

25 May 2012

Mr John Pierce
Chairman
Australian Energy Market Commission
Level 5
201 Elizabeth Street
Sydney NSW 2000

Dear John

National Electricity Rules: Distribution Losses in Expenditure Forecasts

Grid Australia welcomes the opportunity to comment on the Rule change proposal “Distribution Losses in Expenditure Forecasts”. As the Commission is aware, Grid Australia represents the owners of all major electricity transmission networks in the National Electricity Market.

Grid Australia is not in a position to provide a considered position regarding the implementation of the Rule, as proposed, to distribution networks. Rather, the purpose of this submission is to:

1. Make the Commission aware of parallel developments with the same intended outcome as the proposed rule; and
2. Address the question of whether a similar rule should be considered for transmission networks.

Energy Efficiency Opportunities Legislation

The Energy Efficiency Opportunities (EEO) legislation has the same fundamental objective as the proposed rule change, being the reduction of energy losses. The Commission will be aware that EEO legislation will be extended to electricity transmission and distribution businesses from 1 July 2012.

The Department of Resources, Industry and Tourism (DRET), which administers the EEO Act, has acknowledged that extending the existing EEO regulations to the electricity and gas transmission and distribution sectors may not be the most efficient way to deliver the EEO program’s intended outcomes. Accordingly, DRET has conducted a consultation into proposed changes to the EEO regulations to be applied to the transmission and distribution sectors.

In its response to the consultation, Grid Australia has proposed a Network Project Assessment Framework to be applied to electricity networks in lieu of the existing EEO assessment framework.

This framework, if implemented, would deliver the intended outcomes of both the EEO legislation and the proposed Rule change. A copy of Grid Australia's response to the EEO Options Paper, which includes the Network Project Assessment Framework, is attached to this letter.

At the time of writing, DRET has not responded to the submissions received, nor has it published a timetable by which a decision regarding the EEO regulations will be made. Grid Australia recommends that, in making its decision regarding the proposed rule change, the Commission considers whether the final EEO regulations to be applied to electricity network businesses will deliver the same outcome as the proposed rule.

Grid Australia acknowledges that in order to consider the impact of EEO regulations in making its decision, the Commission may need to delay its decision until DRET's preferred option for the EEO regulations is known. We consider that the potential long term benefit of alignment between the EEO regulations and the proposed Rule change outcome far outweighs any perceived short term impact of a delayed decision to this Rule change request.

Consideration of a similar rule for transmission networks

Question 3(c) of the Commission's Consultation Paper for this rule change proposal asks:

Should a similar requirement to the proposed rule be considered for transmission networks?

The Regulatory Investment Test for Transmission (RIT-T) requires TNSPs to consider the impact of a proposed option upon network losses. Although the RIT-T only applies to projects whose value exceeds \$5 million, there would be very few projects with the potential to have a material impact on transmission network losses that do not exceed this threshold. Grid Australia therefore considers that the RIT-T already essentially delivers the intended outcome of the proposed Rule to transmission networks. A similar requirement to the proposed Rule, if applied to transmission networks, would deliver no additional benefit.

For further information regarding this submission, please contact me on 08 8404 7983, or alternatively Paul Rayner on 03 6274 3689.

Yours sincerely



Rainer Korte
Chairman
Grid Australia Regulatory Managers Group

19 March 2012

Mr Geoff Houen
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Via email: geoff.houen@ret.gov.au

Dear Geoff

Extension of the EEO Program to Electricity Transmission Networks

Grid Australia welcomes the opportunity to make this submission in response to the Extension of the EEO Program to Energy Transmission and Distribution Networks Options Paper (“Options Paper”) published by the Department of Resources, Energy and Tourism (“DRET”).

Grid Australia represents the owners of all major electricity transmission networks in the National Electricity Market (“NEM”), and as such its members have a direct and substantial interest in energy policy initiatives, especially those that impact on electricity transmission.

The Options Paper seeks comment on the application of the Energy Efficiency Opportunities Act 2006 (Commonwealth) (“EEO Act”) to network service providers. The object of the EEO Act is to drive high energy use businesses to implement cost effective energy efficiency measures found through mandatory assessments of energy use, the results of which are reported publicly. The energy network sector has been exempt from the EEO Act’s application since it commenced. However, the Government has decided that the exemption should be removed from 1 July 2012.

The Options Paper states that the Commonwealth believes “further efficiency, environmental and financial benefits could be achieved through the extension of the EEO program to energy transmission and distribution networks” (p.3). In particular, it proposes that all energy use by network businesses be subject to the EEO program, including ‘Type 1’ energy use (energy used through business operations) and ‘Type 2’ energy use (energy used through transmission and distribution).

