DEMAND MANAGEMENT FOR ELECTRICITY DISTRIBUTION NETWORKS

ELECTRICITY INDUSTRY GUIDELINE NO. 12

September 2003
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AMENDMENT RECORD

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1. INTRODUCTION

1.1 Background

This Guideline outlines how the Essential Services Commission of South Australia (ESCOSA) requires ETSA Utilities to meet its obligations to report and consult on its system constraints and Demand Management (DM) plans.

ESCOSA wishes to encourage all customers and interested parties to participate in the process of determining the ways in which emerging constraints in ETSA Utilities’ network are addressed. ESCOSA believes that this will require ETSA Utilities to regularly disclose sufficient information about where constraints are likely to emerge and to seek and evaluate alternatives put to it from customers and other interested parties. This Guideline seeks to assist that process.

1.2 Definition of Demand Management

Demand Management (DM) means for the purposes of this Guideline:

Management of the level or pattern of energy use on the transmission/distribution network, so as to minimise the supply costs to customers whilst maintaining or enhancing customer service levels. Supply costs include costs of projects associated with the augmentation of, or extension to, the transmission or distribution network, and include electrical losses.

This definition includes such initiatives as:

- embedded generation;
- fuel switching;
- energy efficient appliances; or
- alternative network options, eg new transmission support.

1.3 Structure of this Guideline

This Guideline sets out requirements for ETSA Utilities to:

- publish an Electricity System Development Plan (including Sub-transmission and Regional Development Plans) annually and maintain a Register of Interested Parties (see section 2);
- undertake consultation in accordance with this Guideline in relation to Eligible Major Network Projects (see definition in section 3.2.2) and develop and maintain expertise in system support options (see section 3);
- consider non-network alternatives before commencing an Eligible Major Network Project (EMNP) (see section 4); and
annually report its compliance with this Guideline and other DM obligations (see section 5).

Section 1 sets out the background, purpose and authority for this Guideline along with some administrative matters. It goes on to set out a number of guiding principles that are a significant aspect of ESCOSA’s guidance to ETSA Utilities on DM issues and processes. ETSA Utilities must report in detail on any non-compliance with this Guideline in the Annual DM Compliance Report (see section 5 of this Guideline).

1.4 Status of this Guideline

ESCOSA has made this Guideline under Section 8 of the Essential Services Commission Act 2002. Published Guidelines are applicable to regulated industries. The electricity supply industry is a regulated industry for the purpose of the ESC Act.

1.5 Purpose and Principles

1.5.1 Purpose

The purpose of this Guideline is to ensure the quality and transparency of assessments and comparisons of network augmentations, extensions and demand management alternatives. This will help both ETSA Utilities and its customers to make more efficient investment decisions.

1.5.2 Principles

ESCOSA is interested in ensuring that outcomes are achieved rather than insisting that particular methods are employed to achieve those outcomes. With this in mind, ESCOSA has prepared this Guideline with a focus on outcomes, but also with a number of procedural and reporting obligations that ETSA Utilities must meet.

1.5.3 Information provision

This Guideline requires ETSA Utilities to provide both:

- future or forecast information; and
- historic or actual information.

Future or forecast information will necessarily be difficult to provide with accuracy and certainty. However, ETSA Utilities must ensure that the information it publishes or provides in response to the requirements of this Guideline is as accurate as is reasonably possible. ETSA Utilities must also take steps to ensure that any forecasts or projections are supported by clear and transparent explanations of any assumptions made to derive that information.
Historic information must be presented accurately and in as complete a form as is possible.

1.5.4 Confidentiality

ESCOSA is conscious that in some cases ETSA Utilities may need to base projections on information gained in confidence from ETSA Utilities’ customers, which this Guideline may require to be published. ESCOSA will consider requests from ETSA Utilities to withhold confidential information on a case-by-case basis. ESCOSA will publish the number of confidentiality requests approved each year. As a general rule, ESCOSA is disposed towards the disclosure of as much information as possible to assist customers and others to plan and invest.

