Jemena Electricity Networks (Vic) Ltd

Response to the annual Regulatory Information Notice for the 2013 regulatory year

Appendix 1-1

RIN template appendix B – Regulatory accounting statement templates

Public

30 April 2014

Distribution Network Service Provider
Annual reporting template

This template is to be used by a DNSP to fulfil its annual reporting obligations to the AER.

Colour coding of input sheets:
Dark blue = AER instructions/headings
Yellow = Input cells
Grey - Not applicable/No inputs required

Leave coloured cells blank if no information exists - PLEASE DO NOT ENTER TEXT unless specifically requested to do so.
All dollar amounts are to be unrounded, and in nominal terms.

DNSP - trading name:	**Jemena Electricity Networks (Vic) Limited**
DNSP - Australian business number:	**82 064 651 083**
Reporting year:	**2013**

Business address	Address	321 Ferntree Gully Road			
	Suburb	Mt Waverley			
	State	VIC	Postcode	3149	
Postal address	Address	321 Ferntree Gully Road			
	Suburb	Mt Waverley			
	State	VIC	Postcode	3149	

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Electricity Distribution Network Service Provider

Annual Reporting Template
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Jemena Electricity Networks (Vic) Limited
Income Statement
2013

Statutory Account code or reference to account code	Description	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services	Standard Control Services Prior Year
							Energy efficient	Non energy efficient	Fee based service	Quoted service			
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Distribution Revenue	226,279	(0)	226,279	226,279								199,697
	Designated Pricing Proposal Charges	73,986	130	74,116	74,116								62,926
	Jurisdictional Scheme Amounts		11,723	11,723	11,723								3,599
	Profit from sale of Fixed Assets	182	-	182	168				12	3			65
	Customer Contributions	10,159	(10,159)	-	-	-	-	-	-	-	-	-	-
	Other Revenue	74,564	(62)	74,502	738	56,538	36	3,879	6,852	1,833		4,625	1,287
	Total revenue	**385,171**	**1,632**	**386,803**	**313,024**	**56,538**	**36**	**3,879**	**6,863**	**1,836**	**-**	**4,625**	**267,574**
	Designated Pricing Approval Charges	63,659	(25)	63,634	63,634								64,412
	Jurisdictional Scheme Amounts	9,469	(14)	9,454	9,454								6,847
	Maintenance	-	29,644	29,644	25,407	1,863	-	1,893	481	-	-	-	18,898
	JEN	100,927	(30,006)	70,920	47,213	18,332	-	1,023	3,252	681	-	419	54,744
	Depreciation	71,541	5,147	76,688	48,433	26,093	1	305	1,811	39	7	-	47,153
	Finance Charges	28	(28)	-									-
	Loss from sale of Fixed Assets												19
	Impairment Losses (Nature:)												-
	Other (Rounding)												-
	Profit before Tax (PBT)	139,548	(3,086)	136,462	118,883	10,251	35	659	1,319	1,117	(7)	4,206	75,500
	Income Tax Expenses /(Benefit)	41,017	(41,017)	-									-
	Profit after tax	**98,531**	**37,932**	**136,462**	**118,883**	**10,251**	**35**	**659**	**1,319**	**1,117**	**(7)**	**4,206**	**75,500**
		-	0										

Note:
Balancing is required at JEN distribution business level
In addition it is mandatory to produce for each cost or revenue item that has been allocated to the distribution services/AMI a supporting workpaper that includes the following:
a) the amounts that have been directly attributed to each distribution service
b) the amounts that have been allocated to each distribution service
c) a description of the allocation basis
d) the numeric quantity of each allocator.
Designated pricing approval charges include SPI connection fees, AEMO shared transmission charges, net cross boundary charges, avoided TUoS/avoided transmission costs.

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Customer contributions reported above under the 'JEN' column includes pole to pits elective undergrounding.

JEN's explanatory notes:

1 JEN has highlighted errors in Template 1 in bold red font. Details as follows:

Designated Pricing Proposal Charges (cell C11):

The wording in cell C11 should be Designated Approval Charges.
Designated Approval Charges is the revenue collected in relation to items such as Transmission Use of System tariffs as approved by the AER.
Therefore, it is reported under the Revenue section of an income statement.
JEN has reported its Designated Pricing Approval Charges in row 11.

Designated Pricing Approval Charges (cell C19):

The wording in cell C19 should be Designated Pricing Proposal charges.
Designated Pricing Proposal charges are the pass through costs incurred by a distribution business.
Consistent with Template 12 of Appendix B, JEN has reported Designated Pricing Proposal charges in row 19.

JEN (cell C22)

The wording for cell C22 should be Operating Expenses.

2 JEN has populated Template 1 sourcing data from other templates within Appendix B.
The other source templates are the supporting workpapers for Template 1.
The basis of allocation and numeric quantity of each allocator are detailed in JEN's response to Sections 2 and 3 of Schedule 1 to the RIN.

Depreciation (cell C23)

The allocation of accounting depreciation to SCS and other services is based on the depreciation profile as reported in Table 2 of Template 7 in JEN's RIN 2012.
Depreciation for AMI is directly sourced from the General Ledger.

3 Audited Statutory Financial Statements (column D)
Where the disclosures in the RIN template align with the audited statutory financial statements, the figures are sourced from the audited statutory financial statements. Where this is not possible, the figures are sourced from the audited trial balance of those audited statutory financial statements.

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Jemena Electricity Networks (Vic) Limited
Balance Sheet **No longer required as advised by AER Staff**
2013 **Explanatory notes are not applicable**

Statutory Account code or reference to account code	Description	Audited Statutory Amount	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services	Standard Control Services Prior Year
							Energy efficient	Non energy efficient	Fee based services	Quoted services			
	CURRENT ASSETS	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Cash and cash equivalents												
	Trade and other receivables			-	-								
	Financial Assets												
	Derivatives												
	Current tax assets												
	Prepayments			-	-								
	Accrued Revenue			-	-								
	Inventories												
	Other		-										
	Total Current Assets	-	-	-	-	-	-	-	-	-	-	-	-
	NON-CURRENT ASSETS												
	JEN												
	Financial assets												
	Derivatives												
	Deferred tax asset												
	Property, Plant and Equipment			-	-	-	-	-	-	-	-	-	
	Other - Licenses			-	-								
	Total Non-Current Assets	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL ASSETS	-	-	-	-	-	-	-	-	-	-	-	-
	CURRENT LIABILITIES												
	Trade and other creditors			-	-								
	Interest bearing borrowings												
	Customer deposits												
	Bank overdraft												
	Current tax liability		-										
	Provisions			-	-								
	Other (loans)		-	-	-	-							
	Total Current Liabilities	-	-	-	-	-	-	-	-	-	-	-	-
	NON-CURRENT LIABILITIES												
	Provisions												
	Interest bearing borrowings												
	Retirement benefit obligations												
	Deferred tax liability		-										
	Other (rounding)												
	Total Non-Current Liabilities	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL LIABILITIES	-	-	-	-	-	-	-	-	-	-	-	-
	NET ASSETS /(LIABILITIES)	-	-	-	-	-	-	-	-	-	-	-	-
	EQUITY												
	Contributed Equity			-	-								
	Reserves			-	-								
	Retained Profits		-	-	-	-	-	-	-	-	-	-	
	TOTAL EQUITY	-	-	-	-	-	-	-	-	-	-	-	-
		0	0	0	0	0	0	0	0	0	0	0	0

Note: Balancing is required at JEN distribution business level
It is mandatory to produce for each asset or liability that has been allocated to the distribution services/AMI a supporting workpaper that includes the following
a) the amounts that have been directly attributed to each distribution service
b) the amounts that have been allocated to each distribution service
c) a description of the allocation basis
d) the numeric quantity of each allocator.

JEN's explanatory notes:

1 JEN has highlighted an error (cell C22) in bold red font.
It should read Receivables.

Contents

Jemena Electricity Networks (Vic) Limited
Cashflows Statement
2013

No longer required as advised by AER Staff
Explanatory notes are not applicable

Statutory Account code or reference to account code	Description	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services	Standard Control Services Prior Year
							Energy efficient	Non energy efficient	Fee based services	Quoted services			
	CASH FLOW FROM OPERATING ACTIVITIES	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Receipts from Customers		-										
	Payments to Suppliers and Employees		-										
	Interest paid												
	Income tax paid												
	CASH FLOW FROM INVESTING ACTIVITIES												
	Proceeds from sale of assets		-										
	Payments for purchase of assets		-										
	Proceeds on sale of investments												
	Purchase of investments												
	CASH FLOW FROM FINANCING ACTIVITIES												
	Proceeds from borrowings												
	Repayment of borrowings		-										
	Proceeds from equity issue												
	Dividends paid												
	Net Cash Flow for the Year	-	-	-	-	-	-	-	-	-	-	-	-
	Cash balance at the beginning of the Year												
	Cash balance at the end of the Year	-	-	-	-	-	-	-	-	-	-	-	-

Note: Balancing is required at JEN distribution business level
In addition it is mandatory to produce for each cashflow item that has been allocated to the distribution services/AMI a supporting workpaper that includes the following:
a) the amounts that have been directly attributed to each distribution service
b) the amounts that have been allocated to each distribution service
c) a description of the allocation basis
d) the numeric quantity of each allocator.

JEN's explanatory notes:

1 JEN has highlighted an error (cell C22) in bold red font.
It should read Repayment of borrowings.
JEN has reported Repayment of borrowings in row 22.

Contents

Jemena Electricity Networks (Vic) Limited
Changes in Equity
2013

No longer required as advised by AER Staff
Explanatory notes are not applicable

Statutory Account code or reference to account code	Description	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services	Standard Control Services Prior Year
							Energy efficient	Non energy efficient	Fee based services	Quoted services			
	CONTRIBUTED EQUITY	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Opening Balance	-		-									
	Shares Issued	-											
	Shares bought back	-											
	Closing Balance	-	-	-	-	-	-	-	-	-	-	-	-
	RESERVES												
	Opening Balance			-									
	Fair value adjustments			-									
	Other												
	Closing Balance	-	-	-	-	-	-	-	-	-	-	-	-
	RETAINED PROFITS												
	Opening Balance												
	JEN												
	Actuarial gains/(losses) on retirement obligations												
	Dividends Paid												
	Other (manual adjustment to balance CIE in adj column to BS)												
	Closing Balance	-	-	-	-	-	-	-	-	-	-	-	-
				0	0	0	0	0	0	0	0	0	0

Note: Balancing is required at JEN distribution business level
The opening balances should agree to the prior year's regulatory accounting statement.

JEN's explanatory notes:

1 JEN has highlighted an error (cell C20) in bold red font.
It should read Profit/Loss for the Period

Contents

Jemena Electricity Networks (Vic) Limited

Fixed Assets at Cost 2013

No longer required as advised by AER Staff
Explanatory notes are not applicable

Table 1 Fixed Assets at Cost - OPENING

Statutory Account code or reference to account code	Description	Statutory Accounts	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other alternative Control Services		Negotiated Services	Unregulated Services
							Energy Efficient	Non-energy efficient	Fee based service	Quoted service		
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Subtransmission			-								
	Distribution system assets			-								
	SCADA/Network control			-								
	Non network - IT			-								
	Non network - other			-								
	Metering - Non AMI			-								
	AMI			-								
	Public lighting			-								
	Alternative control -other			-								
	Negotiated services			-								
	JEN	-	-	-	-	-	-	-	-	-	-	-
	Unregulated services											
	Total	-	-	-	-	-	-	-	-	-	-	-

Table 2 Fixed Assets at Cost - ADDITIONS

Statutory Account code or reference to account code	Description	Statutory Accounts	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other alternative Control Services		Negotiated service	Unregulated Services
							Energy Efficient	Non-energy efficient	Fee based service	Quoted service		
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Subtransmission			-								
	Distribution system assets			-								
	SCADA/Network control			-								
	Non network - IT			-								
	Non network - other			-								
	AMI			-								
	Metering - Non AMI			-								
	Public Lighting			-								
	Alternative control -other			-								
	Negotiated services			-								
	Sub Total	-	-	-	-	-	-	-	-	-	-	-
	Unregulated services			-								
	Total	-	-	-	-	-	-	-	-	-	-	-

Note: identify any asset transfers between asset categories for fixed assets at cost - additions

Table 3 Fixed Assets at Cost - DISPOSALS

Statutory Account code or reference to account code	Description	Statutory Accounts	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other alternative Control Services		Negotiated service	Unregulated Services
							Energy Efficient	Non-energy efficient	Fee based service	Quoted service		
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
		-	-									
	Subtransmission			-								
	Distribution system assets			-								
	SCADA/Network control			-								
	Non network - IT			-								
	Non network - other			-								
	AMI			-								
	Metering - Non AMI			-								
	Public lighting			-								
	Alternative control -other			-								
	Negotiated services			-								
	Sub Total	-	-	-	-	-	-	-	-	-	-	-
	Unregulated services											
	Total	-	-	-	-	-	-	-	-	-	-	-

Table 4 Fixed Assets at Cost - CLOSING

Statutory Account code or reference to account code	Description	Statutory Accounts	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other alternative Control Services		Negotiated service	Unregulated Services
							Energy Efficient	Non-energy efficient	Fee based service	Quoted service		
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
		-	(208,101)	208,101								
	Subtransmission			-								
	Distribution system assets			-								
	SCADA/Network control			-								
	Non network - IT			-								
	Non network - other			-								
	AMI			-								
	Metering - Non AMI			-								
	Public lighting			-								
	Alternative control -other			-								
	Negotiated services			-								
	Sub Total	-	-	-	-	-	-	-	-	-	-	-
	Unregulated services			-								
	Total	-	-	-	-	-	-	-	-	-	-	-

Note: Asset classes (excluding non AMI metering, public lighting and other alternative control services) are those used in the 2011-15 Distribution Determination RFM & PTRM

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Jemena Electricity Networks (Vic) Limited
Additions by Reasons
(Net of Customer Contributions)
2013

Instructions:

Reported expenditure is to be entered **INCLUSIVE** of any profit margins or management fees paid directly or indirectly to related party contractors (which is not an actual incurred cost of the related party contractor) for the regulatory reporting period.

If allocating based on assumptions then provide method.

Table 1 Standard Control Service

$'000 nominal	Total	VOLTAGE			
		Subtransmission	HV	LV	Other
Demand Related					
Reinforcement	15,912	6,221	9,691	-	-
New customer connection	28,274	37	8,059	20,178	-
Non Demand Related					
Reliability & quality maintained	31,354	17,015	13,707	631	-
Environmental, safety & legal	18,332	583	6,416	11,334	-
Total Across Voltage Levels	93,872	23,856	37,873	32,143	-
SCADA/Network control	915	-	-	-	915
Non network general - IT	9,258	-	-	-	9,258
Non network general - other	12,585	-	-	-	12,585
Metering - Non AMI	-	-	-	-	-
Standard Control - Total Additions	116,630	23,856	37,873	32,143	22,758

Table 2 AMI

$'000 nominal	Total	VOLTAGE			
		Subtransmission	HV	LV	Other
Accumulation Meters	-	-	-	-	-
Manually read interval meters	-	-	-	-	-
Remotely read interval meters & transformers	37,426	-	-	-	37,426
AMI communication	3,142	-	-	-	3,142
Metering data services (IT)	828	-	-	-	828
Metering data services (other)	447	-	-	-	447
AMI - Total Additions	41,844	-	-	-	41,844

Table 3 Public lighting - Alternative Control

$'000 nominal	Total	VOLTAGE			
		Subtransmission	HV	LV	Other
Public lighting - energy efficient	1	-	-	1	-
Public lighting - non energy efficient	922	-	-	922	-
Public Lighting - Total Additions	923	-	-	923	-

Table 4 Alternative control - fee, quoted services

$'000 nominal	Total	VOLTAGE			
		Subtransmission	HV	LV	Other
Other - fee based services	5,522	-	-	3,757	1,765
Other - quoted services	4,239	-	2,794	1,322	123
Other Alternative Control - Total Additions	9,761	-	2,794	5,078	1,888

Table 5 Negotiated

$'000 nominal	Total	VOLTAGE			
		Subtransmission	HV	LV	Other
Negotiated services	117	-	-	117	-
Negotiated - Total Additions	117	-	-	117	-

Table 6 Unregulated

$'000 nominal	Total	VOLTAGE			
		Subtransmission	HV	LV	Other
Unregulated	5	-	-	5	-
Unregulated - Total Additions	5	-	-	5	-

Table 7 Total all additions

$'000 nominal	Total	VOLTAGE			
		Subtransmission	HV	LV	Other
Total Additions (Net of Customer Contributions) $'000 nominal	169,279	23,856	40,667	38,266	66,490

Table 8 Customer Contributions

$'000 nominal	
Standard control services	6,064
AMI	-
Public lighting	-
Alternative control fee and quoted services	2,093
Negotiated	2,002
Unregulated	-
Total Customer Contributions	10,159

Contents

Jemena Electricity Networks (Vic) Limited
Additions by Reasons
(Net of Customer Contributions)
2013

Instructions:

Reported expenditure is to be entered **EXCLUSIVE** of any profit margins or management fees paid directly or indirectly to related party contractors (which is not an actual incurred cost of the related party contractor) for the regulatory reporting period.

If allocating based on assumptions then provide method.

Table 1 Standard Control Service

$'000 nominal	Total	VOLTAGE			
		Subtransmission	HV	LV	Other
Demand Related					
Reinforcement	15,912	6,221	9,691	-	-
New customer connection	28,274	37	8,059	20,178	-
Non Demand Related					
Reliability & quality maintained	31,354	17,015	13,707	631	-
Environmental, safety & legal	18,332	583	6,416	11,334	-
Total Across Voltage Levels	93,872	23,856	37,873	32,143	-
SCADA/Network control	915	-	-	-	915
Non network general - IT	9,258	-	-	-	9,258
Non network general - other	12,585	-	-	-	12,585
Metering - Non AMI	-	-	-	-	-
Standard Control - Total Additions	116,630	23,856	37,873	32,143	22,758

Table 2 AMI

$'000 nominal	Total	VOLTAGE			
		Subtransmission	HV	LV	Other
Accumulation Meters	-	-	-	-	-
Manually read interval meters	-	-	-	-	-
Remotely read interval meters & transformers	37,426	-	-	-	37,426
AMI communication	3,142	-	-	-	3,142
Metering data services (IT)	828	-	-	-	828
Metering data services (other)	447	-	-	-	447
AMI - Total Additions	41,844	-	-	-	41,844

Table 3 Public lighting - Alternative Control

$'000 nominal	Total	VOLTAGE			
		Subtransmission	HV	LV	Other
Public lighting - energy efficient	1	-	-	1	-
Public lighting - non energy efficient	922	-	-	922	-
Public Lighting - Total Additions	923	-	-	923	-

Table 4 Alternative control - fee, quoted services

$'000 nominal	Total	VOLTAGE			
		Subtransmission	HV	LV	Other
Other - fee based services	5,522	-	-	3,757	1,765
Other - quoted services	4,239	-	2,794	1,322	123
Other Alternative Control - Total Additions	9,761	-	2,794	5,078	1,888

Table 5 Negotiated

$'000 nominal	Total	VOLTAGE			
		Subtransmission	HV	LV	Other
Negotiated services	117	-	-	117	-
Negotiated - Total Additions	117	-	-	117	-

Table 6 Unregulated

$'000 nominal	Total	VOLTAGE			
		Subtransmission	HV	LV	Other
Unregulated	5	-	-	5	-
Unregulated - Total Additions	5	-	-	5	-

Table 7 Total all additions

$'000 nominal	Total	VOLTAGE			
		Subtransmission	HV	LV	Other
Total Additions (Net of Customer Contributions) $'000 nominal	169,279	23,856	40,667	38,266	66,490

Table 8 Customer Contributions

$'000 nominal	
Standard control services	6,064
AMI	-
Public lighting	-
Alternative control fee and quoted services	2,093
Negotiated	2,002
Unregulated	-
Total Customer Contributions	10,159

Contents

Jemena Electricity Networks (Vic) Limited
Additions by Reason - Overheads
(Net of Customer Contributions)
2013

Instructions:

Reported expenditure is to be entered **INCLUSIVE** of any profit margins or management fees paid directly or indirectly to related party contractors (which is not an actual incurred cost of the related party contractor) for the regulatory reporting period.

If allocating based on assumptions then provide method.

$'000 nominal	DIRECT					INDIRECT					TOTAL OVERHEADS				
		Voltage					Voltage					Voltage			
	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	TOTAL
Demand Related															
Reinforcement	863	1,345	-	-	2,209	-	-	-	-	-	863	1,345	-	-	2,209
New customer connection	5	1,119	2,801	-	3,924	-	-	-	-	-	5	1,119	2,801	-	3,924
Non Demand Related															
Reliability & quality maintained	2,362	1,903	88	-	4,352	-	-	-	-	-	2,362	1,903	88	-	4,352
Environmental, safety & legal	81	890	1,573	-	2,545	-	-	-	-	-	81	890	1,573	-	2,545
Total Across Voltage Levels	3,311	5,257	4,462	-	13,030	-	-	-	-	-	3,311	5,257	4,462	-	13,030
SCADA/Network control	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non network general - IT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non network general - other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metering - Non AMI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Control - Total Additions	3,311	5,257	4,462	-	13,030	-	-	-	-	-	3,311	5,257	4,462	-	13,030

Table 2 AMI

$'000 nominal	DIRECT					INDIRECT					TOTAL OVERHEADS				
		Voltage					Voltage					Voltage			
	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	TOTAL
Accumulation Meters	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manually read interval meters	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Remotely read interval meters & transformers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AMI communication	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metering data services (IT)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metering data services (other)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AMI - Total Additions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 Public lighting - Alternative Control

$'000 nominal	DIRECT					INDIRECT					TOTAL OVERHEADS				
		Voltage					Voltage					Voltage			
	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	TOTAL
Public lighting - energy efficient	-	-	0	-	0	-	-	-	-	-	-	-	0	-	0
Public lighting - non energy efficient	-	-	128	-	128	-	-	-	-	-	-	-	128	-	128
Public Lighting - Total Additions	-	-	128	-	128	-	-	-	-	-	-	-	128	-	128

Table 4 Alternative control - fee, quoted services

$'000 nominal	DIRECT					INDIRECT					TOTAL OVERHEADS				
		Voltage					Voltage					Voltage			
	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	TOTAL
Other - fee based services	-	-	143	-	143	-	-	-	-	-	-	-	143	-	143
Other - quoted services	-	388	183	-	571	-	-	-	-	-	-	388	183	-	571
Other Alternative Control - Total Additions	-	388	327	-	715	-	-	-	-	-	-	388	327	-	715

Table 5 Negotiated

$'000 nominal	DIRECT					INDIRECT					TOTAL OVERHEADS				
		Voltage					Voltage					Voltage			
	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	TOTAL
Negotiated services	-	-	16	-	16	-	-	-	-	-	-	-	16	-	16
Negotiated - Total Additions	-	-	16	-	16	-	-	-	-	-	-	-	16	-	16

Table 6 Unregulated

$'000 nominal	DIRECT					INDIRECT					TOTAL OVERHEADS				
		Voltage					Voltage					Voltage			
	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	TOTAL
Unregulated	-	-	1	-	1	-	-	-	-	-	-	-	1	-	1
Unregulated - Total Additions	-	-	1	-	1	-	-	-	-	-	-	-	1	-	1

Table 7 Total all additions

$'000 nominal	DIRECT					INDIRECT					TOTAL OVERHEADS				
		Voltage					Voltage					Voltage			
	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	TOTAL
Total Additions (Net of Customer Contributions) $'000 nominal	3,311	5,645	4,933	-	13,889	-	-	-	-	-	3,311	5,645	4,933	-	13,889

Table 8 Customer Contributions

$'000 nominal	
Standard control services	842
AMI	-
Public lighting	-
Alternative control fee and quoted services	291
Negotiated	278
Unregulated	-
Total Customer Contributions	1,410

Contents

Jemena Electricity Networks (Vic) Limited
Additions by Reason - Overheads
(Net of Customer Contributions)
2013

Instructions:

Reported expenditure is to be entered **EXCLUSIVE** of any profit margins or management fees paid directly or indirectly to related party contractors (which is not an actual incurred cost of the related party contractor) for the regulatory reporting period.

If allocating based on assumptions then provide method.

Table 1 Standard Control Service

$'000 nominal	DIRECT					INDIRECT					TOTAL OVERHEADS				
		Voltage					Voltage					Voltage			
	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	TOTAL
Demand Related															
Reinforcement	863	1,345	-	-	2,209	-	-	-	-	-	863	1,345	-	-	2,209
New customer connection	5	1,119	2,801	-	3,924	-	-	-	-	-	5	1,119	2,801	-	3,924
Non Demand Related															
Reliability & quality maintained	2,362	1,903	88	-	4,352	-	-	-	-	-	2,362	1,903	88	-	4,352
Environmental, safety & legal	81	890	1,573	-	2,545	-	-	-	-	-	81	890	1,573	-	2,545
Total Across Voltage Levels	3,311	5,257	4,462	-	13,030	-	-	-	-	-	3,311	5,257	4,462	-	13,030
SCADA/Network control	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non network general - IT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non network general - other	-	-	-	-		-	-	-	-						
Metering - Non AMI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Control - Total Additions	3,311	5,257	4,462	-	13,030	-	-	-	-	-	3,311	5,257	4,462	-	13,030

Table 2 AMI

$'000 nominal	DIRECT					INDIRECT					TOTAL OVERHEADS				
		Voltage					Voltage					Voltage			
	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	TOTAL
Accumulation Meters	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manually read interval meters	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Remotely read interval meters & transformers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AMI communication	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metering data services (IT)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metering data services (other)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AMI - Total Additions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 Public lighting - Alternative Control

$'000 nominal	DIRECT					INDIRECT					TOTAL OVERHEADS				
		Voltage					Voltage					Voltage			
	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	TOTAL
Public lighting - energy efficient	-	-	0	-	0	-	-	-	-	-	-	-	0	-	0
Public lighting - non energy efficient	-	-	128	-	128	-	-	-	-	-	-	-	128	-	128
Public Lighting - Total Additions	-	-	128	-	128	-	-	-	-	-	-	-	128	-	128

Table 4 Alternative control - fee, quoted services

$'000 nominal	DIRECT					INDIRECT					TOTAL OVERHEADS				
		Voltage					Voltage					Voltage			
	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	TOTAL
Other - fee based services	-	-	143	-	143	-	-	-	-	-	-	-	143	-	143
Other - quoted services	-	388	183	-	571	-	-	-	-	-	-	388	183	-	571
Other Alternative Control - Total Additions	-	388	327	-	715	-	-	-	-	-	-	388	327	-	715

Table 5 Negotiated

$'000 nominal	DIRECT					INDIRECT					TOTAL OVERHEADS				
		Voltage					Voltage					Voltage			
	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	TOTAL
Negotiated services	-	-	16	-	16	-	-	-	-	-	-	-	16	-	16
Negotiated - Total Additions	-	-	16	-	16	-	-	-	-	-	-	-	16	-	16

Table 6 Unregulated

$'000 nominal	DIRECT					INDIRECT					TOTAL OVERHEADS				
		Voltage					Voltage					Voltage			
	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	TOTAL
Unregulated	-	-	1	-	1	-	-	-	-	-	-	-	1	-	1
Unregulated - Total Additions	-	-	1	-	1	-	-	-	-	-	-	-	1	-	1

Table 7 Total all additions

$'000 nominal	DIRECT					INDIRECT					TOTAL OVERHEADS				
		Voltage					Voltage					Voltage			
	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	Subtotal	Subtransmission	HV	LV	Other	TOTAL
Total Additions (Net of Customer Contributions) $'000 nominal	3,311	5,645	4,933	-	13,889	-	-	-	-	-	3,311	5,645	4,933	-	13,889

Table 8 Customer Contributions

$'000 nominal	
Standard control services	842
AMI	-
Public lighting	-
Alternative control fee and quoted services	291
Negotiated	278
Unregulated	-
Total Customer Contributions	1,410

Contents

Jemena Electricity Networks (Vic) Limited
Depreciation
2013

No longer required as advised by AER Staff
Explanatory notes are not applicable

Table 1 Fixed Assets Depreciation - OPENING

Statutory Account code or reference to account code	Description	Statutory Accounts	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other alternative Control Services		Negotiated service	Unregulated Services
							Energy Efficient	Non-energy efficient	Fee based service	Quoted service		
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
				-								
	Subtransmission			-								
	Distribution system assets			-								
	SCADA/Network control			-								
	Non network - IT			-								
	Non network - other			-								
	Metering - Non AMI			-								
	AMI			-								
	Public Lighting			-								
	Alternative control -other			-								
	Negotiated services			-								
	Sub Total	-	-	-	-	-	-	-	-	-	-	-
	Unregulated services											
	Total	-	-	-	-	-	-	-	-	-	-	-

Table 2 Fixed Assets Depreciation - ADDITIONS

Statutory Account code or reference to account code	Description	Statutory Accounts	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other alternative Control Services		Negotiated service	Unregulated Services
							Energy Efficient	Non-energy efficient	Fee based service	Quoted service		
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
				-								
	Subtransmission			-								
	Distribution system assets			-								
	SCADA/Network control			-								
	Non network - IT			-								
	Non network - other			-								
	Metering - Non AMI			-								
	AMI			-								
	Public Lighting			-								
	Alternative control -other			-								
	Negotiated services			-								
	Sub Total	-	-	-	-	-	-	-	-	-	-	-
	Unregulated services											
	Total	-	-	-	-	-	-	-	-	-	-	-

Table 3 Fixed Assets Depreciation- DISPOSALS

Statutory Account code or reference to account code	Description	Statutory Accounts	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other alternative Control Services		Negotiated service	Unregulated Services
							Energy Efficient	Non-energy efficient	Fee based service	Quoted service		
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
				-								
	Subtransmission			-								
	Distribution system assets			-								
	SCADA/Network control			-								
	Non network - IT			-								
	Non network - other			-								
	Metering - Non AMI			-								
	AMI			-								
	Public Lighting			-								
	Alternative control -other			-								
	Negotiated services			-								
	Sub Total	-	-	-	-	-	-	-	-	-	-	-
	Unregulated services											
	Total	-	-	-	-	-	-	-	-	-	-	-

Table 4 Fixed Assets Depreciation - CLOSING

Statutory Account code or reference to account code	Description	Statutory Accounts	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other alternative Control Services		Negotiated service	Unregulated Services
							Energy Efficient	Non-energy efficient	Fee based service	Quoted service		
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
				-								
	Subtransmission			-								
	Distribution system assets			-								
	SCAD/Network control			-								
	Non network - IT			-								
	Non network - other			-								
	Metering - Non AMI			-								
	AMI			-								
	Public Lighting			-								
	Alternative control -other			-								
	Negotiated services			-								
	Sub Total	-	-	-	-	-	-	-	-	-	-	-
	Unregulated services											
	Total	-	-	-	-	-	-	-	-	-	-	-

Note: Asset classes (excluding non AMI metering, public lighting and other alternative control services) are those used in the 2011-15 Distribution Determination RFM & PTRM

Contents

Jemena Electricity Networks (Vic) Limited
Written Down Values
2013

No longer required as advised by AER Staff
Explanatory notes are not applicable

Table 1 Fixed Assets WDV- OPENING

Statutory Account code or reference to account code	Description	Statutory Accounts	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services
							Energy efficient	Non energy efficient	Fee based services	Quoted services		
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
				-								
	Subtransmission			-								
	Distribution system assets			-								
	SCADA/Network control			-								
	Non network - IT			-								
	Non network - other			-								
	AMI			-								
	Metering - Non AMI			-								
	Public Lighting			-								
	Alternative control -other			-								
	Negotiated services			-								
	JEN	-	-	-	-	-	-	-	-	-	-	-
	Unregulated services											
	Total	-	-	-	-	-	-	-	-	-	-	-

Table 2 Fixed Assets WDV - ADDITIONS NET OF DEPRECIATION CHARGE

Statutory Account code or reference to account code	Description	Statutory Accounts	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services
							Energy efficient	Non energy efficient	Fee based services	Quoted services		
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
				-								
	Subtransmission			-								
	Distribution system assets			-								
	SCADA/Network control			-								
	Non network - IT			-								
	Non network - other			-								
	AMI			-								
	Metering - Non AMI			-								
	Public Lighting			-								
	Alternative control -other			-								
	Negotiated services			-								
	Sub Total	-	-	-	-	-	-	-	-	-	-	-
	Unregulated services			-								
	Total	-	-	-	-	-	-	-	-	-	-	-

Table 3 Fixed Assets WDV- DISPOSALS

Statutory Account code or reference to account code	Description	Statutory Accounts	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services
							Energy efficient	Non energy efficient	Fee based services	Quoted services		
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
				-								
	Subtransmission			-								
	Distribution system assets			-								
	SCADA/Network control			-								
	Non network - IT			-								
	Non network - other			-								
	Metering - Non AMI			-								
	AMI			-								
	Public Lighting			-								
	Alternative control -other			-								
	Negotiated services			-								
	Sub Total	-	-	-	-	-	-	-	-	-	-	-
	Unregulated services											
	Total	-	-	-	-	-	-	-	-	-	-	-

Table 4 Fixed Assets WDV - CLOSING

Statutory Account code or reference to account code	Description	Statutory Accounts	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services
							Energy efficient	Non energy efficient	Fee based services	Quoted services		
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
				-								
	Subtransmission			-								
	Distribution system assets			-								
	SCADA/Network control			-								
	Non network - IT			-								
	Non network - other			-								
	Metering - Non AMI			-								
	AMI			-								
	Public Lighting			-								
	Alternative control -other			-								
	Negotiated services			-								
	Sub Total	-	-	-	-	-	-	-	-	-	-	-
	Unregulated services			-								
	Total	-	-	-	-	-	-	-	-	-	-	-

Note: Asset classes (excluding non AMI metering, public lighting and other alternative control services) are those used in the 2011-15 Distribution Determination RFM & PTRM

Contents

Jemena Electricity Networks (Vic) Limited
Additions by Tax
2013

Table 1 Standard Control Services - excl metering

Asset Class	Tax Depreciation - Rate (Post Ralph 10 May 2006 onwards)	Additions per Taxation Category Exclusive of Related Party Margin	Additions per Taxation Category Inclusive of Related Party Margin
		$'000 nominal	$'000 nominal
Demand related capital expenditure	4.00%	50,250	50,250
Replacement expenditure (Group 1)	100.00%	27,278	27,278
Replacement expenditure (Group 2)	10.00%	2,195	2,195
Replacement expenditure (Group 3)	4.00%	1,881	1,881
Environment, safety & legal	10.00%	18,332	18,332
SCADA/Network control	10.00%	915	915
Non-network general assets - IT	40.00%	9,258	9,258
Non-network general assets - Other	17.65%	12,585	12,585
RBPC - Excl Metering - TOTAL ADDITIONS		122,694	122,694
Capitalised Finance Charges Included in above Total		-	-

Table 2 Metering

JEN

Asset Class	Tax Depreciation - Rate (Post Ralph 10 May 2006)	Additions per Taxation Category Exclusive of Related Party Margin	Additions per Taxation Category Inclusive of Related Party Margin
		$'000 nominal	$'000 nominal
Meters and transformers (Group 1) (Unit cost < $1,000)	37.50%	37,426	37,426
Meters and transformers (Group 2) (Unit cost => $1,000)	6.00%	-	-
IT	40.00%	828	828
Communications	21.43%	3,142	3,142
Other	17.65%	447	447
Metering - TOTAL ADDITIONS		41,844	41,844
Capitalised Finance Charges Included in above Total		-	-

Jemena Electricity Networks (Vic) Limited
Advanced Metering Infrastructure
2013

Contents

Table 1 Standard control asset base - metering

	Opening value	Actual capital expenditure – as incurred	Actual asset disposals – as incurred	Actual capital contributions – as incurred	Actual net capital expenditure – as incurred
	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
Accumulation meters	4,794	-	-	-	-
Manually read interval meters	1,573	-	-	-	-
Remotely read interval meters and transformers	53,046	37,426	-	-	37,426
IT	19,311	828	-	-	828
Communications	2,860	3,142	-	-	3,142
Other	44,685	447	-	-	447
Total	126,268	41,844	-	-	41,844

Table 2a Number of meters installed

	Current Year	Prior Year
Accumulation meters		
Single phase non off peak	1	2
Single phase off peak	1	24
Multi phase direct connect	-	44
Multi phase current transformers	-	-
Total accumulation meters installed	2	70
MRIM meters		
Single phase non off peak	3	524
Single phase off peak	12	6
Multi phase direct connect	4	309
Multi phase current transformers	15	67
Total MRIM meters installed	34	906
AMI meters		
Single phase single element	80,196	62,288
Single phase single element with contactor	3,639	-
Single phase two element with contactor	19,895	-
Three phase	20,084	3,269
Three phase direct connected meter	-	-
Three phase direct connected meter with contactor	176	-
Three phase Current transformer connected meter	638	-
Total AMI meters installed	124,628	65,557
Total meters installed	124,664	66,533

Table 2b Cumulative number of meters

	Current Year	Prior Year
Accumulation meters		
Single phase non off peak	22,823	91,457
Single phase off peak	749	25,724
Multi phase direct connect	9,749	26,047
Multi phase current transformers	354	649
Total accumulation meters	33,675	143,877
MRIM meters		
Single phase non off peak	554	4,846
Single phase off peak	1,092	1,466
Multi phase direct connect	545	1,681
Multi phase current transformers	384	850
Total MRIM meters	2,575	8,843
AMI meters		
Single phase single element	234,653	156,849
Single phase single element with contactor	3,779	-
Single phase two element with contactor	20,287	-
Three phase	27,658	7,403
Three phase direct connected meter	-	-
Three phase direct connected meter with contactor	203	-
Three phase Current transformer connected meter	638	-
Total AMI meters	287,218	164,252
Total meters	323,468	316,972

Table 3 AMI meter reconciliation

	Current Year	Prior Year
Opening number of meters	164,252	99,866
Installs	124,628	65,557
Abolishments	838	669
AMI meter for AMI meter replacements	824	502
Closing number of meters	287,218	164,252

Table 4 Number of meter read quantity - end of year

Number of meters read monthly - accumulation	2,415
Number of meters read quarterly - accumulation	39,783
Number of meters read monthly - interval	619
Number of meters read quarterly - interval	1,647
Number of meters read remotely	285,022
Total	329,486

Contents

Jemena Electricity Networks (Vic) Limited
Maintenance Costs Exclusive of Margin
2013

Instructions:

Reported expenditure is to be entered **EXCLUSIVE** of any profit margins or management fees paid directly or indirectly to related party contractors (which is not an actual incurred cost of the related party contractor) for the reporting period.