In summary:

- Grid Australia has undertaken analysis which indicates that extending the program to Type 2 energy use by transmission network businesses will not deliver the benefits predicted. Payback periods for Type 2 energy loss saving projects are orders of magnitude greater than the four or five years contemplated in the Options Paper.

Our analysis indicates the application of the standard EEO Assessment Framework to Type 2 energy use will make no additional contribution to the achievement of the Commonwealth's policy objectives, but will impose the cost of an increased compliance burden on network businesses. The result will be no energy efficiency improvements yet increased costs to customers from the additional administrative burden on business.

- Under the NEM regulatory arrangements, Australia's transmission businesses already take the potential for loss reductions into account when assessing expenditure proposals.
- Notwithstanding the shortcomings highlighted above, if the extension of the EEO program proceeds, then an assessment framework specific to electricity network businesses should be adopted to take account of the current NEM regulatory obligations regarding pursuit of Type 2 loss reductions — failure to do so risks establishing a conflict between the objectives of the EEO Act and the National Electricity Objective which is already primarily focussed on efficiency.

The remainder of this submission provides information that supports the views expressed, including the economic characteristics of transmission assets, the size and value of network losses, and the efficient development of new transmission assets.

In accordance with the Options Paper, Grid Australia draws a distinction between network projects resulting in 'Type 2' energy use and other aspects of a network service provider's operations resulting in 'Type 1' energy use. Grid Australia proposes that the former would be considered under the proposed Network Project Assessment Framework, and the latter would be subject to the standard EEO Assessment Framework and other provisions of the EEO Act.

The scope for Type 2 savings

The Options Paper refers to the July 2010 report of the Prime Minister's Task Group on Energy Efficiency. That report cites the ClimateWorks publication Low Carbon Growth Plan for Australia 2010. ClimateWorks estimates that the national average combined losses from electricity transmission and distribution could be reduced by 2020 from 8 percent to 6.5 percent of energy transferred through "cost effective changes" (p.37). Each percentage point improvement in performance is assumed by ClimateWorks to cost \$1.2B (p.137). Grid Australia notes that a decrease in losses from 8% to 6.5% of energy transferred is a performance improvement of close to 20%. Unfortunately, the very limited information provided by ClimateWorks in the Low Carbon Growth Plan for Australia 2010 prevents Grid Australia commenting further on ClimateWorks' economic and technical assessment.

Instead, in this submission Grid Australia sets out information about electricity transmission and energy losses, and provides case studies to demonstrate the key technical and economic factors affecting investment by transmission networks in loss saving measures. Grid Australia considers that this information provides a good basis for understanding the transmission sector and the likely benefits of the proposed policy measure.

Transmission networks world-wide are designed to transport electrical energy as efficiently as technically feasible, while at the same time taking into account economic, network safety and redundancy factors. In accordance with Joule's Law, energy losses are directly proportional to the square of the current (for example, reducing the current by a factor of two will lower the energy lost to conductor resistance by a factor of four). In accordance with the relationship

between voltage and current, a higher voltage is required to deliver the same amount of power with less current and therefore reduced losses.

Consequently, high voltage electricity transmission networks exist because transferring large quantities of energy over long distances at low voltages results in significant energy losses to heat. This means that it is neither economically viable nor technically feasible to transfer large quantities of energy long distances using low distribution level voltages.

In other words, a core function of high voltage electricity transmission networks is to manage losses. This includes the optimisation of losses in the economic evaluation of network development options, particularly augmentation and asset replacement. Network businesses have long factored the value of a change in losses into assessments of how to provide services to their customers most economically. An overview of the economics of losses in the context of a transmission network is set out below.

Consider a TNSP, similar in network topology and loading to Powerlink Queensland, with the following characteristics:

- Transported (Native) Energy = 50,000 GWHrs* (1 year)
- Total Losses = 1,900 GWHrs* (1 year), 3.8% of Transported Energy
- Value of Losses @ \$55/MWhr = \$105M
- Value of Regulated Asset Base = \$6.5B** - the value of the physical network used to deliver the energy and generate the losses
- Value of Losses as a percentage of the Value of the Network (RAB) = 1.6%

For a network investment considered solely for reducing losses we can say, that at the margin:

- The economic saving for each dollar invested in each year to reduce losses will be 1.6c a year
- For these savings, the investment is negative NPV and the payback period exceeds the life of the asset (50yrs @ an 8% discount rate)

The above shows that:

1. Network losses are small with respect to the amount of energy transported
2. The life-cycle value of loss reductions generally will be small with respect to the cost of associated network elements, particularly lines and transformers
3. Projects considered solely for reducing losses generally will not be economically viable
4. Transmission networks are low loss systems economically at current and expected electricity prices

* Powerlink web site - Powerlink Annual Planning Report 2011, p 28, table 2.7, forecast 2011/12

** AER web site – Powerlink Revised Revenue Proposal, p28, RAB as a 1 July 2012

An electricity network project will minimise losses when doing so forms part of the most economically efficient network development option. This is a long standing practice that is today driven by subjecting networks to economic regulation in support of the NEM. That is, electricity network service providers already achieve the object of the Act, expressed at s.3(1), by implementing “cost effective energy efficiency opportunities” which they have identified and evaluated in their usual course of business.

In determining the technical specifications for a new transformer, an electricity network service provider considers the value of losses against the cost of transformer options and factors them into the net present value calculation in considering its capital investment decision. This process ensures that losses are minimised to the extent that doing so is cost effective.

This practice is also captured in the National Electricity Rules (“NER”). Chapter 5 of the NER establishes a Regulatory Investment Test for Transmission (“RIT-T”), which network service providers must apply when evaluating large network augmentation projects. The test is designed to ensure that such projects maximise the present value of net economic benefit to the producers, consumers and transporters of electricity. The effect of NER clause 5.6.5B(c)(4)(vi) is that, in conducting the test, network businesses must consider changes in network losses as one of the economic benefits which a development option could deliver.

This point is borne out through the following examples of network developments by Transend in Tasmania and TransGrid in New South Wales.

Example 1

In 2011, Transend commissioned a new double circuit 220kV transmission line which provided a second bulk supply point to the Hobart metropolitan area. The project was required to ensure a reliable supply was maintained to the greater Hobart area during time of peak winter demand. The project satisfied the Regulatory Test and was justified primarily on the basis of meeting the need for increased security of supply.

The new 220kV line replaced an existing 110kV single circuit line. Due to the voltage increase, and the new conductors having lower resistance than those they replaced, Type 2 energy losses will be reduced as a result of this project.

The final project cost was approximately \$135M. The actual reduction of Type 2 energy losses are difficult to calculate (as the network would have been operated slightly differently if this project had not been built), but have been estimated at 44GWh a year, worth \$2.4M a year at a market price of \$55/MWh. Assessed on the basis of energy savings alone, this project would have a negative NPV over its expected 60 year asset life. The simple payback period of this project on the basis of saving losses would be 56 years.

Example 2

TransGrid’s Wollar-Wellington 330kV line was constructed to relieve constraints in the central western New South Wales electricity network to allow the growing winter peak demand to be met according to an appropriate objectively measurable service standard. The Regulatory Test was applied in 2003 and the successful project was commissioned in the first half of 2010.

The project cost was \$143M, and resulted in an overall reduction in Type 2 energy losses of approximately 50GWh a year (worth \$2.8M a year at a market price of \$55/MWh). This project, too, would have a negative NPV over an expected 50 year asset life if assessed on Type 2

energy loss savings alone. The simple payback period of this project on the basis of saving losses would be 51 years.

Example 3

One of Transend's 220kV transmission lines from the Liapootah substation to the Waddamana substation is built using double-circuit towers, but only a single circuit has been installed. Installing a second circuit on these towers, of identical conductor type to the type to the existing circuit, would reduce the type 2 energy losses on this transmission line by 50%.

The cost to install a second circuit is approximately \$5M. The Type 2 energy loss savings would be approximately 300MWh, worth \$16,500 a year at a market price of \$55/MWh. This project, contemplated on the basis of the net market benefit of Type 2 energy loss savings, clearly is not economically viable. The simple payback period for this project would be in excess of 300 years.

Example 3 above is a project of a type mooted in the Options Paper. An important distinction between it and the Options Paper's example is that Example 3 involves installing a second circuit on "ready to go" towers whereas the Options Paper's example contemplates "restringing" existing towers with a larger conductor. Restringing is a higher cost option than Example 3 as it requires either the strengthening of the existing towers or constructing additional towers to bear the weight of larger, lower resistance conductors. Example 3 therefore is one of the lowest cost conceivable projects which would result in reduced line resistance and reduced Type 2 energy losses on an existing transmission line.

The examples above demonstrate the following points:

- Significant Type 2 energy loss reductions are achievable only by increasing the transmission voltage level, which, as previously discussed, is the whole basis for the existence of high voltage electricity transmission. Such projects cannot be justified economically on the basis of energy savings alone;
- Minor upgrade works targeted at Type 2 energy reductions are even less viable; and
- Payback periods of Type 2 energy loss saving projects are of an order of magnitude greater than the four or five years contemplated in the Options Paper.

