Ergon Energy

Review of Reset RIN Non-Financial Information

24 October 2014

PARSONS BRINCKERHOFF
A BALFOUR BEATTY COMPANY

Author, Reviewer and Approver details

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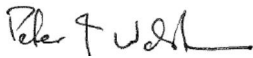
Reviewer's Statement

Parsons Brinckerhoff reviewed the Reset Regulatory Information Notice (RIN) non-financial information and Basis of Preparation prepared by Ergon Energy for the Australian Energy Regulator in support of its regulatory proposal for the regulatory period 2015-20.

Parsons Brinckerhoff meets the requirements of "Class of person to conduct the audit" as outlined in Appendix C, paragraph 2.2 of the RIN.

This report has been prepared in accordance with the requirements outlined in Appendix C of the RIN. The review was undertaken as a 'Limited Assurance Audit' as required by the RIN and described in ASAE3000. The reviewer's responsibility is to assess whether the non-financial information has been presented fairly in accordance with the requirements of the RIN and Ergon Energy's Basis of Preparation. In doing this, the reviewer performed procedures to obtain evidence about the information. The procedures used depended on the reviewer's judgment, including the assessment of the risks of material misstatement at the disclosure level, whether due to fraud or error. In making the risk assessments, the auditor considered internal controls, system controls relating to the preparation and fair presentation of the estimates and disclosures made in the RIN in order to design review procedures that are appropriate in the circumstances.

The reviewer concludes that nothing has come to the reviewers' attention that causes it to believe that the historical non-financial information is not, in all material respects, presented fairly and in accordance with the requirement of the RIN and Ergon Energy's Basis of Preparation.

Yours sincerely

Peter Walshe
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Parsons Brinckerhoff Australia Pty Limited

Contents

Abbreviations

AER	Australian Energy Regulator
ASAE	Australian standard on assurance engagements
AUGEX	Augmentation capital expenditure
CAPEX	Capital expenditure
DNSP	Distribution network service provider
HBRA	High bushfire risk area
HCV	Heavy commercial vehicle
km	Kilometre
kV	Kilovolts
LBRA	Low bushfire risk area
MD	Maximum demand
MVA	Mega Volt Amps
NSP	Network service provider
REPEX	Replacement capital expenditure
RIN	Regulatory information notice
STPIS	Service target performance incentive scheme

1. Introduction

The Australian Energy Regulatory (AER) issued a Regulatory Information Notice (RIN) to Ergon Energy in relation to its distribution business on the 25 August 2014. The RIN requires Ergon Energy to submit information set out in Appendix A of the RIN (the regulatory templates) and prepare according to the instructions set out in Appendix E of the RIN ("Principles and Requirements") and the definitions set out in Appendix F of the RIN ("Definitions").

Ergon Energy is required to have the Actual Non-financial Information reviewed by an independent party meeting the requirements set out in Appendix C of the RIN. Parsons Brinckerhoff satisfies the requirements of Section 2.2 of Appendix C of the RIN and was engaged by Ergon Energy to undertake a review of the non-financial information.

1.1   Scope of review

Parsons Brinckerhoff undertook the review of the RIN non-financial information in accordance with Appendix C of the RIN. The review was undertaken as a 'Limited Assurance Audit' as required by the RIN and described in ASAE3000. This included:

1. A review of the Basis of Preparation document as required by the RIN.

2. A review of the Actual Non-financial Information in worksheets titled:

    a)   2.3 Augex model

    b)   5.3 Maximum demand at network level

    c)   5.4 Maximum demand and utilisation at spatial level

    d)   6.1 Telephone answering

    e)   6.2 Reliability and customer service performance

    f)   6.3 Sustained interruptions to supply (for 2013-14)

    g)   6.4 Historical major event day

3. Providing a conclusion as to whether or not anything has come to the Reviewer's attention that causes it to believe that the historical non-financial information is not, in all material respects, presented fairly in accordance with the requirements of the RIN and Ergon Energy's Basis of Preparation.

1.2   Our approach

To achieve the outcome required by the RIN, Parsons Brinckerhoff undertook this review in two parts:

■   a desktop review to assess whether the NSP's Basis of Preparation accords with the RIN Principles and Requirements

- an onsite review (including interviews) to assess whether the non-financial information contained in the worksheets was prepared in a manner that was consistent with the Basis of Preparation.

The desktop review involved:

- assessing whether or not definitions in the Basis of Preparation aligned to the definitions set out in the RIN

- assessing whether or not the methodology described in the Basis of Preparation aligned with the instructions set out in the RIN

- examining the excel spreadsheet templates for inconsistencies in data and/or trends, and whether those inconsistencies reflected the methodology set out in the Basis of Preparation.

The onsite review involved:

- clarification with key staff of the findings of the desktop review to determine if the data was generated in accordance with the RIN instructions and definitions

- discussion of any non-financial information that was estimated

- limited sampling of data in Ergon Energy's systems to confirm that the non-financial information is consistent with information held in those systems.

This also enabled verification that the data was prepared in a manner that was consistent with the Basis of Preparation. Data sources sighted are listed in section 2 of this document. The Parsons Brinckerhoff review team also sighted numerous spreadsheets and databases, which were identified within the Basis of Preparation document and used by the interviewees to derive the RIN data. The most important of these are identified in Table 2.1 and Table 2.2 of this report.

Parsons Brinckerhoff's audit approach and subsequent report complied with the audit requirements outlined in the RIN and complied with the requirements of ASAE 3000[1] for a limited assurance audit.

1.3   Information provided for review

Initial and revised RIN information is presented in Table 1.1. Initial review findings were based on an assessment of the initial information. Ergon Energy subsequently revised the information. The final review findings reflect the revised information.

For the initial review, the Basis of Preparation for all templates was not available. Ergon Energy provided procedural documents for review that provided the required information, which were then aggregated into a Basis of Preparation.

Table 1.1   RIN information provided

Document	Template
Initial	
QLD - RESET RIN 2015-20 - Actual Information.xlsm (version 0.2 dated 20/09/2014)	All
QLD - RESET RIN 2015-20 - Estimated Information.xlsm (version 0.2 dated 20/09/2014)	All
QLD - RESET RIN 2015-20 - Consolidated Information.xlsm (version 0.3 dated 20/09/2014)	All
QLD - RESET RIN 2015-20 - Ergon disposals - Actual Information.xlsx	All

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[1]   Assurance Engagements Other than Audits or Reviews of Historical Financial Information