Statutory Account code or reference to account code	Description	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services	Standard Control Services Prior Year
							Energy efficient	Non energy efficient	Fee based service	Quoted service			
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Routine		11,299	11,299	11,299	-	-	-	-	-	-	-	7,442
	Condition based		3,367	3,367	3,367	-	-	-	-	-	-	-	3,779
	Emergency		7,238	7,238	7,238	-	-	-	-	-	-	-	5,899
	SCADA/Network Control		48	48	48	-	-	-	-	-	-	-	135
	Other - Standard Control Services (a)		3,455	3,455	3,455	-	-	-	-	-	-	-	1,005
	AMI		1,863	1,863	-	1,863	-	-	-	-	-	-	-
	Public Lighting		1,893	1,893	-	-	-	1,893	-	-	-	-	-
	Alternative control -other		481	481	-	-	-	-	481	-	-	-	-
	Negotiated services		-	-	-	-	-	-	-	-	-	-	-
	Sub Total	-	29,644	29,644	25,407	1,863	-	1,893	481	-	-	-	18,260
	JEN	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	29,644	29,644	25,407	1,863	-	1,893	481	-	-	-	18,260

a. Please list any cost item which is more than 5% of the total standard control maintenance cost in the table below:

Statutory Account code or reference to account code	Description	Audited statutory financial statements	Adjustments	JEN	Standard Control Services
	Vegetation Management		4,532	4,532	4,532
	Fault Work		4,927	4,927	4,927
	Zone Substation Primary Equipment Maintenance		963	963	963
	Overhead Line Inspection		1,962	1,962	1,962

JEN's explanatory notes:

1 JEN has highlighted an error (cell C22) in bold red font.
It should read Unregulated.

2 Where the disclosures in the RIN template align with the audited statutory financial statements, the figures are sourced from the audited statutory financial statements. Where this is not possible, the figures are sourced from the audited trial balance of those audited statutory financial statements.

Contents

Jemena Electricity Networks (Vic) Limited
Maintenance Costs Inclusive of Margin
2013

Instructions:

Reported expenditure is to be entered **INCLUSIVE** of any profit margins or management fees paid directly or indirectly to related party contractors (which is not an actual incurred cost of the related party contractor) for the reporting period.

Statutory Account code or reference to account code	Description	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services	Standard Control Services Prior Year
							Energy efficient	Non energy efficient	Fee based service	Quoted service			
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Routine		11,299	11,299	11,299	-	-	-	-	-	-	-	7,818
	Condition based		3,367	3,367	3,367	-	-	-	-	-	-	-	3,924
	Emergency		7,238	7,238	7,238	-	-	-	-	-	-	-	5,990
	SCADA/Network Control		48	48	48	-	-	-	-	-	-	-	135
	Other - Standard Control Services (a)		3,455	3,455	3,455	-	-	-	-	-	-	-	1,031
	AMI		1,863	1,863	-	1,863	-	-	-	-	-	-	-
	Public Lighting		1,893	1,893	-	-	-	1,893	-	-	-	-	-
	Alternative control -other		481	481	-	-	-	-	481	-	-	-	-
	Negotiated services		-	-	-	-	-	-	-	-	-	-	-
	Sub Total	-	29,644	29,644	25,407	1,863	-	1,893	481	-	-	-	18,898
	JEN	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	29,644	29,644	25,407	1,863	-	1,893	481	-	-	-	18,898

a. Please list any cost item which is more than 5% of the total standard control maintenance cost in the table below:

Statutory Account code or reference to account code	Description	Audited statutory financial statements	Adjustments	JEN	Standard Control Services
	Vegetation Management		4,532	4,532	4,532
	Fault Work		4,927	4,927	4,927
	Zone Substation Primary Equipment Maintenance		963	963	963
	Overhead Line Inspection		1,962	1,962	1,962

JEN's explanatory notes:

1 JEN has highlighted an error (cell C22) in bold red font.
It should read Unregulated.

2 Where the disclosures in the RIN template align with the audited statutory financial statements, the figures are sourced from the audited statutory financial statements. Where this is not possible, the figures are sourced from the audited trial balance of those audited statutory financial statements.

Contents

Jemena Electricity Networks (Vic) Limited
Operating Expenditures Exclusive of Margin
2013

Instructions:

Reported expenditure is to be entered **EXCLUSIVE** of any profit margins or management fees paid directly or indirectly to related party contractors (which is not an actual incurred cost of the related party contractor) for the reporting period.

Table 1 Operating Expenditure

Account code or reference to account code	Description	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services	Standard Control Services Prior Year
							Energy efficient	Non-energy efficient	Fee based service	Quoted service			
	Designated Pricing Proposal Charges:	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Transmission Connection Fee	8,507	-	8,507	8,507	-	-	-	-	-	-	-	8,357
	Avoided TUoS charges/transmission costs		-	-	-	-	-	-	-	-	-	-	-
	AEMO shared TUOS Charges	52,084	-	52,084	52,084	-	-	-	-	-	-	-	53,446
	Net Cross Boundary Network Charges	3,068	(25)	3,043	3,043	-	-	-	-	-	-	-	2,625
	Jurisdictional Scheme Amounts:												
	Premium Feed In Tariff	6,504	(14)	6,489	6,489	-	-	-	-	-	-	-	6,061
	Transitional Feed In Tariff	2,965	-	2,965	2,965	-	-	-	-	-	-	-	786
	<insert future jurisdictional scheme payment>	-	-	-	-	-	-	-	-	-	-	-	-
	Sub Total	**73,128**	**(39)**	**73,088**	**73,088**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**71,275**
	Operating Costs												
	Network Operating Costs		11,048	11,048	11,048	-	-	-	-	-	-	-	15,558
	Billing & Revenue Collection		828	828	828	-	-	-	-	-	-	-	811
	Advertising/Marketing		754	754	754	-	-	-	-	-	-	-	535
	Customer Service		3,293	3,293	3,293	-	-	-	-	-	-	-	2,076
	Regulatory		2,241	2,241	2,241	-	-	-	-	-	-	-	2,183
	Regulatory Reset		-	-	-	-	-	-	-	-	-	-	-
	IT		5,433	5,433	4,892	-	-	146	156	64	-	174	7,144
	Licence fee		22	22	22	-	-	-	-	-	-	-	15
	GSL payments		67	67	67	-	-	-	-	-	-	-	9
	Non-network alternatives costs		-	-	-	-	-	-	-	-	-	-	-
	Debt raising costs		-	-	-	-	-	-	-	-	-	-	-
	Other - Standard Control Services (a,b)	100,927	(76,859)	24,067	24,067	-	-	-	-	-	-	-	26,061
	AMI		18,332	18,332	-	18,332	-	-	-	-	-	-	-
	Public Lighting		877	877	-	-	-	877	-	-	-	-	-
	Alternative control -other		3,713	3,713	-	-	-	-	3,096	617	-	-	-
	Negotiated services		-	-	-	-	-	-	-	-	-	-	-
	Sub Total	100,927	(30,251)	70,675	47,213	18,332	-	1,023	3,252	681	-	174	54,391
	Unregulated services	-	245	245	-	-	-	-	-	-	-	245	-
	Total	174,054	(30,046)	144,008	120,302	18,332	-	1,023	3,252	681	-	419	125,666

a. Please list any cost item which is more than 5% of standard control operating costs in the Table 2:

Table 2 Operating Expenditure - Other Costs

Statutory Account code or reference to account code	Description	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services

Table 3 Operating Expenditure - Non-Recurrent Network Operating Costs

Statutory Account code or reference to account code	Description	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services

b. Please identify any non recurrent cost which is more than 5% of the total standard control operating costs in the Table 3:

JEN's explanatory notes:

1 No cost item more than 5% of standard control operating costs can be identified.
JEN has therefore left Table 2 intentionally blank.

2 No non recurrent cost more than 5% of the total standard control operating costs can be identified.
JEN has therefore left Table 3 intentionally blank.

3 Where the disclosures in the RIN template align with the audited statutory financial statements, the figures are sourced from the audited statutory financial statements. Where this is not possible, the figures are sourced from the audited trial balance of those audited statutory financial statements.

Contents

Jemena Electricity Networks (Vic) Limited
ACTIVITIES B: Operating Expenditures Inclusive of Margin
2013

Instructions:

Reported expenditure is to be entered **INCLUSIVE** of any profit margins or management fees paid directly or indirectly to related party contractors (which is not an actual incurred cost of the related party contractor) for the reporting period.

Table 1 Operating Expenditure

Account code or reference to account code	Description	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services	Standard Control Services Prior Year
							Energy efficient	Non efficient	Fee based service	Quoted service			
	Designated Pricing Proposal Charges:	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Transmission Connection Fee	8,507	-	8,507	8,507	-	-	-	-	-	-	-	8,357
	Avoided TUoS charges/transmission costs	-	-	-	-	-	-	-	-	-	-	-	-
	AEMO shared TUOS Charges	52,084	-	52,084	52,084	-	-	-	-	-	-	-	53,446
	Net Cross Boundary Network Charges	3,068	(25)	3,043	3,043	-	-	-	-	-	-	-	2,625
	Jurisdictional Scheme Amounts:												
	Premium Feed In Tariff	6,504	(14)	6,489	6,489	-	-	-	-	-	-	-	6,061
	Transitional Feed In Tariff	2,965	-	2,965	2,965	-	-	-	-	-	-	-	786
	Sub Total	**73,128**	**(39)**	**73,088**	**73,088**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**71,275**
	Operating Costs												
	Network Operating Costs		11,048	11,048	11,048	-	-	-	-	-	-	-	15,648
	Billing & Revenue Collection		828	828	828	-	-	-	-	-	-	-	811
	Advertising/Marketing		754	754	754	-	-	-	-	-	-	-	535
	Customer Service		3,293	3,293	3,293	-	-	-	-	-	-	-	2,110
	Regulatory		2,241	2,241	2,241	-	-	-	-	-	-	-	2,185
	Regulatory Reset		-	-	-	-	-	-	-	-	-	-	-
	IT		5,433	5,433	4,892	-	-	146	156	64	-	174	7,271
	Licence fee		22	22	22	-	-	-	-	-	-	-	15
	GSL payments		67	67	67	-	-	-	-	-	-	-	9
	Non-network alternatives costs		-	-	-	-	-	-	-	-	-	-	-
	Debt raising costs		-	-	-	-	-	-	-	-	-	-	-
	Other - Standard Control Services (a,b)	100,927	(76,859)	24,067	24,067	-	-	-	-	-	-	-	26,160
	AMI		18,332	18,332	-	18,332	-	-	-	-	-	-	-
	Public Lighting		877	877	-	-	-	877	-	-	-	-	-
	Alternative control -other		3,713	3,713	-	-	-	-	3,096	617	-	-	-
	Negotiated services		-	-	-	-	-	-	-	-	-	-	-
	Sub Total	100,927	(30,251)	70,675	47,213	18,332	-	1,023	3,252	681	-	174	54,744
	Unregulated services	-	245	245	-	-	-	-	-	-	-	245	-
	Total	174,054	(30,046)	144,008	120,302	18,332	-	1,023	3,252	681	-	419	126,019

a. Please list any cost item which is more than 5% of standard control operating costs in the Table 2:

Table 2 Operating Expenditure - Other Costs

Statutory Account code or reference to account code	Description	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services	Standard Control Services Prior Year
							Energy efficient	Non-energy efficient	Fee based service	Quoted service			

Table 3 Operating Expenditure - Non-Recurrent Network Operating Costs

Statutory Account code or reference to account code	Description	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services

b. Please identify any non recurrent cost which is more than 5% of the total standard control operating costs in the Table 3:

JEN's explanatory notes:

1 No cost item more than 5% of standard control operating costs can be identified.
JEN has therefore left Table 2 intentionally blank.

2 No non recurrent cost more than 5% of the total standard control operating costs can be identified.
JEN has therefore left Table 3 intentionally blank.

3 Where the disclosures in the RIN template align with the audited statutory financial statements, the figures are sourced from the audited statutory financial statements. Where this is not possible, the figures are sourced from the audited trial balance of those audited statutory financial statements.

Contents

Jemena Electricity Networks (Vic) Limited
Labour and Non-Labour Costs
2013

Account code or reference to account code	Description	Labour Costs	Non-Labour Costs	Total
		$'000 nominal	$'000 nominal	$'000 nominal
	Operating Expenditure	18,884	28,330	47,213
	Maintenance Expenditure	10,162	15,245	25,407
	Capital Expenditure	42,125	74,505	116,630
	Total	71,170	118,080	189,250

Totals are representative of Standard Control Services in all schedules.
Percentage splits gained by using the labour/Non labour split as found in the GL accounts of Jemena Asset Management.
and where Capex is concerned also including the labour portion of WOBCA.

JEN's explanatory notes:

1 JEN reports the labour and non-labour costs for Standard Control activities in the table above.

2 For capital expenditure, JEN reports the labour and non-labour cost split for net capital expenditure (after netting off customer contribution).

Contents

Jemena Electricity Networks (Vic) Limited
Step Changes to Opex
2013

No longer required as advised by AER Staff
Explanatory notes are not applicable

Table 1 Operating Expenditure - Step Changes (exclusive of margins)

Statutory Account code or reference to account code	Description	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Customer communications				
	Electricity safety regulations				
	Environmental obligations				
	Information technology				
	Insurance				
	National framework for distribution planning and expansion				
	Other Opex Step Changes				
	Addition Opex Step Changes proposed by JEN				
	<DNSP specific>				

Table 2 Operating Expenditure - Step Changes (inclusive of margins)

Statutory Account code or reference to account code	Description	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services
	JEN	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Customer communications				
	Electricity safety regulations				
	Environmental obligations				
	Information technology				
	Insurance				
	National framework for distribution planning and expansion				
	Other Opex Step Changes				
	Addition Opex Step Changes proposed by JEN				
	<DNSP specific>				

Note:
Where top down allocation is applied, provide for each cost item that has been allocated to JEN & standard control distribution services a supporting workpaper that includes the following:
a) the amounts that have been directly attributed to the standard control service
b) the amounts that have been allocated to the standard control distribution service
c) a description of the allocation basis
d) the numeric quantity of each allocator.

Contents

Jemena Electricity Networks (Vic) Limited
Total Overheads
2013

Statutory Account code or reference to account code		Gross Capex	Opex	Total
	Direct overheads	$'000 nominal	$'000 nominal	$'000 nominal
	Standard Control	13,871	19,066	32,937
	AMI	-	-	-
	Public lighting - energy efficient	0	-	0
	Public lighting - energy non efficient	128	792	920
	Alternative control - fee based	144	1,015	1,158
	Alternative control - quoted	862	185	1,047
	Negotiated services	294	-	294
	Unregulated	1	114	115
	Subtotal	15,300	21,171	36,471
	Indirect overheads	$'000 nominal	$'000 nominal	$'000 nominal
	Standard Control	-	5,545	5,545
	AMI	-	-	-
	Public lighting - energy efficient	-	-	-
	Public lighting - energy non efficient	-	230	230
	Alternative control - fee based	-	295	295
	Alternative control - quoted	-	54	54
	Negotiated services	-	-	-
	Unregulated	-	33	33
	Subtotal	-	6,158	6,158
	Total overheads	$'000 nominal	$'000 nominal	$'000 nominal
	Standard Control	13,871	24,611	38,482
	AMI	-	-	-
	Public lighting - energy efficient	0	-	0
	Public lighting - energy non efficient	128	1,023	1,151
	Alternative control - fee based	144	1,310	1,453
	Alternative control - quoted	862	239	1,100
	Negotiated services	294	-	294
	Unregulated	1	147	148
	Total Overheads	15,300	27,329	42,629

Note: (a) Provide direct overheads where applicable
(b) The allocation of overheads is to be consistent with the approved Cost Allocation Method

JEN's explanatory notes:

1 Due to improvements in JEN's timewriting processes, there has been an increase in the level of overheads being job costed. These overheads have been classified as direct overheads in accordance to the AER's definition.

Contents

Jemena Electricity Networks (Vic) Limited
Provisions
2013

Instructions
Fill out separate tables for each provision
In addition it is mandatory to produce for each provision that has been allocated to JEN a supporting
- written explanation of the need for the provision
- written explanation of the movements in the provision.

Account code or reference to account code	Provision Name	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services
							Energy efficient	Non-energy efficient	Fee based service	Quoted service		
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Opening Balance	(381)		(381)	(381)							
	Liabilities paid from provision charged to opex											
	Liabilities paid from provision charged to capex											
	Increase /decrease in provision charged to opex	175		175	175							
	Increase/decrease in provision charged to capex											
	Other adjustments (a)											
	Closing Balance	**(206)**	-	**(206)**	**(206)**	-	-	-	-	-	-	-

a: Please explain other adjustments in the table below:

Account code or reference to account code	Provision Name	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services
							Energy efficient	Non-energy efficient	Fee based service	Quoted service		
		$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal

JEN's explanatory notes:

1 As JEN does not have 'Other adjustment(s)', the second table has been left intentionally blank.

2 The details of the provisions are set out below.

2.1 GL accounts

Provision JSAP		Balance @ Dec 13	Balance @ Dec 12	Difference
1280900000	Provision for Doubtful Debts	(21,047)	(45,684)	24,637
2280100300	Uninsured Losses	(184,544)	(335,301)	150,758
		(205,591)	(380,985)	175,394

2.2 Provision for Doubtful Debts

Provision for doubtful debts has been made in accordance to JEN's company policy for amounts unpaid for more than 60 days.
The provision is increased or decreased reflecting the change in the provisions as shown in Note 2.1 above.
The provision includes a credit note of $29k to AGL for illegal use of electricity at NMI 6001317972 -10 Langford Drive Craigieburn. AGL is yet to take up the credit.

2.3 Uninsured Losses

Provision for Uninsured Losses has been made for potential customer claims against JEN for damages to customers' property caused by JEN network incidents.
These claims could be based on various damages, e.g. motor burn out, fires, wiring, abandonment of food, etc.
The provision is increased or decreased reflecting the change in the provisions as shown in Note 2.1 above.

3 Where the disclosures in the RIN template align with the audited statutory financial statements, the figures are sourced from the audited statutory financial statements. Where this is not possible, the figures are sourced from the audited trial balance of those audited statutory financial statements.

Contents

Jemena Electricity Networks (Vic) Limited
Shared Cost Allocations
2013

Instructions

1. For shared cost allocation within distribution services, please state that all items have been allocated in accordance with the approved Cost Allocation Method (CAM)
2. For cost allocation between distribution and non-distribution business, please provide work paper to demonstrate costs have been allocated from statutory accounts to distribution business in accordance with the cost allocations principles set out in Appendix A of the RIN.

Statutory Account code or reference to account code	Audited Statutory Financial Statements	Adjustments	JEN	Standard Control Services	AMI	Public Lighting - Alternative Control		Other Alternative Control Services		Negotiated Services	Unregulated Services
						Energy efficient	Non-energy efficient	Fee based service	Quoted service		
	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	-	22,150	22,150	21,538	-	-	230	295	54	-	33

JEN's explanatory notes:

1 All items have been allocated in accordance with the approved Cost Allocation Methodology (CAM), formerly known as WOBCA.

2 The explanation of cost allocation between distribution and non-distribution business is set out in worksheet 17A.

3 Where the disclosures in the RIN template align with the audited statutory financial statements, the figures are sourced from the audited statutory financial statements. Where this is not possible, the figures are sourced from the audited trial balance of those audited statutory financial statements.

17A Shared costs

In addition to direct costs, Jemena Ltd. (**JEM**) and the service companies also incur indirect costs. These indirect costs are incurred as a result of the delivery of services associated with a particular client or multiple client contracts across the Jemena Group, but cannot be readily allocated to individual jobs or projects.
There are two main categories of indirect costs, namely JEM indirect corporate Enterprise Service Function (**ESF**) costs and Jemena Asset Management (**JAM**) regional and corporate indirect costs.

1 Whole of Business Cost Allocation model

To ensure appropriate allocation of all indirect costs, JEM uses a Whole of Business Cost Allocation (WOBCA) methodology which forms a part of JEM's Cost Allocation Policy. This policy is subject to continuing improvement in costing methodologies and changes in business structure.

WOBCA was designed to remove the potential double counting of operating costs and any costs that are specifically excluded for regulatory accounting and reporting purposes in a given regulatory reporting period. A number of steps in the preparation of indirect operating costs, prior to the allocation calculation being performed, are designed to eliminate such costs. This is achieved by:

- extracting the financial data from all ledgers for the same time period;
- removing any costs that are specifically excluded for regulatory accounting and reporting purposes; and
- performing reconciliations to check that the total operating cost pool is reconciled to the post-allocated cost pool.

2 ESF costs

JEM builds, owns and manages a combination of major electricity, gas and water assets. JEM ESF corporate costs are those costs incurred in the provision of corporate services to the associated companies, which include Jemena wholly owned assets, partly owned assets and assets managed by Zinfra under contract.
Under WOBCA, ESF costs - comprising CEO, Strategy, Finance, Audit, Risk, HR, HSE, legal, IT and other similar functions - are primarily allocated to JEM's assets (wholly and partly owned) and to JAM. The primary allocation is based on a reasonable causal relationship between the cost incurred and the service consumed. The major primary allocation drivers are:

- Timewriting data;
- Info Systems driver;
- Insurance driver; and
- Adjusted Fair Value driver.

Jemena is continually looking to improve its driver sets.

NAP & WD costs (formerly "JAM indirect regional and corporate costs")

JAM incurred operating costs in the provision of services, such as Regional Operations, Finance, Asset Services and Customer Services etc. These costs are allocated to each client contract by applying a cost allocation driver based on JAM's employee labour time spent within those indirect regional and corporate business units (FTE driver).

Indirect regional and corporate costs are captured by cost centres. Cost centres are generally aligned to organisational structure or contract.

3 Shared cost allocators

The WOBCA methodology was designed to allocate indirect costs occurring within JEM and JAM for the purpose of determining the underlying cost of providing services to each network asset or external client. The methodology uses a number of drivers, on a causal basis, dependent upon the nature of the cost being allocated.

In this context, causal relationship means that the relevant allocator is the best available proxy of consumption or utilisation of the resources or services represented by the costs (or other account item) that is being allocated. Once identified, the relevant cost allocator is applied to each cost item, as defined by the business unit or organisational view of the business.

All of these costs are generic corporate costs that are incurred for the benefit of the entire JEM Group. For instance, where Fair Value has been used as the allocator, Management considers that the most significant factor in the consumption or utilisation of these corporate costs is the relative importance of the Group's assets – that is, Management is likely to spend its time in proportion to the relative value of each asset.

The numeric quantity or percentage of the allocators identified is expected to vary throughout the regulatory control period, as the value of the relevant inputs change. For example, the FTE allocator used to allocate JAM's indirect regional and corporate costs is based on the percentage of employee time spent on each JAM client contract. This could change as the JAM labour force is employed across a diverse and growing client portfolio.

4 Shared costs allocation

These shared or indirect costs, once allocated to JEN, are then allocated between the services provided by JEN. The costs are allocated on their proportion of direct costs compared to total direct costs to split between Standard Control Services and Alternate Control & Other Services as per the CAM. The amount allocated to Alternate Control & Other Services is then allocated to Fee Based, Quoted, Public Lighting and Unregulated Services using revenue as the basis to mirror the allocation method used for indirect costs in the final 2010 JEN Distribution Determination.

During the roll-out phase of the AMI program, all AMI-related costs are outsourced and are being captured and reported separately from all other costs incurred by JEN. Under the AER's classification, AMI metering services are considered to be unregulated services for the 2011-2015 regulatory period. AMI did not receive any allocation of WOBCA for the period January-March 2012 since direct costs relating to AMI attracted a 6% mark-up.

However, due to the elimination of primary and secondary drivers, and the in-sourcing of all metering activities from 1 April 2012, direct costs associated with metering activities, like all other business activities, now attract an allocation of ESF costs in proportion to the management effort at relevant cost centre level.

Contents

Jemena Electricity Networks (Vic) Limited
Avoided Cost Payments
2013

Statutory Account code or reference to account code	Description	Avoided Cost Payment	Number of Projects
	Deferral of Augmentation to Transmission Networks	**$'000 nominal**	
	Embedded generators	-	-
	Related party embedded generators	-	-
	Customers	-	-
	Avoided TUOS	109	-
	Sub Total	**109**	**-**
	Deferral of Augmentation to Distribution Networks		
	Embedded generators	-	-
	Related party embedded generators	-	-
	Customers	-	-
	Avoided TUOS		
	Sub Total	**-**	**-**
	TOTAL	**109**	**-**

JEN's explanatory notes:

1 JEN made Avoided TUOS payment to only Somerton Power Station.
For the purpose of populating Template 18, JEN counts Somerton Power Station as one project.

Contents

Jemena Electricity Networks (Vic) Limited
Alternative Control Services and Other Services
2013

Statutory Account code or reference to account code	Description	Direct O&M Costs	Indirect O&M costs	Direct Capex	Indirect Capex	Revenue
	Alternative Control Services - Fee Based	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Meter investigation	-	0	-	-	0
	De-energisation of existing connections	317	171	-	-	542
	Energisation of existing connections	42	169	-	-	534
	Special meter reading	14	39	-	-	124
	Re-test of type 5 and 6 metering installations for first tier customers with annual consumption greater than 160 MWh	30	13	-	-	40
	Operation, repair, replacement and maintenance of DNSP public lighting assets	-	-	-	-	-
	Fault response - not DNSP fault	93	82	-	-	261
	Temporary disconnect/reconnect services	11	30	-	-	96
	Wasted attendance - not DNSP fault	130	116	-	-	368
	Service truck visits	1,185	411	-	-	1,302
	Reserve feeder	379	110	-	-	348
	PV installation	-	-	-	-	-
	Routine connections - customers below 100 amps	-	-	5,138	144	2,705
	Temporary supply services	205	115	-	-	363
	Remote meter re-configuration	15	25	-	-	78
	Remote de-energisation	2	19	-	-	60
	Remote re-energisation	0	10	-	-	31
	Total fee based alternative control services	**2,424**	**1,310**	**5,138**	**144**	**6,852**
	Alternative Control Services - Quoted	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Rearrangement of network assets at customer request, excluding alteration and relocation of existing public lighting assets	-	-	-	-	-
	Supply enhancement at customer request	-	-	-	-	-
	Supply abolishment	355	178	-	-	470
	Emergency recoverable works (that is, emergency works where customer is at fault and immediate action needs to be taken by the DNSP)	41	19	-	-	51
	Auditing of design and construction	-	-	-	-	-
	Specification and design enquiry fees	-	-	-	-	-
	Elective underground service where an existing overhead service exists	-	-	879	142	1,063
	Damage to overhead service cables pulled down by high load vehicles	-	-	-	-	-
	High load escorts—lifting overhead lines	-	-	-	-	-
	Covering of low voltage mains for safety reasons	-	28	-	-	74
	Routine connections, for customers > 100amps	-	-	318	42	138
	After hours truck by appointment	46	14	-	-	37
	Total quoted alternative control services	**442**	**239**	**1,197**	**184**	**1,833**
	Public Lighting	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Efficient	-	-	1	0	36
	Non efficient	1,893	1,023	794	128	3,879
	Total public lighting	**1,893**	**1,023**	**795**	**128**	**3,915**
	Other Activities - Non Regulated	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal	$'000 nominal
	Joint use of poles & security beams	272	147	4	1	4,625
		-	-	-	-	-
	Total non - regulated	**272**	**147**	**4**	**1**	**4,625**
	TOTAL	**5,031**	**2,718**	**7,133**	**456**	**17,226**

JEN's explanatory notes:

1 Consistent with the format set out in other templates (e.g. Templates 6, 11 and 12), JEN reads Public Lighting in this template as the ACS public lighting rather than new public lighting (negotiated services).

2 The ACS Capex amount shown in Template 6 includes vehicle, mobile plant & equipment ($307k)which are excluded in this template as it is not feasible to allocate to individual Alternative Services.
The ACS Capex shown in Template 6 also includes $2.8M of Capital Recoverable works which are not listed in Template 19.