1.6 DM Reporting and Consultation Obligations

There are three primary sources of the requirement for ETSA Utilities to report and consult on its DM:

▲ The National Electricity Code (the NEC);
▲ The Electricity Act (SA); and
▲ ETSA Utilities’ distribution licence.

This Guideline does not remove the need for ETSA Utilities to satisfy itself that it is complying with all its DM obligations under relevant legislation, codes, rules or licences.

1.6.1 The National Electricity Code

Under clause 6.10.3 of the NEC, “Principles for regulation of distribution service pricing”, there is a requirement for the regulatory regime administered by the Jurisdictional Regulator to have regard to the need to:

“Create an environment in which generation, energy storage, demand side options and network augmentation are given due and reasonable consideration.”

Similarly, clause 5.6.2 of the NEC, “Development of networks within a region”, requires:

“Within the time for corrective action notified in Clause 5.6.2(e), the Network Service Provider must consult with affected Code Participants and interested parties on the possible options, including but not limited to demand side options, generation options and market network services provider options to address potential projected limitations of the relevant transmission system or distribution system except that the Network Service Provider does not need to consult on a network option which would be a new small network asset.”
1.6.2 The *Electricity Act 1996*

The Electricity Act requires persons operating a distribution network to hold a licence. The Act also requires the licence to contain a condition requiring the distributor to conduct investigations on the cost effectiveness of implementing demand management strategies that may permit a proposed expansion of the distribution network or the capacity of the distribution network to be avoided or postponed.

Specifically, section 23(10)(n)(x) of the Act states that an electricity entity must:

“Investigate, before it makes any significant expansion of the distribution network or the capacity of the distribution network, whether it would be cost effective to avoid or postpone such expansion by implementing measures for the reduction of demand for electricity from the network; and

“to prepare and publish reports relating to such demand management investigations and measures.”

1.6.3 Distribution Licence

In accordance with the provisions of the *Electricity Act 1996*, the distribution licence held by ETSA Utilities contains clause 14 - “Environmental Strategies”. This condition substantially repeats the wording from section 23(1)(n)(x) of the *Electricity Act* as detailed above.

It should also be noted that a number of distributors in SA (mostly off-grid) hold licences issued before 11 October 1999, the date on which major changes to the electricity regulatory regime took effect. Such licences do not include a condition equivalent to that of clause 14 of ETSA Utilities’ licence. ESCOSA has the power to include such a licence condition in these licences but would not do so without extensive consultation.

1.7 Interpretation

In this Guideline the words “shall” and “must” indicate mandatory requirements, unless the overall meaning of the phrase in which one of these words appears is otherwise.

This Guideline seeks to provide definitions consistent with those given in the *Electricity Act, Essential Services Commission Act* and industry Codes.

Explanations in this Guideline as to why certain information is required are for guidance only. They do not limit in any way ESCOSA’s objectives, functions or powers.
1.8 **Processes for Revision**

ESCOSA may amend and expand this Guideline from time to time where this may be necessary to meet the needs of ETSA Utilities, or its customers.

Before making any significant revisions to this Guideline ESCOSA will consult with ETSA Utilities and other stakeholders as appropriate.

For all revisions to this Guideline a commencement date will be nominated on the Amendment record. ESCOSA intends to give ETSA Utilities no less than 45 days notice prior to the commencement of any significant revisions to this Guideline.