Document	Template
QLD - RESET RIN 2015-20 - Ergon disposals - Estimated Information.xlsx	All
QLD - RESET RIN 2015-20 - Ergon disposals - Consolidated Information.xlsx	All
Regulatory Reset RIN Basis of Preparation Template 5.4 - Maximum Demand & Utilisation at Spatial Level Historical Information – 2013-14 Filename: EECL RESETRIN HISTORICAL BOP_T5.4_MXDUS.docx	5.4
Regulatory Reset RIN Basis of Preparation Template 6.1 – Telephone Answering Historical Information – 01/07/09 – 30/06/14 Filename: EECL RESETRIN HISTORICAL BOP_T6.1_TELE.docx	6.1
Regulatory Reset RIN Basis of Preparation Template 6.2 Reliability and Customer Service Performance Historical Information – 2009-10 to 2013-14 Filename: EECL RESETRIN HISTORICAL BOP_T6.2_RECS.docx	6.2
Regulatory Reset RIN Basis of Preparation Template 6.3 Sustained Interruptions to Supply Historical Information – 2013-14 Filename: EECL RESETRIN HISTORICAL BOP_T6.3_SINT.docx	6.3
Regulatory Reset RIN Basis of Preparation Template 6.4 Historical Major Event Day Data Historical Information – 2004-05 to 2011-12 Filename: EECL RESETRIN HISTORICAL BOP_T6.4_HMED.docx	6.4
Regulatory Reset RIN Basis of Preparation Template 2.4 Augex Model Historical Information – 2009-10 to 2013-14 Filename: EECL RESETRIN HISTORICAL BOP_T2 4_AUGM.docx	2.4
Regulatory Reset RIN Response Paper Schedule 1 - Section 7 Augmentation Capital Expenditure Modelling - 1 July 2015 to 30 June 2020 Filename: EECL RESET RIN RESPONSE_S7_AUGEX ddmmyy.docx	2.4
Revised	
QLD - RESET RIN 2015-20 - Actual Information.xlsm (version 0.4 dated 25/09/2014)	All
QLD - RESET RIN 2015-20 - Estimated Information.xlsm (version 0.6 dated 25/09/2014)	All
QLD - RESET RIN 2015-20 - Consolidated Information.xlsm (version 0.6 dated 25/09/2014)	All
QLD - RESET RIN 2015-20 - Actual Information.xlsm (version 0.13 dated 21/10/2014)	All
QLD - RESET RIN 2015-20 - Estimated Information.xlsm (version 0.18 dated 21/10/2014)	All
QLD - RESET RIN 2015-20 - Consolidated Information.xlsm (version 0.19 dated 21/10/2014)	All
EECL RESETRIN T2 4 AUGM 151014_Audit Response - SH.xlsx (dated (15/10/2014)	2.4
EECL RESETRIN T2 4 AUGM 161014_Audit Response - SH.xlsx (dated 16/10/2014)	2.4
EECL RESETRIN HISTORICAL BOP_T2 4_AUGM_161014.docx (dated 16/10/2014)	2.4
EECL RESETRIN HISTORICAL BOP_T2 4 - SH.docx (dated 21/10/2014)	2.4
EECL_RESETRIN_HISTORICAL_BOP_T2_4.docx (dated 22/10/2014)	2.4

Document	Template
Final	
QLD - RESET RIN 2015-20 - Actual Information.xlsm (version 0.15 dated 22/10/2014)	All
QLD - RESET RIN 2015-20 - Estimated Information.xlsm (version 0.20 dated 22/10/2014)	All
QLD - RESET RIN 2015-20 - Consolidated Information.xlsm (version 0.20 dated 22/10/2014)	All
QLD - RESET RIN 2015-20 - Ergon disposals - Actual Information.xlsx (dated 20/09/2014)	All
QLD - RESET RIN 2015-20 - Ergon disposals - Estimated Information.xlsx (dated 21/10/2014)	All
QLD - RESET RIN 2015-20 - Ergon disposals - Consolidated Information.xlsx (dated 21/10/2014)	All
Regulatory Reset RIN Response Paper Schedule 1 - Section 7 Augmentation Capital Expenditure Modelling - 1 July 2015 to 30 June 2020 Filename: EECL RESET RIN RESPONSE_S7_ AUGX 161014_New Draft (2) - AT comments.docx (dated 16/10/2014)	2.4
Regulatory Reset RIN Basis of Preparation Template 2.4 Augex Model Historical Information – 2009-10 to 2013-14 Filename: EECL RESETRIN HISTORICAL BOP_T2 4_AUGM.docx (dated 21/09/2014)	2.4
Regulatory Reset RIN Basis of Preparation Template 5.4 - Maximum Demand & Utilisation at Spatial Level Historical Information – 2013-14 Filename: EECL RESETRIN HISTORICAL BOP_T5.4_MXDUS.docx (dated 22/09/2014)	5.4
Regulatory Reset RIN Basis of Preparation Template 6.1 – Telephone Answering Historical Information – 01/07/09 – 30/06/14 Filename: EECL RESETRIN HISTORICAL BOP_T6.1_TELE.docx (dated 22/09/2014)	6.1
Regulatory Reset RIN Basis of Preparation Template 6.2 Reliability and Customer Service Performance Historical Information – 2009-10 to 2013-14 Filename: EECL RESETRIN HISTORICAL BOP_T6.2_RECS.docx (dated 21/09/2014)	6.2
Regulatory Reset RIN Basis of Preparation Template 6.3 Sustained Interruptions to Supply Historical Information – 2013-14 Filename: EECL RESETRIN HISTORICAL BOP_T6.3_SINT.docx (dated 21/09/2014)	6.3
Regulatory Reset RIN Basis of Preparation Template 6.4 Historical Major Event Day Data Historical Information – 2004-05 to 2011-12 Filename: EECL RESETRIN HISTORICAL BOP_T6.4_HMED.docx (dated 22/10/2014)	6.4

2.   Information sources

Ergon Energy used a number of business systems and planning reports as a basis for gathering information and converting it into the format required by the RIN. During the review, Parsons Brinckerhoff identified the following suite of information systems and documentation that were relied upon by Ergon Energy.

The scope of the review did not include reviewing the systems and procedures, so accordingly Parsons Brinckerhoff undertook the review on the assumption that the information contained in these systems was fit for purpose and the review concentrated on the use of correct definitions and the assumptions and estimates used to close information gaps. Our reviewers also sought to ascertain, where possible within the constraints of the review process, whether the source information was the most appropriate information to use to derive the information to populate the RIN tables.

Data sources - Information systems

Table 2.1   Information systems relevant to this review

Ergon Energy information system	Function
Ellipse	Asset register
FdrStat (FeederStat)	Outage management system used to capture, record, action and report planned and unplanned outages
SAP	An integrated business system containing amongst other things customer information
OMS	A database which stores outage management system information
SCAMS	Substation Contingency Asset Management System
SIFT	Substation Investment Forecasting Tool
Smallworld	Ergon Energy Geographical Information System
SMDB	Statistical Metering Database

Other data sources provided for review

Table 2.2   Other data sources relevant to this review sighted by the reviewers

Template number	File names
5.3 MD – network level	AER CARIN data templates T5.3_Aug_Update_Final.xlsm EECL 1314 CARIN_T5.3 MXDN 071014.docx
5.4 MD and utilisation at spatial level	AER CARIN data template T5.4_Aug_Update_DRAFT2.xlsm EECL 1314 CARIN_T5.4 MXDUS 071014.docx

Template number	File names
6,1 Telephone answering	RIN 1b,1c,3. STPIS GOS 13-14 Worksheet.xlsx
6.2 Reliability and customer service performance 6.3 Sustained interruptions 6.4 Major event days	2013-14 RIN Reliability Audit Data-20140922.xlsx 2014-15 STPIS MED DAYS.xlsx

3. Our findings

This section sets out each table/template and the information required by the RIN. Any issues that were found and whether or not Parsons Brinckerhoff considers them to be material are detailed here. Where known, Parsons Brinckerhoff also describes how Ergon Energy rectified the issue.