Table 1 Standard Control Services Revenue - Current Year

Note: insert additional rows as necessary

Statutory Account code or reference to account code	JEN Category	Amount of Electricity Distributed	Distribution Revenue
	Tariff categories	GWh	$'000 nominal
A100	General Purpose	1,127	89,602
A10X	Flexible	1	54
A10I	Time of Use Interval Meter	67	4,943
A140	Time of Use	15	812
A180	Off Peak Heating Only	48	772
A200	General Purpose	189	17,021
A210	Time of Use Weekdays	309	21,827
A230	Time of Use Weekdays - Demand	95	6,206
A250	Time of Use Extended	63	4,740
A270	Time of Use Extended - Demand	30	2,010
A290	Unmetered Supply	54	2,328
A300	LV 0.4 - 0.8 GWh	302	19,364
A30E	LVEN Annual Consumption <= 0.8 GWh	8	775
A320	LV 0.8+ - 2.2 GWh	472	20,573
A32E	LVEN 0.8+ - 2.2 GWh	26	1,317
A340	LV 2.2+ - 6.0 GWh	203	7,197
A34E	LVEN 2.2+ - 6.0 GWh	28	1,066
A34M	LVMS 2.2+ - 6.0 GWh	21	943
A370	LV 6.0+ GWh	83	2,494
A37E	LVEN 6.0+ GWh	0	0
A37M	LVMS 6.0+ GWh	104	2,765
A400	HV	467	13,564
A40E	HVEN Annual Consumption <= 10 GWh		
A40R	HVRF (closed to new entrants)	96	1,989
A42E	HVEN 10+ GWh	0	0
A480	HV - Annual Consumption >= 55 GWh		
A500	Subtransmission		
A50A	Subtransmission MA		
A50E	Subtransmission EG		
	Total	**4,254**	**226,279**

Table 2 Standard Control Revenue - Prior Year

Note: insert additional rows as necessary

Statutory Account code or reference to account code	JEN	Amount of Electricity Distributed	Distribution Revenue
	Tariff categories	GWh	$'000 nominal
A100	General Purpose	1,180	81,686
A10I	Time of Use Interval Meter	50	3,205
A140	Time of Use	17	770
A180	Off Peak Heating Only	52	732
A200	General Purpose	194	15,203
A210	Time of Use Weekdays	326	20,195
A230	Time of Use Weekdays - Demand	93	5,174
A250	Time of Use Extended	66	4,358
A270	Time of Use Extended - Demand	32	1,859
A290	Unmetered Supply	56	2,101
A300	LV 0.4 - 0.8 GWh	307	16,313
A30E	LVEN Annual Consumption <= 0.8 GWh	5	340
A320	LV 0.8+ - 2.2 GWh	471	17,302
A32E	LVEN 0.8+ - 2.2 GWh	21	961
A340	LV 2.2+ - 6.0 GWh	221	6,567
A34E	LVEN 2.2+ - 6.0 GWh		
A34M	LVMS 2.2+ - 6.0 GWh	22	834
A370	LV 6.0+ GWh	72	1,953
A37E	LVEN 6.0+ GWh	0	0
A37M	LVMS 6.0+ GWh	107	2,418
A400	HV	462	11,799
A40E	HVEN Annual Consumption <= 10 GWh		
A40R	HVRF (closed to new entrants)	108	1,707
A42E	HVEN 10+ GWh	0	0
A480	HV - Annual Consumption >= 55 GWh		
A500	Subtransmission		
A50A	Subtransmission MA		
A50E	Subtransmission EG		
	Total	**4,365**	**199,697**

Contents

Jemena Electricity Networks (Vic) Limited
Efficiency Benefits Sharing Schemes
2013

Table 1 Opex for EBSS Purposes

Note: a) Only superannuation costs related to defined benefit schemes are to be reported
b) Only self insurance cost categories approved in the AER's determination are to be reported

	$'000 nominal
Total Actual Opex	72,620
Debt raising costs	
Self insurance	567
Superannuation defined benefit schemes	
Non network alternatives costs	
DMIA costs	48
Pass through event costs	
GSL payments	67
Total opex adjustment for EBSS purposes	**682**
Total opex for EBSS purposes	**71,938**

Note: Total opex for EBSS purposes has not been adjusted for movement in provisions

Table 2 Explanation of Capitalisation Policy Changes

Note: this should include a description of any items that have previously been considered as opex items, but are now being considered capex items.

Capitalisation Policy Change	Impact on forecast opex ($'000 nominal)	Description
Total	**0**	

JEN's explanatory notes:

1 There is no change in JEN's capitalisation policy.
Table 2 is therefore not applicable and JEN has therefore left Table 2 intentionally blank.

Contents

Jemena Electricity Networks (Vic) Limited
Jurisdictional Scheme Payments
2013

Scheme Payment Name	Description	Date DNSP Became Subject to Scheme	Description of Cost Recovery Method	Total Scheme Payments ($'000 nominal)
PFIT	Premium Solar Feed-in Tariff Scheme	1/11/2009	Cost is recovered through tariffs	6,489
TFIT	Transitional Feed-in Tariff Scheme	1/01/2012	Cost is recovered through tariffs	2,965
		Total jurisdictional scheme payments		**9,454**

Contents

Jemena Electricity Networks (Vic) Limited
Demand management incentive scheme
2013

Instructions:

Enter all demand management innovation allowance information for the relevant regulatory year in the tables below. The information should be provided in accordance with the AER's *Final demand management incentive scheme for Victorian DNSPs, April 2009.*

Table 1 provide the following for each demand management incentive allowance project undertaken:
a) the name of each project
b) operating expenditure ($ nominal)
c) capital expenditure ($ nominal)

Table 2 provide information on the total amount of DMIA spent in the previous regulatory year
a) the name of each project
b) operating expenditure ($ nominal)
c) capital expenditure ($ nominal)

Table 3 provide the following for each demand management program or project for which forgone revenue is claimed:
a) the name of the project
b) forecast demand (MW) without the implementation of the non-tariff demand management program
c) actual demand (MW) with the implementation of the non-tariff demand management program
d) price applicable to forgone quantities

Table 1 DMIA undertaken

Name of project	2013		
	Operating expenditure ($ nominal)	Capital expenditure ($ nominal)	Total expenditure ($ nominal)
Impact of Energy Portal on Customers' Consumption Habits	48,356		48,356
			0
			0
			0
			0
			0
Total	**48,356**	**0**	**48,356**

Table 2 DMIA expenditure in the regulatory reporting year

Name of project	Total amount of the DMIA spent in previous regulatory year		
	Operating expenditure ($ nominal)	Capital expenditure ($ nominal)	Total expenditure ($ nominal)
Energy Portal Project		223,925	223,925
			0
			0
Total	**0**	**223,925**	**223,925**

Table 3 Foregone revenue in the regulatory reporting year

Name of project	Total			
	Forecast quantity	Actual quantity	Forgone quantity	Price
			0	
			0	
			0	
			0	
			0	
			0	
Total	**0**	**0**	**0**	

Note 1: Table 3 has been left blank intentionally as JEN has not identified any forgone revenue in the regulatory reporting year.

Contents

Jemena Electricity Networks (Vic) Limited
Self Insurance
2013

Table 1 Self Insurance Events with an Incurred Cost of Greater than $100 000 per Event.

Type of Self Insurance Event	Date of Event	Description of Event	Cost of the Event that Relates to Regulated Assets ($'000 nominal)	Other Costs (eg Costs Related to Non-regulated Assets) ($'000 nominal)	Total Cost of Self Insurance Event ($'000 nominal)	Costs Covered by External Funding ($'000 nominal)	Costs to be passed through ($'000 nominal)	Independently verifiable information attached?
Severe Hail Storm	25/12/2011	A storm event that resulted in hail damage to the roof of the Broadmeadows Warehouse (Cool Drive) which caused asbestos fibres to be released inside the building along with water damage.	45	-	45	468	-	Yes
Low Voltage Injection	17/03/2013	Electrical damage to a large number of customers' equipment following a Low Voltage Injection into Havelock-Cathart substation.	148	-	148	-	-	Yes
High Voltage Injection	5/05/2013	Electrical damage to a large number of customers' equipment following a High Voltage Injection into Lockheed-Boeing substation.	149	-	149	-	-	Yes
		Total actual cost of self insurance	**341**	**-**	**341**	**468**	**-**	

Table 2 Self insurance events with an incurred cost of less than $100 000 per event

Number of events	Costs of the events that relate to regulated assets	Costs covered by external funding	Costs that do not relate to regulated assets
208	226	0	0

Table 3 Total self insurance that relate to regulated assets

Total self insurance	**567**

Note: This section is not intended to reconcile with EBSS data

Table 1:

Event: Severe Hail Storm

Costs of $45k resulting from hail damage to the roof of the Broadmeadows Warehouse (Cool Drive) which caused asbestos fibres to be released inside the building along with water damage.
These costs form part of a claim submitted to the insurance company during CY12, but are actual costs incurred in CY13.
Total costs covered by external funding of $468k comprise actual cash receipts and expected cash to be collected at a future date.

	CY12	CY13	Life to Date
Costs incurred for this event	(1,965)	(45)	(2,010)
Insurance Refund	800	468	1,268
Insurance Excess	500	0	500
Expected Future Insurance Refund	(665)	423	(242)

Event: Low Voltage Injection

Costs of $148k resulting from electrical damage following a low voltage injection into Havelock-Cathart substation:
These costs represent claims yet to be submitted to the insurance company.
The insurance excess is $100,000.

Event: High Voltage Injection

Costs of $149k resulting from electrical damage following a high voltage injection into Lockheed-Boeing substation:
These costs represent claims yet to be submitted to the insurance company.
The insurance excess is $100,000.

Table 2:

A total cost of $226k of self insurance has been incurred for events of less than $100k per event occurring in 2013 with claims received and settlements paid as at 31 December 2013.

The 208 events mainly relate to damage to third party property and represent events based on trouble orders resulting in claims. Where there is no associated trouble order and there was still a settlement, this has been classed as a single event.
The network incidents causing the damage include:
- supply failure as a result of fallen tree branches, weather effects (e.g.. lightning, storm), animal/bird damage, pole fire or vandalism etc.
- voltage fluctuation due to electrical or mechanical failure resulting in asset or service failure etc.

Contents

Jemena Electricity Networks (Vic) Limited
Change of Accounting Policy
2013

Please state the nature and reason for the change:

Table 1 The aggregate effect of the change in accounting policy on the balance sheet and income statements

Statutory Account code or reference to account code	JEN Category	Previously Stated	Adjustment	Restated
	Balance Sheet	**$'000 nominal**	**$'000 nominal**	**$'000 nominal**
	Item			
	Income Statement			
	Item			

JEN's explanatory notes:

1 There is no change in JEN's accounting policies.
JEN has therefore left the table intentionally blank.

Contents

Jemena Electricity Networks (Vic) Limited
Related Party Transactions
2013

Table 1. Payments made by JEN to Related Party under CONTROL or INFLUENCING Ownership

Note: for transactions with a Related Party that is related to the provision of standard control services, alternative control services, Advanced Metering Infrastructure or negotiated distribution services and greater than $500,000

Name of related party	Services Provided	Contract Charge ($'000 nominal)		Actual Cost ($'000 nominal)		Margin ($'000 nominal)		Description of how this transaction amount was determined	Description of how this amount is reflected in the Regulatory Accounting Statements, including the asset class or cost category	Where the related party costs have been allocated to different asset classes or cost categories, the description of the basis of allocation and the quantum of the allocator
		Capex	Opex	Capex	Opex	Capex	Opex			
[redacted]										

Table 2. Composition of margins in relation to table 1.

Name of related party	Services Provided	Margins ($'000 nominal)		Total ($'000 nominal)
		Overhead	Residual	
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0

Note: Provide, if separately identifiable the proportion of margins related to overhead costs and the proportion if any, that is related to assets used but not in the Distribution Businesses regulatory asset base.

JEN's explanatory notes:

1 Table 1:
Jemena Asset Management costs are inclusive of the Zinfra Contracting Pty Ltd Group ma[redacted]

The related party margin reported in the prior year's RIN between Jemena Electricity Networks and Jemena Asset Management was [redacted]
The prior year RIN included the Zinfra Contracting Pty Ltd Group margin which was disclosed separately in the explanatory notes.

JEN
Safety and Bushfire Related Expenditure
2013

Contents

Instructions
Please populate table 1 where the asset categories definitions differ from the "Asset Installation"' worksheet.
The definitions in table 1 are not limited or restricted. Please include additional definitions where necessary.
Median unit costs should be used. Where unit costs are not recorded at the asset category level - provide the best estimates of the unit cost using the cost allocation method outlined in table 1.
As a transitional measure, the unit cost may be based on a statistically significant annual sample of actual work orders at a 5% or better confidence interval.
Provide basis of allocation where applicable
AER expected expenditure ($2010) means bushfire related expenditure as approved under the AER Determination for 2011-15
AER expected expenditure ($2010) means ESL and non ESL, ESMS related expenditure as approved under the AER Determination for 2011-15
AER expected volumes means the bushfire related expenditure in volumes as submitted under the AER Determination for 2011-15 as well as approved by ESV.
AER expected volumes means the ESL and non ESL and ESMS related volumes as approved under the AER Determination for 2011-15

CPI applied to convert expenditure in real $2010 to nominal based on lagged September CPI index	1.0854

Table 1 Asset groups: Definitions, cost-allocation basis and methodology

Asset group	Category *i.e., bushfire, ESMS, ESL or non-ESL*	Definitions	Basis for allocation of cost to asset group
Planned non-preferred services replacements	ESMS	Non-preferred services are upgraded to current standards as a proactive replacement program and in conjunction with other work such as network augmentation, pole replacement, reconductoring and asset relocation	This program replaces overhead services based on condition. The cost is allocated to "Services" asset group.
Planned replacement of non-preferred services due to height	ESMS	As with other non-preferred services particular attention is paid to services that are below regulated heights and are prioritised based on the classification of the road and the height of the service at the kerb, point of attachment and centre of the road.	This is a program to replace overhead services based on code height requirements. The cost is allocated to "Services" asset group.
Removal of public lighting switchwire	ESMS	Remove out-of-service public lighting switchwire to eliminate hazards to line workers and the general public.	This is a dedicated project to remove the public lighting switchwire. This project has been reclassified to Opex and is not allocated to an asset group.
Replacement of existing SWER lines with 22kV overhead bare conductor	Bushfire	Convert existing Single Wire Earth Return (SWER) lines into 3-phase distribution network to improve sensitivity of electrical protection .	This is a dedicated project to replace existing Single Wire Earth Return (SWER) lines with 3-phase conductor. The cost is allocated to "Conductor" asset group.
Installation of GFN and associated equipment at zone substations	Bushfire	A GFN is a Ground Fault Neutraliser, also known as Rapid Earth Fault Current Limiter (REFCL), which is installed inside a zone substation and has the purpose of limiting earth fault current and reducing bushfire ignition risk.	This is a dedicated project to install GFN in zone substations supplying into the Hazardous Bushfire Risk Area (HBRA). The cost is allocated to "Zone - Other assets" asset group.
Replacement of crossarms/insulator sets – pole top fire mitigation	ESMS	Replace deteriorated pole top structures to reduce the risk of pole top fire ignition. The distribution feeders that have been targeted for pole fire mitigation were identified from detailed engineering analysis.	This is a dedicated program to replace pole top structures based on condition of pole tops. The cost is allocated to the "Pole Top Structures" asset group
Replacement of crossarms – based on age and condition	ESMS	The asset inspection program makes an assessment of the serviceability of crossarms based on condition. Crossarms are replaced when they are deemed to reach the end of their service life.	This is an inspection driven program to replace pole top structures based on condition. The cost is allocated to the "Pole Top Structures" asset group
Replacement of poles – based on age and condition	ESMS	Poles are replaced when they have reached the end of their service life and are unsuitable for staking.	This is an inspection and test driven program to replace poles based on the findings. The cost is allocated to the "Poles" asset group.
Stake poles – based on age and condition	ESMS	The pole inspection program uses a technical measurement procedure to determine the serviceability of wood poles. Poles are staked to reinforce their strength if their condition has deteriorated but could remain in service after reinforcement.	This is an inspection and test driven program to stake poles based on the findings. The cost is allocated to the "Poles" asset group and sub-group of "Staked Poles".
Replacement of undersized poles	ESMS	Replace undersized poles which could not be reinforced by staking as these poles have sub-standard strength (typically 5kN or less) and have a history of failure in severe wind storms.	This is a dedicated program to identify and replace undersized poles if not suitable for staking. The cost is allocated to the "Poles" asset group.
Stake undersized poles	ESMS	Reinforce undersized poles by staking as these poles have sub-standard strength (typically 5kN or less) and have a history of failure in severe wind storms.	This is a dedicated program to identify and stake undersized poles if suitable. The cost is allocated to the "Poles" asset group and sub-group of "Staked Poles".
Replacement of overhead conductor – mainly steel	Bushfire	Replace overhead conductors in the HBRA based on condition.	This is a dedicated program to replace overhead conductor in the HBRA based on condition. The cost is allocated to the "conductor" asset group.
Service line clearance – overhead services requiring relocation	ESMS	Replace overhead services where it is not economical or feasible to cut back the vegetation to meet the new Electricity Safety (Electric Line Clearance) Regulations 2010.	This is a dedicated program to replace overhead services where it is not economical or feasible to cut back the vegetation to meet code requirements. The cost is allocated to "Services" asset group.
Service line clearance – overhead services requiring undergrounding	ESMS	Underground overhead services where it is not economical or feasible to cut back the vegetation to meet the new Electricity Safety (Electric Line Clearance) Regulations 2010.	This is a dedicated program to replace overhead services with underground services where it is not economical or feasible to cut back the vegetation to meet code requirements. The cost is allocated to "Service"s asset group.
Replacement of SWER with ABC/underground cabling	ESMS	-	JEN did not propose replacement of SWER with ABC/underground cabling.
Replacement of 22kV distribution feeders with ABC/underground cabling	ESMS	-	JEN did not propose replacement of 22kV distribution feeders with ABC/underground cabling.
Distribution Transformer Height Rectification	ESMS	To modify mounting arrangement to ensure the pole top distribution transformer heights meet code requirements.	This is a dedicated program to ensure the pole top distribution transformer heights meet code requirements . The cost is allocated to the "Distribution Others" asset group.
Vibration Dampers	Bushfire	To install Vibration Dampers in the Hazardous Bushfire Risk Area (HBRA). This is an ESV directive from the Bushfire Royal Commission recommendation.	This is a dedicated program to install Vibration Dampers in the Hazardous Bushfire Risk Area (HBRA). The cost is allocated to "Conductor" asset group.
Armour Rods	Bushfire	To install Armour Rods in the Hazardous Bushfire Risk Area (HBRA). This is an ESV directive from the Bushfire Royal Commission recommendation.	This is a dedicated program to install Armour Rods in the Hazardous Bushfire Risk Area (HBRA). The cost is allocated to "Conductor" asset group.
Zone Substation Earth Grid replacements	ESMS	To identify, test and replace zone substation earth grids to ensure they meet safety requirements.	This is a dedicated program to identify, test and replace zone substation earth grids. The cost is allocated to "Zone-Other Assets" asset group.
Trial of Neutral Condition Monitor	ESMS	AER approved an opex step change for the trial of neutral condition monitors. JEN has instead invested in a capex program "Customer Supply Monitoring" (CSM) to provide neutral condition monitoring.	This is a project to trial the use of the smart meter to monitor the condition of the services line. The cost is allocated to "Others" asset group.

Table 2 Bushfire related expenditure (volumes)

Asset group	Units	AER expected volumes	Actual Units	Variance	Reasons for variance
Planned non-preferred services replacements	no. of services	-	-	-	-
Planned replacement of non-preferred services due to height	no. of services	-	-	-	-
Removal of public lighting switchwire	no. of spans removed	-	-	-	-
Replacement of existing SWER lines with 22kV overhead bare conductor	no. of kms of SWER	3	14	(11)	JEN has completed the program ahead of schedule. All SWER has been removed from the JEN network as of February 2013.
Installation of GFN and associated equipment at zone substations	no. of zone substations	1	-	1	JEN plans to complete a trial installation of a REFCL (Rapid Earth Fault Current Limiter) in this 5-year period. Cost incurred in 2013 is associated with the request for tender process that has been undertaken.
Replacement of crossarms/insulator sets – pole top fire mitigation	no. of crossarms/sets	-	-	-	-
Replacement of crossarms – based on age and condition	no. of crossarms	-	-	-	-
Replacement of poles – based on age and condition	no. of poles	-	-	-	-
Stake poles – based on age and condition	no. of poles	-	-	-	-
Replacement of undersized poles	no. of poles	-	-	-	-
Stake undersized poles	no. of poles	-	-	-	-
Replacement of overhead conductor – mainly steel	no. of kms	22	12	10	JEN is ahead of target with the steel conductor replacement program in the Hazardous Bushfire Risk Area (HBRA) for the 3 year period (2011 to 2013).
Service line clearance – overhead services requiring relocation	no. of services	-	-	-	-
Service line clearance – overhead services requiring undergrounding	no. of services	-	-	-	-
Replacement of SWER with ABC/underground cabling	no. of km	-	-	-	JEN did not propose replacement of SWER with ABC/underground cabling.
Replacement of 22kV distribution feeders with ABC/underground cabling	no. of feeders	-	-	-	JEN did not propose replacement of 22kV distribution feeders with ABC/underground cabling.
Vibration Dampers	no. of spans	-	390	(390)	This is an ESV directive which was a part of the Victorian Bushfires Royal Commission recommendation. This directive was given post Revised EDPR submission. This program is on target to be completed in 2014.
Armour Rods	no. of sets	-	76	(76)	This is an ESV directive which was a part of the Victorian Bushfires Royal Commission recommendation. This directive was given post Revised EDPR submission. This program is on target to be completed in 2014.

Table 3 Safety related other - ESL, non ESL and ESMS (volumes)

Asset group	Units	AER expected volumes	Actual Units	Variance	Reasons for variance
Planned non-preferred services replacements	no. of services	6,000	4,615	1,385	JEN has replaced 4,615 non-preferred services in 2013. JEN has identified the specific services that will be targeted for replacement and is well advanced with the associated works planning in order to achieve the obligation over the 5 year period.
Planned replacement of non-preferred services due to height	no. of services	341	1,735	(1,394)	JEN has replaced 1,735 non-preferred services due to height in 2013. JEN has identified the specific services that will be targeted for replacement and is well advanced with the associated works planning in order to achieve the obligation over the 5 year period.
Removal of public lighting switchwire	no. of spans removed	1,700	2,077	(377)	JEN has exceeded the annual target and is on target to achieve the 5 year target.
Replacement of existing SWER lines with 22kV overhead bare conductor	no. of kms of SWER	-	-	-	-
Installation of GFN and associated equipment at zone substations	no. of zone substations	-	-	-	-
Replacement of crossarms/insulator sets – pole top fire mitigation	no. of crossarms/sets	567	314	253	JEN identified and replaced 314 crossarms/insulator sets in the targeted pole fire mitigation area in 2013. JEN is on target to achieve the 5 year target.
Replacement of crossarms – based on age and condition	no. of crossarms	2,823	4,098	(1,275)	JEN is on track to deliver the AER's approved volume in the 5-year period. In 2013 JEN continued to inspect assets in accordance with the Asset Inspection Manual and replace crossarms based on condition. The number of crossarms replaced due to age and condition can be initiated by network augmentation activities and is not limited to asset replacement activities.
Replacement of poles – based on age and condition	no. of poles	259	395	(136)	JEN is on track to deliver the AER's approved volume in the 5-year period. In 2013 JEN continued to inspect assets in accordance with the Asset Inspection Manual and replace poles based on condition. The number of poles replaced due to age and condition can be initiated by network augmentation activities and is not limited to asset replacement activities.
Stake poles – based on age and condition	no. of poles	223	405	(182)	JEN is on track to deliver the AER's approved volume in the 5-year period. In 2013 JEN continued to inspect assets in accordance with the Asset Inspection Manual and to stake poles based on condition.
Replacement of undersized poles	no. of poles	277	75	202	In 2013, JEN replaced 75 undersized poles and performed the necessary design for the replacement of additional undersized poles. The design has identified a higher number of undersized poles being suitable for staking, therefore reducing the number of poles that will be replaced in 2014. When the total volume of undersized poles that have been replaced and staked is considered, the two programs to address undersized poles is ahead of target.
Stake undersized poles	no. of poles	220	702	(482)	JEN is on track to deliver the AER's approved volume in the 5-year period.
Replacement of overhead conductor – mainly steel	no. of kms	-	-	-	-
Service line clearance – overhead services requiring relocation	no. of services	57	48	9	This activity is focussed on achieving compliance to the 2010 Electric Line Clearance Regulations. Under this activity category it was identified that the bulk of work was required on LV mains. As such, in 2013, JEN has relocated 48 services and have replaced 1 pole, offset 2 crossarms and replaced 2 bays of LV with 35mm service cable.
Service line clearance – overhead services requiring undergrounding	no. of services	14	-	14	In 2013 JEN completed the works described above. There has not been a requirement to underground any services in order to achieve compliance.
Replacement of SWER with ABC/underground cabling	no. of km	-	-	-	JEN did not propose replacement of SWER with ABC/underground cabling.
Replacement of 22kV distribution feeders with ABC/underground cabling	no. of feeders	-	-	-	JEN did not propose replacement of 22kV distribution feeders with ABC/underground cabling.
Distribution Transformer Height Rectification	no. of Distribution Transformers	-	-	-	The AER has not explicitly provided for this program of works in its final determination
Zone Substation Earth Grid replacements	no. of Zone Substation	-	-	-	The AER has not explicitly provided for this program of works in its final determination
Trial of Neutral Condition Monitor	no. of customers	5,000	-	5,000	JEN has not progressed this project in 2013 due to inability to source a commercial product for the trial.

Table 4 Bushfire related expenditure ($ nominal - excluding margins and overheads)

Asset group	Category	AER expected expenditure ($'000 2010)	Actual ($'000 nominal)	Variance ($'000 nominal)	Reasons for variance
Planned non-preferred services replacements		-	-	-	-
Planned replacement of non-preferred services due to height	0	-	-	-	-
Removal of public lighting switchwire	0	-	-	-	-
Replacement of existing SWER lines with 22kV overhead bare conductor	Bushfire	461	1,842	(1,342)	The construction work commenced in late December 2012 and was completed in 2013.
Installation of GFN and associated equipment at zone substations	Bushfire	875	21	929	JEN plans to complete a trial installation of a REFCL (Rapid Earth Fault Current Limiter) in this 5-year period. Cost incurred in 2013 is associated with the request for tender process that has been undertaken.
Replacement of crossarms/insulator sets – pole top fire mitigation	0	-	-	-	-
Replacement of crossarms – based on age and condition	0	-	-	-	-
Replacement of poles – based on age and condition	0	-	-	-	-
Stake poles – based on age and condition	0	-	-	-	-
Replacement of undersized poles	0	-	-	-	-
Stake undersized poles	0	-	-	-	-
Replacement of overhead conductor – mainly steel	Bushfire	1,248	484	870	JEN identified fewer km of conductor in 2013 that require replacement than forecast, however JEN is ahead of target with the steel conductor replacement program in the Hazardous Bushfire Risk Area (HBRA) for the 3 year period (2011 to 2013).
Service line clearance – overhead services requiring relocation	0	-	-	-	-
Service line clearance – overhead services requiring undergrounding	0	-	-	-	-
Replacement of SWER with ABC/underground cabling	0	-	-	-	JEN did not propose replacement of SWER with ABC/underground cabling.
Replacement of 22kV distribution feeders with ABC/underground cabling	0	-	-	-	JEN did not propose replacement of 22kV distribution feeders with ABC/underground cabling.
Vibration Dampers	Bushfire	-	234	(234)	This is an ESV directive which was a part of the Victorian Bushfires Royal Commission recommendation. This directive was given post Revised EDPR submission. The cost for Vibration Damper and Armour Rod are collected as one project, JEN is unable to separate these costs.
Armour Rods	Bushfire	-	-	-	This is an ESV directive which was a part of the Victorian Bushfires Royal Commission recommendation. This directive was given post Revised EDPR submission. The cost for Vibration Damper and Armour Rod are collected as one project, JEN is unable to separate these costs.

Note - Reported expenditure is to be entered EXCLUSIVE of any overheads, profit margins or management fees paid directly or indirectly to related party contractors for the report period.

Table 5 Safety related other - ESL, non ESL and ESMS ($ nominal - excluding margins and overheads)

Asset group	Category	AER expected expenditure ($'000 2010)	Actual ($'000 nominal)	Variance ($'000 nominal)	Reasons for variance
Planned non-preferred services replacements	ESMS	1,823	4,407	(2,429)	Although JEN has replaced 6,350 non-preferred services in 2013, which is on target with a forecast volume of 6341, the cost of the program is greater than the expected expenditure. This is a result of the unit rate being higher than the allowance.
Planned replacement of non-preferred services due to height	ESMS	104	-	112	JEN is unable to report on the actual cost (and volumes) for this item separately in 2013 as the data is not collected separately. The cost is included in the above item.
Removal of public lighting switchwire	ESMS	306	467	(134)	JEN commenced the first year of the targeted removal program in 2012 as planned and the program continued throughout 2013. The cost is higher than forecast as a result of the higher volume being completed.
Replacement of existing SWER lines with 22kV overhead bare conductor	0	-	-	-	-
Installation of GFN and associated equipment at zone substations	0	-	-	-	-
Replacement of crossarms/insulator sets – pole top fire mitigation	ESMS	1,372	1,036	453	JEN identified and replaced 314 crossarms/insulator sets in the targeted pole fire mitigation area in 2013 compared with a target of 567. JEN is on track to meet its 5 year target.
Replacement of crossarms – based on age and condition	ESMS	5,292	2,614	3,130	In 2013 JEN continued to inspect assets in accordance with the Asset Inspection Manual and replace crossarms based on condition. The number of crossarms replaced due to age and condition can be initiated by network augmentation activities and is not limited to asset replacement activities. Replacing crossarms as part of a network augmentation project will result in the cost of the crossarm replacement being captured as part of the network augmentation project and is unable to be separately identified. Therefore, the total expenditure shown is not representative of the replacement volume shown above.
Replacement of poles – based on age and condition	ESMS	1,288	2,910	(1,512)	JEN identified 395 poles that required replacement in 2013 compared with a seasonalised forecast of 259 poles. The actual unit rate was higher than the allowance. The number of poles replaced due to age and condition can be initiated by network augmentation activities and is not limited to asset replacement activities. Replacing poles as part of a network augmentation project will result in the cost of the pole replacement being captured as part of the network augmentation project and is unable to be separately identified. Therefore, the total expenditure shown is not representative of the replacement volume shown above.
Stake poles – based on age and condition	ESMS	164	535	(357)	JEN identified and staked 405 poles in 2013 compared with a seasonalised forecast of 223 poles. The actual unit rate was higher than the allowance.
Replacement of undersized poles	ESMS	1,265	791	582	In 2013, JEN replaced 75 undersized poles and performed the necessary design for the replacement of additional undersized poles. The design has identified a higher number of undersized poles being suitable for staking, therefore reducing the cost of poles that will be replaced in 2013.
Stake undersized poles	ESMS	161	882	(707)	In 2013, JEN staked 702 undersized poles. A portion of the cost incurred in 2013 was due to undersized poles that were staked in late 2012.
Replacement of overhead conductor – mainly steel	0	-	-	-	-
Service line clearance – overhead services requiring relocation	ESMS	17	93	(74)	This activity is focussed on achieving compliance to the 2010 Electric Line Clearance Regulations. Under this activity category it was identified that a portion of the work was required on LV mains. As such, in 2013, JEN has relocated 48 services, replaced 1 pole, installed 2 offset crossarms and replaced 2 bays of LV with 35mm service cable.
Service line clearance – overhead services requiring undergrounding	ESMS	71	-	77	In 2013 JEN completed the works described above. There has not been a requirement to underground any services in order to achieve compliance.
Replacement of SWER with ABC/underground cabling	0	-	-	-	JEN did not propose replacement of SWER with ABC/underground cabling.
Replacement of 22kV distribution feeders with ABC/underground cabling	0	-	-	-	JEN did not propose replacement of 22kV distribution feeders with ABC/underground cabling.
Distribution Transformer Height Rectification	ESMS	-	78	(78)	The AER has not explicitly provided for this program of works in its final determination
Zone Substation Earth Grid replacements	ESMS	-	194	(194)	The AER has not explicitly provided for this program of works in its final determination
Trial of Neutral Condition Monitor	ESMS	-	-	-	JEN has not progressed this project in 2013 due to inability to source a commercial product for the trial.

Note - Reported expenditure is to be entered EXCLUSIVE of any overheads, profit margins or management fees paid directly or indirectly to related party contractors for the report period.

Table 6 Bushfire related expenditure ($ nominal - margins and overheads)

Asset group	Category	AER expected expenditure ($'000 2010)	Actual ($'000 nominal)	Variance ($'000 nominal)	Reasons for variance
Planned non-preferred services replacements	0	-	-	-	-
Planned replacement of non-preferred services due to height	0	-	-	-	-
Removal of public lighting switchwire	0	-	-	-	-
Replacement of existing SWER lines with 22kV overhead bare conductor	Bushfire	26	297	(268)	As per Table 4
Installation of GFN and associated equipment at zone substations	Bushfire	50	3	51	As per Table 4
Replacement of crossarms/insulator sets – pole top fire mitigation	0	-	-	-	-
Replacement of crossarms – based on age and condition	0	-	-	-	-
Replacement of poles – based on age and condition	0	-	-	-	-
Stake poles – based on age and condition	0	-	-	-	-
Replacement of undersized poles	0	-	-	-	-
Stake undersized poles	0	-	-	-	-
Replacement of overhead conductor – mainly steel	Bushfire	72	78	(0)	As per Table 4
Service line clearance – overhead services requiring relocation	0	-	-	-	-
Service line clearance – overhead services requiring undergrounding	0	-	-	-	-
Replacement of SWER with ABC/underground cabling	0	-	-	-	-
Replacement of 22kV distribution feeders with ABC/underground cabling	0	-	-	-	-
Vibration Dampers	Bushfire	-	38	(38)	As per Table 4
Armour Rods	Bushfire	-	-	-	As per Table 4

Note -Reported expenditure to be entered is the sum of overheads, profit margins or management fees paid directly or indirectly to related party contractors for the report period.

Table 7 Safety related other - ESL, non ESL and ESMS ($ nominal - margins and overheads)

Asset group	Category	AER expected expenditure ($'000 2010)	Actual ($'000 nominal)	Variance ($'000 nominal)	Reasons for variance
Planned non-preferred services replacements	ESMS	105	710	(597)	As per Table 5
Planned replacement of non-preferred services due to height	ESMS	6	-	6	As per Table 5
Removal of public lighting switchwire	ESMS	18	75	(56)	As per Table 5
Replacement of existing SWER lines with 22kV overhead bare conductor		-	-	-	-
Installation of GFN and associated equipment at zone substations		-	-	-	-
Replacement of crossarms/insulator sets – pole top fire mitigation	ESMS	79	167	(81)	As per Table 5
Replacement of crossarms – based on age and condition	ESMS	304	421	(91)	As per Table 5
Replacement of poles – based on age and condition	ESMS	74	469	(389)	As per Table 5
Stake poles – based on age and condition	ESMS	9	86	(76)	As per Table 5
Replacement of undersized poles	ESMS	73	128	(49)	As per Table 5
Stake undersized poles	ESMS	9	142	(132)	As per Table 5
Replacement of overhead conductor – mainly steel		-	-	-	-
Service line clearance – overhead services requiring relocation	ESMS	1	15	(14)	As per Table 5
Service line clearance – overhead services requiring undergrounding	ESMS	4	-	4	As per Table 5
Replacement of SWER with ABC/underground cabling		-	-	-	-
Replacement of 22kV distribution feeders with ABC/underground cabling		-	-	-	-
Distribution Transformer Height Rectification	ESMS	-	13	(13)	As per Table 5
Zone Substation Earth Grid replacements	ESMS	-	31	(31)	As per Table 5
Trial of Neutral Condition Monitor	ESMS	-	-	-	As per Table 5

Note -Reported expenditure to be entered is the sum of overheads, profit margins or management fees paid directly or indirectly to related party contractors for the report period.