ESCOSA will review the effectiveness of version 1 of the Guideline in the last quarter of 2005

1.9 **Input from Interested Parties**

ESCOSA welcomes comments, discussion, or suggestions for amendments to this Guideline, from any interested party. Any contribution in this regard should be addressed to:

The Essential Services Commission of South Australia  
GPO Box 2605  
Adelaide SA  5001  
Facsimile: (08) 8463 4449  
Email: escosa@escosa.sa.gov.au

1.10 **Version History and Effective Date**

An Issue Number and Commencement Date will identify every version of this Guideline. This version (Issue No. 1.0) of this Guideline will become effective on 1 September 2003.
2. ELECTRICITY SYSTEM INFORMATION DISCLOSURE

ESCOSA requires ETSA Utilities to regularly disclose information on possible network constraints. To this end:

▲ ETSA Utilities must publish an annual Electricity System Development Plan (ESDP). The ESDP must identify in detail any actual and forecast constraints on ETSA Utilities’ network.

▲ ETSA Utilities must maintain a Register of Interested Parties, which will publicly record the details of parties that are interested in ETSA Utilities’ long term planning, demand management activities and/or in providing ETSA Utilities with alternative solutions to address emerging system constraints.

2.1 Principal Objectives of the Electricity System Development Plan

The ESDP must provide:

▲ a clear indication of where supply constraints are likely to arise across ETSA Utilities’ electricity network system in the foreseeable future; and

▲ details of the constraints expected to arise within 3 years of the publication of the ESDP. Information provided in relation to constraints must be sufficient to allow customers and interested parties to assess whether and how they might be able to assist in addressing the constraint.

2.2 Content of the Electricity System Development Plan

The ESDP will set out historic information, describe the current situation and will make forecasts for the following five year period in relation to ETSA Utilities’ network. The ESDP is to be published by ETSA Utilities by 30 June each year. The first ESDP must be provided to ESCOSA and the ESIPC by 31 May 2004.

The ESDP will be a single document. The ESDP must, at a minimum, cover the issues listed in paragraphs 2.2.1 to 2.2.8 and contain the information required by Appendix A. ESCOSA does not require ETSA Utilities to follow the specific order of headings below, but where ETSA Utilities is required to provide certain information, that information must be provided in a readily accessible, ratifiable and clear manner.

2.2.1 Introduction

This section should provide an introduction to the ESDP document and explanation of its purpose.
2.2.2 A general overview of the entire network

This section must describe ETSA Utilities’ entire network and should include, where possible, maps of the network and other relevant details (see sections 2.2.5 and 2.2.6 for details).

2.2.3 Descriptions of the basis for formulating load forecasts

ETSA Utilities must disclose the forecast loads and the basis of these forecasts. ETSA Utilities should discuss patterns of consumption for the entire network that give rise to an overall forecast of load changes, including an explanation for any “step changes” in forecast loads. For each Regional Development Plan (see detailed description at section 2.2.6), ETSA Utilities should discuss how each region’s forecast load compares to the overall network forecast load. Particularly where a potential constraint is identified, ETSA Utilities should provide additional detail on the assumptions underpinning the projected load. Load forecast information must be of sufficient detail for interested parties to assess which system support options could be adopted.

2.2.4 System planning and reliability guidelines

This section must provide a summary of the system planning and reliability criteria used by ETSA Utilities for determining when system augmentation or extensions are deemed to be required, and how these planning and reliability criteria relate to the planning and reliability requirements of the National Electricity Code (NEC). This section should include discussion on the planning and reliability criteria used for the 66 kV network, particularly where this network is operating in parallel with the transmission network.

2.2.5 A description of ETSA Utilities’ state-wide sub-transmission (66kV) network

This section must give a broad overview of the overall performance and trends in the load growth of ETSA Utilities’ entire sub-transmission network and at all ETSA Utilities’ connection points to the transmission network. If constraints are identified, which are best described and addressed on a multi-regional basis (i.e. multiple zone substations are supplying or capable of supplying a given area) or at the transmission/distribution interface, they should be identified and described in detail. This detail should include comment on possible sub-transmission or transmission network extension(s) and/or augmentations to address such constraints.
2.2.6 Regional Development Plans

The ESDP must contain a map and a description of each region of ETSA Utilities’ network in the form of a Regional Development Plan (RDP). ETSA Utilities has, over the last few years, developed various regional development plans. Initially, an RDP must be developed for each of the following regions:

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<th>Eastern Suburbs</th>
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<td>Mid North and Yorke Peninsula</td>
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<td>Murraylands</td>
<td>South East</td>
<td>Fleurieu Peninsula</td>
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<td>Riverland</td>
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See Appendix A for the specific minimum data that must be provided for each substation, sub-transmission line(s) and distribution feeder(s) (at the substation exit) for each region and additional information that should be provided in relation to network assets where a constraint is forecast to occur within 3 years.

