report for the Review of National Framework for Electricity Distribution Network Planning and Expansion (the Review) on 23 September 2009.<sup>4</sup> Together with that Final Report, draft Rules were also submitted to the MCE. The draft Rules were developed following the AEMC's consideration of stakeholder submissions on the Draft Report for the Review and accompanying specifications for the national framework. These draft Rules have since been amended to reflect the MCE's policy position, as stated in the MCE Response to the final report on the AEMC Distribution Network Planning and Expansion Review.<sup>5</sup> The AEMC should have regard to the attached draft Rules and also to the submissions received on the Draft Report, in considering this Rule change request.

On 8 October 2010, the MCE published its response to the AEMC's Final Report. The MCE is in general agreement with the findings in the Final Report and supports the AEMC's recommendations with some modifications which are outlined in this Rule change request and reflected in the revised attached draft Rules.

The implementation of the national framework should be considered further through the Rule change process. In particular, the possibility of aligning the start date for the application of the national framework with the National Energy Customer Framework process should be explored.

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<sup>1</sup> Ministerial Council on Energy, 2008, Terms of Reference - AEMC Review of National Framework for Electricity Distribution Network Planning and Expansion, 18 December 2008.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

<sup>4</sup> AEMC, 2009, *Review of National Framework for Electricity Distribution Network Planning and Expansion: Final Report*, 23 September 2009.

<sup>5</sup> Ministerial Council on Energy, 2010, Ministerial Council on Energy Response to the Australian Energy Market Commission's Final Report - National Framework for Electricity Distribution Network Planning and Expansion, 8 October 2010.

## **2 Rule Change Request**

### **2.1 Name and Address of Rule Change Request Proponent**

The Ministerial Council on Energy  
MCE Secretariat  
GPO Box 9839  
CANBERRA ACT 2601

### **2.2 Description of the Proposed Rules**

The AEMC's Final Report recommended that Rule changes be made to implement its proposed national framework for electricity distribution network planning and expansion. The MCE supports the recommended design for the national framework and accepts the rationale set out in that Final Report subject to some modifications, as set out in the MCE response and this Rule Change Request.

The main components of the AEMC's proposed national framework are:

- DNSP Annual Planning and Reporting Requirements;
- DNSP Demand Side Engagement Strategy; and
- Regulatory Investment Test for Distribution (RIT-D) and Dispute Resolution Process.

The DNSP Demand Side Engagement Strategy is discussed in conjunction with the annual planning and reporting requirements.

#### **2.2.1 DNSPs' Annual Planning and Reporting Requirements**

Under the proposed Rules, DNSPs in the NEM would be subject to national annual planning and reporting requirements. These requirements are intended to replace the current jurisdictional requirements for annual planning and reporting by DNSPs.

It is proposed that the annual planning requirements would encompass the planning for all assets and activities carried out by DNSPs that would materially affect the performance of the network. This would include planning activities associated with replacement and refurbishment of assets and negotiated services.

DNSPs would be required to publish an annual planning report – the Distribution Annual Planning Report (DAPR) – covering a minimum five year forward planning period. The Rules should be sufficiently flexible to allow each jurisdiction to determine the start date of the annual planning period to optimise the usefulness of information concerning peak demands and extreme weather events.

The proposed content for the DAPR is similar to the existing jurisdictional reporting requirements. DNSPs would be required to report on capacity and load forecasts for sub transmission lines, zone substations and transmission-distribution connection points. The DAPR would also report on any primary distribution feeders which were overloaded or forecast to be overloaded within the next two years, where they have been identified. Where possible any potential duplication between the reporting requirements in the national framework and jurisdictional reporting requirements should be minimised.

The Rules should also give the AER the ability to grant exemptions or variations to the annual reporting requirements, where a DNSP is able to demonstrate that, due to the DNSP's operational

or network characteristics, the costs of preparing the data would manifestly exceed any benefit that may reasonably be obtained from reporting in a national regime.