The methodology used to assess the data is described in section 1.2 and the information sources and documents we reviewed are described in section 2.

3.1 Template 2.4 Augex Model

Table 2.4.1 - Augex Model Inputs - Asset Status - Subtransmission Lines

Parameters			Units/Options
Line ID			
Primary type of area supplied by line			CBD, urban, long rural, or short rural
Line voltage			kV
Originating substation			name
Terminating substation			name
2013-14	Route line length as at 30 June of year		km
	Maximum demand (weather corrected at 50% PoE)		MVA
			MW
	Line rating	Thermal	MVA
		N-1 emergency	MVA
2009-10	Route line length as at 30 June of year		km
	Maximum demand (weather corrected at 50% PoE)		MVA
			MW
	Line rating	Thermal	MVA
		N-1 emergency	MVA
Average per annum growth rate in annual line maximum demand (50% PoE) from 2013-14 to 2019-20			%
Network Segment ID			

Key RIN requirements for this table:

1. Complete the table in accordance with the Principles and Requirements provided in Appendix E, and the Definitions provided in Appendix F of the RIN.

2. Insert one set of data as shown in the above table for each subtransmission line circuit in Ergon Energy's network.

3. Explain how maximum demand data were determined, and how they relate to:

    a) MD data used for normal planning purposes;

    b) raw unadjusted maximum demand;

    c) weather-corrected 10% PoE maximum demand.

4. Where weather-corrected 50% PoE maximum demands are not available, input raw adjusted maximum demand and note such occurrences in the Basis of Preparation.

5. If actual maximum demand data are provided, describe where measurement points are located;

6. If estimated maximum demand data are provided, describe the estimation process used and how it has been validated.

7. Explain how asset ratings were determined, and how the ratings relate to Ergon Energy's approach to operating and planning its network.

8. Explain how growth rates were determined from maximum demand or load forecasts available to Ergon Energy.

Initial review findings:

1. Ergon Energy has not used the AER-defined options for the "primary type of area supplied by line". It has abbreviated urban, long rural and short rural to UR, LR and SR respectively, and introduced two further abbreviations: SC for subtransmission lines to customer-owned substations; and NA, which is not defined in the Basis of Preparation, but we suspect means "not applicable". The locked Excel template uses data validation to ensure the correct data is entered from a list of options. Incorrect data may cause the Augex Model not to work correctly.

2. Ergon Energy has defined two network segment ID categories in Table 2.4.5 related to subtransmission lines: 'ST lines – High growth', and 'ST lines – Low growth'. However, there seems to be little correlation between the "average per annum growth rate in annual line maximum demand (50% PoE) from 2013-14 to 2019-20" as given in Table 2.4.1, and the 'High growth'/'Low growth' categorisation. Both have wide ranges of data from -100% to more than +100%.

3. Noting that the growth rate given is notionally an annual average, the extremes of the range of data seem not to be feasible. Firstly, a -100% growth rate allocated to four lines means that the lines will become unused within a year – is this the case? Secondly, Line IDs F7233 and F7244 are parallel 13.5km lines rated at 166.52 MVA, each of which have had maximum demands fall from 1.31 MVA in 2009-10 to 0.86 MVA in 2013-14, but which are now being modelled to have annual increases of about 115%. Again, this does not seem feasible.

4. There are some divide-by-zero errors in the maximum demand data for 2009-10 which may cause the Augex Model not to work correctly.

5. Ergon Energy has entered 'NL' for ST line ID 3155 at the end of the data set. The Basis of Preparation does not explain what this data is meant to convey, and the data may also cause the Augex Model not to work correctly.

Final review findings:

1. Ergon Energy revised its information and Basis of Preparation to address and respond to the issues raised in the initial review.

2. The reviewer did not find reason to believe that the data in the RIN Table 2.4.1 has not been presented fairly in all material respects.

3. The reviewer did not find reason to believe that the Basis of Preparation for Table 2.4.1 has not been presented fairly in all material respects.

Table 2.4.2 - Augex Model Inputs - Asset Status - High Voltage Feeders

Parameters			Units/Options
High voltage feeder ID			
High voltage feeder type			CBD, urban, long rural, or short rural
Voltage level			kV
Originating substation			name
2013-14	Route line length as at 30 June of year		km
	Maximum demand (weather corrected at 50% PoE)		MVA
			MW
	Line rating	Thermal	MVA
		Operational	MVA
2009-10	Route line length as at 30 June of year		km
	Maximum demand (weather corrected at 50% PoE)		MVA
			MW
	Line rating	Thermal	MVA
		Operational	MVA
Average per annum growth rate in annual high voltage feeder maximum demand (50% PoE) from 2013-14 to 2019-20			%
Network Segment ID			

Key RIN requirements for this table:

1. Complete the table in accordance with the Principles and Requirements provided in Appendix E, and the Definitions provided in Appendix F of the RIN.

2. Insert one set of data as shown in the above table for each high voltage feeder in Ergon Energy's network.

3. Explain how maximum demand data were determined, and how they relate to:

    a)   MD data used for normal planning purposes;

    b)   raw unadjusted maximum demand;

    c)   weather-corrected 10% PoE maximum demand.

4. Where weather-corrected 50% PoE maximum demands are not available, input raw adjusted maximum demand and note such occurrences in the Basis of Preparation.

5. If actual maximum demand data are provided, describe where measurement points are located;

6. If estimated maximum demand data are provided, describe the estimation process used and how it has been validated.

7. Explain how asset ratings were determined, and how the ratings relate to Ergon Energy's approach to operating and planning its network.

8. Explain how growth rates were determined from maximum demand or load forecasts available to Ergon Energy.

Initial review findings:

1. Ergon Energy has not used the AER-defined options for 'High voltage feeder type'. It has abbreviated urban, long rural and short rural to UR, LR and SR respectively. The locked Excel template uses data validation to ensure the correct data is entered from a list of options. Incorrect data may cause the Augex Model not to work correctly.

2. Ergon Energy has entered 'NF' for 54 sets of HV feeder data in 2009-10. The Basis of Preparation does not explain what this data is meant to convey, though we understand that it indicates that the affected feeders are new feeders that did not exist in 2009-10, and the data may also cause the Augex Model not to work correctly.

3. The Basis of Preparation describes that feeder type categorisation is based on the 2013-14 maximum demand MVA/km and 2013-14 feeder length. On this basis, two feeders have been incorrectly categorised. Feeder 10020677 and 40001202 are both categorised 'SR' (short rural), yet have MVA/km of greater than 0.3 (0.30193 and 0.30075 respectively), qualifying them as 'UR' (urban).