Table 8 Bushfire related expenditure ($ unit cost)

Asset group	Category	AER expected expenditure ($'000 2010)	Actual ($'000 nominal)	Variance ($'000 nominal)	Reasons for variance
Planned non-preferred services replacements		0	0	-	-
Planned replacement of non-preferred services due to height		0	0	-	-
Removal of public lighting switchwire		0	0	-	-
Replacement of existing SWER lines with 22kV overhead bare conductor	Bushfire	[redacted]		-	Construction work was completed in 2013. The majority of the cost incurred in 2013 was for construction works. Cost for design, community consultation and initiation phase of the project were incurred in prior years.
Installation of GFN and associated equipment at zone substations	Bushfire			-	No actual unit rate. Construction work is planned to commence in 2015.
Replacement of crossarms/insulator sets – pole top fire mitigation		0	0	-	-
Replacement of crossarms – based on age and condition		0	0	-	-
Replacement of poles – based on age and condition		0	0	-	-
Stake poles – based on age and condition		0	0	-	-
Replacement of undersized poles		0	0	-	-
Stake undersized poles		0	0	-	-
Replacement of overhead conductor – mainly steel	Bushfire	[redacted]		20	The actual unit rate is the total project cost of conductor replacement, inclusive of the cost of pole top structures that require replacement at the time. The unit rate will vary depending on the complexity of the specific project and the length of the conductor replacement. Higher proportion of longer length projects has been experienced in 2013 resulting in more efficient project delivery.
Service line clearance – overhead services requiring relocation		0	0	-	-
Service line clearance – overhead services requiring undergrounding		0	0	-	-
Replacement of SWER with ABC/underground cabling		0	0	-	JEN did not propose replacement of SWER with ABC/underground cabling.
Replacement of 22kV distribution feeders with ABC/underground cabling		0	0	-	JEN did not propose replacement of 22kV distribution feeders with ABC/underground cabling.
Vibration Dampers	Bushfire	[redacted]			This is an ESV directive which was a part of the Victorian Bushfires Royal Commission recommendation. This directive was given post Revised EDPR submission.
Armour Rods	Bushfire				This is an ESV directive which was a part of the Victorian Bushfires Royal Commission recommendation. This directive was given post Revised EDPR submission.

Table 9 Safety related other - ESL, non ESL and ESMS ($ unit cost)

Asset group	Category	AER expected expenditure ($'000 2010)	Actual ($'000 nominal)	Variance ($'000 nominal)	Reasons for variance
Planned non-preferred services replacements	ESMS	[redacted]	[redacted]	(1)	This unit rate is the average rate to replace services. JEN is unable to report on the unit rates separately for this category and replacements due to height in 2013 as the data is not collected separately.
Planned replacement of non-preferred services due to height	ESMS	[redacted]	[redacted]	(1)	This unit rate is the average rate to replace services. JEN is unable to report on the unit rates separately for this category and replacements due to height in 2013 as the data is not collected separately.
Removal of public lighting switchwire	ESMS	[redacted]	[redacted]	(0)	The unit rate reduced as expected in 2013 compared with 2012 as a result of completing a larger volume of removals in 2013. The unit rate is higher than forecast because the project cost includes the surveying of the network to identify the switchwire locations.
Replacement of existing SWER lines with 22kV overhead bare conductor		0	0	-	-
Installation of GFN and associated equipment at zone substations		0	0	-	-
Replacement of crossarms/insulator sets – pole top fire mitigation	ESMS	[redacted]	[redacted]	(1)	The actual unit rate varies depending on the proportion of complex pole top structures that were completed in 2013.
Replacement of crossarms – based on age and condition	ESMS	[redacted]	[redacted]	(1)	The number of crossarms replaced due to age and condition can be initiated by network augmentation activities and is not limited to asset replacement activities. Replacing crossarms as part of a network augmentation project will result in the cost of the crossarm replacement being captured as part of the network augmentation project and is unable to be separately identified. Therefore, the actual unit cost shown is based on detailed examination of a number of replacement work orders undertaken in 2013.
Replacement of poles – based on age and condition	ESMS	[redacted]	[redacted]	(8)	The number of poles replaced due to age and condition can be initiated by network augmentation activities and is not limited to asset replacement activities. Replacing poles as part of a network augmentation project will result in the cost of the pole replacement being captured as part of the network augmentation project and is unable to be separately identified. Therefore, the actual unit cost shown is based on detailed examination of a number of replacement work orders undertaken in 2013. The actual unit rate will vary depending on the ratio of subtransmission, high voltage, low voltage and public lighting poles that require replacement. This means that if there is a high proportion of complex poles, particularly high voltage, the unit rate will be higher than forecast. Higher proportion of complex pole structures has been experienced in 2013.
Stake poles – based on age and condition	ESMS	[redacted]	[redacted]	(1)	The actual unit rate will vary depending on the strength of the poles and this, in general is related to the ratio of subtransmission, high voltage, low voltage and public lighting poles that require staking. This means that if there is a higher than forecast proportion of high voltage poles to be staked then the unit rate will be higher than forecast. Higher proportion of high voltage poles has been staked in 2013.
Replacement of undersized poles	ESMS	[redacted]	[redacted]	-	The actual unit rate will vary depending on the ratio of subtransmission, high voltage, low voltage and public lighting poles that require replacement. This means that if there is a high proportion of complex poles, particularly high voltage, the unit rate will be higher than forecast. Higher proportion of complex pole structures has been experienced in 2013.
Stake undersized poles	ESMS	[redacted]	[redacted]	-	The actual unit rate will vary depending on the strength of the poles and this, in general is related to the ratio of subtransmission, high voltage, low voltage and public lighting poles that require staking. This means that if there is a higher than forecast proportion of high voltage poles to be staked then the unit rate will be higher than forecast. Higher proportion of high voltage poles has been staked in 2013.
Replacement of overhead conductor – mainly steel		0	0	-	-
Service line clearance – overhead services requiring relocation	ESMS	[redacted]	[redacted]	-	To ensure compliance it has been necessary for JEN to relocate and replace assets other than overhead services. In 2013, JEN has relocated 48 services, replaced 1 pole, installed 2 offset crossarms and replaced 2 bays of LV with 35mm service cable. The relocation and replacement work will continue throughout 2014.
Service line clearance – overhead services requiring undergrounding	ESMS	[redacted]	[redacted]	-	In 2013 JEN completed the works described above. There has not been a requirement to underground any services in order to achieve compliance.
Replacement of SWER with ABC/underground cabling		0	0	-	JEN did not propose replacement of SWER with ABC/underground cabling.
Replacement of 22kV distribution feeders with ABC/underground cabling		0	0	-	JEN did not propose replacement of 22kV distribution feeders with ABC/underground cabling.
Distribution Transformer Height Rectification	ESMS	[redacted]	[redacted]	#VALUE!	This unit rate was not calculated for 2013 as the cost incurred was for further survey and design work.
Zone Substation Earth Grid replacements	ESMS	[redacted]	[redacted]	(49)	The actual unit rate will vary depending on the degree of complexity associated with the works required to achieve the earth grid requirements. This unit rate is based on average cost per work site performed during 2013.
Trial of Neutral Condition Monitor	ESMS	[redacted]	[redacted]	-	JEN has not progressed this project in 2013 due to inability to source a commercial product for the trial.

Table 10 Safety improvement outcomes reported to ESV (volumes)

Asset group	Units	Safety Improvement Programme - outcomes	Safety Improvement Target	Variance	Reasons for variance
Planned non-preferred services replacements	no. of services	4,615	6,000	(1,385)	As per Table 3
Planned replacement of non-preferred services due to height	no. of services	1,735	341	1,394	As per Table 3
Removal of public lighting switchwire	no. of spans removed	2,077	1,700	377	As per Table 3
Replacement of existing SWER lines with 22kV overhead bare conductor	no. of kms of SWER	14	3	11	As per Table 2
Installation of GFN and associated equipment at zone substations	no. of zone substations	-	1	(1)	As per Table 2
Replacement of crossarms/insulator sets – pole top fire mitigation	no. of crossarms/sets	314	567	(253)	As per Table 3
Replacement of crossarms – based on age and condition	no. of crossarms	4,098	2,823	1,275	As per Table 3
Replacement of poles – based on age and condition	no. of poles	395	259	136	As per Table 3
Stake poles – based on age and condition	no. of poles	405	223	182	As per Table 3
Replacement of undersized poles	no. of poles	75	277	(202)	As per Table 3
Stake undersized poles	no. of poles	702	220	482	As per Table 3
Replacement of overhead conductor – mainly steel	no. of kms	12	22	(10)	As per Table 2
Service line clearance – overhead services requiring relocation	no. of services	48	57	(9)	As per Table 3
Service line clearance – overhead services requiring undergrounding	no. of services	-	14	(14)	As per Table 3
Replacement of SWER with ABC/underground cabling	no. of km	-	-	-	As per Table 3
Replacement of 22kV distribution feeders with ABC/underground cabling	no. of feeders	-	-	-	As per Table 3
Distribution Transformer Height Rectification	no. of Distribution Transformers	-	-	-	As per Table 3
Vibration Dampers	no. of spans	390	-	390	As per Table 2
Armour Rods	no. of sets	76	-	76	As per Table 2
Zone Substation Earth Grid replacements	no. of Zone Substation	-	-	-	As per Table 3
Trial of Neutral Condition Monitor	no. of customers	-	5,000	(5,000)	As per Table 3

Table 11 Reconciliation of safety improvement outcomes reported to ESV and AER (volumes)

Asset group	Units	Variance	Reasons for variance
Planned non-preferred services replacements	no. of services	1,385	As per Table 3
Planned replacement of non-preferred services due to height	no. of services	(1,394)	As per Table 3
Removal of public lighting switchwire	no. of spans removed	(377)	As per Table 3
Replacement of existing SWER lines with 22kV overhead bare conductor	no. of kms of SWER	(11)	As per Table 2
Installation of GFN and associated equipment at zone substations	no. of zone substations	1	As per Table 2
Replacement of crossarms/insulator sets – pole top fire mitigation	no. of crossarms/sets	253	As per Table 3
Replacement of crossarms – based on age and condition	no. of crossarms	(1,275)	As per Table 3
Replacement of poles – based on age and condition	no. of poles	(136)	As per Table 3
Stake poles – based on age and condition	no. of poles	(182)	As per Table 3
Replacement of undersized poles	no. of poles	202	As per Table 3
Stake undersized poles	no. of poles	(482)	As per Table 3
Replacement of overhead conductor – mainly steel	no. of kms	10	As per Table 2
Service line clearance – overhead services requiring relocation	no. of services	9	As per Table 3
Service line clearance – overhead services requiring undergrounding	no. of services	14	As per Table 3
Replacement of SWER with ABC/underground cabling	no. of km	-	As per Table 3
Replacement of 22kV distribution feeders with ABC/underground cabling	no. of feeders	-	As per Table 3
Distribution Transformer Height Rectification	no. of Distribution Transformers	-	As per Table 3
Vibration Dampers	no. of spans	(390)	As per Table 2
Armour Rods	no. of spans	(76)	As per Table 2
Zone Substation Earth Grid replacements	no. of Zone Substation	-	As per Table 3
Trial of Neutral Condition Monitor	no. of customers	5,000	As per Table 3

Table 12 Bushfire-related expenditure - approved under pass-through applications (volumes)

Asset group	Units	As approved under pass through applications	Actual Units	Variance	Reasons for variance
<DNSP to input as appropriate>	<DNSP to input as appropriate>			0	Not Applicable
<DNSP to input as appropriate>	<DNSP to input as appropriate>			0	Not Applicable
<DNSP to input as appropriate>	<DNSP to input as appropriate>			0	Not Applicable

Table 13 Bushfire-related expenditure pass-through applications ($ nominal - excluding margins and overheads)

Asset group	Category *i.e., bushfire*	As approved pass through ($'000 nominal)	Actual ($'000 nominal)	Variance ($'000 nominal)	Reasons for variance
<DNSP to input as appropriate>	<DNSP to input as appropriate>			0	Not Applicable
<DNSP to input as appropriate>	<DNSP to input as appropriate>			0	Not Applicable
<DNSP to input as appropriate>	<DNSP to input as appropriate>			0	Not Applicable
<DNSP to input as appropriate>	<DNSP to input as appropriate>			0	Not Applicable

Table 14 Bushfire-related expenditure pass-through applications ($ nominal - margins and overheads)

Asset group	Category *i.e., bushfire*	As approved under pass through ($'000 nominal)	Actual ($'000 nominal)	Variance ($'000 nominal)	Reasons for variance
<DNSP to input as appropriate>	<DNSP to input as appropriate>			0	Not Applicable
<DNSP to input as appropriate>	<DNSP to input as appropriate>			0	Not Applicable
<DNSP to input as appropriate>	<DNSP to input as appropriate>			0	Not Applicable
<DNSP to input as appropriate>	<DNSP to input as appropriate>			0	Not Applicable

JEN's explanatory notes:

1 Tables 12 - 14

These three tables are not applicable as JEN did not have any pass-through applications for 2013.

2 Unit rate information (both AER determination and actual) is confidential to JEN because public disclosure could jeopardise JEN's commercial position in future negotiations with prospective service providers. This applies to all unit rate data.

Contents

Jemena Electricity Networks (Vic) Limited
Cost of Debt
2013

No longer required as advised by AER Staff
Explanatory notes are not applicable

Instructions:
Enter the required data in the yellow cells.

Table 1 Cost of debt

	Value	Explanation
Weighted average cost of debt (%)		

JEN
Unmetered Supply Tariff Quantity Data Template (Actual t-2)
2013

Contents

Proposed tariff
metering data services - unmetered supplies

Qt-2		
NMIs	*Meters*	*Lights*
ActVolComp1	ActVolComp2	ActVolComp3
-	-	69,628

JEN
Tariff Quantity Data Template (Actual t-2) Distribution Tariff Revenue 2013

Contents

Tariffs t-2

Residential - General Purpose
Residential - Flexible
Residential - Time of Use Interval Meter
Residential - TOU
Residential - Off Peak Only
Small Business - General Purpose
Small Business - TOU Weekdays
Small Business - TOU Weekdays Demand
Small Business - TOU Extended
Small Business - TOU Extended Demand
Small Business - Unmetered Supply
Large Business - LV 0.4 - 0.8 GWh
Large Business – LVEN Annual Consumption <= 0.8 GWh
Large Business - LV 0.8+ - 2.2 GWh
Large Business - LVEN 0.8+ - 2.2 GWh
Large Business - LV 2.2+ - 6.0 GWh
Large Business -LVEN 2.2+ - 6.0 GWh
Large Business - LVMS 2.2+ - 6.0 GWh
Large Business - LV 6.0+ GWh
Large Business - LVEN 6.0+ GWh
Large Business - LVMS 6.0+ GWh
Large Business - HV
Large Business – HVEN Annual Consumption <= 10 GWh
Large Business - HVRF
Large Business- HVEN 10+ GWh
Large Business - HV Ann Cons >= 55GWh
Large Business - Subtransmission
Large Business - Subtransmission MA
Large Business - Subtransmission EG

Distribution Tariffs (Pt-2)

(t-2)Tar Fixed	(t-2)Tar PkBlk1	(t-2)Tar PkBlk2	(t-2)Tar PkBlk3	(t-2)Tar PkBlk4	(t-2)Tar OPkBlk1	(t-2)Tar OPkBlk2	(t-2)Tar OPkBlk3	(t-2)Tar OPkBlk4	(t-2)Tar DemBlk1	(t-2)Tar DemBlk2	(t-2)Tar DemBlk3	(t-2)Tar DemBlk4
21.190	7.447	-	-	-	-	-	-	-	-	-	-	-
21.190	12.267	8.192	12.267	8.192	3.888	3.888	-	-	-	-	-	-
21.190	12.041	-	-	-	1.973	-	-	-	-	-	-	-
37.930	8.950	-	-	-	1.620	-	-	-	-	-	-	-
-	-	-	-	-	1.620	-	-	-	-	-	-	-
59.590	8.545	-	-	-	-	-	-	-	-	-	-	-
84.430	10.119	-	-	-	1.690	-	-	-	-	-	-	-
69.530	5.686	-	-	-	1.736	-	-	-	58.709	-	-	-
84.430	8.924	-	-	-	1.852	-	-	-	-	-	-	-
69.530	4.601	-	-	-	1.898	-	-	-	58.709	-	-	-
-	9.667	-	-	-	1.670	-	-	-	-	-	-	-
1,564.890	1.722	-	-	-	0.584	-	-	-	97.553	-	-	-
1,564.890	1.761	-	-	-	0.584	-	-	-	102.507	-	-	-
2,576.550	1.134	-	-	-	0.559	-	-	-	90.145	-	-	-
2,576.550	1.146	-	-	-	0.559	-	-	-	92.384	-	-	-
3,935.960	1.050	-	-	-	0.416	-	-	-	88.923	-	-	-
3,935.960	1.050	-	-	-	0.416	-	-	-	88.923	-	-	-
1,967.970	1.039	-	-	-	0.416	-	-	-	61.467	-	-	-
5,121.490	1.019	-	-	-	0.361	-	-	-	85.201	-	-	-
5,121.490	1.019	-	-	-	0.361	-	-	-	85.201	-	-	-
2,560.740	1.019	-	-	-	0.361	-	-	-	60.175	-	-	-
2,718.810	0.766	-	-	-	0.184	-	-	-	68.497	-	-	-
2,718.810	0.766	-	-	-	0.184	-	-	-	68.497	-	-	-
2,718.810	0.766	-	-	-	0.184	-	-	-	63.607	-	-	-
2,718.810	0.766	-	-	-	0.184	-	-	-	68.497	-	-	-
2,703.000	0.731	-	-	-	0.131	-	-	-	63.189	-	-	-
21,851.360	0.122	-	-	-	0.025	-	-	-	20.008	-	-	-
21,851.360	0.122	-	-	-	0.025	-	-	-	20.008	-	-	-
21,654.400	0.116	-	-	-	0.023	-	-	-	4.009	-	-	-

Actual Quantities (Qt-2)

ActVol Fixed	ActVol PkBlk1	ActVol PkBlk2	ActVol PkBlk3
267,819	1,126,991,924	-	-
145	62,688	91,299	107,807
15,330	32,756,053	-	-
1,779	6,903,791	-	-
-	-	-	-
14,859	188,824,529	-	-
8,092	188,847,300	-	-
487	55,490,527	-	-
2,527	47,546,409	-	-
132	22,895,934	-	-
-	17,875,625	-	-
771	185,087,710	-	-
27	4,779,313	-	-
357	276,824,494	-	-
22	15,244,123	-	-
65	115,584,420	-	-
10	16,289,771	-	-
16	12,308,677	-	-
15	44,385,222	-	-
-	-	-	-
33	58,412,415	-	-
70	255,429,228	-	-
5	50,763,933	-	-
-	-	-	-
312,568	2,950,000,165	91,299	107,807

ActVol PkBlk4	ActVol OPkBlk1	ActVol OPkBlk2	ActVol OPkBlk3	ActVol OPkBlk4	ActVol DemBlk1	ActVol DemBlk2	ActVol DemBlk3	ActVol DemBlk4
-	-	-	-	-	-	-	-	-
164,784	91,600	141,291	-	-	-	-	-	-
-	34,180,144	-	-	-	-	-	-	-
-	7,787,856	-	-	-	-	-	-	-
-	47,649,324	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	120,360,640	-	-	-	-	-	-	-
-	39,573,172	-	-	-	39,678	-	-	-
-	15,335,221	-	-	-	-	-	-	-
-	6,681,548	-	-	-	13,971	-	-	-
-	35,933,170	-	-	-	-	-	-	-
-	117,319,081	-	-	-	146,435	-	-	-
-	3,327,484	-	-	-	6,131	-	-	-
-	194,834,531	-	-	-	171,109	-	-	-
-	10,875,830	-	-	-	11,090	-	-	-
-	87,456,968	-	-	-	60,337	-	-	-
-	11,331,149	-	-	-	9,102	-	-	-
-	8,482,780	-	-	-	12,189	-	-	-
-	38,246,383	-	-	-	21,427	-	-	-
-	-	-	-	-	-	-	-	-
-	45,835,251	-	-	-	31,911	-	-	-
-	211,812,672	-	-	-	161,012	-	-	-
-	44,835,455	-	-	-	23,644	-	-	-
-	-	-	-	-	-	-	-	-
164,784	1,303,138,146	141,291	-	-	806,359	-	-	-

Actual Revenue (P-2)*(Qt-2)

ActRev Fixed	ActRev PkBlk1	ActRev PkBlk2	ActRev PkBlk3	ActRev PkBlk4	ActRev OPkBlk1
5,675,091	83,927,089	-	-	-	-
3,082	7,690	7,479	13,225	13,499	3,561
324,843	3,944,156	-	-	-	674,374
67,492	617,889	-	-	-	126,163
-	-	-	-	-	771,919
885,451	16,135,056	-	-	-	-
683,176	19,109,458	-	-	-	2,034,095
33,886	3,155,191	-	-	-	686,990
213,319	4,243,042	-	-	-	284,008
9,156	1,053,442	-	-	-	126,816
-	1,728,037	-	-	-	600,084
1,206,903	3,187,210	-	-	-	685,143
42,638	84,164	-	-	-	19,433
919,765	3,139,190	-	-	-	1,089,125
57,178	174,698	-	-	-	60,796
254,673	1,213,636	-	-	-	363,821
38,475	171,043	-	-	-	47,138
30,641	127,887	-	-	-	35,288
77,622	452,285	-	-	-	138,069
-	-	-	-	-	-
83,803	595,223	-	-	-	165,465
189,103	1,956,588	-	-	-	389,735
13,594	388,852	-	-	-	82,497
-	-	-	-	-	-
10,891,480	146,132,209	7,479	13,225	13,499	8,508,392

ActRev OPkBlk2	ActRev OPkBlk3	ActRev OPkBlk4	ActRev DemBlk1	ActRev DemBlk2	ActRev DemBlk3	ActRev DemBlk4	ActRev Total
-	-	-	-	-	-	-	89,602,179
5,493	-	-	-	-	-	-	54,030
-	-	-	-	-	-	-	4,943,374
-	-	-	-	-	-	-	811,545
-	-	-	-	-	-	-	771,919
-	-	-	-	-	-	-	17,020,507
-	-	-	-	-	-	-	21,826,729
-	-	-	2,329,473	-	-	-	6,205,540
-	-	-	-	-	-	-	4,740,369
-	-	-	820,250	-	-	-	2,009,664
-	-	-	-	-	-	-	2,328,121
-	-	-	14,285,142	-	-	-	19,364,399
-	-	-	628,486	-	-	-	774,720
-	-	-	15,424,662	-	-	-	20,572,742
-	-	-	1,024,510	-	-	-	1,317,182
-	-	-	5,365,350	-	-	-	7,197,480
-	-	-	809,397	-	-	-	1,066,053
-	-	-	749,231	-	-	-	943,048
-	-	-	1,825,604	-	-	-	2,493,581
-	-	-	-	-	-	-	-
-	-	-	1,920,233	-	-	-	2,764,723
-	-	-	11,028,841	-	-	-	13,564,266
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
-	-	-	1,503,906	-	-	-	1,988,849
-	-	-	-	-	-	-	-
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
5,493	-	-	60,707,637	-	-	-	226,279,414

Contents

JEN
Tariff Quantity Data Template (Actual t-2) Transmission Tariff Revenue
2013

	Transmission Tariffs (Pt-2)													
Tariffs t-2	(t-2)Tar Fixed	(t-2)Tar PkBlk1	(t-2)Tar PkBlk2	(t-2)Tar PkBlk3	(t-2)Tar PkBlk4	(t-2)Tar OPkBlk1	(t-2)Tar OPkBlk2	(t-2)Tar OPkBlk3	(t-2)Tar OPkBlk4	(t-2)Tar DemBlk1	(t-2)Tar DemBlk2	(t-2)Tar DemBlk3	(t-2)Tar DemBlk4
Residential - General Purpose	4	1	-	-	-	-	-	-	-	-	-	-	-
Residential - Flexible	4	1	0	1	0	0	0	-	-	-	-	-	-
Residential - Time of Use Interval Meter	4	1	-	-	-	0	-	-	-	-	-	-	-
Residential - TOU	6	2	-	-	-	1	-	-	-	-	-	-	-
Residential - Off Peak Only	-	-	-	-	-	1	-	-	-	-	-	-	-
Small Business - General Purpose	6	1	-	-	-	-	-	-	-	-	-	-	-
Small Business - TOU Weekdays	31	2	-	-	-	1	-	-	-	-	-	-	-
Small Business - TOU Weekdays Demand	200	1	-	-	-	1	-	-	-	5	-	-	-
Small Business - TOU Extended	31	2	-	-	-	1	-	-	-	-	-	-	-
Small Business - TOU Extended Demand	200	1	-	-	-	1	-	-	-	5	-	-	-
Small Business - Unmetered Supply	-	1	-	-	-	1	-	-	-	-	-	-	-
Large Business - LV 0.4 - 0.8 GWh	419	2	-	-	-	1	-	-	-	4	-	-	-
Large Business – LVEN Annual Consumption <= 0.8 GWh	419	2	-	-	-	1	-	-	-	4	-	-	-
Large Business - LV 0.8+ - 2.2 GWh	1,050	2	-	-	-	1	-	-	-	4	-	-	-
Large Business - LVEN 0.8+ - 2.2 GWh	1,050	2	-	-	-	1	-	-	-	4	-	-	-
Large Business - LV 2.2+ - 6.0 GWh	2,345	2	-	-	-	1	-	-	-	5	-	-	-
Large Business -LVEN 2.2+ - 6.0 GWh	2,345	2	-	-	-	1	-	-	-	6	-	-	-
Large Business - LVMS 2.2+ - 6.0 GWh	2,345	3	-	-	-	1	-	-	-	5	-	-	-
Large Business - LV 6.0+ GWh	4,909	2	-	-	-	1	-	-	-	5	-	-	-
Large Business - LVEN 6.0+ GWh	4,909	2	-	-	-	1	-	-	-	5	-	-	-
Large Business - LVMS 6.0+ GWh	4,909	2	-	-	-	1	-	-	-	5	-	-	-
Large Business - HV	9,644	2	-	-	-	1	-	-	-	6	-	-	-
Large Business – HVEN Annual Consumption <= 10 GWh	9,644	2	-	-	-	1	-	-	-	6	-	-	-
Large Business - HVRF	9,644	2	-	-	-	1	-	-	-	6	-	-	-
Large Business- HVEN 10+ GWh	9,644	2	-	-	-	1	-	-	-	6	-	-	-
Large Business - HV Ann Cons >= 55GWh	10,031	2	-	-	-	1	-	-	-	5	-	-	-
Large Business - Subtransmission	26,032	2	-	-	-	0	-	-	-	4	-	-	-
Large Business - Subtransmission MA	26,032	2	-	-	-	0	-	-	-	4	-	-	-
Large Business - Subtransmission EG	9,992	2	-	-	-	0	-	-	-	4	-	-	-

Actual Quantities (Qt-2)

ActVol Fixed	ActVol PkBlk1	ActVol PkBlk2	ActVol PkBlk3	ActVol PkBlk4	ActVol OPkBlk1	ActVol OPkBlk2	ActVol OPkBlk3	ActVol OPkBlk4	ActVol DemBlk1	ActVol DemBlk2	ActVol DemBlk3	ActVol DemBlk4
267,819	1,126,991,924	-	-	-	-	-	-	-	-	-	-	-
145	62,688	91,299	107,807	164,784	91,600	141,291	-	-	-	-	-	-
15,330	32,756,053	-	-	-	34,180,144	-	-	-	-	-	-	-
1,779	6,903,791	-	-	-	7,787,856	-	-	-	-	-	-	-
-	-	-	-	-	47,649,324	-	-	-	-	-	-	-
14,859	188,824,529	-	-	-	-	-	-	-	-	-	-	-
8,092	188,847,300	-	-	-	120,360,640	-	-	-	-	-	-	-
487	55,490,527	-	-	-	39,573,172	-	-	-	39,678	-	-	-
2,527	47,546,409	-	-	-	15,335,221	-	-	-	-	-	-	-
132	22,895,934	-	-	-	6,681,548	-	-	-	13,971	-	-	-
-	17,875,625	-	-	-	35,933,170	-	-	-	-	-	-	-
771	185,087,710	-	-	-	117,319,081	-	-	-	146,435	-	-	-
27	4,779,313	-	-	-	3,327,484	-	-	-	6,131	-	-	-
357	276,824,494	-	-	-	194,834,531	-	-	-	171,109	-	-	-
22	15,244,123	-	-	-	10,875,830	-	-	-	11,090	-	-	-
65	115,584,420	-	-	-	87,456,968	-	-	-	60,337	-	-	-
10	16,289,771	-	-	-	11,331,149	-	-	-	9,102	-	-	-
16	12,308,677	-	-	-	8,482,780	-	-	-	12,189	-	-	-
15	44,385,222	-	-	-	38,246,383	-	-	-	21,427	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
33	58,412,415	-	-	-	45,835,251	-	-	-	31,911	-	-	-
70	255,429,228	-	-	-	211,812,672	-	-	-	161,012	-	-	-
5	50,763,933	-	-	-	44,835,455	-	-	-	23,644	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
312,568	2,950,000,165	91,299	107,807	164,784	1,303,138,146	141,291	-	-	806,359	-	-	-

Actual Revenue (P-2)*(Qt-2)

ActRev Fixed	ActRev PkBlk1	ActRev PkBlk2	ActRev PkBlk3	ActRev PkBlk4	ActRev OPkBlk1	ActRev OPkBlk2	ActRev OPkBlk3	ActRev OPkBlk4	ActRev DemBlk1	ActRev DemBlk2	ActRev DemBlk3	ActRev DemBlk4	ActRev Total
1,116,806	11,044,521	-	-	-	-	-	-	-	-	-	-	-	12,161,327
607	768	185	1,321	335	139	215	-	-	-	-	-	-	3,569
63,926	475,290	-	-	-	107,667	-	-	-	-	-	-	-	646,884
11,264	115,708	-	-	-	68,767	-	-	-	-	-	-	-	195,738
-	-	-	-	-	318,297	-	-	-	-	-	-	-	318,297
90,343	2,443,389	-	-	-	-	-	-	-	-	-	-	-	2,533,732
247,523	3,306,716	-	-	-	941,220	-	-	-	-	-	-	-	4,495,459
97,685	831,248	-	-	-	318,168	-	-	-	195,416	-	-	-	1,442,517
77,288	738,871	-	-	-	125,135	-	-	-	-	-	-	-	941,295
26,394	291,694	-	-	-	54,922	-	-	-	68,809	-	-	-	441,820
-	147,831	-	-	-	297,167	-	-	-	-	-	-	-	444,999
322,794	4,242,210	-	-	-	1,015,983	-	-	-	577,978	-	-	-	6,158,965
11,404	100,987	-	-	-	28,816	-	-	-	24,200	-	-	-	165,406
374,978	6,569,045	-	-	-	1,642,455	-	-	-	767,255	-	-	-	9,353,733
23,311	330,188	-	-	-	91,683	-	-	-	49,726	-	-	-	494,908
151,708	2,837,598	-	-	-	766,998	-	-	-	326,604	-	-	-	4,082,908
22,920	318,302	-	-	-	98,241	-	-	-	56,024	-	-	-	495,487
36,506	315,102	-	-	-	73,376	-	-	-	65,980	-	-	-	490,964
74,400	933,421	-	-	-	331,596	-	-	-	115,535	-	-	-	1,454,952
-	-	-	-	-	-	-	-	-	-	-	-	-	-
160,649	1,252,362	-	-	-	397,392	-	-	-	172,063	-	-	-	1,982,466
670,770	6,025,575	-	-	-	1,550,469	-	-	-	1,036,756	-	-	-	9,283,571
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
48,220	1,197,521	-	-	-	328,196	-	-	-	152,242	-	-	-	1,726,178
-	-	-	-	-	-	-	-	-	-	-	-	-	-
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
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3,737,320	48,060,338	185	1,321	335	9,771,845	215	-	-	4,031,792	-	-	-	65,603,351

JEN
TUoS cost audit template (t-2)
2013

Contents

TUOS charges (AEMO)	t-2 actual
	52,087,488.24
Total	52,087,488.24

Transmission connection fees (SPI Powernet)	t-2 actual
Prescribed Services charge	6,047,022.03
Excluded Services charge	2,329,642.44
Total	8,376,664.47

Cross boundary network charges (internetwork charges)				t-2 actual
Distribution Business	Amount (payable)/receivable			
	HV crossings	Subtransmission crossings	TUoS Adjustment	Total
CitiPower	1,929,823.67	-34,379.05	1,225,569.11	3,121,013.73
Powercor	363,876.91	5,027,870.18	0.00	5,391,747.09
SP AusNet	-2,823,080.00	107,835.33	-346,026.00	-3,061,270.67
Total				5,451,490.15

Payments to embedded generators	t-2 actual
Avoided transmission costs	
Total	0.00
Avoided TUoS usage charges	
Somerton Power Station	[redacted]
Total	[redacted]
Total payments to embedded generators	

Where the following definitions apply

HV Crossings	Payments/Receipts for energy transferred utilising the distributor's HV and LV line assets.
Sub-transmission Crossings	Payments/Receipts for the Sub-transmission assets in shared loops that support each distributor's Zone Substation capacity to ensure N-1 reliability is maintained.
TuoS Adjustment	Payments/Receipts for the adjustment of TuoS paid by a distributor for energy delivered to another distribution business through a shared loop.