### **Demand Side Engagement Strategy**

As part of the proposed annual planning requirements, each DNSP would be required to establish and maintain a Demand Side Engagement Strategy. This strategy would involve DNSPs publishing a demand side engagement document, establishing and maintaining a database of non-network case studies and proposals, and establishing and maintaining a demand side engagement register. As part of the Demand Side Engagement Strategy, DNSPs would be required to engage pro-actively with non-network providers in the development of potential solutions to system limitations.

### **Joint Planning**

The proposed Rules would also clarify the requirements for joint planning between DNSPs and transmission network service providers (TNSPs). DNSPs and TNSPs would be required to meet regularly to carry out joint planning and work together to identify the most economic solution to a common problem. It is proposed that the Regulatory Investment Test for Transmission (RIT-T) would be applied to any investments identified through the joint planning process that affect both the transmission and distribution networks or require action by both DNSPs and TNSPs, including transmission-distribution connection projects.

## **2.2.2 The Regulatory Investment Test for Distribution and Dispute Resolution Process.**

The proposed Rules seek to replace the current Regulatory Test under clause 5.6.2 of the Rules with a new project assessment and consultation process for distribution investments – the Regulatory Investment Test for Distribution (RIT-D). The purpose of the RIT-D would be to identify the preferred option for network investment which maximises the present value of net economic benefits. The proposed RIT-D has the following stages:

- an initial screening test, the Specification Threshold Test, which determines whether additional consultation and reporting is required before the project assessment process;
- a project specification stage, where DNSPs would be required to request alternative proposals to meet the identified need; and
- the project assessment stage, where DNSPs would consider the applicable market benefits and costs of each credible option to determine the preferred option.

It is proposed that the RIT-D would be undertaken by DNSPs when a distribution system limitation exists and the most expensive investment option which is technically and economically feasible is expected to cost \$5 million or more. The RIT-D would not apply to urgent and unforeseen investments, negotiated services, replacement or refurbishment expenditure, connection services, or where the proposed investment has been identified through a joint planning process between a DNSP and a TNSP.

Under the proposed Rules, the AER would be able to review DNSP policies and procedures with regard to consideration of non-network alternatives in order to determine if non-network alternatives have been duly considered. The AER would also be able to audit projects which have been identified by DNSPs as not meeting the threshold for the RIT-D, to assess whether non-network alternatives were duly considered. Additional transparency would be added to this process by requiring the AER to publish a report each year, detailing the results of any audit undertaken in the preceding 12 months.

The proposed Rules would also introduce a specific dispute resolution process for the RIT-D, which has been modelled on the dispute resolution process for the RIT-T. The proposed dispute resolution process would apply to all investments which are subject to the RIT-D and would be a compliance review of DNSPs' application of the RIT-D against the requirements in the Rules.

## **2.3 Nature and Scope of the Issues the Proposed Rule will Address**

### **2.3.1 DNSPs' Annual Planning and Reporting Requirements**

The objective of the proposed annual planning requirements is to identify possible future issues that could negatively affect the system performance of distribution networks, to enable DNSPs to plan for, and adequately address, such issues in a sufficient timeframe. The purpose of having a national annual planning process is to ensure that all DNSPs conduct a clearly defined, common and efficient planning process. Such a process would provide certainty in relation to the approval of network expansion and augmentation projects to maintain the reliability of electricity supply to end use customers. In addition, the annual planning framework would ensure that DNSPs develop the network efficiently and consider non-network alternatives in a neutral manner when undertaking augmentation assessments.

The purpose of the DAPR is to inform of the outcomes of DNSPs' planning processes under the national framework. The DAPRs will provide transparency to DNSPs' decision making processes, which will assist non-network providers, TNSPs and connection applicants to make efficient investment decisions. The DAPRs could also be used by regulators such as the AER to understand the activities undertaken by DNSPs and how they are developing their networks, which will assist the AER in its five year revenue determination process. The proposed content of the DAPR is similar to the existing jurisdictional requirements, and would provide a more consistent and comprehensive annual reporting regime for DNSPs across the NEM. Duplication between jurisdictional reporting requirements and the reporting requirements in the national framework would also be minimised, as DNSPs would be required to use the latest information captured through jurisdictional reporting requirements in their DAPR.