Each RDP must contain information relating to all connection points to ElectraNet SA’s transmission system, zone substations, regional sub-transmission line(s) (i.e. 33kV or greater). A map showing the location of each of these assets is also required in each RDP.

2.2.7 Consultation framework

This section must set out details of ETSA Utilities’ consultation framework. Section 3.2.1 of this Guideline requires ETSA Utilities to undertake consultation in certain circumstances. ETSA Utilities is to report the arrangements that it has, or will put, in place to carry out that consultation.

2.2.8 Register of Interested Parties

This section of the ESDP must provide details of the way in which a party can register its interest in being involved with ETSA Utilities in seeking to address constraints (see section 2.4 of this Guideline). The process for a party to have its details entered on the Register of Interested Parties should be simple and encourage participation by a wide range of parties.

ETSA Utilities must advise readers of the ESDP that the Register will be public and that a party’s details will be published, unless that party specifically requests otherwise.
2.3 **Timing of Electricity System Development Plan Publication**

The ESDP must be provided to ESCOSA and the Electricity Supply Industry Planning Council (ESIPC) by 31 May each year. The first ESDP will be due 31 May 2004.

ETSA Utilities must publish the annual ESDP on its website by 30 June in each year.

2.4 **Register of Interested Parties**

ETSA Utilities must establish and maintain a Register of Interested Parties (the Register). The Register is designed to ensure that interested parties are kept informed of constraints and DM opportunities as they arise. The Register will contain the details of people or organisations that have requested that ETSA Utilities enters them into the Register. Parties which express an interest in ETSA Utilities’ long term planning, demand management, and/or in addressing a particular constraint, or more generally in addressing DM issues, and which are entered on the Register, must be kept informed by ETSA Utilities of developments in the DM process, such as the issue of a Request for Proposals (RFP), the publication of the ESDP or release of the Annual DM Compliance Report.

Names and information on the Register will be made public (e.g. on ETSA Utilities’ website) unless the interested party specifically requests confidentiality. ETSA Utilities must inform parties who express an interest that their name and basic contact details will be placed on a public version of the Register, unless the interested party specifically requests that their details are kept confidential.

ETSA Utilities must consider any information submitted by interested parties when applying the “Reasonableness Test” (see section 3.2.3 of this Guideline) to decide whether to issue a Request For Proposals for electricity system support.
3. MAJOR NETWORK PROJECT CONSULTATION

In order for proponents of network support and non-network support options to offer relevant proposals, it is essential that system constraints be fully and accurately specified. This section of the Guideline describes the process through which alternative options should be invited and proposed in a manner that allows direct comparison with each other and with options developed by ETSA Utilities.

To meet this requirement, ETSA Utilities is required to:
- develop and maintain an adequate analytical capacity to develop and evaluate a range of system support options; and
- consult with customers and interested parties in relation to system constraints and options to address such constraints.

For major network expansions or augmentations, ETSA Utilities is required to follow a formal process as set out in this Guideline that involves:
- Consultation (see section 3.2);
- Determination of whether the project meets the Reasonableness Test (see section 3.2.3);
- Issue of Request for Proposals (see section 3.3);
- Assessment of Proposals submitted (see in section 4).