Network service providers typically invest with the expectation of earning their return on an asset over thirty to forty years. Given the typical balance of investment costs to the value of losses saved, there is no expectation that an electricity network service provider will find it economic to replace an asset mid-life with an asset which loses less energy.

An electricity network business project assessment framework

Grid Australia submits that the application to electricity network service providers of the standard EEO Assessment Framework will make no additional contribution to the achievement of the Commonwealth's policy objectives. It will impose the cost of an increased compliance burden on the network businesses which they will need to pass through to their customers.

Grid Australia submits that it would be appropriate for the Commonwealth to establish a new Network Project Assessment Framework to govern the assessment of losses in network projects. This Framework would apply to all Type 2 energy use on network elements, including line losses and transformer losses. Amendments to the EEO Act and Regulations may be required to

ensure that the new Framework can be applied to network service providers. A recommended set of high level drafting instructions for a Network Project Assessment Framework can be found in an attachment to this submission based on the following:

- a separate part in the EEO Act and the EEO Regulations dealing with the obligations of electricity network service providers with respect to network projects (as described above) and addressing the matters set out in Table 1 in the attachment; and
- a specifically developed Network Project Assessment Framework for electricity network projects which adopts the Key Elements prescribed by the EEO Regulations but incorporates the matters set out in Table 2 in the attachment.

Grid Australia has framed these proposed amendments to ensure that the EEO Act's objective is obtained through an appropriate compliance burden which also maintains consistency with existing network planning and reporting cycles. Implementation of this proposal would provide the Government with a sound understanding of the costs and benefits of loss saving measures in the context of electricity network investments. Grid Australia considers that this framework would therefore assist the Commonwealth with its future policy development.

This submission and proposed legislative amendments are framed in the context of electricity transmission. It is highly likely that the points we have raised and the drafting instructions we have prepared could equally apply to electricity distribution networks with only minimal adjustments. To ensure that the needs of electricity distribution networks are appropriately taken into account, we recommend that further work on this proposal be done in close consultation with the Energy Networks Association as well as Grid Australia. We look forward to discussing this submission and legislative proposal with you. Please feel free to contact me on 08 8404 7983.

Yours sincerely



Rainer Korte
Chairman
Grid Australia Regulatory Managers Group

Table 1

Suggested Amendments – Network Projects

Aspect	Requirement	Comments	Proposed Change
Definitions	<ul style="list-style-type: none"> Section 4 and sections 6 – 8 of the EEO Act set out relevant definitions relating to groups Regulation 2.1 to 2.5 of the EEO Regulations set out further requirements/definitions relating to groups. 	<p>The definitions are required to be amended to the extent that they exclude the electricity generation and electricity and gas transmission and distribution sectors.</p> <p>The current definition of ‘controlling corporation’ currently excludes corporations with activities that ‘are mainly in the electricity generation, electricity and gas transmission, or electricity and gas distribution sectors’. This definition will be required to be amended.</p>	<p>Delete subsection 7(2)(a) of the EEO Act.</p> <p>Delete subsection 8(4)(a) of the EEO Act.</p> <p>Amend regulation 2.1(2) and regulation 2.2(2) to remove reference to electricity generation, electricity and gas transmission, or electricity and gas distribution sectors</p> <p>New definitions will be required in the EEO Act and the EEO Regulations (including schedules), for example, for the following:</p> <ul style="list-style-type: none"> Network Service Providers (“NSP”); Network loss Network project (including line, transformer and other projects on a transmission system) Network project planning and assessment process (which will link in to the relevant processes under the National Electricity Rules (“NER”), such as network planning, regulatory consultation processes such as the RIT-T and other requirements to consider least cost options). Network loss reduction opportunities (to be used in Schedule 7 of the EEO Regulations instead of ‘energy efficiency opportunity’) Network loss reduction assessment

Aspect	Requirement	Comments	Proposed Change
			<p>objectives</p> <ul style="list-style-type: none"> • Annual Planning Report • Project assessment draft report. • Project specification consultation report • Project assessment conclusions report • National Electricity Rules • Regulatory consultation processes (such as those set out in the RIT-T) <p>Care must be taken to ensure that these definitions do not conflict with the relevant definitions in the NER. Where possible (and appropriate), the corresponding definitions in the NER should be used.</p>
Registration	<ul style="list-style-type: none"> • Obligation to register and report under the EEO Act which rests on the “controlling corporation” (section 9 of the EEO Act). • Registration application must be submitted to DRET within 9 months following the end of the trigger year (section 9(4) of the EEO Act). • Regulations 3.1 – 4.3 of the EEO Regulations set out further requirements relating to registration. 	Current provisions are acceptable.	No change proposed.