Final review findings:

1. Ergon Energy revised its information and Basis of Preparation to address and respond to the issues in the initial review.

2. The reviewer did not find reason to believe that the data in the RIN Table 2.4.2 has not been presented fairly in all material respects.

3. The reviewer did not find reason to believe that the Basis of Preparation for Table 2.4.2 has not been presented fairly in all material respects.

Table 2.4.3 - Augex Model Inputs - Asset Status - Subtransmission Substations, Subtransmission Switching Stations and Zone Substations

Parameters		Units/Options
Substation ID		
Subtransmission substation, subtransmission switching station, or zone substation		STS, SSW or ZSS
Primary type of area supplied by substation		CBD, urban, long rural, or short rural
Substation voltage	Primary	kV
	Secondary	kV

Parameters			Units/Options
2013-14	Number of transformers at 30 June		no.
	Maximum demand (weather corrected at 50% PoE)		MVA
			MW
	Substation rating as at 30 June	Tx name plate total (ONAN)	MVA
		Tx name plate total (in service)	MVA
		Tx normal cyclic total	MVA
		Substation normal cyclic	MVA
		N-1 emergency	MVA
2009-10	Number of transformers at 30 June		no.
	Maximum demand (weather corrected at 50% PoE)		MVA
			MW
	Substation rating as at 30 June	Tx name plate total (ONAN)	MVA
		Tx name plate total (in service)	MVA
		Tx normal cyclic total	MVA
		Substation normal cyclic	MVA
		N-1 emergency	MVA
Average per annum growth rate in annual high voltage feeder maximum demand (50% PoE) from 2013-14 to 2019-20			%
Network Segment ID			

Key RIN requirements for this table:

1. Complete the table in accordance with the Principles and Requirements provided in Appendix E, and the Definitions provided in Appendix F of the RIN.

2. Insert one set of data as shown in the above table for each subtransmission substation, subtransmission switching station and zone substation on Ergon Energy's network.

3. Explain in the Basis of Preparation how maximum demand data were determined, and how they relate to:

    a) MD data used for normal planning purposes;

    b) raw unadjusted maximum demand;

    c) weather-corrected 10% PoE maximum demand.

4. Where weather-corrected 50% PoE maximum demands are not available, input raw adjusted maximum demand and note such occurrences in the Basis of Preparation.

5. If actual maximum demand data are provided, describe in the Basis of Preparation where measurement points are located;

6. If estimated maximum demand data are provided, describe in the Basis of Preparation the estimation process used and how it has been validated.

7. Explain in the Basis of Preparation how asset ratings were determined, and how the ratings relate to Ergon Energy's approach to operating and planning its network.

8. Explain in the Basis of Preparation how growth rates were determined from maximum demand or load forecasts available to Ergon Energy.

Initial review findings:

1. Ergon Energy has not used the AER-defined options for 'Primary type of area supplied by substation'. It has abbreviated urban, long rural and short rural to UR, LR and SR respectively and again used SC for subtransmission lines to customer-owned substations. The locked template uses data validation to ensure the correct data is submitted; incorrect data may cause the Augex Model not to work correctly.

2. Ergon Energy has entered 'NS' for seven sets of substation data in 2009-10. The Basis of Preparation does not explain what this data is meant to convey, though we understand that it indicates that the affected substations are new substation that did not exist in 2009-10. Such unconventional data may cause the Augex Model not to work correctly.

Final review findings:

1. Ergon Energy revised its information and Basis of Preparation to address and respond to the issues in the initial review.

2. The reviewer did not find reason to believe that the data in the RIN Table 2.4.3 has not been presented fairly in all material respects.

3. The reviewer did not find reason to believe that the Basis of Preparation for Table 2.4.3 has not been presented fairly in all material respects.

Table 2.4.4 - Augex Model Inputs - Asset Status - Distribution Substations

Parameters			Units/ Options
Distribution substation category ID			
Description of distribution substation category			
2013-14	Aggregate of the normal cyclic ratings of all individual distribution substations in the distribution substation category that were within the following utilisation bands:	0-20%	%
		20-40%	%
		40-60%	%
		60-80%	%
		80-100%	%
		100-120%	%
		120-140%	%
		140-160%	%
		160-180%	%
		180-200%	%
		>200%	%
	Aggregate of the normal cyclic ratings of all individual distribution substations in the distribution substation category		MVA
2009-10	Aggregate of the normal cyclic ratings of all individual distribution substations in the distribution substation category that were within the following utilisation bands:	0-20%	%
		20-40%	%
		40-60%	%
		60-80%	%
		80-100%	%
		100-120%	%
		120-140%	%
		140-160%	%
		160-180%	%
		180-200%	%
		>200%	%
	Aggregate of the normal cyclic ratings of all individual distribution substations in the distribution substation category		MVA
Average per annum growth rate in annual substation maximum demand (50% PoE) from 2013-14 to 2019-20			%
Network segment ID			

Key RIN requirements for this table:

1. Complete the table in accordance with the Principles and Requirements provided in Appendix E, and the Definitions provided in Appendix F of the RIN.

2. Define several categories of distribution substations and insert one set of data as shown in the above table for each substation category, based on factors such as:

   a) pole-mounted or ground-mounted distribution substations,

   b) distribution substation ratings,

   c) the type of area or feeders supplied by the substation (e.g. urban, rural),

   d) etc.

3. Explain in the Basis of Preparation how maximum demand data were determined, and how they relate to:

   a) MD data used for normal planning purposes;

   b) raw unadjusted maximum demand;

   c) weather-corrected 10% PoE maximum demand.

4. Where weather-corrected 50% PoE maximum demands are not available, input raw adjusted maximum demand and note such occurrences in the Basis of Preparation.

5. If actual maximum demand data are provided, describe in the Basis of Preparation where measurement points are located;

6. If estimated maximum demand data are provided, describe in the Basis of Preparation the estimation process used and how it has been validated.

7. Explain in the Basis of Preparation how asset ratings were determined, and how the ratings relate to Ergon Energy's approach to operating and planning its network.

8. Explain in the Basis of Preparation how growth rates were determined from maximum demand or load forecasts available to Ergon Energy.

Initial review findings:

1. Average per annum growth rate in annual substation maximum demand (50% PoE) from 2013-14 to 2019-20 for Distribution Tx – LR (category ID 15) is given as 120%. Given that the other two growth rates are 1.4% and 1.5%, the reviewer considers that this might be 1.2%. Ergon Energy was advised of this observation.

Final review findings:

1. Ergon Energy revised its information and Basis of Preparation to address and respond to the issues in the initial review.

2. The reviewer did not find reason to believe that the data in the RIN Table 2.4.4 has not been presented fairly in all material respects.

3. The reviewer did not find reason to believe that the Basis of Preparation for Table 2.4.4 has not been presented fairly in all material respects.