3.1 Objectives of Consultation

The objectives of the consultation process are to:
- discuss network options and identify other DM options to address specific system constraints as they arise, and more broadly-focussed DM options where strategic, long-term load reduction is appropriate;
- identify the estimated costs of overcoming constraints;
- inform and consult with customers and interested parties; and
- ensure that demand management options are given due consideration and comparable weighting to that accorded to network enhancement options.

To meet these objectives, ETSA Utilities will be required to develop (if necessary) and maintain an adequate practical and analytical capacity to identify and evaluate a broad range of system support options including both demand management and network augmentation.
3.2 **Consultation**

### 3.2.1 When does consultation need to occur?

It is an objective of this Guideline that ETSA Utilities explore the potential for customer and interested party involvement in providing electricity system support options including DM. When ETSA Utilities becomes aware that a zone substation, sub-transmission line or distribution feeder is facing a constraint within 3 years, ETSA Utilities must consult with customers and interested parties, if required (see section 3.2.2 for the definition of eligible projects), to raise awareness of the forthcoming system constraint.

### 3.2.2 Eligible Major Network Projects

An Eligible Major Network Project (EMNP) is any proposal (or proposals) to augment or expand ETSA Utilities’ network that would have a combined capital cost of $2 Million or more and which could reasonably be viewed as addressing a single constraint or could be regarded as a single expansion.

ESCOSA considers that in assessing whether a project is an EMNP, ETSA Utilities should err on the side of treating a project as an EMNP, rather than excluding it. ESCOSA is of the view that division of a project to address a single constraint into several smaller staged projects in order to avoid the requirements that apply to EMNPs is not in accordance with the requirements of this Guideline.

Many aspects of the process described below are compulsory for an EMNP, but may also be appropriate for smaller projects. ESCOSA encourages ETSA Utilities to make use of this process wherever practical.

### 3.2.3 Reasonableness Test

This section sets out a ‘Reasonableness Test’. This test is to be used by ETSA Utilities to determine whether it has to issue a formal Request For Proposal (RFP) for DM options (the detailed requirements for the RFP are set out in section 3.3 of this Guideline).

ETSA Utilities must apply the Reasonableness Test to any proposed system augmentation or expansion with an estimated capital cost over $2 Million. If the Reasonableness Test is met, a RFP must be issued; if the reasonableness test is not met, a RFP may be issued.

ETSA Utilities must summarise, in its Annual DM Compliance Report (see section 5), details of all projects which have had the Reasonableness Test applied.
In order to carry out the reasonableness test ETSA Utilities must:

▲ Where a zone substation or associated sub-transmission or distribution feeders at the substation exit point face constraints within 3 years, decide whether it is reasonable to issue a formal RFP for electricity system support. That is, an RFP will be issued for projects with an estimated capital cost over $2m, or where demand management alternatives could reduce the total cost of removing the constraint for projects with an estimated capital cost less than $2 million. (See below for details)

▲ Unless previously published in the ESDP, ETSA Utilities shall advise registered interested parties of the outcome of its application of the Reasonableness Test at least 12 months prior to the forecast date by which system support investment decisions must be made.

▲ An RFP must be issued where the system constraint meets the following criteria:
  o the expected overloading is sufficient to require investment in system support to meet ETSA Utilities’ reliability and planning standards; and
  o the estimated capital cost of providing adequate system support is at least $2 Million (i.e. it falls within the definition of an EMNP).

▲ ETSA Utilities may choose to issue an RFP for constraints where the Reasonableness Test is not met (eg. expected capital cost is less than $2 Million). ETSA Utilities should decide whether to issue an RFP for constraints subject to consideration of the following matters:
  o any relevant information or proposals submitted by interested parties;
  o any relevant information gathered in the steps above; and
  o the significance of the constraint or of possible system support options to the local or wider community.

Regardless of whether an extension or expansion meets the Reasonableness Test, ETSA Utilities must consider whether consultation on the project is required/desirable or not for all projects with an estimated capital cost over $1 million, and that consideration must be documented.