Aspect	Requirement	Comments	Proposed Change
Energy User	<ul style="list-style-type: none"> An entity is the user of energy if it has operational control over a facility in which the energy is consumed (regulations 1.4 – 1.4C of the EEO Regulations) The concepts of operational control, facility and energy consumption are the same as those used in the <i>National Greenhouse and Energy Reporting Act 2007</i> (Cth) (NGER Act). 	<p>Most NSPs are familiar with these terms and concepts due to their own NGER Act reporting requirements.</p> <p>Therefore there is no requirement to change the applicable provisions.</p>	No change proposed.
Energy Use Threshold	<ul style="list-style-type: none"> A controlling corporation’s group meets the energy use threshold for a financial year if in that year the total energy used by the entities that are group members is more than 0.5PJ (section 10 of the EEO Act). Regulations 1.5 and Part 2 of Schedule 1 of the EEO Regulations further define ‘energy used’ for the purposes of the EEO Act. 	<p>There is no requirement to increase the energy use threshold if the proposed Network Project Assessment Framework is implemented.</p> <p>The current provisions do not specifically refer to transmission or distribution losses (due to current NSP exemption).</p>	<p>No change proposed to the energy use threshold.</p> <p>Consideration should be given to whether it is necessary to amend Regulation 1.5 to clarify that ‘energy used’ also includes energy ‘lost’ as a result of the electricity transmission and distribution.</p>
	<ul style="list-style-type: none"> Regulation 1.6 of the EEO Regulations sets out requirements regarding accuracy and calculations 	<p>The accuracy and calculation requirements are acceptable. However, references to the requirements of the “Assessment Framework” will likely need to be changed in order to take into account the separate requirements for the Network Project Assessment Framework.</p>	<p>Consequential amendments to Regulation 1.6 will be required to incorporate references to the Network Project Assessment Framework.</p>

Aspect	Requirement	Comments	Proposed Change
Assessment Plan	<ul style="list-style-type: none"> • A registered corporation must give DRET an Assessment Plan within 18 months after the end of the trigger year (section 15(1) and (2) of the EEO Act). • Subsequent Assessment Plans must be submitted within 18 months of every fifth anniversary of the end of the trigger year (section 15(2) of the EEO Act). • The Assessment Plan must set out a proposal for assessing the opportunities for improving the energy efficiency of the controlling corporation's group for a 5 year assessment cycle (section 18(1) of the EEO Act). • The proposal must set out particular actions that need to be done to assess those opportunities and deadlines for doing all of those actions (section 18(4) of the EEO Act). • The proposal must include a timeframe for assessment that requires completion of at least one assessment of opportunities for improving energy efficiency before the end of the first 2 years of the assessment cycle, or an assessment of opportunities for at least 40% of the energy use of the group before the end of the first 2 years of the assessment cycle (regulation 5.7 of the EEO Regulations). • For the first assessment cycle the Assessment Plan must include a plan to assess at least 80% of the base line energy of the controlling corporation's group (regulation 5.3 of the EEO Regulations). • If energy use exceeds 0.5PJ at any one site during the base line year, the controlling 	<p>The requirement to submit an Assessment Plan to DRET and the prescribed timeframes for such submission for approval are supported.</p> <p>However, for the reasons set out in this submission, the current requirements for Assessment Plans under the EEO Act and the EEO Regulations are not appropriate for network projects.</p> <p>Further, the preferred position is that the Assessment Plan need only require assessment for network projects that have not yet commenced internal planning and assessment processes. The rationale for this position is that to retrospectively apply the EEO Act and EEO Regulations to the internal planning and assessment of network projects would unreasonably delay this process and potentially jeopardise the undertaking of critical network projects.</p> <p>Network models are updated within annual planning cycles as new forecasts become available. Studies are then undertaken to determine the onset of expected limitations. Where these are identified to be close to the lead time of likely options (taking into account the likely timeframe to</p>	<p>It is recommended that a new Part be inserted into the EEO Act and the EEO Regulations to prescribe separate requirements for Assessment Plans relating to network projects. It is considered that a new Schedule in the EEO Regulations will be required to address the specific matters to be included in Assessment Plans for network projects.</p> <p>Assessment Plans should allow NSPs to assess the potential for network loss reduction opportunities as part of the network project planning and assessment process rather than (for example) requiring a review of 80% of NSP's energy use each 5 year EEO cycle.</p> <p>Assessment Plans should also require NSPs to document and publically report on the assessment and implementation of network loss reduction measures undertaken as part of the network project planning and assessment process.</p> <p>Assessment Plans should not require assessment of network loss reduction opportunities for network projects that have not yet commenced internal planning and assessment processes.</p> <p>This is discussed further in Table 2.</p>