Table 2.4.5 - Augex Model Inputs - Network Segment Data

Parameter		Unit
Network segment ID		
Network segment title		
AER segment group		ID
Historical	Average unit cost of augmentation for the network segment for the next regulatory control period	$000's per MVA
	Capacity factor for the period	
	Mean value of the utilisation threshold for the period	%
	Standard deviation of the utilisation threshold for the period	%
Forecast	Average unit cost of augmentation for the network segment for the next regulatory control period	$000's per MVA
	Capacity factor for the period	
	Mean value of the utilisation threshold for the period	%
	Standard deviation of the utilisation threshold for the period	%

Key RIN requirements for this table:

1. Complete the table in accordance with the Principles and Requirements provided in Appendix E, and the Definitions provided in Appendix F of the RIN.

2. Define several network segments to which the network assets described in Tables 2.4.1 to 2.4.4 will be allocated, the network segments being differentiated by commonalities in the various network augmentation drivers such as:

   a) Growth in maximum demand,

   b) Unit cost of augmentation,

   c) Capacity factors,

   d) Utilisation thresholds,

   e) etc.

3. Describe each network segment in the Basis of Preparation, explaining boundaries with other network segments and the main reason that differentiates each network segment from the others.

4. Explain in the Basis of Preparation how unit costs and capacity factors have been determined.

5. Explain in the Basis of Preparation how utilisation thresholds have been determined, including an opinion on the most appropriate probability distribution to simulate the augmentation needs of each network segment.

Initial review findings:

1. Section 7.6(c) of Appendix E of the RIN states, "Individual network segments should be defined to capture differences in the main drivers of augmentation, such as growth in maximum demand, augmentation unit costs, or utilisation thresholds". However, there are no differences between the driver parameters for network segment IDs 1 & 2, so they could reasonably be combined.

2. Likewise, there are no differences between the driver parameters for network segment IDs 3 & 4, so they could also reasonably be combined.

3. The mean values of utilisation threshold for network segment IDs 7-15 seem to be at least 100 times too large, which may simply be a data entry/formatting problem. Alternatively, those for network segment IDs 1-6 may be 100 times too small. We recall that the Augex Model itself expects these data to be expressed as "whole number percentages", i.e., the actual raw data for 10% should be "10", and not "0.1".

4. The mean values of utilisation threshold for network IDs 7-12 differ from those in Table 1 of the Regulatory Reset RIN Response Paper (Schedule 1 - Section 7 Augmentation Capital Expenditure Modelling) which is referenced by the Basis of Preparation. The differences seem to be rounding differences for the most part, but the data for network segment ID 10 seems also to have a typographical error.

5. The mean values of utilisation threshold for network ID 13 (159%) is greater than the range of values permitted by the Augex Model (up to 151% in 1% steps). This may cause the Augex Model not to function correctly.

6. The Basis of Preparation references the Regulatory Reset RIN Response Paper regarding population of the table. However, very little information was given in the Response Paper regarding production of data for the distribution transformer network segments, IDs 13-15. In particular, there was insufficient information regarding the determination of the statistical parameters for the utilisation threshold modelling probability distributions. Indeed, there are numerous authors' notes in the draft Response Paper that cause the reviewer to doubt the completeness of the distribution transformer network segment data assessments.

Final review findings:

1. Ergon Energy revised its information and Basis of Preparation to address and respond to the issues in the initial review.

2. The reviewer did not find reason to believe that the data in the RIN Table 2.4.5 has not been presented fairly in all material respects.

3. The reviewer did not find reason to believe that the Basis of Preparation for Table 2.4.5 has not been presented fairly in all material respects.

Table 2.4.6 - Capex and Net Capacity Added By Segment Group

(Note – Financial data (in grey) not reviewed)

Parameter					Units
AER DNSP segment group					
Capex ($000's, real June 2015)	In total for all purposes	Actual	2009-10 to 2012-13	$000's	
			2013-14	$000's	
		Forecast	2014-15	$000's	
		Forecast	2015-16	$000's	
			2016-17	$000's	
			2017-18	$000's	
			2018-19	$000's	
			2019-20	$000's	

Parameter						Units
Capex ($000's, real June 2015)	For customer-initiated & capacity-related augmentation	Actual	2009-10 to 2012-13			$000's
			2013-14			$000's
		Forecast	2014-15			$000's
		Forecast	2015-16			$000's
			2016-17			$000's
			2017-18			$000's
			2018-19			$000's
			2019-20			$000's
Capex ($ millions, real June 2015)	For NSP-initiated & capacity-related augmentation	Actual	2009-10 to 2012-13			$m
			2013-14			$m
		Forecast	2014-15			$m
		Forecast	2015-16			$m
			2016-17			$m
			2017-18			$m
			2018-19			$m
			2019-20			$m
Net capacity added (MVA)	In total for all purposes	over period 2013-14 to 2014-15	(Forecast)	type 1		MVA
				type 2		MVA
				type 3		MVA
		over period 2015-16 to 2019-20	(forecast)	type 1		MVA
				type 2		MVA
				type 3		MVA
Net capacity added (MVA)	For customer-initiated & capacity-related augmentation	over period 2013-14 to 2014-15	(Forecast)	type 1		MVA
				type 2		MVA
				type 3		MVA
		over period 2015-16 to 2019-20	(forecast)	type 1		MVA
				type 2		MVA
				type 3		MVA
Net capacity added (MVA)	For NSP-initiated & capacity-related augmentation	over period 2013-14 to 2014-15	(Forecast)	type 1		MVA
				type 2		MVA
				type 3		MVA
		over period 2015-16 to 2019-20	(forecast)	type 1		MVA
				type 2		MVA
				type 3		MVA

Parameter					Units
Net capacity added (MVA)	Residual	over period 2013-14 to 2014-15	(Forecast)	type 1	MVA
				type 2	MVA
				type 3	MVA
		over period 2015-16 to 2019-20	(forecast)	type 1	MVA
				type 2	MVA
				type 3	MVA

Key RIN requirements for this table:

1. Complete the table in accordance with the Principles and Requirements provided in Appendix E, and the Definitions provided in Appendix F of the RIN.

2. Apportion historical and forecast net capacity augmentation according to AER-defined segment groupings and expenditure categories depending on augmentation drivers.

Initial review findings:

1. There was no data entered for 'Net capacity added (MVA) – In total for all purposes', and 'Net capacity added (MVA) - For customer-initiated & capacity-related augmentation'. Therefore data entered for 'Net capacity added (MVA) - For NSP-initiated & capacity-related augmentation' resulted in balancing negative quantities being entered in 'Net capacity added (MVA) – Residual'. The table needs to be completed.

Final review findings:

1. Ergon Energy revised its information and Basis of Preparation to address and respond to the issues in the initial review.

2. The reviewer did not find reason to believe that the data in the RIN Table 2.4.6 has not been presented fairly in all material respects.

3. The reviewer did not find reason to believe that the Basis of Preparation for Table 2.4.6 has not been presented fairly in all material respects.