JEN
Tariff Quantity Data Template (Actual t-2) Jurisdictional Scheme Tariff Revenue
2013

Contents

	Jurisdictional Scheme Tariffs (Pt-2)												
Tariff (t-2)	(t-2)Tar Fixed	(t-2)Tar PkBlk1	(t-2)Tar PkBlk2	(t-2)Tar PkBlk3	(t-2)Tar PkBlk4	(t-2)Tar OPkBlk1	(t-2)Tar OPkBlk2	(t-2)Tar OPkBlk3	(t-2)Tar OPkBlk4	(t-2)Tar DemBlk1	(t-2)Tar DemBlk2	(t-2)Tar DemBlk3	(t-2)Tar DemBlk4
Residential - General Purpose	-	0.3	-	-	-	-	-	-	-	-	-	-	-
Residential - Flexible	-	0.3	0.3	0.3	0.3	0.3	0.3	-	-	-	-	-	-
Residential - Time of Use Interval Meter	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Residential - TOU	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Residential - Off Peak Only	-	-	-	-	-	0.3	-	-	-	-	-	-	-
Small Business - General Purpose	-	0.3	-	-	-	-	-	-	-	-	-	-	-
Small Business - TOU Weekdays	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Small Business - TOU Weekdays Demand	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Small Business - TOU Extended	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Small Business - TOU Extended Demand	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Small Business - Unmetered Supply	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Large Business - LV 0.4 - 0.8 GWh	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Large Business – LVEN Annual Consumption <= 0.8 GWh	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Large Business - LV 0.8+ - 2.2 GWh	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Large Business - LVEN 0.8+ - 2.2 GWh	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Large Business - LV 2.2+ - 6.0 GWh	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Large Business -LVEN 2.2+ - 6.0 GWh	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Large Business - LVMS 2.2+ - 6.0 GWh	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Large Business - LV 6.0+ GWh	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Large Business - LVEN 6.0+ GWh	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Large Business - LVMS 6.0+ GWh	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
Large Business - HV	-	0.2	-	-	-	0.2	-	-	-	-	-	-	-
Large Business – HVEN Annual Consumption <= 10 GWh	-	0.2	-	-	-	0.2	-	-	-	-	-	-	-
Large Business - HVRF	-	0.2	-	-	-	0.2	-	-	-	-	-	-	-
Large Business- HVEN 10+ GWh	-	0.2	-	-	-	0.2	-	-	-	-	-	-	-
Large Business - HV Ann Cons >= 55GWh	-	0.2	-	-	-	0.2	-	-	-	-	-	-	-
Large Business - Subtransmission	-	0.1	-	-	-	0.1	-	-	-	-	-	-	-
Large Business - Subtransmission MA	-	0.1	-	-	-	0.1	-	-	-	-	-	-	-
Large Business - Subtransmission EG	-	0.1	-	-	-	0.1	-	-	-	-	-	-	-

Actual Quantities (Qt-2)

ActVol Fixed	ActVol PkBlk1	ActVol PkBlk2	ActVol PkBlk3	ActVol PkBlk4	ActVol OPkBlk1	ActVol OPkBlk2	ActVol OPkBlk3	ActVol OPkBlk4	ActVol DemBlk1	ActVol DemBlk2	ActVol DemBlk3	ActVol DemBlk4
267,819	1,126,991,924	-	-	-	-	-	-	-	-	-	-	-
145	62,688	91,299	107,807	164,784	91,600	141,291	-	-	-	-	-	-
15,330	32,756,053	-	-	-	34,180,144	-	-	-	-	-	-	-
1,779	6,903,791	-	-	-	7,787,856	-	-	-	-	-	-	-
-	-	-	-	-	47,649,324	-	-	-	-	-	-	-
14,859	188,824,529	-	-	-	-	-	-	-	-	-	-	-
8,092	188,847,300	-	-	-	120,360,640	-	-	-	-	-	-	-
487	55,490,527	-	-	-	39,573,172	-	-	-	39,678	-	-	-
2,527	47,546,409	-	-	-	15,335,221	-	-	-	-	-	-	-
132	22,895,934	-	-	-	6,681,548	-	-	-	13,971	-	-	-
-	17,875,625	-	-	-	35,933,170	-	-	-	-	-	-	-
771	185,087,710	-	-	-	117,319,081	-	-	-	146,435	-	-	-
27	4,779,313	-	-	-	3,327,484	-	-	-	6,131	-	-	-
357	276,824,494	-	-	-	194,834,531	-	-	-	171,109	-	-	-
22	15,244,123	-	-	-	10,875,830	-	-	-	11,090	-	-	-
65	115,584,420	-	-	-	87,456,968	-	-	-	60,337	-	-	-
10	16,289,771	-	-	-	11,331,149	-	-	-	9,102	-	-	-
16	12,308,677	-	-	-	8,482,780	-	-	-	12,189	-	-	-
15	44,385,222	-	-	-	38,246,383	-	-	-	21,427	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
33	58,412,415	-	-	-	45,835,251	-	-	-	31,911	-	-	-
70	255,429,228	-	-	-	211,812,672	-	-	-	161,012	-	-	-
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
5	50,763,933	-	-	-	44,835,455	-	-	-	23,644	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
312,568	2,950,000,165	91,299	107,807	164,784	1,303,138,146	141,291	-	-	806,359	-	-	-

Actual Revenue (P-2)*(Qt-2)

ActRev Fixed	ActRev PkBlk1	ActRev PkBlk2	ActRev PkBlk3	ActRev PkBlk4	ActRev OPkBlk1	ActRev OPkBlk2	ActRev OPkBlk3	ActRev OPkBlk4	ActRev DemBlk1	ActRev DemBlk2	ActRev DemBlk3	ActRev DemBlk4	ActRev Total
-	3,380,976	-	-	-	-	-	-	-	-	-	-	-	3,380,976
-	208	303	358	547	268	414	-	-	-	-	-	-	2,099
-	108,750	-	-	-	100,148	-	-	-	-	-	-	-	208,898
-	22,921	-	-	-	22,818	-	-	-	-	-	-	-	45,739
-	-	-	-	-	139,613	-	-	-	-	-	-	-	139,613
-	575,915	-	-	-	-	-	-	-	-	-	-	-	575,915
-	626,973	-	-	-	352,657	-	-	-	-	-	-	-	979,630
-	184,229	-	-	-	115,949	-	-	-	-	-	-	-	300,178
-	157,854	-	-	-	44,932	-	-	-	-	-	-	-	202,786
-	76,015	-	-	-	19,577	-	-	-	-	-	-	-	95,591
-	59,347	-	-	-	105,284	-	-	-	-	-	-	-	164,631
-	579,325	-	-	-	343,745	-	-	-	-	-	-	-	923,069
-	14,959	-	-	-	9,750	-	-	-	-	-	-	-	24,709
-	866,461	-	-	-	570,865	-	-	-	-	-	-	-	1,437,326
-	47,714	-	-	-	31,866	-	-	-	-	-	-	-	79,580
-	361,779	-	-	-	256,249	-	-	-	-	-	-	-	618,028
-	50,987	-	-	-	33,200	-	-	-	-	-	-	-	84,187
-	38,526	-	-	-	24,855	-	-	-	-	-	-	-	63,381
-	138,926	-	-	-	112,062	-	-	-	-	-	-	-	250,988
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	182,831	-	-	-	134,297	-	-	-	-	-	-	-	317,128
-	549,173	-	-	-	453,279	-	-	-	-	-	-	-	1,002,452
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
-	109,142	-	-	-	95,948	-	-	-	-	-	-	-	205,090
-	-	-	-	-	-	-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	8,455,258	303	358	547	3,265,887	414	-	-	-	-	-	-	11,722,768

JEN
Jurisdictional amount cost audit template
2013

Contents

Jurisdictional scheme amounts		t-2 actual
PFIT		6,489,105.70
TFIT		2,965,128.10
<DNSP to insert for future schemes>		0.00
	Total	9,454,233.80

Where the following definitions apply

PFIT	Premium feed-in tariff payments
TFIT	Transitional feed-in tariff payments

Jemena Electricity Networks (Vic) Ltd

Response to the annual Regulatory Information Notice for the 2013 regulatory year

Appendix 1-2

RIN template Appendix C – Non-financial information templates

Public

30 April 2014

Jemena
Vital Service. Vital Planet.

AUSTRALIAN ENERGY REGULATOR

Distribution Network Service Provider
Annual reporting template

This template is to be used by a DNSP to fulfil its annual reporting obligations to the AER.

Colour coding of input sheets:
Dark blue = AER instructions/headings
Yellow = Input cells
Grey - Not applicable/No inputs required

Leave coloured cells blank if no information exists - PLEASE DO NOT ENTER TEXT unless specifically requested to do so.
All dollar amounts are to be unrounded, and in nominal terms.

DNSP - trading name:	**Jemena Electricity Networks (Vic) Limited**
DNSP - Australian business number:	**82 064 651 083**
Reporting year:	**2013**

Business address	Address	321 Ferntree Gully Road		
	Suburb	Mt Waverley		
	State	VIC	Postcode	3149
Postal address	Address	321 Ferntree Gully Road		
	Suburb	Mt Waverley		
	State	VIC	Postcode	3149

Contact name/s	Robert McMillan
Contact phone/s	03 8544 9053
Contact email address/s	robert.mcmillan@jemena.com.au

Electricity Distribution Network
Service Provider Annual Reporting

Table of contents

Jemena Electricity Networks (Vic) Limited
STPIS Data Reporting
2013
Reliability

Table 1: SAIDI (System Average Interruption Duration Index)

	Network categorisation				
Unplanned SAIDI [1] (refer note)	CBD	Urban	Rural short	Rural long	Whole network
Total		64.67	114.42		66.66
Total (after removing excluded events and MED)		57.51	114.39		59.79

Table 2: SAIFI (System Average Interruption Frequency Index)

	Network categorisation				
Unplanned SAIFI [2] (refer note)	CBD	Urban	Rural short	Rural long	Whole network
Total		1.12	2.42		1.18
Total (after removing excluded events and MED)		1.06	2.42		1.11

Table 3: MAIFI (Momentary Average Interruption Frequency Index)

	Network categorisation				
MAIFI [3] (refer note)	CBD	Urban	Rural short	Rural long	Whole network
Total		0.71	2.39		0.78
Total (after removing excluded events and MED)		0.70	2.39		0.77

Table 4: Planned outages

	Network categorisation				
Planned outages	CBD	Urban	Rural short	Rural long	Whole network
SAIDI		21.79	66.87		23.59
SAIFI		0.08	0.27		0.09

Table 5: Average distribution customer numbers

	CBD	Urban	Rural short	Rural long	Whole network
Customer numbers at the start of period		306,645	12,721		319,366
Customer numbers at the end of period		305,483	12,811		318,294
Average distribution customer numbers	0	306,064	12,766	0	318,830

Note - the AER's *Electricity distribution network service providers, Service target performance incentive scheme* , November 2009, p. 22, defines SAIDI and SAIFI as follows;
1) Unplanned SAIDI - The sum of the duration of each unplanned sustained customer interruption (in minutes) divided by the total number of distribution customers. Unplanned SAIDI excludes

2) Unplanned SAIFI - The total number of unplanned sustained customer interruptions divided by the total number of distribution customers. Unplanned SAIFI excludes momentary interruptions (one The AER will apply the ESCV's definition of MAIFI for transitional reasons. The ESCV's Information specification (Service performance) for Victorian Electricity Distributors, 1 January 2009, p. 30,
3) MAIFI - The total number of momentary interruptions divided by the total number of distribution customers (where the distribution customers are network or per feeder based, as appropriate).
4) Total includes the impact of excluded events and MED.

Contents

Jemena Electricity Networks (Vic) Limited
STPIS Data Reporting - AER Definitions
2013
Customer service

Table 1: Telephone answering

Telephone answering	Total	Total after removing MED
Number of calls received	76,248	74,599
Number of calls answered within 30 seconds	47,151	46,960
Percentage of calls answered within 30 seconds	61.84%	62.95%

Note:
Telephone answering has the same meaning as defined in the Electricity DNSPs' STPIS, November 2009.

Table 2: New connections

Note: This is for newly energised properties only

New connections	Total
Number of new connections	7,409
Number of new connections not provided on or before the agreed date	5
Percentage of new connections not provided on or before the agreed date	0.07%

Table 3: Streetlight repair

Note:
Streetlight repair has the same meaning as defined in the Electricity DNSPs' STPIS, November 2009

Streetlight repair	Total
Total number of streetlights	69,058
Total number of streetlight faults	3,054
Total number of streetlight faults reported by person who is the occupier of an immediately neighbouring residence or is the proprietor of an immediately neighbouring business	952
Faulty streetlights not repaired within 2 business days of fault report or agreed date	2
Percentage of faulty streetlights not repaired within 2 business days of fault report or agreed date	0.07%

Table 4 Guaranteed service levels - jurisdictional GSL scheme

Appointments (excluding AMI)	
Customer arranged appointments Central - number	3,629
Appointments not met within 15 minutes of agreed time - number	22
Appointments - GSL payments - number	22
Appointments - GSL payments - ($)	$ 440.00
Appointments (AMI only)	
Customer arranged appointments Central - number	32,588
Appointments not met within 15 minutes of agreed time - number	1,180
Appointments - GSL payments - number	1,180
Appointments - GSL payments - ($)	$ 23,600.00
Connections	
Connections made	7,409
Connections not made on agreed date	5
Connections - GSL payments - 1-4 day delay - number	3
Connections - GSL payments - 1-4 day delay - ($)	$ 250.00
Connections - GSL payments - 5+ day delay - number	2
Connections - GSL payments - 5+ day delay - ($)	$ 500.00
Reliability of supply	
Low reliability payments - 20 hours - number	340
Low reliability payments - 20 hours - ($)	$ 34,000.00
Low reliability payments - 30 hours - number	28
Low reliability payments - 30 hours - ($)	$ 4,200.00
Low reliability payments - 60 hours - number	0
Low reliability payments - 60 hours - ($)	$ -
Low reliability payments - 10 events - number	0
Low reliability payments - 10 events - ($)	$ -
Low reliability payments - 15 events - number	0
Low reliability payments - 15 events - ($)	$ -
Low reliability payments - 30 events - number	0
Low reliability payments - 30 events - ($)	$ -
Low reliability payments - 24 momentary events - number	0
Low reliability payments - 24 momentary events - ($)	$ -
Low reliability payments - 36 momentary events - number	0
Low reliability payments - 36 momentary events - ($)	$ -
Street lights	
Street lights	69,058
Street lights "out" during period	3,054
Street lights not repaired by "fix by" date	4
Street lights not repaired in 2 business days	1,568
Street lights – number of business days to repair	3.3
Street lights - GSL payments - number	2
Street lights - GSL payments - ($)	$ 20.00
Planned interruptions	
Planned interruptions - 4 business days notice not given	61
Total GSL payments made ($)	$ 63,010.00

Jemena Electricity Networks (Vic) Limited
STPIS Data Reporting
2013
Daily Performance Data

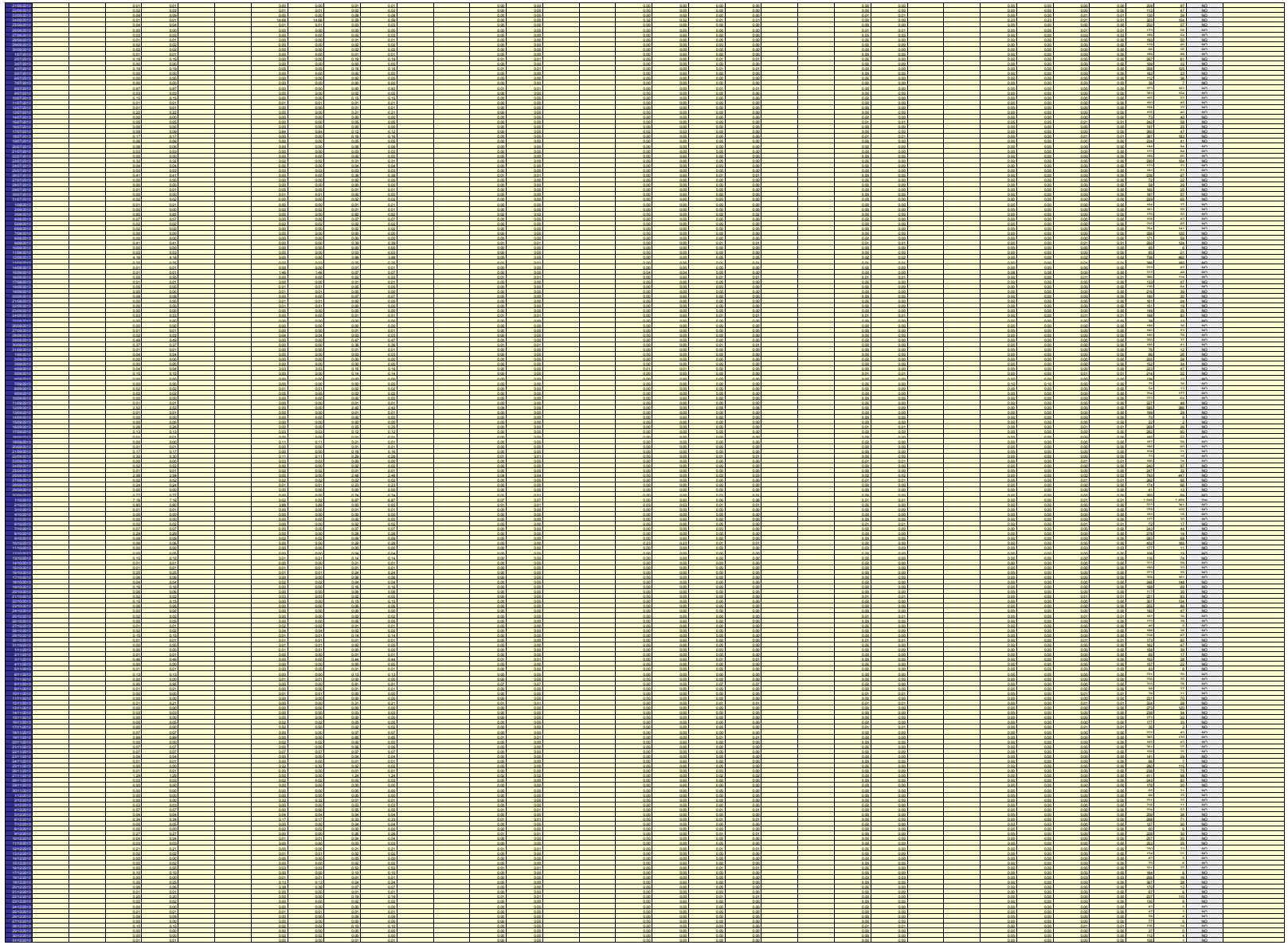
Instruction

This regulatory template requires the input of historical daily performance recorded for the calculation of the parameters under the STPIS, such as MED day boundary and performance targets. STPIS definitions apply to SAIDI and Calls not answered within 30 seconds.
Please note: The AER's definition of calls answered within 30 seconds is as follows:
Calls to the fault line answered in 30 seconds where the time to answer a call is measured from when the call enters the telephone system of the call centre (including that time when it may be ringing unanswered by any response) and the caller speaks with a human operator, but excluding the time that the caller is connected to an automated interactive service that provides substantive information. This measure does not apply to:
- calls to payment lines and automated interactive services;
- calls abandoned by the customer within 30 seconds of the call being queued for response by a human operator. Where the time in which a telephone call is abandoned is not measured, then an estimate of the number of calls abandoned within 30 seconds will be determined by taking 20 per cent of all calls abandoned.
Note: Being placed in a queuing system (automated or otherwise) does not constitute a response. 'Calls answered within 30 seconds' and 'Calls received' should be calculated excluding calls abandoned within 30 seconds of being queued for a human operator; and calls to payment lines and automated interactive services.

Exclusions refer to the exclusions listed in Section 3.3(a) of the STPIS.

Table 1 Daily Performance Data (unplanned)

Date	CBD SAIDI All events	CBD SAIDI (after removing excluded events)	Urban SAIDI All events	Urban SAIDI (after removing excluded events)	Long Rural SAIDI All events	Long Rural SAIDI (after removing excluded events)	Short Rural SAIDI All events	Short Rural SAIDI (after removing excluded events)	Network SAIDI All events	Network SAIDI (after removing excluded events)	CBD SAIFI All events	CBD SAIFI (after removing excluded events)	Urban SAIFI All events	Urban SAIFI (after removing excluded events)	Long Rural SAIFI All events	Long Rural SAIFI (after removing excluded events)	Short Rural SAIFI All events	Short Rural SAIFI (after removing excluded events)	Network SAIFI All events	Network SAIFI (after removing excluded events)	CBD MAIFI All events	CBD MAIFI (after removing excluded events)	Urban MAIFI All events	Urban MAIFI (after removing excluded events)	Long Rural MAIFI All events	Long Rural MAIFI (after removing excluded events)	Short Rural MAIFI All events	Short Rural MAIFI (after removing excluded events)	Network MAIFI All events	Network MAIFI (after removing excluded events)	Customer service: Number of calls received	Customer service: Calls not answered in 30 seconds	MED	Comments / basis for exclusion - refer to category of exclusion under 3.3(a) of STPIS
1/01/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	23	0	NO	
2/01/2013			0.26	0.26			0.00	0.00	0.25	0.25			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	141	7	NO	
3/01/2013			0.14	0.14			0.00	0.00	0.14	0.14			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	169	31	NO	
4/01/2013			0.56	0.56			0.00	0.00	0.53	0.53			0.02	0.02			0.00	0.00	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00	785	609	NO	
5/01/2013			0.18	0.18			0.00	0.00	0.17	0.17			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	204	73	NO	
6/01/2013			0.02	0.02			0.00	0.00	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	63	19	NO	
7/01/2013			0.59	0.59			0.00	0.00	0.56	0.56			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	229	59	NO	
8/01/2013			0.13	0.13			0.00	0.00	0.12	0.12			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	207	47	NO	
9/01/2013			0.00	0.00			0.01	0.01	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	153	48	NO	
10/01/2013			0.00	0.00			1.91	1.91	0.08	0.08			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	155	31	NO	
11/01/2013			1.06	1.06			0.01	0.01	1.02	1.02			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00	337	121	NO	
12/01/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	92	15	NO	
13/01/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	42	6	NO	
14/01/2013			0.02	0.02			0.00	0.00	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	183	45	NO	
15/01/2013			0.00	0.00			0.01	0.01	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	182	30	NO	
16/01/2013			0.24	0.24			0.09	0.09	0.24	0.24			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.10	0.10	0.00	0.00	210	66	NO	
17/01/2013			0.12	0.12			0.00	0.00	0.11	0.11			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	384	79	NO	
18/01/2013			0.11	0.11			0.00	0.00	0.11	0.11			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00	295	163	NO	
19/01/2013			0.54	0.54			0.00	0.00	0.52	0.52			0.02	0.02			0.00	0.00	0.02	0.02			0.01	0.01			0.00	0.00	0.01	0.01	175	98	NO	
20/01/2013			0.03	0.03			0.00	0.00	0.03	0.03			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	30	4	NO	
21/01/2013			0.32	0.32			0.00	0.00	0.30	0.30			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	139	22	NO	
22/01/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	140	25	NO	
23/01/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.01	0.01			0.00	0.00	0.01	0.01	177	17	NO	
24/01/2013			0.06	0.06			0.02	0.02	0.05	0.05			0.00	0.00			0.00	0.00	0.00	0.00			0.01	0.01			0.00	0.00	0.01	0.01	284	56	NO	
25/01/2013			0.02	0.02			0.02	0.02	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	206	51	NO	
26/01/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	133	65	NO	
27/01/2013			3.36	3.36			0.00	0.00	3.23	3.23			0.07	0.07			0.00	0.00	0.06	0.06			0.01	0.01			0.00	0.00	0.01	0.01	770	687	NO	
28/01/2013			0.04	0.04			0.00	0.00	0.04	0.04			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	231	34	NO	
29/01/2013			1.41	1.41			0.06	0.06	1.36	1.36			0.02	0.02			0.00	0.00	0.01	0.01			0.01	0.01			0.00	0.00	0.01	0.01	587	257	NO	
30/01/2013			0.02	0.02			0.00	0.00	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	206	70	NO	
31/01/2013			1.67	1.67			0.00	0.00	1.60	1.60			0.02	0.02			0.00	0.00	0.02	0.02			0.02	0.02			0.00	0.00	0.02	0.02	356	198	NO	
1/02/2013			0.03	0.03			0.00	0.00	0.03	0.03			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	282	123	NO	
2/02/2013			0.00	0.00			0.01	0.01	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	91	32	NO	
3/02/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.01	0.01			0.00	0.00	0.01	0.01	66	16	NO	
4/02/2013			0.23	0.23			0.00	0.00	0.22	0.22			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	230	75	NO	
5/02/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	162	46	NO	
6/02/2013			0.03	0.03			0.02	0.02	0.03	0.03			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	243	81	NO	
7/02/2013			0.09	0.09			0.00	0.00	0.09	0.09			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	246	60	NO	
8/02/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	199	17	NO	
9/02/2013			0.27	0.27			0.49	0.49	0.28	0.28			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00	89	22	NO	
10/02/2013			0.04	0.04			0.30	0.30	0.05	0.05			0.00	0.00			0.00	0.00	0.00	0.00			0.01	0.01			0.00	0.00	0.01	0.01	98	24	NO	
11/02/2013			0.13	0.13			0.00	0.00	0.12	0.12			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	205	48	NO	
12/02/2013			0.00	0.00			0.43	0.43	0.02	0.02			0.00	0.00			0.01	0.01	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	189	48	NO	
13/02/2013			0.46	0.46			0.00	0.00	0.44	0.44			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00	227	89	NO	
14/02/2013			0.00	0.00			0.05	0.05	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.10	0.10	0.00	0.00	175	84	NO	
15/02/2013			0.03	0.03			0.01	0.01	0.03	0.03			0.00	0.00			0.00	0.00	0.00	0.00			0.01	0.01			0.00	0.00	0.01	0.01	203	98	NO	
16/02/2013			0.03	0.03			0.15	0.15	0.03	0.03			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	131	35	NO	
17/02/2013			1.09	1.09			0.00	0.00	1.04	1.04			0.02	0.02			0.00	0.00	0.02	0.02			0.00	0.00			0.05	0.05	0.00	0.00	186	136	NO	
18/02/2013			0.06	0.06			0.00	0.00	0.06	0.06			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	396	228	NO	
19/02/2013			3.19	3.19			0.02	0.02	3.06	3.06			0.05	0.05			0.00	0.00	0.05	0.05			0.00	0.00			0.00	0.00	0.00	0.00	888	448	NO	
20/02/2013			0.06	0.06			0.01	0.01	0.06	0.06			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	185	56	NO	
21/02/2013			0.22	0.22			10.81	10.81	0.64	0.64			0.01	0.01			0.03	0.03	0.01	0.01			0.00	0.00			0.94	0.94	0.04	0.04	445	182	NO	
22/02/2013			0.02	0.02			0.76	0.76	0.05	0.05			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	241	72	NO	
23/02/2013			0.30	0.30			0.00	0.00	0.29	0.29			0.01	0.01			0.00	0.00	0.01	0.01			0.01	0.01			0.00	0.00	0.01	0.01	194	84	NO	
24/02/2013			0.08	0.08			0.01	0.01	0.08	0.08			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	111	35	NO	
25/02/2013			0.01	0.01			0.47	0.47	0.03	0.03			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	209	99	NO	
26/02/2013			0.49	0.49			0.00	0.00	0.47	0.47			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00	396	293	NO	
27/02/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	191	37	NO	
28/02/2013			0.97	0.97			0.00	0.00	0.93	0.93			0.05	0.05			0.00	0.00	0.05	0.05			0.00	0.00			0.00	0.00	0.00	0.00	257	105	NO	
1/03/2013			0.06	0.06			0.01	0.01	0.05	0.05			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	215	161	NO	
2/03/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.01	0.01			0.00	0.00	0.01	0.01	86	31	NO	
3/03/2013			0.03	0.03			0.00	0.00	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.01	0.01			0.00	0.00	0.01	0.01	82	29	NO	
4/03/2013			0.17	0.17			0.00	0.00	0.17	0.17			0.00	0.00			0.00	0.00	0.00	0.00			0.02	0.02			0.21	0.21	0.03	0.03	301	188	NO	
5/03/2013			0.06	0.06			0.00	0.00	0.06	0.06			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	219	142	NO	
6/03/2013			0.03	0.03			0.06	0.06	0.03	0.03			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	237	110	NO	
7/03/2013			0.05	0.05			0.00	0.00	0.05	0.05			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	300	155	NO	
8/03/2013			0.02	0.02			0.10	0.10	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	270	156	NO	
9/03/2013			0.02	0.02			0.00	0.00	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	132	62	NO	
10/03/2013			0.03	0.03			0.00	0.00	0.03	0.03			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	109	27	NO	
11/03/2013			0.05	0.05			0.15	0.15	0.05	0.05			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	253	182	NO	
12/03/2013			0.26	0.26			0.00	0.00	0.24	0.24			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.05	0.05	0.00	0.00	871	742	NO	
13/03/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.01	0.01			0.00	0.00	0.01	0.01	218	83	NO	
14/03/2013			0.03	0.03			0.00	0.00	0.03	0.03			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	203	58	NO	
15/03/2013			0.03	0.03			0.01	0.01	0.03	0.03			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	180	53	NO	
16/03/2013			1.26	1.26			0.00	0.00	1.21	1.21			0.01	0.01			0.00	0.00	0.01	0.01			0.01	0.01			0.00	0.00	0.01	0.01	203	142	NO	
17/03/2013			0.24	0.24			0.02	0.02	0.23	0.23			0.00	0.00			0.00	0.00	0.00	0.00			0.01	0.01			0.05	0.05	0.01	0.01	367	197	NO	
18/03/2013			0.02	0.02			0.01	0.01	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.02	0.02			0.00	0.00	0.02	0.02	285	139	NO	
19/03/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	208	115	NO	
20/03/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	183	114	NO	
21/03/2013			0.98	0.98			0.00	0.00	0.94	0.94			0.01	0.01			0.00	0.00	0.01	0.01			0.01	0.01			0.00	0.00	0.01	0.01	803	701	NO	
22/03/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	201	89	NO	
23/03/2013			0.10	0.10			0.00	0.00	0.09	0.09			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	108	31	NO	
24/03/2013			0.07	0.07			0.00	0.00	0.07	0.07			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	119	30	NO	
25/03/2013			0.03	0.03			1.31	1.31	0.08	0.08			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	291	173	NO	
26/03/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	209	116	NO	
27/03/2013			0.01	0.01			0.02	0.02	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	220	63	NO	
28/03/2013			0.28	0.28			0.00	0.00	0.27	0.27			0.01	0.01			0.00	0.00	0.01	0.01			0.01	0.01			0.00	0.00	0.01	0.01	367	293	NO	
29/03/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	50	17	NO	
30/03/2013			0.12	0.12			11.86	11.86	0.59	0.59			0.00	0.00			0.24	0.24	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00	137	81	NO	
31/03/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.02	0.02			0.00	0.00	0.02	0.02	39	6	NO	
1/04/2013			0.21	0.21			0.00	0.00	0.20	0.20			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	45	4	NO	
2/04/2013			0.04	0.04			4.71	4.71	0.23	0.23			0.01	0.01			0.78	0.78	0.04	0.04			0.00	0.00			0.00	0.00	0.00	0.00	291	169	NO	
3/04/2013			0.02	0.02			0.00	0.00	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	166	55	NO	
4/04/2013			0.14	0.14			0.02	0.02	0.13	0.13			0.00	0.00			0.00	0.00	0.00	0.00			0.01	0.01			0.00	0.00	0.01	0.01	317	218	NO	
5/04/2013			0.42	0.42			12.73	12.73	0.92	0.92			0.01	0.01			0.32	0.32	0.02	0.02			0.02	0.02			0.00	0.00	0.02	0.02	362	262	NO	
6/04/2013			0.32	0.32			0.00	0.00	0.31	0.31			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00	152	98	NO	
7/04/2013			0.04	0.04			0.02	0.02	0.04	0.04			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	83	33	NO	
8/04/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	230	107	NO	
9/04/2013			0.20	0.20			0.00	0.00	0.19	0.19			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	294	127	NO	
10/04/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	196	148	NO	
11/04/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	161	56	NO	
12/04/2013			1.03	1.03			0.00	0.00	0.99	0.99			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00	271	133	NO	
13/04/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	82	13	NO	
14/04/2013			0.02	0.02			0.00	0.00	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	49	10	NO	
15/04/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	207	80	NO	
16/04/2013			0.03	0.03			0.01	0.01	0.03	0.03			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	268	158	NO	
17/04/2013			0.09	0.09			0.01	0.01	0.09	0.09			0.00	0.00			0.00	0.00	0.00	0.00			0.01	0.01			0.00	0.00	0.01	0.01	219	86	NO	
18/04/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	202	73	NO	
19/04/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	176	50	NO	
20/04/2013			0.01	0.01			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	95	52	NO	
21/04/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	47	13	NO	
22/04/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	183	97	NO	
23/04/2013			0.06	0.06			0.00	0.00	0.05	0.05			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	304	228	NO	
24/04/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	200	140	NO	
25/04/2013			0.01	0.01			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	59	7	NO	
26/04/2013			0.00	0.00			0.01	0.01	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	168	53	NO	
27/04/2013			0.00	0.00			28.47	28.47	1.14	1.14			0.00	0.00			0.23	0.23	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00	104	24	NO	
28/04/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	81	9	NO	
29/04/2013			0.00	0.00			0.02	0.02	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	212	135	NO	
30/04/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	225	77	NO	
1/05/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	206	85	NO	
2/05/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	186	36	NO	
3/05/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	190	65	NO	
4/05/2013			0.00	0.00			3.42	3.42	0.14	0.14			0.00	0.00			0.10	0.10	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	142	24	NO	
5/05/2013			0.11	0.11			0.00	0.00	0.11	0.11			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	96	41	NO	
6/05/2013			0.05	0.05			0.00	0.00	0.05	0.05			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	337	147	NO	
7/05/2013			0.08	0.08			0.04	0.04	0.08	0.08			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	209	96	NO	
8/05/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	188	28	NO	
9/05/2013			0.33	0.33			0.00	0.00	0.32	0.32			0.01	0.01			0.00	0.00	0.01	0.01			0.01	0.01			0.00	0.00	0.01	0.01	233	57	NO	
10/05/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	197	29	NO	
11/05/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	105	32	NO	
12/05/2013			0.00	0.00			0.01	0.01	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	29	4	NO	
13/05/2013			0.00	0.00			0.01	0.01	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.05	0.05	0.00	0.00	217	82	NO	
14/05/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	169	52	NO	
15/05/2013			0.12	0.12			0.00	0.00	0.11	0.11			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	253	86	NO	
16/05/2013			0.02	0.02			0.00	0.00	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	215	39	NO	
17/05/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	198	70	NO	
18/05/2013			0.01	0.01			0.22	0.22	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	99	45	NO	
19/05/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	54	21	NO	
20/05/2013			0.00	0.00			0.04	0.04	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	234	113	NO	
21/05/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	201	48	NO	
22/05/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	133	62	NO	
23/05/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	167	34	NO	
24/05/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	162	38	NO	
25/05/2013			0.01	0.01			0.02	0.02	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	78	29	NO	
26/05/2013			0.05	0.05			0.00	0.00	0.05	0.05			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	102	37	NO	
27/05/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.01	0.01			0.00	0.00	0.01	0.01	208	67	NO	
28/05/2013			0.00	0.00			0.04	0.04	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	214	61	NO	
29/05/2013			0.25	0.25			2.06	2.06	0.32	0.32			0.00	0.00			0.01	0.01	0.00	0.00			0.01	0.01			0.00	0.00	0.01	0.01	295	125	NO	
30/05/2013			0.02	0.02			0.00	0.00	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	244	50	NO	
31/05/2013			0.02	0.02			0.00	0.00	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	250	83	NO	
1/06/2013			0.13	0.13			0.00	0.00	0.12	0.12			0.00	0.00			0.00	0.00	0.00	0.00			0.01	0.01			0.00	0.00	0.01	0.01	454	301	NO	
2/06/2013			0.10	0.10			0.07	0.07	0.10	0.10			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	151	58	NO	
3/06/2013			0.02	0.02			0.01	0.01	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	355	202	NO	
4/06/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	224	99	NO	
5/06/2013			0.04	0.04			0.00	0.00	0.03	0.03			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	212	102	NO	
6/06/2013			0.19	0.19			0.00	0.00	0.18	0.18			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	255	52	NO	
7/06/2013			0.02	0.02			0.00	0.00	0.02	0.02			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	223	89	NO	
8/06/2013			0.19	0.19			0.03	0.03	0.18	0.18			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	186	86	NO	
9/06/2013			0.20	0.20			0.00	0.00	0.19	0.19			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	77	21	NO	
10/06/2013			0.02	0.02			0.59	0.59	0.04	0.04			0.00	0.00			0.01	0.01	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	126	39	NO	
11/06/2013			0.16	0.16			0.00	0.00	0.15	0.15			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	225	91	NO	
12/06/2013			0.43	0.43			0.00	0.00	0.41	0.41			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00	395	218	NO	
13/06/2013			0.43	0.43			0.02	0.02	0.42	0.42			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00	253	26	NO	
14/06/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	212	67	NO	
15/06/2013			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	88	20	NO	
16/06/2013			0.01	0.01			0.01	0.01	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	68	23	NO	
17/06/2013			0.05	0.05			0.08	0.08	0.05	0.05			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	368	187	NO	
18/06/2013			0.01	0.01			0.00	0.00	0.01	0.01			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	222	83	NO	
19/06/2013			0.07	0.07			0.04	0.04	0.07	0.07			0.00	0.00			0.00	0.00	0.00	0.00			0.00	0.00			0.23	0.23	0.01	0.01	226	66	NO	
20/06/2013			0.14	0.14			0.00	0.00	0.14	0.14			0.00	0.00			0.00	0.00	0.00	0.00			0.01	0.01			0.00	0.00	0.01	0.01	189	82	NO	