Aspect	Requirement	Comments	Proposed Change
	<p>corporation must assess the site separately (regulation 5.3 of the EEO Regulation).</p> <ul style="list-style-type: none"> Assessment Plans must also set out the manner in which the controlling corporation intends to comply with subsection 22(1) of the EEO Act, which relates to public reporting). Regulation 5.2 and Schedule 3 of the EEO Regulations set out further content requirements for Assessment Plans. 	<p>complete planning and option investigation works), more detailed planning and investigation of options is undertaken.</p> <p>Initiation of investigation of possible options would be a reasonable trigger for the application of the EEO Act.</p>	
Energy efficiency opportunities assessments	<ul style="list-style-type: none"> A registered corporation must ensure the carrying out of the proposal in its approved Assessment Plan for assessing the opportunities for approving the energy efficiency of the group (section 20 of the EEO Act). The carrying out of the proposal must comply with the requirements set out in the EEO Regulations (section 20(2) of the EEO Act). Regulation 6.1 and Schedule 7 of the EEO Regulations set out the requirements for the carrying out of a proposal for assessing the opportunities for improving energy efficiency. 	<p>If the proposed Network Project Assessment Framework is accepted, amendments to section 20 of the EEO Act are not required.</p>	<p>Regulation 6.1 of the EEO Regulation should be amended to refer to the Network Project Assessment Framework.</p> <p>It should be clear from the EEO Act and the EEO Regulations, that NSPs are only required to assess network loss reduction opportunities as part of its normal network project planning and assessment processes, rather than as a separate process.</p> <p>Further, it should be clear that, in carrying out the assessment of network loss reduction opportunities for a network project, the NSPs remain subject to the relevant requirements of the NER (e.g. in relation to the regulatory investment test requirement that the preferred option is the credible option that maximises the net economic benefit to all those who produce, consume and transport electricity in the market compared to all other credible options).</p>
Assessment Framework	<ul style="list-style-type: none"> The requirements for the carrying out of a proposal for assessing the opportunities as set out in the Assessment Framework in Schedule 7 to the EEO Regulation. 	<p>For the reasons set out in this submission, the Assessment Framework set out in Schedule 7 to the EEO Regulation does not sit</p>	<p>See Table 2 below for a proposed Network Project Assessment Framework.</p>

Aspect	Requirement	Comments	Proposed Change
		<p>comfortably with the planning processes adopted by NSPs when planning for and assessing network projects.</p> <p>The intent of the Key Elements in the Assessment Framework and the key requirements is supported.</p> <p>However it is considered that a separate Network Project Assessment Framework should be developed to cater for the particular characteristics of the network project planning and assessment process.</p>	
Public reporting about energy efficiency opportunities assessments	<ul style="list-style-type: none"> • The registered corporation must prepare and make available to the public a report (section 22 of the EEO Act). • The report must contain: <ul style="list-style-type: none"> – A description of the way in which the corporation has carried out, during the period, the proposal in its approved Assessment Plan for assessing the opportunities for improving the energy efficiency of its group; – The results of carrying out that proposal; – The response of the corporation to those results; and – Any other information required by the EEO Regulations. • Public reports must be made available within 30 months after the end of the trigger year. 	<p>The provision of public reports is supported. However, the detail of what is required to be included in the public reports will be different for matters assessed under the Network Projects Assessment Framework. For example, Schedule 4 of the EEO Regulations a statement of the amounts of energy savings for each group member that have been identified as having a payback of less than 2 years and a payback of between 2 – 4 years.</p> <p>The reporting periods are acceptable.</p> <p>The preferred position is that NSPs need only report on network projects with an estimated capital cost of more than \$5 million. While</p>	<p>It is recommended that a new Part be inserted into the EEO Act and the EEO Regulations to prescribe separate requirements for public reports relating to network projects. It is considered that a new Schedule in the EEO Regulations will be required to address the specific matters to be included in public reports for network projects.</p> <p>The EEO Act and the EEO Regulations should specify that reporting is only required for network projects with an estimated capital cost of more than \$5 million.</p>