3.2   Template 5.3 Maximum Demand at Network Level

Table 5.3.1 – Raw and Weather Corrected Coincident MD at Network Level (Summed at Transmission Connection Point)

Parameter	Units
Raw Network Coincident MD	MW
Date MD Occurred	
Half Hour Time Period MD Occurred	
Winter/Summer Peaking	
Embedded Generation	MW
Weather Corrected (50% POE) Network Coincident MD	MW
Weather Corrected (10% POE) Network Coincident MD	MW

Key RIN requirements for this table:

1. Complete the table in accordance with the Principles and Requirements provided in Appendix E, and the Definitions provided in Appendix F of the RIN.

2. Provide data for embedded generation if data for embedded generation downstream of connection points has been recorded and if embedded generation is accounted for in maximum demand forecasts.

   a) Ergon Energy must describe the type of embedded generation data it has provided, e.g. scheduled, semi-scheduled and non-scheduled.

   b) If data for embedded generation downstream of connection points, it may estimate the historical embedded generation data or shade the cells black. For the Regulatory Years including and after 2015 Ergon Energy must provide embedded generation data. It must do similarly if it accounts for embedded generation in its system level maximum demand forecast.

3. Ergon Energy must provide inputs for the appropriate cells if it has calculated historical and forecast weather corrected maximum demand.

   a) Ergon Energy must describe its weather correction process in the basis of preparation. DNSP must describe whether the weather corrected maximum demand figures provided are based on raw adjusted maximum demand or raw unadjusted maximum demand or another type of maximum demand figure.

   b) Where Ergon Energy does not calculate weather corrected maximum demand it may estimate the historical weather corrected data or shade the cells black. For the Regulatory Years including and after 2015 Ergon Energy must provide weather corrected maximum demand in accordance with best regulatory practice weather correction methodologies.

Initial review findings:

1. There were inconsistencies in embedded generation maximum demand levels provided in comparison with previous Category Analysis RIN data. The historical embedded generation data for earlier years had been amended so that a significantly lower level of embedded generation was reported for year 2014. The BASIS OF PREPARATION did not explain the reason for these changes. Ergon Energy was advised regarding this matter.

Final review findings:

1. Ergon Energy revised its embedded generation data to be consistent with the Category Analysis data submitted previously.

2. The reviewer did not find reason to believe that the data in the RIN Table 5.3.1 has not been presented fairly in all material respects.

3. The reviewer did not find reason to believe that the Basis of Preparation for Table 5.3.1 has not been presented fairly in all material respects.

3.3 Template 5.4 Maximum Demand and Utilisation at Spatial Level

Table 5.4.1 – Non-Coincident & Coincident Maximum Demand

NETWORK LEVEL	SUBSTATION	FORECASTING ELEMENTS	UNIT	MAX DEMAND	Data by Year
Subtransmission Substation / Zone Substation	Substation Name	Substation Rating	MVA	Non Coincident and Coincident	Value
		Raw Adjusted MD	MW		Value
		Raw Adjusted MD	MVA		Value
		Date MD occurred			date
		Half Hr time period MD occurred			Time
		Winter / Summer Peaking			Winter / summer
		Adjustments – Embedded Generation	MW		Value
		Weather corrected MD 10% POE	MW		Value
		Weather corrected MD 10% POE	MVA		Value
		Weather corrected MD 50% POE	MW		Value
		Weather corrected MD 50% POE	MVA		value

Key RIN requirements for this table:

1. Complete the table in accordance with the Principles and Requirements provided in Appendix E, and the Definitions provided in Appendix F of the RIN.

2. Ergon Energy must insert rows into the regulatory templates for each component of its network belonging to that segment. Ergon Energy must note instances where it de-commissions components of its network belonging to that segment in the basis of preparation document(s).

3. Where maximum demand in MVA occurred at a different time to maximum demand in MW, DNSP must enter maximum demand figures for both measures at the time maximum demand in MW occurred. In such instances, DNSP must record the maximum demand in MVA in the basis of preparation, noting the regulatory year in which it occurred.

4. If DNSP cannot use raw unadjusted maximum demand as the basis for the information it provides in tables 5.4.1 (on regulatory template 5.4), it must describe the methods it employs to populate those tables.

5. DNSP must input the rating for each element in each network segment. For tables 5.4.1 rating refers to normal cyclic rating.

   a) DNSP must provide the seasonal rating that corresponds to the time of the raw adjusted maximum demand. For example, DNSP must provide the summer normal cyclic rating of the network segment if the raw adjusted maximum demand occurred in summer.

   b) Where DNSP does not keep and maintain rating information (for example, where the TNSP owns the assets to which such ratings apply), it may estimate this information or shade the cells black.

6. DNSP must provide inputs for 'Embedded generation' if it has kept and maintained historical data for embedded generation downstream of the specified network segment and/or if it accounts for such embedded generation in its maximum demand forecast.

    a) DNSP must allocate embedded generation figures to the appropriate element of the network segment under system normal conditions (consistent with the definition of raw adjusted maximum demand).

    b) DNSP must describe the type of embedded generation data it has provided. For example, DNSP may state that it has included scheduled, semi-scheduled and non-scheduled embedded generation in the tables for connection points.

    c) If DNSP has not kept and maintained historical data for embedded generation downstream of the specified network segment, it may estimate the historical embedded generation data or shade the cells black. For the Regulatory Years including and after 2015 DNSP must provide embedded generation data. It must do similarly if it accounts for embedded generation in its system level maximum demand forecast.

7. DNSP must provide inputs for the appropriate cells if it has calculated historical weather corrected maximum demand.

    a) DNSP must describe its weather correction process in the basis of preparation. DNSP must describe whether the weather corrected maximum demand figures provided are based on raw adjusted maximum demand or raw unadjusted maximum demand or another type of maximum demand figure.

    b) Where DNSP does not calculate weather corrected maximum demand it may estimate the historical weather corrected data or shade the cells black. For the Regulatory Years including and after 2015 DNSP must provide weather corrected maximum demand in accordance with best regulatory practice weather correction methodologies.

8. Tables requesting system coincident data are referring to the demand at that particular point on the network (e.g. zone substations) at the time of system (or network) peak.

    a) Non coincident data is the maximum demand at a particular point on the network (which may not necessarily coincide with the time of system peak). For example, table 5.4.1 (on regulatory template 5.4) requests information about non-coincident raw maximum demand at zone substations. In table 5.4.1 (on regulatory template 5.4), DNSP must provide information about the maximum demand at each zone substation in each year, which may not correspond to demand at the time of system peak.

    b) If DNSP does not record and/or maintain spatial maximum demand coincident to the system maximum demand, DNSP must provide spatial maximum demand coincident to a higher network segment. DNSP must specify the higher network segment to which the lower network segment is coincident to in the basis of preparation. For example, if DNSP does not maintain maximum demand data for zone substations coincident to the system maximum demand, DNSP may provide maximum demand data coincident to the connection point.

Initial review findings:

1. In Table 5.4.1, data for coincident maximum demand field of winter/summer peaking forecasting element was left blank for some zone substations. This is inconsistent with the RIN, which requires this field to be filled in.