### 3.3 Requests for Proposals (RFP)

#### 3.3.1 Issuing a Request for Proposals

A Request for Proposals (RFP) must invite parties who have registered interest, customers and other proponents to offer specific demand management proposals to overcome a specified system constraint.

ETSA Utilities must advise all registered interested parties of the release of the RFP and publicly advertise (via notices in a local newspaper in general circulation in SA and on ETSA Utilities’ website) the release of the RFP.
The RFP must be issued at least 38 weeks prior to the forecast date that system support investment decisions must be made and must allow proponents at least 25 weeks to submit Proposals to ETSA Utilities.

The RFP must at a minimum include the following information:

▲ the level and timing of electricity system support required;
▲ up to date information relating to items 1 to 12 in section A.3 of the RDP pro forma (see Appendix A);
▲ all relevant assumptions to be used in the evaluation of proposals/options (see also Evaluation Criteria in section 4, below);
▲ a clear statement that details of Proposals, including cost information, will be treated as public information unless clearly noted otherwise in writing by the proponent; and
▲ the content that each Proposal lodged with ETSA Utilities must contain in order to be compliant (note section 3.3.2) and the ability of the proponent to lodge a draft Proposal with ETSA Utilities prior to the closing date for submission of Proposals for confirmation of conformance (note section 3.3.3).

3.3.2 Content of a Proposal

Proposals may be made in relation to an individual project identified by ETSA Utilities or an aggregation of a number of projects or DM initiatives. A Proposal may contain one or more options for addressing a particular constraint or constraints. Conforming Proposals must, at minimum, include the following information:

▲ the name, address and contact details of the proponent making the proposal;
▲ the name, address and contact details of the party responsible for the system support option (if different to above);
▲ a explanation of the relevance of the proposal and/ or options presented;
▲ the size, type and location of load(s) that can be reduced, shifted, substituted or interrupted;
▲ the size, type and location of generators that can be installed or utilised if required;
▲ the type and location of action or technology proposed to reduce peak demand/provide electricity system support;
▲ the time required to implement these measures, and any period of notice required before loads can be interrupted or generators started;
▲ an estimate of the expected reliability of the option offered. This could be expressed in terms of the availability factor for that portion of the required period for which the option is offered (i.e. the probability that the option will be available if called upon);
any other relevant information, and a summary of the likely impact on consumers, e.g. in relation to power quality and reliability etc;

- the level and availability of electricity system support from this proposal;
- the level of initial payment required ($ and/or $/kVA);
- the level of availability payment required ($ and/or $/kVA);
- the level of dispatch payment required; and
- any other issues considered relevant.

### 3.3.3 Confirmation of conformance

A proponent may submit a draft proposal to ETSA Utilities up to 12 weeks prior to the due date for submissions in order to confirm that the draft proposal conforms to the requirements of the RFP. Where such confirmation is sought, ETSA Utilities will respond as soon as possible and in any case 6 weeks before the due date of the submission.
4. ASSESSING NON-NETWORK ALTERNATIVES

4.1 Evaluation of Proposals

This section describes a process for evaluating Proposals. This process is briefly described below and then set out in greater detail later in this section 4.

In order for ETSA Utilities to fairly assess potentially disparate network enhancement and other system support options put forward via Proposals, a consistent Evaluation Process is required.

The purpose of the Evaluation Process is to ensure that all network enhancement and other system support options and proposals are given fair consideration. The evaluation carried out by ETSA Utilities, must take into account all relevant costs and benefits and must also comply with the ACCC’s Regulatory Test for Network Investment 1.

The Evaluation Process indicates that all conforming options should be evaluated and ranked on the basis of total annualised cost of providing the system support. This cost may be adjusted to account for the relative risk of each option.

The Evaluation Process requires ETSA Utilities to publicly announce the recommended option(s) resulting from the evaluation and the annualised cost to ETSA Utilities of the recommended option(s).