### **2.3.2 The Regulatory Investment Test for Distribution and Dispute Resolution Process**

The Regulatory Test under clause 5.6.2 of the Rules does not currently allow DNSPs to consider market benefits in their assessment of different investment options. This may result in inefficiencies in how distribution networks are developed, as DNSPs currently select investments on a least cost basis rather than considering both the costs and broader market benefits that different investment options may provide.

The proposed RIT-D will provide for a more transparent and comprehensive project assessment process. DNSPs will be required to consider the market benefits and costs of each credible option to meet an identified need. DNSPs will also be required to explicitly consider the potential for non-network solutions when undertaking the Specification Threshold Test. This will ensure that DNSPs have a technology neutral approach when considering investments and that the most efficient investment option is adopted, rather than merely the least cost option. It will also facilitate ongoing relationships between DNSPs and non-network providers and address a "perceived failure" by DNSPs to consider non-network options in a neutral manner. The AER would also be able to audit any project which falls below the RIT-D threshold, to ensure that DNSPs fully consider non-network alternatives for all projects they undertake.

DNSPs' obligations when considering distribution investments will also be clearer under the proposed Rule. Further, as the proposed project assessment process for the RIT-D is similar to the RIT-T project assessment process, this consistency should improve the ability of market participants to operate across distribution and transmission networks in the NEM.

## **Dispute Resolution Process**

The proposed Rules also recommend the implementation of a specific dispute resolution process for distribution. Currently disputes regarding the application of the Regulatory Test by DNSPs must be resolved under the dispute resolution process in Chapter 8 of the Rules. This process is general in nature and it is not tailored to the specific types of disputes that may be raised in relation to distribution planning. Further, under the current arrangements, dispute resolution is only available to Registered Participants. As a result, it is not considered appropriate for this process to continue to apply under the national framework.

The proposed dispute resolution process will provide for greater transparency and clarity regarding how disputes can be resolved and the obligations of the disputing parties. The proposed process would also allow disputes to be resolved in a timelier manner, which will ensure that distribution investments are not unduly delayed. The appropriate balance between transparency and the need for timely investment, needs to be considered in the dispute resolution process. It is also proposed that the scope of parties who can raise a dispute be expanded to include the AEMC, the Australian Energy Market Operator (AEMO), connection applicants, Intending Participants, non-network providers and interested parties, as well as Registered Participants. This will allow any party which may be impacted by DNSPs' decisions under the RIT-D process to raise a dispute with the AER for resolution.

## **2.4 How the Proposed Rules will Contribute to the Achievement of the National Electricity Objective**

The National Electricity Objective (NEO) is set out in section 7 of the National Electricity Law (NEL). The NEO states:

“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.”

Under section 88 of the NEL:

- (1) The AEMC may only make a Rule if it is satisfied that the Rule will or is likely to contribute to the achievement of the NEO.
- (2) For the purpose of subsection (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.

### **2.4.1 DNSPs' Annual Planning and Reporting Requirements**

A national annual planning and reporting framework will ensure that DNSPs plan effectively and consistently to identify and address potential problems on their networks. This will assist in maintaining a secure, reliable and safe supply of electricity for end users across the NEM. Clearly defined planning and reporting obligations will also assist TNSPs, connection applicants and non-network providers to understand DNSPs' decision making processes and make more efficient investment decisions when participating in the NEM. As each jurisdiction would be able to determine the start date for the annual planning period, this would ensure that the planning process reflects the seasonal variability of electricity demand in each jurisdiction. This is likely to improve the efficiency of the operation and use of network services over the planning period.

## **Demand Side Engagement Strategy**

The proposed Demand Side Engagement Strategy will require DNSPs to outline their processes for considering non-network proposals and engaging with non-network providers. This will facilitate ongoing relationships between DNSPs and non-network providers and encourage DNSPs to consider all feasible options for network development. Greater transparency and consultation around how DNSPs consider alternative investment options will encourage DNSPs to develop and operate their networks more efficiently, which may provide for lower network charges for end use consumers.