2. In Table 5.4.1, data for coincident field of station rating forecasting element was left blank for some zone substations. This is inconsistent with the RIN, which requires this field to be filled in.

Final review findings:

1. Ergon Energy revised its information to address the issues in the initial review.

2. The reviewer did not find reason to believe that the data in the RIN Table 5.4.1 has not been presented fairly in all material respects.

3. The reviewer did not find reason to believe that the Basis of Preparation for Table 5.4.1 has not been presented fairly in all material respects.

3.4　Template 6.1 Telephone Answering

Table 6.1.1 – Telephone Answering Data

Date	Total number of calls received	*less* calls to payment lines and automated interactive services	*less* calls abandoned by the customer within 30 seconds of the call being queued for response by a human operator	Sub-total number of calls received	Calls to the fault line answered in 30 seconds
01-07-2009					
02-07-2009					
29-06-2014					
30-06-2014					

Key RIN requirements for this table:

1. Report service and quality parameters in accordance with STPIS and STPIS definitions

Review findings:

1. No issues were identified.

2. The reviewer did not find reason to believe that the data in the RIN Table 5.4.1 has not been presented fairly in all material respects.

3. The reviewer did not find reason to believe that the Basis of Preparation for Table 5.4.1 has not been presented fairly in all material respects.

3.5   Template 6.2 Reliability and Customer Service Performance

Table 6.2.1 – Unplanned Minutes Off Supply (SAIDI) – Actual, Target and Proposed Reliability

SAIDI		Actual				Proposed target		
		2009-10	to	2013-14	2014-15	2015-16	to	2019-20
Total sustained minutes off supply	CBD							
	Urban							
	Short rural							
	Long rural							
	Total							
Total value of excluded events* *see 3.3 of STPIS	CBD							
	Urban							
	Short rural							
	Long rural							
	Total							
Total sustained minutes off supply after removing impact of excluded events	CBD							
	Urban							
	Short rural							
	Long rural							
	Total							

Key RIN requirements for this table:

1.   Report service and quality parameters in accordance with STPIS and STPIS definitions

Review findings:

1.   No issues were identified.

2.   The reviewer did not find reason to believe that the data in the RIN Table 6.2.1 has not been presented fairly in all material respects.

3.   The reviewer did not find reason to believe that the Basis of Preparation for Table 6.2.1 has not been presented fairly in all material respects.

Table 6.2.2 – Unplanned Interruptions to Supply (SAIFI) - Actual, Target and Proposed Reliability

		Actual			Proposed target		
SAIFI		**2009-10**	**to**	**2013-14**	**2014-15**	**2015-16**	**to**	**2019-20**
Total sustained minutes off supply	**CBD**							
	Urban							
	Short rural							
	Long rural							
	Total							
Total value of excluded events* ***see 3.3 of STPIS**	**CBD**							
	Urban							
	Short rural							
	Long rural							
	Total							
Total sustained minutes off supply after removing impact of excluded events	**CBD**							
	Urban							
	Short rural							
	Long rural							
	Total							

Key RIN requirements for this table:

1. Report service and quality parameters in accordance with STPIS and STPIS definitions

Review findings:

1. No issues were identified.

2. The reviewer did not find reason to believe that the data in the RIN Table 6.2.1 has not been presented fairly in all material respects.

3. The reviewer did not find reason to believe that the Basis of Preparation for Table 6.2.1 has not been presented fairly in all material respects.

Table 6.2.4 - Customer Numbers

		Actual			Target	Forecast		
Customer numbers		2009-10	to	2013-14	2014-15	2014-15	2016-17	to	2019-20
Average customer numbers	CBD								
	Urban								
	Short rural								
	Long rural								
	Total								

Key RIN requirements for this table:

1. Report service and quality parameters in accordance with STPIS and STPIS definitions
2. The number of customers is the average of the number of customers at the beginning of the reporting period and the number of customers at the end of the reporting period.

Review findings:

1. No issues were identified.
2. The reviewer did not find reason to believe that the data in the RIN Table 6.2.1 has not been presented fairly in all material respects.
3. The reviewer did not find reason to believe that the Basis of Preparation for Table 6.2.1 has not been presented fairly in all material respects.

Table 6.2.5 - Customer Service

	Actual				Proposed target		
Customer service	2009-10	to	2013-14	2014-15	2015-16	to	2019-20
Number of calls received							
Number of calls answered within 30 seconds							
Percentage of calls answered within 30 seconds							

Key RIN requirements for this table:

1. Report service and quality parameters in accordance with STPIS and STPIS definitions

Review findings:

1. No issues were identified.

2. The reviewer did not find reason to believe that the data in the RIN Table 6.2.1 has not been presented fairly in all material respects.

3. The reviewer did not find reason to believe that the Basis of Preparation for Table 6.2.1 has not been presented fairly in all material respects.

3.6   Template 6.3 Sustained Interruptions to Supply

The reviewed variables are those in Table 6.3.1, reproduce below.

Table 6.3.1 - Sustained Interruptions to Supply (for 2013-14)

Date of event	Time of interruption	Asset ID	Feeder classification	Reason for interruption	Detailed reason for interruption	Number of customers affected by the interruption	Average duration of sustained customer interruption (minutes)	Effect on unplanned SAIDI	Effect on unplanned SAIFI	MED
			CBD	Animal	-select detail-					YES
NO			Urban	Asset failure	-select detail-					NO
			Short rural	Other						
			Long rural	Overloads						
				Planned						
				Network business	-select detail-					
				Third party	-select detail-					
				Unknown	-select detail-					
				Vegetation	-select detail-					
				Weather						
				2 – STPIS exc						
				3 – STPIS exc						
				4 – STPIS exc						
				5 – STPIS exc						
				6 – STPIS exc						
				7 – STPIS exc						

Key RIN requirements for this table:

1. Complete the table in accordance with the RIN and any Principles and Requirements provided in Appendix E, and Definitions provided in Appendix F of the RIN.

2. Sustained interruptions to electricity supply to customers are to be included, where a sustained interruption is as defined in the Service Target Performance Incentive Scheme (STPIS) requirements.

Review findings:

1. No issues were identified.

2. The reviewer did not find reason to believe that the data in the RIN Table 6.3.1 has not been presented fairly in all material respects.

3. The reviewer did not find reason to believe that the Basis of Preparation for Table 6.3.1 has not been presented fairly in all material respects.

3.7   Template 6.4 Historical Major Event Day

Table 6.4.1 - Historical Daily SAIDI

Date	Network SAIDI (after removing the impact of events excluded under 3.3(a))
1/07/2004	
2/07/2004	
3/07/2004	
⋮	
⋮	
⋮	
28/06/2012	
29/06/2012	
30/06/2012	

Key RIN requirements for this table:

1. Complete the table in accordance with the RIN and any Principles and Requirements provided in Appendix E, and Definitions provided in Appendix F of the RIN.