Aspect	Requirement	Comments	Proposed Change
	<ul style="list-style-type: none"> • Updates of further assessments and business responses must then be published every 12 months throughout the first and/or subsequent cycles. • Regulations 7.1 – 7.5 and Schedule 4 of the EEO Regulation set out further requirements for the form and content of the public report. 	<p>NSPs will be required to consider network loss reduction opportunities as part of planning and assessment of all network projects, it would be unduly onerous (due to the number of lower capital cost network projects) to require NSPs to report on all of these assessments. The proposed minimum capital cost value of \$5 million was selected because the NER provides that the regulatory test applies to network projects of \$5 million or more.</p>	
DRET reporting about energy efficiency opportunities assessments	<ul style="list-style-type: none"> • The registered corporation must prepare and give to DRET a report (section 23 of the EEO Act). • The report must contain the information required to be contained in the Public Report plus any further information required by the EEO Regulation. • The EEO Regulation set out further requirements for the form and content of the DRET report (regulations 7.6 – 7.10 of the EEO Regulation). • Participants must report with the first 30 months of each assessment cycle and again 3 years later (6 months after the end of each assessment cycle). 	<p>The provision of a report to DRET is supported. However, the detail of what is required to be included in the reports will be different for matters assessed under the Network Projects Assessment Framework.</p> <p>The preferred position is that NSPs need only report on network projects with an estimated capital cost of more than \$5 million (for the reasons set out above).</p>	<p>It is recommended that a new Part be inserted into the EEO Act and the EEO Regulations to prescribe separate requirements for reports to DRET relating to network projects.</p> <p>The EEO Act and the EEO Regulations should specify that reporting is only required for network projects with an estimated capital cost of more than \$5 million.</p>

Table 2

Proposed Network Project Assessment Framework

Key Element	Key Requirements	Evidence/Supporting Documentation
<p>Leadership</p> <ul style="list-style-type: none"> • Visible leadership and commitment from senior management provides clear direction and purpose to the assessment by: <ul style="list-style-type: none"> – Setting and communicating network loss reduction assessment objectives in network project planning and assessment; and – Ensuring that network loss reduction objectives are aligned with business priorities and relevant regulatory requirements. • Senior management support, motivate and value the efforts of staff and other stakeholders involved in the identification and implementation of network loss reduction opportunities in the network project planning and assessment phase. 	<ul style="list-style-type: none"> • Senior management and operational management establish and communicate network loss reduction opportunities assessment objectives to all personnel who are responsible for, or have an influence on, network project planning and assessment. • Adequate resources (people, time and money) are made available to meet network loss reduction opportunities assessment objectives as part of the network project planning and assessment. 	<p>Evidence showing the existence and communication of network loss reduction opportunities assessment objectives (e.g. policy documents containing network loss reduction objectives, strategic plans signed off by senior management that contain network loss reduction assessment objectives, meeting minutes, emails, memos and presentations showing communication of objectives, including details of the recipients and senders).</p> <p>Evidence that identifies the appropriate personnel (e.g. organisational chart clearly identifying senior management and personnel responsible for energy use).</p>
<p>People</p> <ul style="list-style-type: none"> • Skilled and knowledgeable people, and people with direct and indirect influence on decisions made during the network planning and assessment process, are involved in the assessment to effectively collate and analyse energy and process data, identify and evaluate network loss reduction opportunities, provide fresh perspectives and make business cases for identified network loss reduction opportunities within the NSP regulatory framework. 	<ul style="list-style-type: none"> • Personnel with appropriate skills and expertise are involved in the collection and analysis of energy and process data as part of the project planning and assessment process. 	<p>Evidence showing the involvement of appropriately skilled personnel in the analysis of data (e.g. schedule of participant roles, skills and experience).</p>

Key Element	Key Requirements	Evidence/Supporting Documentation
<ul style="list-style-type: none"> Responsibilities and accountabilities are suitably allocated and team diversity is encouraged. 	<ul style="list-style-type: none"> Clear roles, responsibilities and accountabilities are attributed to people involved in the network project planning and assessment process. 	<p>Evidence showing the allocation of roles and responsibilities for people involved in the network loss reduction opportunities assessment (e.g. network planning and assessment procedures with roles and responsibilities outlines).</p>
<p>Key Information, data and analysis</p> <ul style="list-style-type: none"> Sufficient data in suitable forms is used to quantify and understand network loss, identify and quantify network loss reduction opportunities, and track performance and outcomes. Network loss data is analysed from different perspectives to understand relationships between project planning and transmission and distribution losses, and identify loss reduction opportunities. 	<ul style="list-style-type: none"> Data collection processes are identified, documented and implemented as part of network project planning and assessment processes to provide: <ul style="list-style-type: none"> Accurate information about network losses arising from all credible options. Accuracy of data must be within requirements established for metering in the NER. Information about measures being undertaken to ensure the accuracy and completeness of the network losses data. Information about measures being undertaken to identify and resolve material data gaps and anomalies. Information about assumptions used in the data collection process and their associated uncertainty. An analysis of network loss to assist in the identification, quantification and evaluation of network loss reduction opportunities is undertaken as part of the network project planning and assessment process and 	<p>A documented data collection process, including assumptions and uncertainties.</p> <p>Evidence of implementation of the data collection process.</p> <p>Evidence showing the measures undertaken to improve the accuracy and completeness of data and to reduce data gaps and uncertainties (e.g. copies of action plans, project plans or budgets).</p> <p>The Assessment Framework should reference NER metering compliance processes for the measurement of aggregate losses</p> <p>A documented network loss analysis process, for example as part of the regulatory consultation process.</p>