### **Joint Planning**

The proposed annual planning requirements will also provide greater clarity around the processes for joint planning between DNSPs and TNSPs. This will provide for greater efficiency in the development of distribution and transmission networks. Further, as DNSPs and TNSPs would be required to use the RIT-T to assess any joint network investments and assess a broader range of market benefits, this would ensure that the most economic option to address a joint need for investment is identified and adopted.

### **2.4.2 The Regulatory Investment Test for Distribution and Dispute Resolution Process.**

Under the proposed RIT-D, DNSPs will be required to undertake a public consultation and reporting process to determine the preferred option for network investment, which maximises the present value of net economic benefits. In assessing different investment options, DNSPs will be required to consider both the potential market benefits and costs of each credible option, before determining their preferred option. This process will ensure that DNSPs consider investment options in a transparent, consultative and technologically neutral manner, which will facilitate the discovery and adoption of the most efficient investment option to address the identified need. This will increase efficiency in the development and operation of distribution networks, which has the potential to provide for more efficient network charges and improved reliability for end use consumers.

DNSPs would not be required to apply the RIT-D for a number of different types of investments, including urgent unforeseen investments. This would minimise the costs of the RIT-D for DNSPs and would allow DNSPs to continue to respond in a timely manner to prevent events which impact on reliability and system security.

Clearer and more comprehensive information regarding the decision making processes of DNSPs will assist other market participants such as TNSPs, connection applicants, and non-network providers, to make more efficient investment decisions when operating in the NEM. Detailed information regarding the economic justification of distribution investments will also assist the AER in its determination of DNSPs' revenues under Chapter 6 of the Rules, which will provide for more efficient network charges for end use consumers.

Additionally, under the draft Rules, the AER would be empowered to review DNSPs policies and processes, as well as undertake audits of any projects which do not meet the RIT-D threshold, to identify if non-network solutions have been given due consideration. These additional powers of the AER will provide an increased incentive for DNSPs to fully consider non-network solutions for all their investment decisions, as DNSPs will not only be required to do so, but can also be held to account through the increased auditing powers of the AER. This arrangement, along with the rest of the framework, will promote efficient investment decisions and the efficient use of network services by DNSPs.

The proposed dispute resolution process will provide interested parties with an accessible and timely mechanism to question DNSPs' decision making processes and apply a regulatory discipline on their behaviour. This will ensure that distribution networks are developed in the

most efficient manner and that DNSPs comply with the requirements of the Rules when considering network investments.

## **2.5 Expected Costs, Benefits and Impacts of the Proposed Rules**

The proposed national framework for electricity distribution planning and expansion would result in a clearly defined and efficient planning process for distribution network investment and support the efficient development of distribution networks. The national framework would also provide for appropriate information transparency and information regarding DNSPs' planning activities and decision making processes, to allow market participants to make efficient investment decisions and to enable non-network providers to raise credible alternative investment proposals.

The expected costs, benefits and impacts of each component of the proposed national framework are described below. The Final Report on the Review also provides further details on the proposed Rule changes and their expected costs, benefits and impacts.

### **2.5.1 DNSPs' Annual Planning and Reporting Requirements**

The proposed annual planning and reporting requirements are likely to mainly impact DNSPs, the AER, non-network providers, connection applicants, and TNSPs.

#### **DNSPs**

The proposed annual planning and reporting requirements will impose compliance costs on DNSPs. However, as the proposed requirements are, for a number of DNSPs, similar to existing jurisdictional requirements, it is assumed that additional compliance costs on DNSPs should not be excessive.