Contents

Jemena Electricity Networks (Vic) Limited
STPIS Data Reporting
2013
MED Threshold

Table 1 MED Threshold

MED Threshold (Timed) year ending 31 December	5.05

Alpha - average of Ln(SAIDI)	-3.7005
Beta - Standard deviation of Ln(SAIDI)	2.1281
X Beta from the mean	2.5

Table 2 MED Calculation

Date	Network SAIDI All events	Network SAIDI (after removing excluded events)	Ln (SAIDI)
1/01/2008	0.021857	0.021857	-3.8232
2/01/2008	0.004939	0.004939	-5.3106
3/01/2008	0.038385	0.038385	-3.2601
4/01/2008	0.011284	0.011284	-4.4843
5/01/2008	0.098037	0.098037	-2.3224
6/01/2008	0.005905	0.005905	-5.1319
7/01/2008	0.002595	0.002595	-5.9541
8/01/2008	0.018037	0.018037	-4.0153
9/01/2008	1.116399	1.116399	0.1101
10/01/2008	0.465861	0.465861	-0.7639
11/01/2008	0.213797	0.213797	-1.5427
12/01/2008	0.005786	0.005786	-5.1523
13/01/2008	0.008309	0.008309	-4.7905
14/01/2008	0.002562	0.002562	-5.9669
15/01/2008	0.004111	0.004111	-5.4940
16/01/2008	0.001443	0.001443	-6.5409
17/01/2008	0.011092	0.011092	-4.5015
18/01/2008	7.005975	7.005975	1.9468
19/01/2008	3.419313	3.419313	1.2294
20/01/2008	0.991566	0.991566	-0.0085
21/01/2008	0.917587	0.917587	-0.0860
22/01/2008	0.807527	0.807527	-0.2138
23/01/2008	0.001870	0.001870	-6.2817
24/01/2008	0.007815	0.007815	-4.8517
25/01/2008	1.083334	1.083334	0.0800
26/01/2008	0.305036	0.305036	-1.1873
27/01/2008	0.002420	0.002420	-6.0241
28/01/2008	0.001539	0.001539	-6.4765
29/01/2008	0.476135	0.476135	-0.7421
30/01/2008	0.042724	0.042724	-3.1530
31/01/2008	0.092059	0.092059	-2.3853
1/02/2008	0.004391	0.004391	-5.4282
2/02/2008	0.274610	0.274610	-1.2924
3/02/2008	0.005807	0.005807	-5.1487
4/02/2008	0.028983	0.028983	-3.5411
5/02/2008	0.033503	0.033503	-3.3961
6/02/2008	0.002819	0.002819	-5.8713
7/02/2008	0.991063	0.991063	-0.0090
8/02/2008	0.003322	0.003322	-5.7071
9/02/2008	0.019308	0.019308	-3.9473
10/02/2008	0.000986	0.000986	-6.9218
11/02/2008	1.065384	1.065384	0.0633
12/02/2008	0.001337	0.001337	-6.6175
13/02/2008	0.268439	0.268439	-1.3151
14/02/2008	0.001188	0.001188	-6.7356
15/02/2008	0.005966	0.005966	-5.1217
16/02/2008	0.027060	0.027060	-3.6097
17/02/2008	0.208799	0.208799	-1.5664
18/02/2008	0.944913	0.944913	-0.0567
19/02/2008	0.146426	0.146426	-1.9212
20/02/2008	4.264538	4.264538	1.4503
21/02/2008	0.022080	0.022080	-3.8131
22/02/2008	0.047126	0.047126	-3.0549
23/02/2008	0.004295	0.004295	-5.4503

24/02/2008	0.000718	0.000718	-7.2390
25/02/2008	0.054538	0.054538	-2.9089
26/02/2008	0.002058	0.002058	-6.1860
27/02/2008	0.001913	0.001913	-6.2593
28/02/2008	0.262023	0.262023	-1.3393
29/02/2008	0.198730	0.198730	-1.6158
1/03/2008	0.000529	0.000529	-7.5439
2/03/2008	0.000000	0.000000	
3/03/2008	0.061232	0.061232	-2.7931
4/03/2008	0.022046	0.022046	-3.8146
5/03/2008	0.573404	0.573404	-0.5562
6/03/2008	0.000519	0.000519	-7.5629
7/03/2008	0.035381	0.035381	-3.3416
8/03/2008	0.000794	0.000794	-7.1385
9/03/2008	0.043615	0.043615	-3.1323
10/03/2008	0.401616	0.401616	-0.9123
11/03/2008	0.003639	0.003639	-5.6160
12/03/2008	0.000576	0.000576	-7.4601
13/03/2008	0.022889	0.022889	-3.7771
14/03/2008	0.731037	0.731037	-0.3133
15/03/2008	0.002782	0.002782	-5.8845
16/03/2008	0.166604	0.166604	-1.7921
17/03/2008	1.363078	1.363078	0.3097
18/03/2008	0.004086	0.004086	-5.5003
19/03/2008	0.002111	0.002111	-6.1608
20/03/2008	0.001399	0.001399	-6.5717
21/03/2008	0.001552	0.001552	-6.4685
22/03/2008	0.033906	0.033906	-3.3842
23/03/2008	0.661869	0.661869	-0.4127
24/03/2008	1.323979	1.323979	0.2806
25/03/2008	0.095084	0.095084	-2.3530
26/03/2008	0.001128	0.001128	-6.7872
27/03/2008	0.003325	0.003325	-5.7064
28/03/2008	0.001651	0.001651	-6.4065
29/03/2008	0.001482	0.001482	-6.5143
30/03/2008	0.002038	0.002038	-6.1959
31/03/2008	0.003639	0.003639	-5.6160
1/04/2008	0.001842	0.001842	-6.2971
2/04/2008	48.190170	48.190170	3.8752
3/04/2008	0.082019	0.082019	-2.5008
4/04/2008	0.018757	0.018757	-3.9762
5/04/2008	0.832927	0.832927	-0.1828
6/04/2008	0.359224	0.359224	-1.0238
7/04/2008	0.015169	0.015169	-4.1885
8/04/2008	0.203825	0.203825	-1.5905
9/04/2008	0.013265	0.013265	-4.3226
10/04/2008	0.023825	0.023825	-3.7370
11/04/2008	0.015083	0.015083	-4.1942
12/04/2008	0.248232	0.248232	-1.3934
13/04/2008	0.038783	0.038783	-3.2498
14/04/2008	0.015685	0.015685	-4.1551
15/04/2008	0.049670	0.049670	-3.0024
16/04/2008	1.181733	1.181733	0.1670
17/04/2008	0.071624	0.071624	-2.6363
18/04/2008	0.016330	0.016330	-4.1148
19/04/2008	0.001762	0.001762	-6.3412
20/04/2008	0.013784	0.013784	-4.2843
21/04/2008	0.026275	0.026275	-3.6391
22/04/2008	0.002995	0.002995	-5.8106
23/04/2008	0.127107	0.127107	-2.0627
24/04/2008	0.061636	0.061636	-2.7865
25/04/2008	0.019305	0.019305	-3.9474
26/04/2008	0.003058	0.003058	-5.7899
27/04/2008	0.514701	0.514701	-0.6642
28/04/2008	0.403098	0.403098	-0.9086
29/04/2008	0.044774	0.044774	-3.1061
30/04/2008	0.046189	0.046189	-3.0750
1/05/2008	0.017012	0.017012	-4.0738
2/05/2008	0.004241	0.004241	-5.4630
3/05/2008	0.003699	0.003699	-5.5998
4/05/2008	0.002221	0.002221	-6.1097
5/05/2008	0.001765	0.001765	-6.3396
6/05/2008	0.002889	0.002889	-5.8469
7/05/2008	0.007662	0.007662	-4.8715
8/05/2008	0.026895	0.026895	-3.6158
9/05/2008	0.002357	0.002357	-6.0505
10/05/2008	0.001626	0.001626	-6.4215
11/05/2008	0.021937	0.021937	-3.8196
12/05/2008	0.025709	0.025709	-3.6609
13/05/2008	0.024367	0.024367	-3.7145
14/05/2008	0.017581	0.017581	-4.0409
15/05/2008	0.002674	0.002674	-5.9242
16/05/2008	1.290236	1.290236	0.2548
17/05/2008	0.260736	0.260736	-1.3442
18/05/2008	0.297816	0.297816	-1.2113
19/05/2008	0.003798	0.003798	-5.5733

20/05/2008	1.071484	1.071484	0.0690
21/05/2008	0.003001	0.003001	-5.8087
22/05/2008	0.001444	0.001444	-6.5400
23/05/2008	0.139491	0.139491	-1.9698
24/05/2008	0.029807	0.029807	-3.5130
25/05/2008	0.003854	0.003854	-5.5586
26/05/2008	0.000486	0.000486	-7.6295
27/05/2008	0.012765	0.012765	-4.3610
28/05/2008	0.025676	0.025676	-3.6622
29/05/2008	0.009291	0.009291	-4.6787
30/05/2008	0.631457	0.631457	-0.4597
31/05/2008	0.098482	0.098482	-2.3179
1/06/2008	0.002134	0.002134	-6.1496
2/06/2008	0.710803	0.710803	-0.3414
3/06/2008	0.990908	0.990908	-0.0091
4/06/2008	0.036038	0.036038	-3.3232
5/06/2008	0.823779	0.823779	-0.1939
6/06/2008	0.056974	0.056974	-2.8652
7/06/2008	0.008676	0.008676	-4.7472
8/06/2008	0.042834	0.042834	-3.1504
9/06/2008	0.001421	0.001421	-6.5567
10/06/2008	0.069009	0.069009	-2.6735
11/06/2008	0.021699	0.021699	-3.8305
12/06/2008	0.001804	0.001804	-6.3178
13/06/2008	0.076248	0.076248	-2.5738
14/06/2008	0.041344	0.041344	-3.1858
15/06/2008	0.024372	0.024372	-3.7143
16/06/2008	0.465411	0.465411	-0.7648
17/06/2008	0.021481	0.021481	-3.8406
18/06/2008	0.002171	0.002171	-6.1328
19/06/2008	0.008970	0.008970	-4.7139
20/06/2008	0.023910	0.023910	-3.7335
21/06/2008	0.001877	0.001877	-6.2783
22/06/2008	0.004804	0.004804	-5.3384
23/06/2008	0.018362	0.018362	-3.9974
24/06/2008	0.230565	0.230565	-1.4672
25/06/2008	0.661821	0.661821	-0.4128
26/06/2008	0.001850	0.001850	-6.2925
27/06/2008	0.001103	0.001103	-6.8093
28/06/2008	0.001318	0.001318	-6.6315
29/06/2008	0.007463	0.007463	-4.8978
30/06/2008	4.701794	4.701794	1.5479
1/07/2008	0.174547	0.174547	-1.7456
2/07/2008	0.004972	0.004972	-5.3039
3/07/2008	0.003437	0.003437	-5.6731
4/07/2008	0.060408	0.060408	-2.8066
5/07/2008	0.019292	0.019292	-3.9481
6/07/2008	0.008013	0.008013	-4.8267
7/07/2008	0.002034	0.002034	-6.1978
8/07/2008	0.007680	0.007680	-4.8692
9/07/2008	0.370843	0.370843	-0.9920
10/07/2008	0.007016	0.007016	-4.9595
11/07/2008	0.002608	0.002608	-5.9490
12/07/2008	0.002275	0.002275	-6.0858
13/07/2008	0.002225	0.002225	-6.1078
14/07/2008	0.038831	0.038831	-3.2485
15/07/2008	0.462131	0.462131	-0.7719
16/07/2008	0.016102	0.016102	-4.1288
17/07/2008	0.005279	0.005279	-5.2439
18/07/2008	0.012074	0.012074	-4.4167
19/07/2008	0.009407	0.009407	-4.6664
20/07/2008	0.012860	0.012860	-4.3536
21/07/2008	0.006676	0.006676	-5.0092
22/07/2008	0.052262	0.052262	-2.9515
23/07/2008	0.016816	0.016816	-4.0855
24/07/2008	0.909748	0.909748	-0.0946
25/07/2008	0.020570	0.020570	-3.8839
26/07/2008	0.014531	0.014531	-4.2315
27/07/2008	0.022243	0.022243	-3.8057
28/07/2008	0.061841	0.061841	-2.7832
29/07/2008	0.029989	0.029989	-3.5069
30/07/2008	0.530661	0.530661	-0.6336
31/07/2008	0.335376	0.058905	-2.8318
1/08/2008	0.003916	0.003916	-5.5428
2/08/2008	0.001994	0.001994	-6.2176
3/08/2008	0.005583	0.005583	-5.1881
4/08/2008	0.003764	0.003764	-5.5824
5/08/2008	0.008564	0.008564	-4.7602
6/08/2008	0.023041	0.023041	-3.7705
7/08/2008	0.012889	0.012889	-4.3514
8/08/2008	0.002387	0.002387	-6.0377
9/08/2008	0.042649	0.042649	-3.1548
10/08/2008	0.030258	0.030258	-3.4980
11/08/2008	0.004434	0.004434	-5.4185
12/08/2008	0.074066	0.074066	-2.6028
13/08/2008	0.069490	0.069490	-2.6666

14/08/2008	1.124486	1.124486	0.1173
15/08/2008	0.001311	0.001311	-6.6372
16/08/2008	0.002093	0.002093	-6.1691
17/08/2008	0.092151	0.092151	-2.3843
18/08/2008	0.027534	0.027534	-3.5923
19/08/2008	0.001449	0.001449	-6.5366
20/08/2008	0.003493	0.003493	-5.6570
21/08/2008	0.116387	0.116387	-2.1508
22/08/2008	0.027142	0.027142	-3.6067
23/08/2008	0.050803	0.050803	-2.9798
24/08/2008	0.019003	0.019003	-3.9631
25/08/2008	0.003701	0.003701	-5.5992
26/08/2008	0.001512	0.001512	-6.4943
27/08/2008	0.155097	0.155097	-1.8637
28/08/2008	0.640528	0.640528	-0.4455
29/08/2008	0.025946	0.025946	-3.6517
30/08/2008	0.588044	0.588044	-0.5310
31/08/2008	0.878842	0.878842	-0.1292
1/09/2008	0.001779	0.001779	-6.3317
2/09/2008	0.000947	0.000947	-6.9620
3/09/2008	0.019710	0.019710	-3.9266
4/09/2008	0.237085	0.237085	-1.4393
5/09/2008	0.036849	0.036849	-3.3009
6/09/2008	0.096960	0.096960	-2.3335
7/09/2008	0.000000	0.000000	
8/09/2008	0.027433	0.027433	-3.5960
9/09/2008	0.009429	0.009429	-4.6639
10/09/2008	0.001521	0.001521	-6.4881
11/09/2008	0.020994	0.020994	-3.8635
12/09/2008	0.130228	0.130228	-2.0385
13/09/2008	0.001304	0.001304	-6.6426
14/09/2008	0.000604	0.000604	-7.4120
15/09/2008	0.197438	0.197438	-1.6223
16/09/2008	0.039301	0.039301	-3.2365
17/09/2008	0.005928	0.005928	-5.1281
18/09/2008	0.001970	0.001970	-6.2295
19/09/2008	0.001535	0.001535	-6.4794
20/09/2008	0.016446	0.016446	-4.1077
21/09/2008	0.001828	0.001828	-6.3043
22/09/2008	0.421457	0.421457	-0.8640
23/09/2008	0.030120	0.030120	-3.5026
24/09/2008	0.216247	0.216247	-1.5313
25/09/2008	0.003588	0.003588	-5.6303
26/09/2008	0.012443	0.012443	-4.3866
27/09/2008	0.002716	0.002716	-5.9085
28/09/2008	0.018918	0.018918	-3.9676
29/09/2008	0.002535	0.002535	-5.9777
30/09/2008	0.032034	0.032034	-3.4410
1/10/2008	0.001716	0.001716	-6.3678
2/10/2008	0.033053	0.033053	-3.4096
3/10/2008	0.054119	0.054119	-2.9166
4/10/2008	0.000828	0.000828	-7.0962
5/10/2008	0.051928	0.051928	-2.9579
6/10/2008	0.010569	0.010569	-4.5498
7/10/2008	0.011232	0.011232	-4.4890
8/10/2008	0.051185	0.051185	-2.9723
9/10/2008	0.001422	0.001422	-6.5556
10/10/2008	0.000000	0.000000	
11/10/2008	0.018544	0.018544	-3.9876
12/10/2008	0.000356	0.000356	-7.9395
13/10/2008	0.086895	0.086895	-2.4431
14/10/2008	0.325726	0.325726	-1.1217
15/10/2008	0.014304	0.014304	-4.2472
16/10/2008	0.038082	0.038082	-3.2680
17/10/2008	0.067965	0.067965	-2.6888
18/10/2008	0.001307	0.001307	-6.6403
19/10/2008	0.016182	0.016182	-4.1239
20/10/2008	0.000469	0.000469	-7.6658
21/10/2008	0.018452	0.018452	-3.9926
22/10/2008	0.037907	0.037907	-3.2726
23/10/2008	0.002577	0.002577	-5.9611
24/10/2008	0.001105	0.001105	-6.8075
25/10/2008	0.023200	0.023200	-3.7636
26/10/2008	0.004950	0.004950	-5.3084
27/10/2008	0.067968	0.067968	-2.6887
28/10/2008	0.010355	0.010355	-4.5703
29/10/2008	0.015321	0.015321	-4.1786
30/10/2008	0.043048	0.043048	-3.1454
31/10/2008	0.205745	0.205745	-1.5811
1/11/2008	0.002062	0.002062	-6.1841
2/11/2008	0.009201	0.009201	-4.6884
3/11/2008	0.478244	0.478244	-0.7376
4/11/2008	0.029917	0.029917	-3.5093
5/11/2008	0.001039	0.001039	-6.8693
6/11/2008	0.002065	0.002065	-6.1825
7/11/2008	0.016519	0.016519	-4.1033

8/11/2008	0.023002	0.023002	-3.7722
9/11/2008	0.002428	0.002428	-6.0206
10/11/2008	0.002910	0.002910	-5.8397
11/11/2008	0.972370	0.972370	-0.0280
12/11/2008	0.772141	0.772141	-0.2586
13/11/2008	0.049599	0.049599	-3.0038
14/11/2008	0.433890	0.433890	-0.8350
15/11/2008	0.467673	0.467673	-0.7600
16/11/2008	0.000759	0.000759	-7.1838
17/11/2008	0.009897	0.009897	-4.6155
18/11/2008	0.040471	0.040471	-3.2072
19/11/2008	0.001211	0.001211	-6.7165
20/11/2008	0.001214	0.001214	-6.7138
21/11/2008	0.000980	0.000980	-6.9281
22/11/2008	0.090608	0.090608	-2.4012
23/11/2008	0.034879	0.034879	-3.3559
24/11/2008	0.316220	0.316220	-1.1513
25/11/2008	0.000218	0.000218	-8.4322
26/11/2008	0.000891	0.000891	-7.0234
27/11/2008	0.444609	0.444609	-0.8106
28/11/2008	0.007852	0.007852	-4.8470
29/11/2008	0.002514	0.002514	-5.9859
30/11/2008	0.014622	0.014622	-4.2252
1/12/2008	0.011303	0.011303	-4.4827
2/12/2008	0.003604	0.003604	-5.6257
3/12/2008	0.540365	0.540365	-0.6155
4/12/2008	0.409203	0.409203	-0.8935
5/12/2008	0.604540	0.604540	-0.5033
6/12/2008	0.001210	0.001210	-6.7170
7/12/2008	0.003871	0.003871	-5.5542
8/12/2008	0.001510	0.001510	-6.4955
9/12/2008	0.124027	0.124027	-2.0873
10/12/2008	0.005810	0.005810	-5.1482
11/12/2008	0.011181	0.011181	-4.4935
12/12/2008	0.351546	0.351546	-1.0454
13/12/2008	2.810175	2.810175	1.0332
14/12/2008	0.033375	0.033375	-3.3999
15/12/2008	0.093554	0.093554	-2.3692
16/12/2008	0.003851	0.003851	-5.5594
17/12/2008	0.005632	0.005632	-5.1793
18/12/2008	0.095717	0.095717	-2.3464
19/12/2008	0.051223	0.051223	-2.9716
20/12/2008	0.047537	0.047537	-3.0462
21/12/2008	0.001375	0.001375	-6.5893
22/12/2008	0.140296	0.140296	-1.9640
23/12/2008	0.266427	0.266427	-1.3227
24/12/2008	0.098879	0.098879	-2.3139
25/12/2008	0.001068	0.001068	-6.8417
26/12/2008	0.000000	0.000000	
27/12/2008	0.000623	0.000623	-7.3807
28/12/2008	0.001105	0.001105	-6.8083
29/12/2008	0.637045	0.637045	-0.4509
30/12/2008	0.063651	0.063651	-2.7543
31/12/2008	0.246934	0.246934	-1.3986
1/01/2009	0.000946	0.000946	-6.9631
2/01/2009	0.000429	0.000429	-7.7550
3/01/2009	0.000000	0.000000	
4/01/2009	0.006432	0.006432	-5.0464
5/01/2009	0.517303	0.517303	-0.6591
6/01/2009	0.050504	0.050504	-2.9857
7/01/2009	0.000399	0.000399	-7.8268
8/01/2009	0.013418	0.013418	-4.3111
9/01/2009	0.000356	0.000356	-7.9404
10/01/2009	0.000821	0.000821	-7.1051
11/01/2009	0.007992	0.007992	-4.8294
12/01/2009	0.001625	0.001625	-6.4220
13/01/2009	1.071294	1.071294	0.0689
14/01/2009	0.006544	0.006544	-5.0292
15/01/2009	0.066224	0.066224	-2.7147
16/01/2009	0.284949	0.284949	-1.2554
17/01/2009	0.015627	0.015627	-4.1588
18/01/2009	0.000000	0.000000	
19/01/2009	0.086387	0.086387	-2.4489
20/01/2009	0.118808	0.118808	-2.1302
21/01/2009	0.010171	0.010171	-4.5882
22/01/2009	1.898655	1.898655	0.6411
23/01/2009	0.479274	0.479274	-0.7355
24/01/2009	0.205396	0.205396	-1.5828
25/01/2009	0.033859	0.033859	-3.3856
26/01/2009	0.000412	0.000412	-7.7942
27/01/2009	0.079797	0.079797	-2.5283
28/01/2009	6.955878	6.955878	1.9396
29/01/2009	10.760650	7.410783	2.0029
30/01/2009	35.510380	2.692042	0.9903
31/01/2009	0.821559	0.821559	-0.1966
1/02/2009	0.123336	0.123336	-2.0928

2/02/2009	0.048229	0.048229	-3.0318
3/02/2009	1.879727	1.879727	0.6311
4/02/2009	1.236100	1.236100	0.2120
5/02/2009	0.018494	0.018494	-3.9903
6/02/2009	0.007249	0.007249	-4.9269
7/02/2009	2.438976	2.438976	0.8916
8/02/2009	0.357521	0.357521	-1.0286
9/02/2009	0.015725	0.015725	-4.1525
10/02/2009	0.732361	0.732361	-0.3115
11/02/2009	0.065777	0.065777	-2.7215
12/02/2009	0.444475	0.444475	-0.8109
13/02/2009	0.012995	0.012995	-4.3432
14/02/2009	0.001460	0.001460	-6.5290
15/02/2009	1.259526	1.259526	0.2307
16/02/2009	0.357745	0.357745	-1.0279
17/02/2009	0.009346	0.009346	-4.6728
18/02/2009	0.002756	0.002756	-5.8940
19/02/2009	0.009059	0.009059	-4.7040
20/02/2009	0.004599	0.004599	-5.3820
21/02/2009	1.026330	1.026330	0.0260
22/02/2009	0.001134	0.001134	-6.7820
23/02/2009	1.345165	1.345165	0.2965
24/02/2009	0.381012	0.381012	-0.9649
25/02/2009	1.149442	1.149442	0.1393
26/02/2009	0.025882	0.025882	-3.6542
27/02/2009	0.197632	0.197632	-1.6214
28/02/2009	0.014205	0.014205	-4.2542
1/03/2009	1.728046	1.728046	0.5470
2/03/2009	0.005925	0.005925	-5.1285
3/03/2009	3.338715	3.338715	1.2056
4/03/2009	0.184945	0.184945	-1.6877
5/03/2009	1.503486	1.503486	0.4078
6/03/2009	1.162905	1.162905	0.1509
7/03/2009	0.000490	0.000490	-7.6201
8/03/2009	0.114099	0.114099	-2.1707
9/03/2009	0.000757	0.000757	-7.1860
10/03/2009	0.001313	0.001313	-6.6351
11/03/2009	0.261742	0.261742	-1.3404
12/03/2009	0.840634	0.840634	-0.1736
13/03/2009	0.039487	0.039487	-3.2318
14/03/2009	5.161045	5.161045	1.6411
15/03/2009	0.013171	0.013171	-4.3297
16/03/2009	0.010258	0.010258	-4.5797
17/03/2009	0.009468	0.009468	-4.6599
18/03/2009	0.002690	0.002690	-5.9184
19/03/2009	0.450404	0.450404	-0.7976
20/03/2009	0.373319	0.373319	-0.9853
21/03/2009	0.000685	0.000685	-7.2865
22/03/2009	0.757496	0.757496	-0.2777
23/03/2009	0.031510	0.031510	-3.4574
24/03/2009	0.067610	0.067610	-2.6940
25/03/2009	0.036491	0.036491	-3.3107
26/03/2009	0.002183	0.002183	-6.1273
27/03/2009	0.331950	0.331950	-1.1028
28/03/2009	0.120327	0.120327	-2.1175
29/03/2009	0.048441	0.048441	-3.0274
30/03/2009	0.031343	0.031343	-3.4628
31/03/2009	0.004523	0.004523	-5.3986
1/04/2009	0.012746	0.012746	-4.3625
2/04/2009	0.011404	0.011404	-4.4738
3/04/2009	2.238293	2.238293	0.8057
4/04/2009	0.182530	0.182530	-1.7008
5/04/2009	0.010328	0.010328	-4.5729
6/04/2009	0.019300	0.019300	-3.9476
7/04/2009	0.047037	0.047037	-3.0568
8/04/2009	0.033323	0.033323	-3.4015
9/04/2009	0.290607	0.290607	-1.2358
10/04/2009	0.002412	0.002412	-6.0274
11/04/2009	0.002178	0.002178	-6.1293
12/04/2009	0.172920	0.172920	-1.7549
13/04/2009	0.530801	0.530801	-0.6334
14/04/2009	0.251476	0.251476	-1.3804
15/04/2009	0.343990	0.343990	-1.0671
16/04/2009	0.001925	0.001925	-6.2530
17/04/2009	0.082137	0.082137	-2.4994
18/04/2009	0.000786	0.000786	-7.1481
19/04/2009	0.000862	0.000862	-7.0562
20/04/2009	0.011953	0.011953	-4.4267
21/04/2009	0.002560	0.002560	-5.9678
22/04/2009	0.001991	0.001991	-6.2193
23/04/2009	0.048435	0.048435	-3.0275
24/04/2009	0.003191	0.003191	-5.7473
25/04/2009	0.026489	0.026489	-3.6310
26/04/2009	0.016727	0.016727	-4.0907
27/04/2009	0.663837	0.663837	-0.4097
28/04/2009	0.027575	0.027575	-3.5908

29/04/2009	0.243656	0.243656	-1.4120
30/04/2009	0.153932	0.153932	-1.8712
1/05/2009	0.077445	0.077445	-2.5582
2/05/2009	0.000647	0.000647	-7.3428
3/05/2009	1.246585	1.246585	0.2204
4/05/2009	0.008608	0.008608	-4.7550
5/05/2009	0.072684	0.072684	-2.6216
6/05/2009	0.004104	0.004104	-5.4959
7/05/2009	0.021859	0.021859	-3.8231
8/05/2009	0.009440	0.009440	-4.6628
9/05/2009	0.004761	0.004761	-5.3473
10/05/2009	0.003174	0.003174	-5.7528
11/05/2009	0.045020	0.045020	-3.1007
12/05/2009	0.007133	0.007133	-4.9430
13/05/2009	0.019770	0.019770	-3.9236
14/05/2009	0.013359	0.013359	-4.3155
15/05/2009	0.001804	0.001804	-6.3179
16/05/2009	0.001380	0.001380	-6.5857
17/05/2009	0.023965	0.023965	-3.7311
18/05/2009	0.001863	0.001863	-6.2856
19/05/2009	0.002044	0.002044	-6.1930
20/05/2009	0.000532	0.000532	-7.5384
21/05/2009	0.056877	0.056877	-2.8669
22/05/2009	0.075073	0.075073	-2.5893
23/05/2009	0.002582	0.002582	-5.9590
24/05/2009	0.003226	0.003226	-5.7364
25/05/2009	0.052291	0.052291	-2.9509
26/05/2009	0.031949	0.031949	-3.4436
27/05/2009	0.046495	0.046495	-3.0684
28/05/2009	0.149551	0.149551	-1.9001
29/05/2009	0.001291	0.001291	-6.6521
30/05/2009	0.004324	0.004324	-5.4436
31/05/2009	0.101187	0.101187	-2.2908
1/06/2009	0.062803	0.062803	-2.7678
2/06/2009	0.004268	0.004268	-5.4566
3/06/2009	0.006961	0.006961	-4.9674
4/06/2009	0.006574	0.006574	-5.0246
5/06/2009	0.003894	0.003894	-5.5483
6/06/2009	0.015215	0.015215	-4.1855
7/06/2009	0.100218	0.100218	-2.3004
8/06/2009	0.048178	0.048178	-3.0328
9/06/2009	0.037556	0.037556	-3.2819
10/06/2009	0.066507	0.066507	-2.7105
11/06/2009	0.005718	0.005718	-5.1641
12/06/2009	0.014011	0.014011	-4.2679
13/06/2009	0.019109	0.019109	-3.9576
14/06/2009	0.034384	0.034384	-3.3702
15/06/2009	0.040121	0.040121	-3.2158
16/06/2009	0.014795	0.014795	-4.2134
17/06/2009	0.019552	0.019552	-3.9347
18/06/2009	0.241029	0.241029	-1.4228
19/06/2009	0.010022	0.010022	-4.6030
20/06/2009	0.003399	0.003399	-5.6844
21/06/2009	0.002549	0.002549	-5.9721
22/06/2009	0.007690	0.007690	-4.8679
23/06/2009	0.001453	0.001453	-6.5339
24/06/2009	0.096553	0.096553	-2.3377
25/06/2009	0.051718	0.051718	-2.9619
26/06/2009	0.058988	0.058988	-2.8304
27/06/2009	0.666944	0.666944	-0.4050
28/06/2009	0.009576	0.009576	-4.6485
29/06/2009	0.011475	0.011475	-4.4675
30/06/2009	0.174910	0.174910	-1.7435
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2/07/2009	0.010564	0.010564	-4.5503
3/07/2009	0.547064	0.547064	-0.6032
4/07/2009	0.051810	0.051810	-2.9602
5/07/2009	0.576307	0.576307	-0.5511
6/07/2009	0.077403	0.077403	-2.5587
7/07/2009	0.019355	0.019355	-3.9448
8/07/2009	0.012753	0.012753	-4.3620
9/07/2009	0.187137	0.187137	-1.6759
10/07/2009	0.186423	0.186423	-1.6797
11/07/2009	0.414587	0.414587	-0.8805
12/07/2009	0.408997	0.408997	-0.8940
13/07/2009	0.011036	0.011036	-4.5066
14/07/2009	0.013752	0.013752	-4.2866
15/07/2009	0.027438	0.027438	-3.5958
16/07/2009	0.006455	0.006455	-5.0429
17/07/2009	3.105386	3.105386	1.1331
18/07/2009	0.003902	0.003902	-5.5462
19/07/2009	0.049592	0.049592	-3.0039
20/07/2009	0.030803	0.030803	-3.4801
21/07/2009	0.001789	0.001789	-6.3261
22/07/2009	0.040417	0.040417	-3.2085
23/07/2009	0.091522	0.091522	-2.3912