4.2 Evaluation Process

4.2.1 Options to be evaluated

Where an RFP has been issued and/or where alternatives to an RFP are proposed, all conforming Proposals and options must be evaluated by ETSA Utilities. Conforming options developed by ETSA Utilities must also be evaluated.

4.2.2 Clarification of Proposals

ETSA Utilities may seek clarification of details from the proponent of a proposed option provided this does not materially alter the Proposal.

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If the market operates efficiently, this basis of evaluation should accord with the Regulatory Test as stipulated by Clause 5.6.2 of the National Electricity Code.
4.2.3 Basis of evaluation

ETSA Utilities’ evaluation of the options must include the following:

▲ Options (and where necessary groups of options) will be evaluated and ranked on the basis of the ‘total net annualised costs of system support incurred by ETSA Utilities’, plus the cost or benefits of changes to transmission and distribution losses. “Total net annualised costs of system support incurred by ETSA Utilities” includes all capital, fixed, variable and operating costs of securing the specified level of system support.

▲ System support is measured in terms of kVA of constrained peak capacity, $/kVA of constrained peak capacity and the period of constraint.

▲ A ten-year period for evaluation is recommended, but ETSA Utilities may choose a different period provided a sound rationale is demonstrated.

▲ External costs should be included in the evaluation of any option wherever these reflect an existing or anticipated regulatory obligation of ETSA Utilities, as specified by the ACCC’s Regulatory Test.

▲ The relative intrinsic risks, including the likely impact on system reliability and quality of supply, of specific options and technologies will be assessed in accordance with normal commercial practice.

4.2.4 Combination of Proposals

In addition to evaluating proposals or options separately, ETSA Utilities may combine separate proposals or options for the purposes of evaluation where this may lead to a more efficient outcome than the separate proposal or option. Proponents should indicate in their Proposal whether they wish to have their proposals or options considered in combination with other proposals.

4.2.5 Public Announcement of the evaluations

ETSA Utilities must publicly announce the outcomes of each application of the Evaluation Process. This announcement must include the total annualised cost to ETSA Utilities of the recommended option(s). All details of Proposals including cost information will be treated as public information unless clearly noted otherwise in writing by the proponent.

The announcement of the outcomes must be released no later than 13 weeks after the closing date for submissions.
5. ANNUAL DEMAND MANAGEMENT COMPLIANCE REPORT

This purpose of the Annual DM Compliance Report is to provide the reader with an understanding of the DM activities undertaken and the outcomes of those processes during the preceding financial year. In effect, the Annual Report is to record the actions undertaken by ETSA Utilities in order to comply with sections 2, 3 and 4 of this Guideline and its licence conditions.

ETSA Utilities is required to report its compliance with this Guideline because:

▲ it is a necessary licence condition to report compliance with all Act, Code and other obligations
▲ it will inform the general public, interested parties, the market and ESCOSA about ETSA Utilities’ DM initiatives and activities undertaken in the previous 12 months and highlight opportunities for future development; and
▲ it provides information to ESCOSA that will assist it to determine whether the investment mix is prudent and is therefore appropriate for ETSA Utilities to recover its investment from its customers.

5.1 Content of Annual Demand Management Compliance Report

ETSA Utilities’ Annual DM Compliance Report must contain:

▲ the ESDP issue date\(^2\). If the ESDP was not issued, ETSA Utilities is to set out the reasons for non-compliance and submit a timetable for issuing the ESDP;
▲ a summary report of zone substations, sub-transmission lines and distribution lines (at the substation exit) that are likely to reach a capacity constraint within the next 3 years (compiled from the ESDP/ RDP pro forma);
▲ details of the criteria used to determine applications of the Reasonableness Test;
▲ document the results of the Reasonableness Test for all items listed in (2);
  ▲ provide details of all RFPs issued during the year under consideration;
  ▲ if an RFP was not issued after application of the Reasonableness Test, details of the alternative action taken and its rationale;
▲ the basis for the evaluations of the proposals and options submitted in response to RFPs;
▲ the results of the evaluations conducted, including the assessment of all costs and benefits;

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\(^2\) It is likely that the ESDP, against which performance is being reported will have been published 15 months prior to the Annual DM Compliance Report. However, ETSA Utilities should also report the issue of the current ESDP, presumably published only 3 months earlier.
a summary report of any DM areas investigated and DM programs implemented;

a report on effectiveness and operations of other programs such as off-peak control of hot water and other end-use appliances, and kVA and demand tariffs;

any non-compliance with this Guideline must be specifically identified, described and explained.