The compliance costs of the proposed annual reporting requirements would be minimised, as DNSPs would be able to use information which is captured in their jurisdictional reporting requirements in their DAPR. Where DNSPs are able to demonstrate that the costs of complying with any of the annual reporting requirements would outweigh the potential benefits of providing this information, the AER would be able to approve variations or exemptions from the national reporting requirements. Further, it is likely that the costs of complying with the proposed annual planning and reporting requirements will fall over time as DNSPs develop their understanding of the new obligations and efficiencies in their planning processes. To ensure DNSPs are able to comply with the proposed annual planning and reporting requirements, the AEMC proposed in its Final Report for the Review that DNSPs be provided with a minimum of nine months before being required to publish their first DAPR following the making of the final Rule.

The annual planning and reporting requirements will ensure DNSPs develop the network efficiently and consider non-network alternatives in a neutral manner when considering investment options. Improved efficiency in the development of distribution networks has the potential to result in more efficient, and possibly lower, operational and capital costs for DNSPs. In addition, greater clarity and transparency regarding the processes that DNSPs will use when considering non-network proposals will reduce the costs for DNSPs of engaging with non-network providers.



## **AER**

The AER could use the DAPR to develop its information requirements and better understand the activities undertaken by DNSPs. An annual reporting process would provide the AER with updated information on a more frequent basis compared to, for example, a five-yearly basis under the regulatory control period. A nationally consistent annual planning and reporting process will also improve the ability of the AER to operate across multiple jurisdictions. As a result, the proposed annual planning and reporting requirements would improve the level of information available to the AER across different distribution networks, help overcome any information-asymmetries faced by the AER, and assist the AER's five-year revenue determination process under Chapter 6 of the Rules. However, the AER will incur costs in developing systems to ensure compliance with these provisions and in the consideration of any requests for variations or exemptions from the annual reporting requirements by DNSPs

## **Non-network providers**

The proposed annual planning and reporting requirements will provide non-network providers with greater clarity and transparency around the operational processes used by DNSPs and the state of their networks.

The DAPR would allow non-network providers to identify potential investment opportunities that could be exploited through further dialogue with the DNSPs. The proposed Demand Side Engagement Strategy would facilitate productive ongoing relationships between DNSPs and non-network providers by requiring DNSPs to outline the processes they will use when engaging with non-network providers and considering non-network proposals. This will assist to address a perceived failure of DNSPs to assess non-network proposals in a neutral manner.

National annual planning and reporting requirements will also improve the ability of non-network providers to operate across multiple jurisdictions in the NEM.

## **Connection applicants**

Connection applicants would benefit from the proposed annual planning and reporting requirements as they could use the DAPRs to determine the most efficient location for new connections and assess the potential impact for upstream augmentations. This would assist connection applicants to optimise their investments and would also promote more efficient decision making.

## **TNSPs**

The proposed Rule would clarify the requirements for joint planning between DNSPs and TNSPs. The proposed Rule also identifies the appropriate project assessment and consultation process, the RIT-T, to be applied to any investments which may affect both transmission and distribution networks. This will provide transparency and efficiency around the processes which must be undertaken by DNSPs and TNSPs for joint network investments. It will also ensure that the most efficient investment option is selected, as DNSPs and TNSPs will be required to consider a broader range of market benefits under the RIT-T.

In some cases, TNSPs will incur costs in developing processes to manage joint planning and there will be on-going administration costs.

### **2.5.2 The Regulatory Investment Test for Distribution and Dispute Resolution Process.**

The RIT-D and the dispute resolution process are likely to mainly impact DNSPs, end use consumers, non-network providers, and the AER.

## **DNSPs**

The proposed RIT-D and dispute resolution process will have the greatest impact on DNSPs. DNSPs will bear the cost of complying with the proposed Rules and will also have transition costs as they adjust their internal processes. However under the proposed RIT-D, DNSPs' consultation and reporting requirements will be tailored to each identified need, which should minimise the regulatory costs associated with the RIT-D and provide for a more proportionate process. The proposed Rule also provides for a clearer and more transparent process when DNSPs consider distribution investments, which will provide greater certainty regarding DNSPs' obligations under the Rules.