24/07/2009	0.002277	0.002277	-6.0848
25/07/2009	0.005865	0.005865	-5.1387
26/07/2009	0.195994	0.195994	-1.6297
27/07/2009	0.008355	0.008355	-4.7849
28/07/2009	0.008005	0.008005	-4.8277
29/07/2009	0.030319	0.030319	-3.4960
30/07/2009	0.006298	0.006298	-5.0676
31/07/2009	0.024136	0.024136	-3.7241
1/08/2009	0.017280	0.017280	-4.0582
2/08/2009	0.000992	0.000992	-6.9158
3/08/2009	0.070880	0.070880	-2.6468
4/08/2009	0.069066	0.069066	-2.6727
5/08/2009	0.005805	0.005805	-5.1491
6/08/2009	0.058036	0.058036	-2.8467
7/08/2009	0.106053	0.106053	-2.2438
8/08/2009	0.026929	0.026929	-3.6146
9/08/2009	0.152881	0.152881	-1.8781
10/08/2009	0.002171	0.002171	-6.1327
11/08/2009	0.588348	0.588348	-0.5304
12/08/2009	0.027672	0.027672	-3.5873
13/08/2009	0.027276	0.027276	-3.6017
14/08/2009	0.028798	0.028798	-3.5474
15/08/2009	0.033883	0.033883	-3.3848
16/08/2009	0.713390	0.713390	-0.3377
17/08/2009	0.029764	0.029764	-3.5144
18/08/2009	0.024005	0.024005	-3.7295
19/08/2009	0.002164	0.002164	-6.1357
20/08/2009	0.108096	0.108096	-2.2247
21/08/2009	0.714049	0.714049	-0.3368
22/08/2009	0.028563	0.028563	-3.5557
23/08/2009	1.112539	1.112539	0.1066
24/08/2009	0.025132	0.025132	-3.6836
25/08/2009	0.410879	0.410879	-0.8895
26/08/2009	0.010140	0.010140	-4.5913
27/08/2009	0.095009	0.095009	-2.3538
28/08/2009	0.575298	0.575298	-0.5529
29/08/2009	0.004142	0.004142	-5.4867
30/08/2009	0.050122	0.050122	-2.9933
31/08/2009	0.059447	0.059447	-2.8227
1/09/2009	0.015839	0.015839	-4.1452
2/09/2009	0.009558	0.009558	-4.6504
3/09/2009	0.225801	0.225801	-1.4881
4/09/2009	0.001838	0.001838	-6.2992
5/09/2009	0.025048	0.025048	-3.6870
6/09/2009	0.003084	0.003084	-5.7817
7/09/2009	0.002086	0.002086	-6.1724
8/09/2009	0.008250	0.008250	-4.7975
9/09/2009	0.022317	0.022317	-3.8024
10/09/2009	0.002642	0.002642	-5.9362
11/09/2009	0.365812	0.365812	-1.0056
12/09/2009	0.188118	0.188118	-1.6707
13/09/2009	0.001753	0.001753	-6.3466
14/09/2009	0.015477	0.015477	-4.1684
15/09/2009	0.208003	0.208003	-1.5702
16/09/2009	0.024381	0.024381	-3.7140
17/09/2009	0.036044	0.036044	-3.3230
18/09/2009	0.001386	0.001386	-6.5810
19/09/2009	0.002812	0.002812	-5.8738
20/09/2009	0.023298	0.023298	-3.7594
21/09/2009	0.047845	0.047845	-3.0398
22/09/2009	0.553941	0.553941	-0.5907
23/09/2009	0.601371	0.601371	-0.5085
24/09/2009	0.001818	0.001818	-6.3100
25/09/2009	0.001975	0.001975	-6.2272
26/09/2009	0.012602	0.012602	-4.3739
27/09/2009	0.151580	0.151580	-1.8866
28/09/2009	1.564228	1.564228	0.4474
29/09/2009	0.008672	0.008672	-4.7477
30/09/2009	0.006844	0.006844	-4.9844
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2/10/2009	0.046854	0.046854	-3.0607
3/10/2009	0.378388	0.378388	-0.9718
4/10/2009	0.155858	0.155858	-1.8588
5/10/2009	0.003245	0.003245	-5.7306
6/10/2009	0.002870	0.002870	-5.8536
7/10/2009	0.164314	0.164314	-1.8060
8/10/2009	3.235480	0.006356	-5.0583
9/10/2009	0.069942	0.069942	-2.6601
10/10/2009	0.002207	0.002207	-6.1162
11/10/2009	0.000421	0.000421	-7.7725
12/10/2009	0.016653	0.016653	-4.0952
13/10/2009	0.004388	0.004388	-5.4289
14/10/2009	0.041644	0.041644	-3.1786
15/10/2009	0.002742	0.002742	-5.8990
16/10/2009	0.004290	0.004290	-5.4515
17/10/2009	0.132457	0.132457	-2.0215

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19/10/2009	0.008227	0.008227	-4.8003
20/10/2009	0.020150	0.020150	-3.9046
21/10/2009	0.010026	0.010026	-4.6026
22/10/2009	0.152029	0.152029	-1.8837
23/10/2009	0.002089	0.002089	-6.1709
24/10/2009	0.021974	0.021974	-3.8179
25/10/2009	0.001845	0.001845	-6.2955
26/10/2009	0.329901	0.329901	-1.1090
27/10/2009	0.023111	0.023111	-3.7675
28/10/2009	0.007868	0.007868	-4.8450
29/10/2009	0.003066	0.003066	-5.7875
30/10/2009	0.892106	0.892106	-0.1142
31/10/2009	0.003506	0.003506	-5.6532
1/11/2009	0.005925	0.005925	-5.1286
2/11/2009	0.089782	0.089782	-2.4104
3/11/2009	0.003088	0.003088	-5.7802
4/11/2009	0.040453	0.040453	-3.2076
5/11/2009	0.002413	0.002413	-6.0269
6/11/2009	0.047118	0.047118	-3.0551
7/11/2009	0.016506	0.016506	-4.1040
8/11/2009	0.003522	0.003522	-5.6488
9/11/2009	1.179306	0.039909	-3.2212
10/11/2009	0.604945	0.604945	-0.5026
11/11/2009	0.052088	0.052088	-2.9548
12/11/2009	0.025829	0.025829	-3.6563
13/11/2009	0.002077	0.002077	-6.1768
14/11/2009	0.004144	0.004144	-5.4860
15/11/2009	0.686496	0.686496	-0.3762
16/11/2009	0.730788	0.730788	-0.3136
17/11/2009	0.002367	0.002367	-6.0460
18/11/2009	0.029138	0.029138	-3.5357
19/11/2009	0.025382	0.025382	-3.6737
20/11/2009	0.879547	0.879547	-0.1283
21/11/2009	0.211017	0.211017	-1.5558
22/11/2009	0.399255	0.399255	-0.9182
23/11/2009	0.841350	0.841350	-0.1727
24/11/2009	0.534473	0.534473	-0.6265
25/11/2009	0.094116	0.094116	-2.3632
26/11/2009	0.493374	0.493374	-0.7065
27/11/2009	0.143373	0.143373	-1.9423
28/11/2009	0.511797	0.511797	-0.6698
29/11/2009	0.012313	0.012313	-4.3971
30/11/2009	0.027635	0.027635	-3.5887
1/12/2009	0.014062	0.014062	-4.2643
2/12/2009	0.083146	0.083146	-2.4872
3/12/2009	1.081509	1.081509	0.0784
4/12/2009	0.014212	0.014212	-4.2537
5/12/2009	0.070913	0.070913	-2.6463
6/12/2009	0.000807	0.000807	-7.1218
7/12/2009	0.000778	0.000778	-7.1588
8/12/2009	0.026184	0.026184	-3.6426
9/12/2009	0.044055	0.044055	-3.1223
10/12/2009	0.013362	0.013362	-4.3153
11/12/2009	0.133552	0.133552	-2.0133
12/12/2009	0.008301	0.008301	-4.7914
13/12/2009	0.000960	0.000960	-6.9483
14/12/2009	0.043261	0.043261	-3.1405
15/12/2009	0.008089	0.008089	-4.8172
16/12/2009	0.885767	0.885767	-0.1213
17/12/2009	0.076773	0.076773	-2.5669
18/12/2009	0.002991	0.002991	-5.8120
19/12/2009	0.031028	0.031028	-3.4729
20/12/2009	0.015169	0.015169	-4.1885
21/12/2009	0.049377	0.049377	-3.0083
22/12/2009	0.027636	0.027636	-3.5886
23/12/2009	0.098683	0.098683	-2.3158
24/12/2009	0.048092	0.048092	-3.0346
25/12/2009	0.001445	0.001445	-6.5394
26/12/2009	0.002972	0.002972	-5.8185
27/12/2009	0.000566	0.000566	-7.4762
28/12/2009	0.004808	0.004808	-5.3375
29/12/2009	0.000824	0.000824	-7.1019
30/12/2009	0.209765	0.209765	-1.5618
31/12/2009	1.026936	1.026936	0.0266
1/01/2010	0.611537	0.611537	-0.4918
2/01/2010	0.027210	0.027210	-3.6042
3/01/2010	0.000342	0.000342	-7.9820
4/01/2010	0.064368	0.064368	-2.7431
5/01/2010	0.016869	0.016869	-4.0823
6/01/2010	0.001080	0.001080	-6.8308
7/01/2010	0.913767	0.913767	-0.0902
8/01/2010	1.016860	1.016860	0.0167
9/01/2010	0.015487	0.015487	-4.1678
10/01/2010	0.007784	0.007784	-4.8557
11/01/2010	1.550995	1.550995	0.4389

12/01/2010	0.413149	0.413149	-0.8839
13/01/2010	0.005624	0.005624	-5.1807
14/01/2010	0.006099	0.006099	-5.0996
15/01/2010	0.225504	0.225504	-1.4894
16/01/2010	1.714103	1.714103	0.5389
17/01/2010	0.004372	0.004372	-5.4326
18/01/2010	0.738610	0.738610	-0.3030
19/01/2010	0.013997	0.013997	-4.2689
20/01/2010	0.005693	0.005693	-5.1686
21/01/2010	0.026742	0.026742	-3.6215
22/01/2010	0.112952	0.112952	-2.1808
23/01/2010	0.001483	0.001483	-6.5135
24/01/2010	0.000699	0.000699	-7.2653
25/01/2010	0.597270	0.597270	-0.5154
26/01/2010	0.000263	0.000263	-8.2415
27/01/2010	0.001708	0.001708	-6.3726
28/01/2010	0.017585	0.017585	-4.0407
29/01/2010	0.510168	0.510168	-0.6730
30/01/2010	0.026969	0.026969	-3.6131
31/01/2010	0.503285	0.503285	-0.6866
1/02/2010	0.003495	0.003495	-5.6563
2/02/2010	0.513082	0.513082	-0.6673
3/02/2010	0.049215	0.049215	-3.0116
4/02/2010	0.074833	0.074833	-2.5925
5/02/2010	0.209470	0.209470	-1.5632
6/02/2010	0.003054	0.003054	-5.7914
7/02/2010	0.015060	0.015060	-4.1957
8/02/2010	0.129518	0.129518	-2.0439
9/02/2010	0.060737	0.060737	-2.8012
10/02/2010	0.808748	0.808748	-0.2123
11/02/2010	1.764626	1.764626	0.5679
12/02/2010	0.024091	0.024091	-3.7259
13/02/2010	0.016223	0.016223	-4.1213
14/02/2010	0.004658	0.004658	-5.3691
15/02/2010	0.246799	0.246799	-1.3992
16/02/2010	0.001498	0.001498	-6.5039
17/02/2010	0.002151	0.002151	-6.1421
18/02/2010	0.003047	0.003047	-5.7936
19/02/2010	0.712504	0.712504	-0.3390
20/02/2010	0.039388	0.039388	-3.2343
21/02/2010	0.233896	0.233896	-1.4529
22/02/2010	0.073738	0.073738	-2.6072
23/02/2010	0.003849	0.003849	-5.5598
24/02/2010	0.007147	0.007147	-4.9411
25/02/2010	0.144705	0.144705	-1.9331
26/02/2010	0.049991	0.049991	-2.9959
27/02/2010	0.032553	0.032553	-3.4249
28/02/2010	0.001631	0.001631	-6.4187
1/03/2010	0.035232	0.035232	-3.3458
2/03/2010	0.006752	0.006752	-4.9979
3/03/2010	0.001548	0.001548	-6.4709
4/03/2010	0.030540	0.030540	-3.4887
5/03/2010	0.072060	0.072060	-2.6303
6/03/2010	4.654428	4.654428	1.5378
7/03/2010	0.915256	0.915256	-0.0886
8/03/2010	0.709463	0.709463	-0.3432
9/03/2010	0.032678	0.032678	-3.4210
10/03/2010	0.009890	0.009890	-4.6162
11/03/2010	0.012434	0.012434	-4.3873
12/03/2010	0.001275	0.001275	-6.6647
13/03/2010	0.000130	0.000130	-8.9496
14/03/2010	0.039583	0.039583	-3.2294
15/03/2010	0.363262	0.363262	-1.0126
16/03/2010	0.897326	0.897326	-0.1083
17/03/2010	0.565681	0.565681	-0.5697
18/03/2010	0.054035	0.054035	-2.9181
19/03/2010	0.298298	0.298298	-1.2097
20/03/2010	0.008816	0.008816	-4.7312
21/03/2010	0.002067	0.002067	-6.1817
22/03/2010	0.025754	0.025754	-3.6592
23/03/2010	0.000539	0.000539	-7.5265
24/03/2010	1.057076	1.057076	0.0555
25/03/2010	0.001950	0.001950	-6.2399
26/03/2010	0.001175	0.001175	-6.7468
27/03/2010	0.491521	0.491521	-0.7102
28/03/2010	0.009150	0.009150	-4.6940
29/03/2010	0.136530	0.136530	-1.9912
30/03/2010	0.003209	0.003209	-5.7418
31/03/2010	0.003255	0.003255	-5.7277
1/04/2010	0.650969	0.650969	-0.4293
2/04/2010	0.003471	0.003471	-5.6633
3/04/2010	0.002823	0.002823	-5.8700
4/04/2010	0.001812	0.001812	-6.3135
5/04/2010	0.019731	0.019731	-3.9256
6/04/2010	0.179291	0.179291	-1.7187
7/04/2010	0.029901	0.029901	-3.5099

8/04/2010	0.000350	0.000350	-7.9575
9/04/2010	0.000813	0.000813	-7.1142
10/04/2010	0.375205	0.375205	-0.9803
11/04/2010	0.543033	0.543033	-0.6106
12/04/2010	0.002249	0.002249	-6.0972
13/04/2010	0.007905	0.007905	-4.8403
14/04/2010	0.021316	0.021316	-3.8483
15/04/2010	0.007127	0.007127	-4.9439
16/04/2010	0.018331	0.018331	-3.9992
17/04/2010	0.255709	0.255709	-1.3637
18/04/2010	0.016681	0.016681	-4.0935
19/04/2010	0.035368	0.035368	-3.3419
20/04/2010	0.141188	0.141188	-1.9577
21/04/2010	0.086750	0.086750	-2.4447
22/04/2010	0.030442	0.030442	-3.4919
23/04/2010	0.230080	0.230080	-1.4693
24/04/2010	0.040048	0.040048	-3.2177
25/04/2010	0.028507	0.028507	-3.5576
26/04/2010	0.015320	0.015320	-4.1786
27/04/2010	0.001270	0.001270	-6.6684
28/04/2010	0.159262	0.159262	-1.8372
29/04/2010	0.059390	0.059390	-2.8236
30/04/2010	0.031246	0.031246	-3.4659
1/05/2010	0.014654	0.014654	-4.2230
2/05/2010	0.051593	0.051593	-2.9644
3/05/2010	0.019786	0.019786	-3.9228
4/05/2010	0.286036	0.286036	-1.2516
5/05/2010	0.012755	0.012755	-4.3618
6/05/2010	0.080212	0.080212	-2.5231
7/05/2010	0.001369	0.001369	-6.5939
8/05/2010	0.008196	0.008196	-4.8041
9/05/2010	0.001540	0.001540	-6.4759
10/05/2010	0.029005	0.029005	-3.5403
11/05/2010	0.049059	0.049059	-3.0147
12/05/2010	0.004527	0.004527	-5.3978
13/05/2010	0.008788	0.008788	-4.7344
14/05/2010	0.003844	0.003844	-5.5612
15/05/2010	0.001472	0.001472	-6.5210
16/05/2010	2.770983	2.770983	1.0192
17/05/2010	0.009629	0.009629	-4.6429
18/05/2010	0.020436	0.020436	-3.8904
19/05/2010	0.019857	0.019857	-3.9192
20/05/2010	0.036097	0.036097	-3.3215
21/05/2010	0.176224	0.176224	-1.7360
22/05/2010	0.002100	0.002100	-6.1658
23/05/2010	0.105308	0.105308	-2.2509
24/05/2010	0.030991	0.030991	-3.4741
25/05/2010	0.015043	0.015043	-4.1969
26/05/2010	0.044500	0.044500	-3.1123
27/05/2010	0.142489	0.142489	-1.9485
28/05/2010	0.002935	0.002935	-5.8311
29/05/2010	0.005730	0.005730	-5.1620
30/05/2010	0.016968	0.016968	-4.0764
31/05/2010	0.156713	0.156713	-1.8533
1/06/2010	0.007167	0.007167	-4.9382
2/06/2010	0.002509	0.002509	-5.9880
3/06/2010	0.571887	0.571887	-0.5588
4/06/2010	0.001749	0.001749	-6.3487
5/06/2010	0.607377	0.607377	-0.4986
6/06/2010	0.021864	0.021864	-3.8229
7/06/2010	0.331425	0.331425	-1.1044
8/06/2010	0.012181	0.012181	-4.4078
9/06/2010	0.020160	0.020160	-3.9041
10/06/2010	0.003375	0.003375	-5.6913
11/06/2010	0.027557	0.027557	-3.5915
12/06/2010	0.004044	0.004044	-5.5104
13/06/2010	0.001377	0.001377	-6.5877
14/06/2010	0.023467	0.023467	-3.7522
15/06/2010	0.049951	0.049951	-2.9967
16/06/2010	1.179087	1.179087	0.1647
17/06/2010	0.383024	0.383024	-0.9597
18/06/2010	0.011593	0.011593	-4.4574
19/06/2010	0.086999	0.086999	-2.4419
20/06/2010	0.658152	0.658152	-0.4183
21/06/2010	0.145927	0.145927	-1.9246
22/06/2010	0.116955	0.116955	-2.1460
23/06/2010	0.327529	0.327529	-1.1162
24/06/2010	0.031517	0.031517	-3.4572
25/06/2010	0.015233	0.015233	-4.1843
26/06/2010	0.008124	0.008124	-4.8129
27/06/2010	0.012863	0.012863	-4.3534
28/06/2010	0.063083	0.063083	-2.7633
29/06/2010	0.296769	0.296769	-1.2148
30/06/2010	0.079208	0.079208	-2.5357
1/07/2010	0.308739	0.308739	-1.1753
2/07/2010	0.272619	0.272619	-1.2997

3/07/2010	0.063308	0.063308	-2.7597
4/07/2010	0.000599	0.000599	-7.4195
5/07/2010	0.021084	0.021084	-3.8592
6/07/2010	0.024176	0.024176	-3.7224
7/07/2010	0.024901	0.024901	-3.6928
8/07/2010	0.055788	0.055788	-2.8862
9/07/2010	0.035627	0.035627	-3.3347
10/07/2010	0.088508	0.088508	-2.4247
11/07/2010	0.001656	0.001656	-6.4035
12/07/2010	0.006960	0.006960	-4.9676
13/07/2010	0.030653	0.030653	-3.4850
14/07/2010	2.026554	2.026554	0.7063
15/07/2010	0.178940	0.178940	-1.7207
16/07/2010	0.002835	0.002835	-5.8656
17/07/2010	0.020861	0.020861	-3.8699
18/07/2010	0.405143	0.405143	-0.9035
19/07/2010	0.043977	0.043977	-3.1241
20/07/2010	0.031278	0.031278	-3.4648
21/07/2010	0.045808	0.045808	-3.0833
22/07/2010	0.297735	0.297735	-1.2116
23/07/2010	0.153083	0.153083	-1.8768
24/07/2010	0.003056	0.003056	-5.7908
25/07/2010	0.032007	0.032007	-3.4418
26/07/2010	0.022137	0.022137	-3.8105
27/07/2010	0.010197	0.010197	-4.5857
28/07/2010	0.004429	0.004429	-5.4195
29/07/2010	1.252219	1.252219	0.2249
30/07/2010	0.017523	0.017523	-4.0442
31/07/2010	0.002310	0.002310	-6.0704
1/08/2010	0.003762	0.003762	-5.5828
2/08/2010	0.297002	0.297002	-1.2140
3/08/2010	0.004171	0.004171	-5.4795
4/08/2010	0.002279	0.002279	-6.0840
5/08/2010	0.316927	0.316927	-1.1491
6/08/2010	0.478505	0.478505	-0.7371
7/08/2010	0.372983	0.372983	-0.9862
8/08/2010	0.007772	0.007772	-4.8572
9/08/2010	0.006341	0.006341	-5.0607
10/08/2010	0.010071	0.010071	-4.5981
11/08/2010	0.038787	0.038787	-3.2497
12/08/2010	0.107185	0.107185	-2.2332
13/08/2010	0.229680	0.229680	-1.4711
14/08/2010	0.131949	0.131949	-2.0253
15/08/2010	0.044438	0.044438	-3.1137
16/08/2010	0.015873	0.015873	-4.1431
17/08/2010	0.022984	0.022984	-3.7729
18/08/2010	0.098127	0.098127	-2.3215
19/08/2010	0.464647	0.464647	-0.7665
20/08/2010	0.090271	0.090271	-2.4049
21/08/2010	0.079034	0.079034	-2.5379
22/08/2010	0.003946	0.003946	-5.5351
23/08/2010	0.110051	0.110051	-2.2068
24/08/2010	0.394127	0.394127	-0.9311
25/08/2010	0.012269	0.012269	-4.4007
26/08/2010	0.151933	0.151933	-1.8843
27/08/2010	0.002556	0.002556	-5.9692
28/08/2010	0.000658	0.000658	-7.3269
29/08/2010	0.034502	0.034502	-3.3667
30/08/2010	0.070178	0.070178	-2.6567
31/08/2010	0.295970	0.295970	-1.2175
1/09/2010	0.036496	0.036496	-3.3106
2/09/2010	0.012362	0.012362	-4.3931
3/09/2010	0.003047	0.003047	-5.7936
4/09/2010	0.177090	0.177090	-1.7311
5/09/2010	0.675393	0.675393	-0.3925
6/09/2010	0.066140	0.066140	-2.7160
7/09/2010	0.005059	0.005059	-5.2866
8/09/2010	0.029915	0.029915	-3.5094
9/09/2010	0.005778	0.005778	-5.1537
10/09/2010	0.024321	0.024321	-3.7164
11/09/2010	0.050779	0.050779	-2.9803
12/09/2010	0.001677	0.001677	-6.3910
13/09/2010	0.014825	0.014825	-4.2114
14/09/2010	0.048600	0.048600	-3.0241
15/09/2010	0.002096	0.002096	-6.1678
16/09/2010	0.001548	0.001548	-6.4710
17/09/2010	0.024305	0.024305	-3.7171
18/09/2010	0.071543	0.071543	-2.6374
19/09/2010	0.011756	0.011756	-4.4434
20/09/2010	0.003808	0.003808	-5.5707
21/09/2010	0.391334	0.391334	-0.9382
22/09/2010	0.057015	0.057015	-2.8644
23/09/2010	0.255189	0.255189	-1.3658
24/09/2010	0.009157	0.009157	-4.6932
25/09/2010	0.006616	0.006616	-5.0182
26/09/2010	0.013977	0.013977	-4.2703

27/09/2010	0.009931	0.009931	-4.6121
28/09/2010	0.008051	0.008051	-4.8220
29/09/2010	0.004588	0.004588	-5.3843
30/09/2010	0.258078	0.258078	-1.3545
1/10/2010	0.007119	0.007119	-4.9450
2/10/2010	0.008356	0.008356	-4.7848
3/10/2010	0.008073	0.008073	-4.8192
4/10/2010	0.021139	0.021139	-3.8567
5/10/2010	0.043077	0.043077	-3.1448
6/10/2010	0.808404	0.808404	-0.2127
7/10/2010	0.003967	0.003967	-5.5296
8/10/2010	0.090250	0.090250	-2.4052
9/10/2010	0.002175	0.002175	-6.1308
10/10/2010	0.018177	0.018177	-4.0076
11/10/2010	0.194066	0.194066	-1.6396
12/10/2010	0.235531	0.235531	-1.4459
13/10/2010	0.513685	0.513685	-0.6661
14/10/2010	0.000296	0.000296	-8.1267
15/10/2010	0.141050	0.141050	-1.9586
16/10/2010	0.160303	0.160303	-1.8307
17/10/2010	0.001603	0.001603	-6.4358
18/10/2010	0.094028	0.094028	-2.3642
19/10/2010	0.010916	0.010916	-4.5175
20/10/2010	0.157617	0.157617	-1.8476
21/10/2010	0.007778	0.007778	-4.8565
22/10/2010	0.000851	0.000851	-7.0687
23/10/2010	0.014090	0.014090	-4.2623
24/10/2010	0.694372	0.694372	-0.3647
25/10/2010	0.034091	0.034091	-3.3787
26/10/2010	0.034024	0.034024	-3.3807
27/10/2010	0.001169	0.001169	-6.7513
28/10/2010	0.002512	0.002512	-5.9866
29/10/2010	0.010071	0.010071	-4.5981
30/10/2010	0.032607	0.032607	-3.4232
31/10/2010	0.012484	0.012484	-4.3833
1/11/2010	0.109146	0.109146	-2.2151
2/11/2010	0.026436	0.026436	-3.6330
3/11/2010	0.002081	0.002081	-6.1751
4/11/2010	0.032809	0.032809	-3.4170
5/11/2010	0.106747	0.106747	-2.2373
6/11/2010	0.003497	0.003497	-5.6559
7/11/2010	0.024564	0.024564	-3.7065
8/11/2010	0.011363	0.011363	-4.4774
9/11/2010	0.004168	0.004168	-5.4804
10/11/2010	0.023751	0.023751	-3.7401
11/11/2010	0.109640	0.109640	-2.2106
12/11/2010	0.833960	0.833960	-0.1816
13/11/2010	0.007061	0.007061	-4.9532
14/11/2010	0.008329	0.008329	-4.7880
15/11/2010	0.090378	0.090378	-2.4038
16/11/2010	0.086130	0.086130	-2.4519
17/11/2010	0.099195	0.099195	-2.3107
18/11/2010	0.001410	0.001410	-6.5645
19/11/2010	0.001927	0.001927	-6.2520
20/11/2010	0.019625	0.019625	-3.9309
21/11/2010	0.076831	0.076831	-2.5661
22/11/2010	0.014725	0.014725	-4.2182
23/11/2010	0.176048	0.176048	-1.7370
24/11/2010	0.508167	0.508167	-0.6769
25/11/2010	1.167944	1.167944	0.1552
26/11/2010	0.764344	0.764344	-0.2687
27/11/2010	0.464768	0.464768	-0.7662
28/11/2010	0.020640	0.020640	-3.8805
29/11/2010	0.056011	0.056011	-2.8822
30/11/2010	0.128228	0.128228	-2.0539
1/12/2010	0.242543	0.242543	-1.4166
2/12/2010	0.283971	0.283971	-1.2589
3/12/2010	0.045941	0.045941	-3.0804
4/12/2010	0.002843	0.002843	-5.8629
5/12/2010	0.001430	0.001430	-6.5504
6/12/2010	0.049553	0.049553	-3.0047
7/12/2010	0.244146	0.244146	-1.4100
8/12/2010	0.015529	0.015529	-4.1650
9/12/2010	0.311911	0.311911	-1.1650
10/12/2010	0.051511	0.051511	-2.9660
11/12/2010	0.001176	0.001176	-6.7454
12/12/2010	0.002478	0.002478	-6.0004
13/12/2010	0.004862	0.004862	-5.3262
14/12/2010	0.009177	0.009177	-4.6911
15/12/2010	0.007433	0.007433	-4.9018
16/12/2010	0.031889	0.031889	-3.4455
17/12/2010	0.033123	0.033123	-3.4075
18/12/2010	0.003180	0.003180	-5.7510
19/12/2010	1.034613	1.034613	0.0340
20/12/2010	0.013600	0.013600	-4.2977
21/12/2010	0.021491	0.021491	-3.8401

22/12/2010	0.004920	0.004920	-5.3144
23/12/2010	0.278567	0.278567	-1.2781
24/12/2010	0.031940	0.031940	-3.4439
25/12/2010	0.000538	0.000538	-7.5268
26/12/2010	1.946229	1.946229	0.6659
27/12/2010	0.001215	0.001215	-6.7132
28/12/2010	0.001516	0.001516	-6.4916
29/12/2010	0.451162	0.451162	-0.7959
30/12/2010	0.007686	0.007686	-4.8683
31/12/2010	0.232684	0.232684	-1.4581
1/01/2011	0.000587	0.000587	-7.4402
2/01/2011	0.001880	0.001880	-6.2767
3/01/2011	0.226399	0.226399	-1.4855
4/01/2011	0.984775	0.984775	-0.0153
5/01/2011	0.162158	0.162158	-1.8192
6/01/2011	0.379542	0.379542	-0.9688
7/01/2011	0.079531	0.079531	-2.5316
8/01/2011	0.259317	0.259317	-1.3497
9/01/2011	0.953884	0.953884	-0.0472
10/01/2011	0.637738	0.637738	-0.4498
11/01/2011	0.015512	0.015512	-4.1661
12/01/2011	0.463422	0.463422	-0.7691
13/01/2011	0.099029	0.099029	-2.3123
14/01/2011	0.149721	0.149721	-1.8990
15/01/2011	0.010132	0.010132	-4.5921
16/01/2011	0.034028	0.034028	-3.3806
17/01/2011	0.956628	0.956628	-0.0443
18/01/2011	0.002974	0.002974	-5.8178
19/01/2011	0.001988	0.001988	-6.2206
20/01/2011	0.053574	0.053574	-2.9267
21/01/2011	0.005543	0.005543	-5.1952
22/01/2011	0.001612	0.001612	-6.4306
23/01/2011	0.005301	0.005301	-5.2399
24/01/2011	0.066769	0.066769	-2.7065
25/01/2011	0.029850	0.029850	-3.5116
26/01/2011	0.053775	0.053775	-2.9229
27/01/2011	1.310446	1.310446	0.2704
28/01/2011	0.042172	0.042172	-3.1660
29/01/2011	1.073037	1.073037	0.0705
30/01/2011	0.882979	0.882979	-0.1245
31/01/2011	0.133405	0.133405	-2.0144
1/02/2011	0.495724	0.495724	-0.7017
2/02/2011	0.024732	0.024732	-3.6997
3/02/2011	0.043566	0.043566	-3.1335
4/02/2011	0.359042	0.359042	-1.0243
5/02/2011	0.093840	0.093840	-2.3662
6/02/2011	0.027052	0.027052	-3.6100
7/02/2011	0.036268	0.036268	-3.3168
8/02/2011	0.043059	0.043059	-3.1452
9/02/2011	0.008872	0.008872	-4.7249
10/02/2011	0.108584	0.108584	-2.2202
11/02/2011	1.367859	1.367859	0.3132
12/02/2011	0.587442	0.587442	-0.5320
13/02/2011	0.001225	0.001225	-6.7045
14/02/2011	0.001972	0.001972	-6.2286
15/02/2011	0.112193	0.112193	-2.1875
16/02/2011	0.054145	0.054145	-2.9161
17/02/2011	0.050813	0.050813	-2.9796
18/02/2011	0.086178	0.086178	-2.4513
19/02/2011	0.051717	0.051717	-2.9620
20/02/2011	0.070631	0.070631	-2.6503
21/02/2011	0.046968	0.046968	-3.0583
22/02/2011	0.819209	0.819209	-0.1994
23/02/2011	0.207811	0.207811	-1.5711
24/02/2011	0.021288	0.021288	-3.8496
25/02/2011	0.002093	0.002093	-6.1690
26/02/2011	0.089871	0.089871	-2.4094
27/02/2011	0.502805	0.502805	-0.6876
28/02/2011	0.066409	0.066409	-2.7119
1/03/2011	0.001187	0.001187	-6.7362
2/03/2011	0.058610	0.058610	-2.8369
3/03/2011	0.103261	0.103261	-2.2705
4/03/2011	0.502224	0.502224	-0.6887
5/03/2011	0.001404	0.001404	-6.5683
6/03/2011	0.000306	0.000306	-8.0908
7/03/2011	0.019294	0.019294	-3.9480
8/03/2011	0.422971	0.422971	-0.8605
9/03/2011	0.183175	0.183175	-1.6973
10/03/2011	0.617771	0.617771	-0.4816
11/03/2011	0.005476	0.005476	-5.2074
12/03/2011	0.014338	0.014338	-4.2448
13/03/2011	0.348874	0.348874	-1.0530
14/03/2011	0.028121	0.028121	-3.5712
15/03/2011	0.008655	0.008655	-4.7497
16/03/2011	0.001481	0.001481	-6.5152
17/03/2011	0.002275	0.002275	-6.0856