Initial review findings:

1. Ergon Energy advised that it has calculated the Major Event Day (MED) thresholds in different ways for each Regulatory Year. For 2012 and 2013, they were calculated based on the previous five years of daily SAIDI in accordance with the STPIS. For 2011, it has been taken from the final determination for the current regulatory control period. For 2008, 2009 and 2010, the 2012 MED threshold was applied. The reviewer considers this to be consistent with the RIN definition for MED, while the data for 2012 and 2013 should be described as actual information and the data for 2008-2011 as estimated in the Basis of Preparation.

Final review findings:

1. Ergon Energy revised the RIN data and Basis of Preparation to address the issues in the initial review.

2. The reviewer did not find reason to believe that the data in the RIN Table 6.3.1 has not been presented fairly in all material respects.

3. The reviewer did not find reason to believe that the Basis of Preparation for Table 6.3.1 has not been presented fairly in all material respects.

Appendix A

Interviewees

Table A1.1   Schedule of meetings held with Ergon Energy staff (Reset RIN interviews shaded)

Date	Location	Time	Interviewee	Template	Table
Monday 8 September 2014	825 Ann Street, Fortitude Valley, 4006	12.00-13.00	Bernadette Lodge – Acting Manager Financial Accounting	EB RIN – 3.3. Assets (RAB)	3.3.4.1: Asset Lives – estimated service life 3.3.4.2: Asset Lives – estimated residual service life
		13.00-14.00	Mike Fortescue – Senior and Forecasting Analyst	EB RIN – 3.4. Operational Data	3.4.1.1: Energy grouping - delivery by chargeable quantity 3.4.1.2: Energy - received from TNSP and other DNSPs by time of receipt 3.4.1.3: Energy - received into DNSP system from embedded generation by time of receipt 3.4.1.4: Energy grouping - customer type or class
				EB RIN – 3.5. Physical Assets	3.5.2.1: Distribution transformer total installed capacity
		14.00-15.00	Peter Kane – Network Forecasting Engineering Manager Mal Adkins – Senior Network Forecaster Shane Brunker – Lead Econometrician Asset Management	EB RIN – 3.4. Operational Data	3.4.3.1: Annual system maximum demand characteristics at the zone substation level - MW measure 3.4.3.2: Annual system maximum demand characteristics at the transmission connection point - MW measure 3.4.3.3: Annual system maximum demand characteristics at the at the zone substation level - MVA measure 3.4.3.4: Annual system maximum demand characteristics at the at the at the transmission connection point - MVA measure 3.4.3.5: Power factor conversion between MVA and MW 3.4.3.7: Demand supplied (for customers charged on this basis) - MVA measure
				EB RIN – 3.7. Operating Environment	3.7.1: Density Factors
				CA RIN – 5.3 MD – Network Level	5.3.1: Raw and weather corrected coincident MaxDem at Network Level (summed at transmission connection point)
				CA RIN – 5.4 MD – Network Level	5.4.1: Non-Coincident & Coincident maximum demand

Date	Location	Time	Interviewee	Template	Table
				RESET RIN – 5.3 MD – Network Level	5.3.1: Raw and weather corrected coincident MaxDem at Network Level (summed at transmission connection point)
				RESET RIN – 5.4 Maximum Demand and Utilisation at Spatial Level	5.4.1: Non-Coincident & Coincident maximum demand
Tuesday 9 September 2014	185 Richardson Road, Kawana, 4701	08.00-09.00	Mathew Austin – Operations Analyst	AP RIN – 1b. Customer Service AP RIN – 1c. Daily Performance	1b.1: Telephone Answering 1c. 1: Daily Performance Data
				RESET RIN – 6.1 Telephone Answering RESET RIN – 6.2 Reliability and Customer Service	6.1.1: Telephone answering data 6.2.5: Customer Service
		09.00-12.00	Lisha Kayrooz – Business Analyst	EB RIN – 3.6. Quality of services EB RIN – 3.7. Operating Environment	3.6.3: System losses 3.7.1: Density factors
			Andrew Thomas – Senior Strategy Engineer	EB RIN – 3.4. Operational data EB RIN – 3.5. Physical Assets EB RIN – 3.6. Quality of Services	3.4.3.5: Power factor conversion between MVA and MW 3.5.2.1: Distribution transformer total installed capacity 3.5.2.2: Zone substation transformer capacity 3.6.4: Capacity utilisation
			Michael Huddlestone – Logistic Systems Officer	EB RIN – 3.5. Physical Assets	3.5.2.1: Distribution transformer total installed capacity 3.5.2.2: Zone substation transformer capacity

Date	Location	Time	Interviewee	Template	Table
			Ross Watson – Systems and Strategy Analyst/Reporting Analyst	EB RIN – 3.5. Physical Assets	3.5.1.1: Overhead network length of circuit at each voltage 3.5.1.2: Underground network circuit length at each voltage
			Anthony Ryan – Senior Systems & Strategy Officer	EB RIN – 3.5. Physical Assets	3.5.1.3 Estimated overhead network weighted average MVA capacity by voltage class 3.5.1.4 Estimated underground network weighted average MVA capacity by voltage class
				EB RIN – 3.7. Operating Environment	3.7.4 Weather stations
		12.30-13.30	Richard Goodger – Manager Maintenance Programmes	EB RIN – 3.7. Operating Environment	3.7.2: Terrain factors
		13.30-14.30	Adrian Slade – Reporting Development Analyst	EB RIN – 3.4. Operational Data	3.4.1.3: Energy - received into DNSP system from embedded generation by time of receipt 3.4.2.1: Distribution customer numbers by customer type or class 3.4.2.2: Distribution customer numbers by location on the network 3.4.3.6: Demand supplied (for customers charged on this basis) - MW measure
				EB RIN – 3.6. Quality of Services	3.6.2: Energy not supplied
				RESET RIN – 6.2 Reliability and Customer Service	6.2.4: Customer Numbers
Wednesday 10 September 2014	420 Flinders Street, Townsville, 4810	09.00-10.00	Aaron Young – Audit Programme Officer, Network Monitoring & Processing	EB RIN – 3.5. Physical Assets	3.5.3: Public lighting

Date	Location	Time	Interviewee	Template	Table
		10.00-11.30	Hayley Chesney – Data Analyst Keegan Oliver – Network Performance Engineering Manager	AP RIN – 1a. STPIS Reliability	1a.1: SAIDI 1a.2: SAIFI 1a.3: Average distribution customer numbers
				EB RIN – 3.6. Quality of Services	3.6.1.1: Reliability - inclusive of MEDs 3.6.1.2: Reliability - exclusive of MEDs
				RESET RIN – 6.3 Sustained interruptions to Supply	6.3.1: Sustained interruptions to supply (for 2013-14)
				RESET RIN – 6.2 Reliability and Customer Service	6.2.1 Unplanned minutes off supply (SAIDI) - Actual, target and proposed reliability 6.2.2 Unplanned interruptions to supply (SAIFI) - Actual, target and proposed reliability
				RESET RIN – 6.4 Historical Major Event Day	6.4.1 Major Event Day data

PARSONS BRINCKERHOFF