The proposed RIT-D has the potential to increase efficiency in the development of distribution networks as DNSPs will be required to consider both the costs and market benefits of different investment options. In contrast, under the current Regulatory Test, DNSPs are prevented from considering market benefits and are required to select the most cost effective option. Increased network efficiency is likely to result in lower operational and capital costs for DNSPs.

DNSPs will be required to undergo comprehensive reporting and consultation requirements under the RIT-D and provide a detailed explanation as to their reasoning for their preferred option. This information will assist DNSPs to prepare their regulatory proposals for the AER under Chapter 6 of the Rules, as it will document DNSPs' decision making processes and the economic justification for their investments. This should reduce DNSPs' costs in compiling their regulatory proposals.

DNSPs would also be required to fully consider non-network options for any projects which do not meet the RIT-D threshold, supported by the AER's proposed expanded auditing role.

A dedicated dispute resolution process for disputes relating to the application of the RIT-D will ensure disputes are resolved in an efficient and timely manner. Further, as the proposed dispute resolution process is limited in terms of scope and the timing for disputes to be raised and resolved, DNSPs would have greater certainty regarding the timing of their investments.

## **End use consumers**

Under the proposed Rule, if an identified need has the potential to have an adverse impact on end users' quality of service, DNSPs will be required to consult with those end users. This provision would provide end use consumers, which may be affected by proposed investments, with an opportunity to comment on the proposed investment. It would also provide end users with greater transparency regarding DNSPs' decision making processes.

The proposed RIT-D also has the potential to increase the efficiency of distribution networks, which may result in lower network charges for end users and an improved reliability of supply.

## **Non-network providers**

Under the proposed Rule, non-network providers will have a formal opportunity to put forward alternative proposals to address an identified need during the project specification stage of the RIT-D. Non-network providers may also have greater opportunities to propose alternative solutions to smaller projects which are below the RIT-D threshold, as the AER would be able to audit projects below the RIT-D threshold to assess whether DNSPs have duly considered non-network alternatives.

The proposed RIT-D and associated processes provide for a more rigorous, transparent and nationally consistent process, which will assist non-network providers to understand DNSPs' decision making processes and improve their ability to operate across jurisdictions in the NEM.

A dedicated dispute resolution process for disputes relating to distribution investments will ensure that any potential disputes between DNSPs and non-network providers can be resolved in a fair and timely manner.

## AER

Under the proposed RIT-D and dispute resolution process, the AER would be given a number of new responsibilities, including:

- developing and maintaining the RIT-D and the RIT-D Application Guidelines;
- granting exemptions or variations to the annual reporting requirements, where a DNSP is able to demonstrate that, due to the DNSP's operational or network characteristics, the costs of preparing the data would manifestly exceed any benefit;
- reviewing DNSP policies and processes to ensure due consideration of non-network solutions;
- auditing projects which do not meet the RIT-D threshold;
- reviewing the cost thresholds for the RIT-D and DAPR at least every three years; and
- considering and making determinations on disputes in regards to the application of the RIT-D.

These new responsibilities will require resourcing costs for the AER. However, as there is a large degree of overlap between the proposed RIT-D and the RIT-T, it is likely that there will be potential cost savings and efficiencies in the AER's processes. The proposed Rule provides for these efficiencies by:

- allowing the AER to publish the RIT-D, RIT-D Application Guidelines, RIT-T and RIT-T Application Guidelines in a single document;
- requiring the AER to undertake its cost threshold reviews for the RIT-D and DAPR in conjunction with its cost threshold reviews for the RIT-T, which should also provide for greater consistency between distribution and transmission arrangements; and
- modelling the proposed dispute resolution process on the dispute resolution process for the RIT-T.

As a result, the proposed Rule seeks to limit the resourcing costs for the AER.

The proposed Rule will provide benefits for the AER, by improving the AER's revenue determination process and consideration of DNSPs' regulatory proposals under Chapter 6 of the Rules. The final project assessment reports that DNSPs would be required to prepare under the proposed RIT-D will provide the AER with substantial information on the economic justification of distribution investments, which will assist the AER during its revenue determination processes.