The data to be reported as part of the summary report may include:

- total number of demand management programs investigated including a summary description of each investigation;
- total cost of demand management strategies;
- NPV of distributor operating expenditure saved; and
- NPV of distributor capital expenditure deferred.

### 5.1.1 Process before changing reporting requirements

ESCOSA anticipates that reporting requirements may need to evolve as ETSA Utilities and users of the Annual DM Compliance Report better understand their requirements and/or their needs change. Any such change would only be undertaken after ESCOSA has undertaken consultation in accordance with the process set out in section 1.7 of this Guideline.

### 5.2 Timing of Annual Demand Management Compliance Report

The Annual DM Compliance Report for the year ending 30 June must be published by 31 August each year. The first Annual Demand Management Report will be due by 31 August 2004.
APPENDIX A

A Regional Development Plan Pro forma

Information should be presented graphically where possible, using maps, diagrams and charts where appropriate.

A.1 General Information

1. Zone substation (including the number of feeders connected to each zone substation and, sub-transmission line(s)).
2. Site/Address.
3. Zone substations, sub-transmission lines capable of sharing the load (name/ID).

A.2 Specific information for all zone substations, and sub-transmission lines.

Actual data for past 5 years and forecast data for the next five years should be provided in relation to the matters set out below where available. Where data is not available a brief explanation should be provided.

1. Total Capacity.
2. Firm Delivery Capacity - Summer and Winter (if different)
3. Peak Load (summer and winter).
4. Is a constraint forecast within 3 years (Yes/No)? This section should identify to nature of the forecast constraint. Constraints to be identified must include any feeders that are likely to be constrained within 3 years.
5. If yes, brief description of trends/factors driving constraint.

A.3 Additional information required for zone substations, sub-transmission lines and distribution feeders (at the substation exit) where a system constraint has been forecast within 3 years

A.3.1 Forecast data for next three years:

1. Total capacity, firm delivery capacity and peak load.
2. Extent of overload (Peak load > firm capacity; kVA/MVA).
3. Frequency of overloads (days p.a. where peak load > firm capacity).
4. Duration of overload periods e.g. hours p.a (if available).

5. Power factor at time of peak load (if available).

**A.3.2 Other Information**

1. Customer service/reliability indicators for that region, or from a particular zone substation, over the past three years eg System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI).

2. Specify reliability standard for that geographic region (if different than that described in general terms in the introductory sections of the ESDP).

3. Load data for the substation or sub-transmission lines on a peak load day (if available).

4. Annual load duration curve/data (if available).

5. Nature of load at time of peak/constraint: (proportion of Industrial, Residential, Commercial, etc) – Size of specific key loads (eg domestic space heating, commercial air conditioning, etc) (if available).

6. Brief description of possible system support options for overcoming the constraint, and the estimated total cost and/or annualised cost.

7. Forecast date by which the electricity system support investment decisions must be made.

8. Statement of whether ETSA Utilities plans to issue an RFP for electricity system support. If yes, expected date of issue.

9. If it is currently unknown whether an RFP will be issued, expected date that the decision on issuing a formal RFP will be made.

10. Outline of how the distributor intends to inform and test the market (eg direct consultation with major customers, pilot DM initiatives, simple RFP alone, “standard offerings” to purchase given volume of system support at a specified price, residential programs, use of energy service companies, DM aggregators and market intermediaries, etc).