Key Element	Key Requirements	Evidence/Supporting Documentation
	<p>documented, including:</p> <ul style="list-style-type: none"> - Network loss performance indicators, established at the appropriate level, with consideration of variations over time and major factors that affect network losses. - Application of a range of analysis methods to explore relationships between network losses and variables (e.g. selection of transformer) that may influence network losses, using data collected at appropriate times. - A comparison of performance to actual and theoretical network loss benchmarks at the relevant level to identify and quantify network loss reduction opportunities. 	
<p>Opportunity identification and evaluation</p> <ul style="list-style-type: none"> • All potential network loss reduction opportunities are considered and assessed during the network project planning and assessment process. • The process is informed by accurate data and rigorous analysis undertaken in Key Element 3 and involves the relevant people identified in Key Element 2. • The process is broad, open minded and encourages innovation. 	<ul style="list-style-type: none"> • A process to identify network loss reduction opportunities as part of the network project planning and assessment process is implemented and documented. The process should involve a review of the data collected and analysed as part of Key Element 3 and include the appropriate people as stipulated in Key Element 2. • Network loss reduction opportunities are examined to determine whether they are feasible and allow the NSP to satisfy the regulatory test (where applicable) or to ensure that the network investment is planned and developed at least cost over the life of the investment. Reasons why network loss reduction 	<p>Evidence showing the implementation of a process to identify network loss reduction opportunities, for example as part of the regulatory consultation process</p>

Key Element	Key Requirements	Evidence/Supporting Documentation
	opportunities are not further investigated are documented.	
<p>Decision making</p> <ul style="list-style-type: none"> • Management responsible for network investment decisions make informed decisions based on investment quality information. • NSPs develop clear lines of accountability, appropriate resources and time frames for all network loss reduction opportunities that a NSP decides to implement or investigate further as part of network project planning and assessment. 	<ul style="list-style-type: none"> • Management responsible for network investment decisions is presented with key background information and the relevant outcomes of the network loss reduction opportunity assessment. Information presented to management includes: <ul style="list-style-type: none"> – Total network loss data for the NSPs network system; – Network loss reduction opportunities identified as part of the network project planning and assessment; – Recommendations to improve data and evaluation (if necessary). • Management responsible for investment decisions ensures that all NSP regulatory requirements are satisfied when making a network investment decision 	<p>Evidence showing presentation of requirement information to management (e.g. reports or presentations).</p> <p>Evidence showing decisions by management (e.g. reports to management which also record decisions).</p>
<p>Communicating outcomes</p> <ul style="list-style-type: none"> • Senior management and members of the board are aware of the outcomes of the network loss reduction opportunity assessment in a strategic business context (including the corporation’s risk management, corporate social responsibility and major investment decisions). • The board reviews and notes the Public Report in the context of relevant business information. 	<ul style="list-style-type: none"> • The board and the senior officer for signing the public report are presented with the public report. • The board reviews and notes the information to be included in the public report. • A clear message about the outcomes of the network loss reduction opportunities assessments, in the context of the objectives 	<p>Evidence of presentation to the board.</p> <p>Evidence of board review and noting (meeting minutes, board agendas and reports and a statement by the signor of the public report).</p> <p>Evidence of the communication of the outcomes of the network loss reduction opportunities and progress against objectives,</p>

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<ul style="list-style-type: none"> Recognition and awareness within the corporation of the benefits of improved network loss reduction and the outcomes achieved by the network loss reduction assessment including recognition and awareness of people who contributed to its success. 	<p>set by the NSP's leadership, is to be communicated by senior management and operational management to relevant staff in the NSP.</p>	<p>including who has provided the information and to whom the information has been provided (e.g. correspondence to relevant staff of documents containing the relevant information and presentations of outcomes including meeting invitees, attendees and presenters).</p>