18/03/2011	0.016409	0.016409	-4.1099
19/03/2011	0.327663	0.327663	-1.1158
20/03/2011	0.001423	0.001423	-6.5548
21/03/2011	0.001880	0.001880	-6.2767
22/03/2011	0.003603	0.003603	-5.6260
23/03/2011	0.008718	0.008718	-4.7423
24/03/2011	0.567976	0.567976	-0.5657
25/03/2011	0.035987	0.035987	-3.3246
26/03/2011	0.001762	0.001762	-6.3416
27/03/2011	0.001197	0.001197	-6.7282
28/03/2011	0.071451	0.071451	-2.6387
29/03/2011	0.000629	0.000629	-7.3719
30/03/2011	0.054786	0.054786	-2.9043
31/03/2011	0.018726	0.018726	-3.9778
1/04/2011	0.322493	0.322493	-1.1317
2/04/2011	0.001337	0.001337	-6.6172
3/04/2011	0.912440	0.912440	-0.0916
4/04/2011	0.227411	0.227411	-1.4810
5/04/2011	0.185054	0.185054	-1.6871
6/04/2011	0.009660	0.009660	-4.6398
7/04/2011	0.045028	0.045028	-3.1005
8/04/2011	0.074601	0.074601	-2.5956
9/04/2011	0.034672	0.034672	-3.3618
10/04/2011	0.036329	0.036329	-3.3152
11/04/2011	0.023315	0.023315	-3.7587
12/04/2011	0.063693	0.063693	-2.7537
13/04/2011	0.001219	0.001219	-6.7097
14/04/2011	0.004180	0.004180	-5.4773
15/04/2011	0.096620	0.096620	-2.3370
16/04/2011	0.041415	0.041415	-3.1841
17/04/2011	0.053733	0.053733	-2.9237
18/04/2011	0.006066	0.006066	-5.1050
19/04/2011	0.003064	0.003064	-5.7882
20/04/2011	0.023136	0.023136	-3.7664
21/04/2011	0.055903	0.055903	-2.8841
22/04/2011	0.162994	0.162994	-1.8140
23/04/2011	0.047070	0.047070	-3.0561
24/04/2011	0.016467	0.016467	-4.1064
25/04/2011	0.004171	0.004171	-5.4796
26/04/2011	0.160137	0.160137	-1.8317
27/04/2011	0.002301	0.002301	-6.0745
28/04/2011	0.008830	0.008830	-4.7296
29/04/2011	0.005431	0.005431	-5.2156
30/04/2011	0.031152	0.031152	-3.4689
1/05/2011	0.000874	0.000874	-7.0420
2/05/2011	0.241934	0.241934	-1.4191
3/05/2011	0.052900	0.052900	-2.9393
4/05/2011	1.446005	1.446005	0.3688
5/05/2011	0.018522	0.018522	-3.9888
6/05/2011	0.106908	0.106908	-2.2358
7/05/2011	0.122679	0.122679	-2.0982
8/05/2011	0.033543	0.033543	-3.3949
9/05/2011	0.026311	0.026311	-3.6378
10/05/2011	0.001216	0.001216	-6.7123
11/05/2011	0.053060	0.053060	-2.9363
12/05/2011	0.016237	0.016237	-4.1205
13/05/2011	0.023628	0.023628	-3.7453
14/05/2011	0.015624	0.015624	-4.1589
15/05/2011	0.026037	0.026037	-3.6482
16/05/2011	0.006453	0.006453	-5.0433
17/05/2011	0.008980	0.008980	-4.7128
18/05/2011	0.019463	0.019463	-3.9392
19/05/2011	0.094906	0.094906	-2.3549
20/05/2011	0.015570	0.015570	-4.1624
21/05/2011	0.002409	0.002409	-6.0284
22/05/2011	0.563524	0.563524	-0.5735
23/05/2011	0.018362	0.018362	-3.9975
24/05/2011	1.052479	1.052479	0.0511
25/05/2011	0.017121	0.017121	-4.0675
26/05/2011	0.002125	0.002125	-6.1538
27/05/2011	0.003124	0.003124	-5.7686
28/05/2011	0.050156	0.050156	-2.9926
29/05/2011	0.043190	0.043190	-3.1422
30/05/2011	0.006536	0.006536	-5.0305
31/05/2011	0.701907	0.701907	-0.3540
1/06/2011	0.039383	0.039383	-3.2344
2/06/2011	0.005786	0.005786	-5.1524
3/06/2011	0.025182	0.025182	-3.6816
4/06/2011	0.004496	0.004496	-5.4045
5/06/2011	0.000874	0.000874	-7.0420
6/06/2011	0.026870	0.026870	-3.6167
7/06/2011	0.009197	0.009197	-4.6889
8/06/2011	0.021770	0.021770	-3.8272
9/06/2011	0.431316	0.431316	-0.8409
10/06/2011	0.001245	0.001245	-6.6890
11/06/2011	0.000948	0.000948	-6.9614

12/06/2011	0.015943	0.015943	-4.1387
13/06/2011	0.039485	0.039485	-3.2318
14/06/2011	0.036278	0.036278	-3.3166
15/06/2011	0.011198	0.011198	-4.4920
16/06/2011	0.088230	0.088230	-2.4278
17/06/2011	0.203927	0.203927	-1.5900
18/06/2011	0.012382	0.012382	-4.3915
19/06/2011	0.082266	0.082266	-2.4978
20/06/2011	0.242148	0.242148	-1.4182
21/06/2011	0.168361	0.168361	-1.7816
22/06/2011	0.561606	0.561606	-0.5770
23/06/2011	0.015532	0.015532	-4.1649
24/06/2011	0.013563	0.013563	-4.3004
25/06/2011	0.000373	0.000373	-7.8929
26/06/2011	0.011664	0.011664	-4.4513
27/06/2011	0.019798	0.019798	-3.9222
28/06/2011	0.810124	0.810124	-0.2106
29/06/2011	0.006172	0.006172	-5.0878
30/06/2011	0.001075	0.001075	-6.8350
1/07/2011	0.012072	0.012072	-4.4168
2/07/2011	0.010371	0.010371	-4.5687
3/07/2011	0.033645	0.033645	-3.3919
4/07/2011	0.061115	0.061115	-2.7950
5/07/2011	0.050210	0.050210	-2.9915
6/07/2011	0.011843	0.011843	-4.4361
7/07/2011	0.003813	0.003813	-5.5692
8/07/2011	0.007560	0.007560	-4.8849
9/07/2011	0.010432	0.010432	-4.5629
10/07/2011	0.001615	0.001615	-6.4286
11/07/2011	0.005039	0.005039	-5.2906
12/07/2011	0.035358	0.035358	-3.3422
13/07/2011	0.057901	0.057901	-2.8490
14/07/2011	0.167768	0.167768	-1.7852
15/07/2011	0.001758	0.001758	-6.3434
16/07/2011	0.016655	0.016655	-4.0951
17/07/2011	0.328077	0.328077	-1.1145
18/07/2011	0.027483	0.027483	-3.5942
19/07/2011	0.041741	0.041741	-3.1763
20/07/2011	0.003906	0.003906	-5.5452
21/07/2011	0.035716	0.035716	-3.3322
22/07/2011	0.022239	0.022239	-3.8059
23/07/2011	0.009602	0.009602	-4.6458
24/07/2011	0.014402	0.014402	-4.2404
25/07/2011	0.028185	0.028185	-3.5690
26/07/2011	0.493292	0.493292	-0.7067
27/07/2011	0.038626	0.038626	-3.2538
28/07/2011	0.124916	0.124916	-2.0801
29/07/2011	0.015308	0.015308	-4.1794
30/07/2011	0.001784	0.001784	-6.3290
31/07/2011	0.069000	0.069000	-2.6736
1/08/2011	0.011064	0.011064	-4.5041
2/08/2011	0.021857	0.021857	-3.8233
3/08/2011	0.107010	0.107010	-2.2348
4/08/2011	0.001755	0.001755	-6.3452
5/08/2011	0.089446	0.089446	-2.4141
6/08/2011	0.010333	0.010333	-4.5724
7/08/2011	0.612467	0.612467	-0.4903
8/08/2011	0.011198	0.011198	-4.4920
9/08/2011	0.004091	0.004091	-5.4989
10/08/2011	0.067650	0.067650	-2.6934
11/08/2011	0.037037	0.037037	-3.2958
12/08/2011	0.007595	0.007595	-4.8803
13/08/2011	0.004940	0.004940	-5.3104
14/08/2011	0.000332	0.000332	-8.0107
15/08/2011	0.008444	0.008444	-4.7743
16/08/2011	0.001608	0.001608	-6.4325
17/08/2011	0.001883	0.001883	-6.2750
18/08/2011	0.001749	0.001749	-6.3488
19/08/2011	0.004535	0.004535	-5.3960
20/08/2011	0.002317	0.002317	-6.0676
21/08/2011	0.002805	0.002805	-5.8763
22/08/2011	0.004171	0.004171	-5.4796
23/08/2011	0.030214	0.030214	-3.4994
24/08/2011	0.000128	0.000128	-8.9662
25/08/2011	0.004318	0.004318	-5.4450
26/08/2011	0.001535	0.001535	-6.4792
27/08/2011	2.913148	2.913148	1.0692
28/08/2011	0.002081	0.002081	-6.1751
29/08/2011	0.001139	0.001139	-6.7774
30/08/2011	0.033032	0.033032	-3.4103
31/08/2011	0.003686	0.003686	-5.6033
1/09/2011	0.001915	0.001915	-6.2582
2/09/2011	0.044003	0.044003	-3.1235
3/09/2011	0.912884	0.912884	-0.0911
4/09/2011	0.015841	0.015841	-4.1451
5/09/2011	1.075031	1.075031	0.0723

6/09/2011	0.357127	0.357127	-1.0297
7/09/2011	0.004212	0.004212	-5.4697
8/09/2011	0.013470	0.013470	-4.3073
9/09/2011	0.033734	0.033734	-3.3892
10/09/2011	0.003880	0.003880	-5.5518
11/09/2011	0.000753	0.000753	-7.1913
12/09/2011	0.022409	0.022409	-3.7983
13/09/2011	0.151234	0.151234	-1.8889
14/09/2011	0.035030	0.035030	-3.3516
15/09/2011	0.006341	0.006341	-5.0607
16/09/2011	0.003494	0.003494	-5.6566
17/09/2011	0.008891	0.008891	-4.7228
18/09/2011	0.002129	0.002129	-6.1523
19/09/2011	1.662786	1.662786	0.5085
20/09/2011	0.010955	0.010955	-4.5139
21/09/2011	0.068777	0.068777	-2.6769
22/09/2011	0.001532	0.001532	-6.4813
23/09/2011	0.000957	0.000957	-6.9513
24/09/2011	0.013617	0.013617	-4.2964
25/09/2011	0.001286	0.001286	-6.6562
26/09/2011	0.027722	0.027722	-3.5855
27/09/2011	0.265610	0.265610	-1.3257
28/09/2011	4.264177	4.264177	1.4502
29/09/2011	0.093132	0.093132	-2.3737
30/09/2011	0.488923	0.488923	-0.7155
1/10/2011	0.007123	0.007123	-4.9445
2/10/2011	0.507410	0.507410	-0.6784
3/10/2011	0.010911	0.010911	-4.5180
4/10/2011	0.049847	0.049847	-2.9988
5/10/2011	0.776753	0.776753	-0.2526
6/10/2011	0.128573	0.128573	-2.0513
7/10/2011	0.041144	0.041144	-3.1907
8/10/2011	0.003727	0.003727	-5.5921
9/10/2011	0.001899	0.001899	-6.2666
10/10/2011	0.002783	0.002783	-5.8843
11/10/2011	0.011804	0.011804	-4.4393
12/10/2011	0.002703	0.002703	-5.9134
13/10/2011	0.011476	0.011476	-4.4675
14/10/2011	0.345476	0.345476	-1.0628
15/10/2011	0.029981	0.029981	-3.5072
16/10/2011	0.006373	0.006373	-5.0557
17/10/2011	0.001710	0.001710	-6.3710
18/10/2011	0.001411	0.001411	-6.5638
19/10/2011	0.004966	0.004966	-5.3052
20/10/2011	0.005521	0.005521	-5.1992
21/10/2011	0.025689	0.025689	-3.6617
22/10/2011	0.022594	0.022594	-3.7901
23/10/2011	0.003207	0.003207	-5.7424
24/10/2011	0.596291	0.596291	-0.5170
25/10/2011	0.006526	0.006526	-5.0320
26/10/2011	0.004461	0.004461	-5.4123
27/10/2011	0.001755	0.001755	-6.3452
28/10/2011	0.309632	0.309632	-1.1724
29/10/2011	0.010691	0.010691	-4.5384
30/10/2011	0.482142	0.482142	-0.7295
31/10/2011	0.028670	0.028670	-3.5519
1/11/2011	0.005888	0.005888	-5.1349
2/11/2011	0.084800	0.084800	-2.4675
3/11/2011	0.001056	0.001056	-6.8530
4/11/2011	0.002438	0.002438	-6.0165
5/11/2011	0.000964	0.000964	-6.9447
6/11/2011	0.002358	0.002358	-6.0498
7/11/2011	0.003545	0.003545	-5.6421
8/11/2011	0.319847	0.319847	-1.1399
9/11/2011	0.003386	0.003386	-5.6881
10/11/2011	0.165014	0.165014	-1.8017
11/11/2011	0.560282	0.560282	-0.5793
12/11/2011	0.512133	0.512133	-0.6692
13/11/2011	0.162869	0.162869	-1.8148
14/11/2011	0.389211	0.389211	-0.9436
15/11/2011	0.008380	0.008380	-4.7819
16/11/2011	0.708915	0.708915	-0.3440
17/11/2011	0.075762	0.075762	-2.5802
18/11/2011	0.401644	0.401644	-0.9122
19/11/2011	0.323977	0.323977	-1.1271
20/11/2011	0.179227	0.179227	-1.7191
21/11/2011	0.045727	0.045727	-3.0851
22/11/2011	0.001979	0.001979	-6.2254
23/11/2011	0.016195	0.016195	-4.1230
24/11/2011	0.051040	0.051040	-2.9751
25/11/2011	0.065043	0.065043	-2.7327
26/11/2011	0.002757	0.002757	-5.8935
27/11/2011	0.005106	0.005106	-5.2774
28/11/2011	0.009551	0.009551	-4.6511
29/11/2011	0.041993	0.041993	-3.1703
30/11/2011	0.063183	0.063183	-2.7617

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2/12/2011	0.007471	0.007471	-4.8968
3/12/2011	0.000428	0.000428	-7.7573
4/12/2011	0.000795	0.000795	-7.1377
5/12/2011	0.075654	0.075654	-2.5816
6/12/2011	0.002751	0.002751	-5.8959
7/12/2011	0.050108	0.050108	-2.9936
8/12/2011	0.005272	0.005272	-5.2454
9/12/2011	0.018783	0.018783	-3.9748
10/12/2011	1.365178	1.365178	0.3113
11/12/2011	0.283474	0.283474	-1.2606
12/12/2011	0.003348	0.003348	-5.6995
13/12/2011	0.010221	0.010221	-4.5833
14/12/2011	0.005594	0.005594	-5.1860
15/12/2011	0.016042	0.016042	-4.1325
16/12/2011	0.003118	0.003118	-5.7706
17/12/2011	0.048892	0.048892	-3.0181
18/12/2011	0.007471	0.007471	-4.8968
19/12/2011	1.302197	1.302197	0.2641
20/12/2011	0.023982	0.023982	-3.7305
21/12/2011	0.001216	0.001216	-6.7123
22/12/2011	0.025810	0.025810	-3.6570
23/12/2011	0.005827	0.005827	-5.1452
24/12/2011	0.269216	0.269216	-1.3122
25/12/2011	9.321012	9.321012	2.2323
26/12/2011	0.242572	0.242572	-1.4165
27/12/2011	0.155711	0.155711	-1.8598
28/12/2011	0.006242	0.006242	-5.0765
29/12/2011	0.004286	0.004286	-5.4525
30/12/2011	0.005393	0.005393	-5.2226
31/12/2011	0.043601	0.043601	-3.1327
1/01/2012	0.136411	0.136411	-1.9921
2/01/2012	1.766302	1.766302	0.5689
3/01/2012	0.425845	0.425845	-0.8537
4/01/2012	1.005154	1.005154	0.0051
5/01/2012	0.172086	0.172086	-1.7598
6/01/2012	0.016253	0.016253	-4.1195
7/01/2012	0.003031	0.003031	-5.7988
8/01/2012	0.314619	0.314619	-1.1564
9/01/2012	0.132263	0.132263	-2.0230
10/01/2012	0.460038	0.460038	-0.7764
11/01/2012	1.310323	1.310323	0.2703
12/01/2012	0.015578	0.015578	-4.1619
13/01/2012	0.028084	0.028084	-3.5726
14/01/2012	0.000498	0.000498	-7.6042
15/01/2012	0.773313	0.773313	-0.2571
16/01/2012	0.078010	0.078010	-2.5509
17/01/2012	0.096871	0.096871	-2.3344
18/01/2012	0.034424	0.034424	-3.3690
19/01/2012	0.139937	0.139937	-1.9666
20/01/2012	0.008705	0.008705	-4.7438
21/01/2012	0.000864	0.000864	-7.0537
22/01/2012	0.161331	0.161331	-1.8243
23/01/2012	0.010626	0.010626	-4.5444
24/01/2012	0.862738	0.862738	-0.1476
25/01/2012	0.004085	0.004085	-5.5005
26/01/2012	0.093329	0.093329	-2.3716
27/01/2012	0.066065	0.066065	-2.7171
28/01/2012	0.016505	0.016505	-4.1041
29/01/2012	0.468973	0.468973	-0.7572
30/01/2012	1.360208	1.360208	0.3076
31/01/2012	0.328153	0.328153	-1.1143
1/02/2012	0.041463	0.041463	-3.1829
2/02/2012	0.005573	0.005573	-5.1898
3/02/2012	0.009516	0.009516	-4.6548
4/02/2012	0.422416	0.422416	-0.8618
5/02/2012	4.326412	4.326412	1.4647
6/02/2012	0.025573	0.025573	-3.6662
7/02/2012	0.002249	0.002249	-6.0973
8/02/2012	0.307813	0.307813	-1.1783
9/02/2012	0.001489	0.001489	-6.5098
10/02/2012	0.022545	0.022545	-3.7922
11/02/2012	1.021590	1.021590	0.0214
12/02/2012	0.006535	0.006535	-5.0305
13/02/2012	0.003359	0.003359	-5.6961
14/02/2012	0.016445	0.016445	-4.1077
15/02/2012	0.029210	0.029210	-3.5332
16/02/2012	0.725283	0.725283	-0.3212
17/02/2012	0.003116	0.003116	-5.7711
18/02/2012	0.001435	0.001435	-6.5465
19/02/2012	0.241599	0.241599	-1.4205
20/02/2012	0.036679	0.036679	-3.3056
21/02/2012	0.051219	0.051219	-2.9716
22/02/2012	0.016083	0.016083	-4.1300
23/02/2012	0.010806	0.010806	-4.5277
24/02/2012	0.032569	0.032569	-3.4244

25/02/2012	0.120826	0.120826	-2.1134
26/02/2012	0.206220	0.206220	-1.5788
27/02/2012	0.508169	0.508169	-0.6769
28/02/2012	0.011478	0.011478	-4.4674
29/02/2012	0.029159	0.029159	-3.5350
1/03/2012	0.113591	0.113591	-2.1752
2/03/2012	0.007412	0.007412	-4.9046
3/03/2012	0.022921	0.022921	-3.7757
4/03/2012	0.047425	0.047425	-3.0486
5/03/2012	0.028251	0.028251	-3.5666
6/03/2012	0.011944	0.011944	-4.4275
7/03/2012	0.004242	0.004242	-5.4627
8/03/2012	0.291257	0.291257	-1.2335
9/03/2012	0.061763	0.061763	-2.7844
10/03/2012	0.001012	0.001012	-6.8954
11/03/2012	0.005737	0.005737	-5.1608
12/03/2012	0.041120	0.041120	-3.1913
13/03/2012	0.001426	0.001426	-6.5531
14/03/2012	0.001814	0.001814	-6.3124
15/03/2012	0.060334	0.060334	-2.8079
16/03/2012	0.225570	0.225570	-1.4891
17/03/2012	0.002501	0.002501	-5.9910
18/03/2012	0.000460	0.000460	-7.6832
19/03/2012	0.004040	0.004040	-5.5114
20/03/2012	0.021123	0.021123	-3.8574
21/03/2012	0.075792	0.075792	-2.5798
22/03/2012	0.052405	0.052405	-2.9488
23/03/2012	0.125482	0.125482	-2.0756
24/03/2012	0.002940	0.002940	-5.8295
25/03/2012	0.669544	0.669544	-0.4012
26/03/2012	0.220826	0.220826	-1.5104
27/03/2012	0.080659	0.080659	-2.5175
28/03/2012	0.002028	0.002028	-6.2007
29/03/2012	0.007964	0.007964	-4.8328
30/03/2012	0.004375	0.004375	-5.4319
31/03/2012	0.030285	0.030285	-3.4971
1/04/2012	0.066050	0.066050	-2.7174
2/04/2012	0.026210	0.026210	-3.6416
3/04/2012	0.006617	0.006617	-5.0181
4/04/2012	0.030588	0.030588	-3.4871
5/04/2012	0.046270	0.046270	-3.0733
6/04/2012	0.191547	0.191547	-1.6526
7/04/2012	0.079152	0.079152	-2.5364
8/04/2012	0.010014	0.010014	-4.6038
9/04/2012	0.083375	0.083375	-2.4844
10/04/2012	0.869560	0.869560	-0.1398
11/04/2012	0.150938	0.150938	-1.8909
12/04/2012	0.094130	0.094130	-2.3631
13/04/2012	0.001186	0.001186	-6.7372
14/04/2012	0.120479	0.120479	-2.1163
15/04/2012	0.000735	0.000735	-7.2158
16/04/2012	0.003435	0.003435	-5.6738
17/04/2012	0.000590	0.000590	-7.4357
18/04/2012	0.003170	0.003170	-5.7541
19/04/2012	0.001353	0.001353	-6.6054
20/04/2012	0.241940	0.241940	-1.4191
21/04/2012	0.005267	0.005267	-5.2462
22/04/2012	0.034991	0.034991	-3.3527
23/04/2012	0.568876	0.568876	-0.5641
24/04/2012	0.005188	0.005188	-5.2613
25/04/2012	0.015881	0.015881	-4.1426
26/04/2012	0.004107	0.004107	-5.4952
27/04/2012	0.125450	0.125450	-2.0758
28/04/2012	0.034143	0.034143	-3.3772
29/04/2012	0.000552	0.000552	-7.5020
30/04/2012	0.004425	0.004425	-5.4204
1/05/2012	0.019133	0.019133	-3.9564
2/05/2012	0.014764	0.014764	-4.2155
3/05/2012	0.001599	0.001599	-6.4383
4/05/2012	0.005403	0.005403	-5.2208
5/05/2012	0.009522	0.009522	-4.6541
6/05/2012	0.082728	0.082728	-2.4922
7/05/2012	0.009885	0.009885	-4.6167
8/05/2012	0.018398	0.018398	-3.9955
9/05/2012	0.329156	0.329156	-1.1112
10/05/2012	0.002287	0.002287	-6.0806
11/05/2012	0.008185	0.008185	-4.8055
12/05/2012	0.003892	0.003892	-5.5488
13/05/2012	0.003126	0.003126	-5.7681
14/05/2012	0.005986	0.005986	-5.1183
15/05/2012	0.002384	0.002384	-6.0388
16/05/2012	0.003955	0.003955	-5.5327
17/05/2012	0.001192	0.001192	-6.7319
18/05/2012	0.214982	0.214982	-1.5372
19/05/2012	0.056297	0.056297	-2.8771
20/05/2012	0.000183	0.000183	-8.6064

21/05/2012	0.140047	0.140047	-1.9658
22/05/2012	0.005179	0.005179	-5.2631
23/05/2012	0.016808	0.016808	-4.0859
24/05/2012	0.087860	0.087860	-2.4320
25/05/2012	0.245901	0.245901	-1.4028
26/05/2012	0.032654	0.032654	-3.4218
27/05/2012	0.065182	0.065182	-2.7306
28/05/2012	0.024895	0.024895	-3.6931
29/05/2012	0.019981	0.019981	-3.9130
30/05/2012	1.615944	1.615944	0.4799
31/05/2012	0.004498	0.004498	-5.4042
1/06/2012	0.024167	0.024167	-3.7228
2/06/2012	0.000770	0.000770	-7.1696
3/06/2012	0.001848	0.001848	-6.2935
4/06/2012	0.570636	0.570636	-0.5610
5/06/2012	0.040729	0.040729	-3.2008
6/06/2012	0.070500	0.070500	-2.6521
7/06/2012	0.020319	0.020319	-3.8962
8/06/2012	0.961076	0.961076	-0.0397
9/06/2012	0.598685	0.598685	-0.5130
10/06/2012	0.006677	0.006677	-5.0091
11/06/2012	0.100404	0.100404	-2.2986
12/06/2012	0.056663	0.056663	-2.8706
13/06/2012	0.060839	0.060839	-2.7995
14/06/2012	0.002870	0.002870	-5.8534
15/06/2012	0.005693	0.005693	-5.1685
16/06/2012	0.008453	0.008453	-4.7732
17/06/2012	0.015903	0.015903	-4.1413
18/06/2012	0.034338	0.034338	-3.3715
19/06/2012	0.018984	0.018984	-3.9641
20/06/2012	0.103214	0.103214	-2.2710
21/06/2012	0.015777	0.015777	-4.1492
22/06/2012	0.065188	0.065188	-2.7305
23/06/2012	0.002132	0.002132	-6.1506
24/06/2012	0.020637	0.020637	-3.8807
25/06/2012	0.065400	0.065400	-2.7272
26/06/2012	0.011058	0.011058	-4.5046
27/06/2012	0.004151	0.004151	-5.4845
28/06/2012	0.005608	0.005608	-5.1836
29/06/2012	0.003570	0.003570	-5.6351
30/06/2012	0.002555	0.002555	-5.9698
1/07/2012	0.361826	0.361826	-1.0166
2/07/2012	0.052052	0.052052	-2.9555
3/07/2012	0.003104	0.003104	-5.7752
4/07/2012	0.014651	0.014651	-4.2233
5/07/2012	0.021517	0.021517	-3.8389
6/07/2012	0.071739	0.071739	-2.6347
7/07/2012	0.050241	0.050241	-2.9909
8/07/2012	0.021457	0.021457	-3.8417
9/07/2012	0.017691	0.017691	-4.0347
10/07/2012	0.004760	0.004760	-5.3476
11/07/2012	0.035843	0.035843	-3.3286
12/07/2012	0.004864	0.004864	-5.3260
13/07/2012	0.001691	0.001691	-6.3827
14/07/2012	0.002435	0.002435	-6.0178
15/07/2012	0.000722	0.000722	-7.2331
16/07/2012	0.009465	0.009465	-4.6601
17/07/2012	0.001088	0.001088	-6.8233
18/07/2012	0.005043	0.005043	-5.2897
19/07/2012	0.010058	0.010058	-4.5994
20/07/2012	0.507346	0.507346	-0.6786
21/07/2012	0.599994	0.599994	-0.5108
22/07/2012	0.229409	0.229409	-1.4723
23/07/2012	0.782930	0.782930	-0.2447
24/07/2012	0.001817	0.001817	-6.3107
25/07/2012	0.014597	0.014597	-4.2269
26/07/2012	0.005261	0.005261	-5.2474
27/07/2012	0.511153	0.511153	-0.6711
28/07/2012	0.010664	0.010664	-4.5409
29/07/2012	0.009730	0.009730	-4.6325
30/07/2012	0.007381	0.007381	-4.9089
31/07/2012	0.001530	0.001530	-6.4827
1/08/2012	0.029207	0.029207	-3.5334
2/08/2012	0.016997	0.016997	-4.0747
3/08/2012	0.012859	0.012859	-4.3537
4/08/2012	0.042665	0.042665	-3.1544
5/08/2012	0.025438	0.025438	-3.6715
6/08/2012	0.050919	0.050919	-2.9775
7/08/2012	0.003022	0.003022	-5.8020
8/08/2012	0.352563	0.352563	-1.0425
9/08/2012	0.068942	0.068942	-2.6745
10/08/2012	0.005337	0.005337	-5.2331
11/08/2012	0.028046	0.028046	-3.5739
12/08/2012	0.005892	0.005892	-5.1342
13/08/2012	0.002066	0.002066	-6.1822
14/08/2012	0.001738	0.001738	-6.3551

15/08/2012	0.006437	0.006437	-5.0456
16/08/2012	0.023564	0.023564	-3.7480
17/08/2012	0.006482	0.006482	-5.0388
18/08/2012	0.115370	0.115370	-2.1596
19/08/2012	0.002186	0.002186	-6.1258
20/08/2012	0.042952	0.042952	-3.1477
21/08/2012	0.120098	0.120098	-2.1194
22/08/2012	0.076061	0.076061	-2.5762
23/08/2012	0.024712	0.024712	-3.7005
24/08/2012	0.085655	0.085655	-2.4574
25/08/2012	0.034755	0.034755	-3.3594
26/08/2012	0.036001	0.036001	-3.3242
27/08/2012	0.149582	0.149582	-1.8999
28/08/2012	0.002126	0.002126	-6.1536
29/08/2012	0.059779	0.059779	-2.8171
30/08/2012	0.004261	0.004261	-5.4582
31/08/2012	0.067787	0.067787	-2.6914
1/09/2012	0.001363	0.001363	-6.5984
2/09/2012	0.000820	0.000820	-7.1061
3/09/2012	0.236660	0.236660	-1.4411
4/09/2012	0.152411	0.152411	-1.8812
5/09/2012	1.232096	1.232096	0.2087
6/09/2012	0.190774	0.190774	-1.6567
7/09/2012	0.010841	0.010841	-4.5245
8/09/2012	0.002104	0.002104	-6.1640
9/09/2012	0.001956	0.001956	-6.2371
10/09/2012	0.026728	0.026728	-3.6221
11/09/2012	0.034070	0.034070	-3.3793
12/09/2012	0.156650	0.156650	-1.8537
13/09/2012	0.002848	0.002848	-5.8611
14/09/2012	0.004618	0.004618	-5.3779
15/09/2012	0.001858	0.001858	-6.2884
16/09/2012	0.000915	0.000915	-6.9969
17/09/2012	0.502265	0.502265	-0.6886
18/09/2012	0.012468	0.012468	-4.3846
19/09/2012	0.005393	0.005393	-5.2226
20/09/2012	0.001713	0.001713	-6.3697
21/09/2012	0.064737	0.064737	-2.7374
22/09/2012	0.124927	0.124927	-2.0800
23/09/2012	0.015313	0.015313	-4.1791
24/09/2012	0.001246	0.001246	-6.6879
25/09/2012	0.003501	0.003501	-5.6547
26/09/2012	0.312733	0.312733	-1.1624
27/09/2012	0.012771	0.012771	-4.3606
28/09/2012	0.001224	0.001224	-6.7058
29/09/2012	0.034133	0.034133	-3.3775
30/09/2012	0.002261	0.002261	-6.0917
1/10/2012	0.007494	0.007494	-4.8936
2/10/2012	0.004097	0.004097	-5.4975
3/10/2012	0.002817	0.002817	-5.8722
4/10/2012	0.398713	0.398713	-0.9195
5/10/2012	0.002899	0.002899	-5.8435
6/10/2012	0.007526	0.007526	-4.8894
7/10/2012	0.003391	0.003391	-5.6867
8/10/2012	0.134875	0.134875	-2.0034
9/10/2012	0.032452	0.032452	-3.4280
10/10/2012	0.008989	0.008989	-4.7117
11/10/2012	0.612200	0.612200	-0.4907
12/10/2012	0.034502	0.034502	-3.3667
13/10/2012	0.002832	0.002832	-5.8666
14/10/2012	0.001681	0.001681	-6.3883
15/10/2012	0.006021	0.006021	-5.1125
16/10/2012	0.001823	0.001823	-6.3072
17/10/2012	0.004173	0.004173	-5.4792
18/10/2012	0.002583	0.002583	-5.9587
19/10/2012	0.240584	0.240584	-1.4247
20/10/2012	0.000489	0.000489	-7.6234
21/10/2012	0.594875	0.594875	-0.5194
22/10/2012	0.000429	0.000429	-7.7542
23/10/2012	0.000839	0.000839	-7.0833
24/10/2012	0.085832	0.085832	-2.4554
25/10/2012	0.391894	0.391894	-0.9368
26/10/2012	0.014840	0.014840	-4.2104
27/10/2012	1.265728	1.265728	0.2356
28/10/2012	0.001016	0.001016	-6.8923
29/10/2012	0.026050	0.026050	-3.6478
30/10/2012	0.018240	0.018240	-4.0041
31/10/2012	0.026889	0.026889	-3.6161
1/11/2012	0.054058	0.054058	-2.9177
2/11/2012	0.002514	0.002514	-5.9860
3/11/2012	0.001195	0.001195	-6.7293
4/11/2012	0.000647	0.000647	-7.3438
5/11/2012	0.029018	0.029018	-3.5399
6/11/2012	0.349055	0.349055	-1.0525
7/11/2012	0.000902	0.000902	-7.0108
8/11/2012	0.006624	0.006624	-5.0171

9/11/2012	0.025715	0.025715	-3.6607
10/11/2012	0.003826	0.003826	-5.5660
11/11/2012	0.000000	0.000000	
12/11/2012	0.037060	0.037060	-3.2952
13/11/2012	0.004523	0.004523	-5.3986
14/11/2012	0.000596	0.000596	-7.4251
15/11/2012	0.001650	0.001650	-6.4072
16/11/2012	0.014531	0.014531	-4.2315
17/11/2012	0.032086	0.032086	-3.4393
18/11/2012	0.001135	0.001135	-6.7807
19/11/2012	0.071011	0.071011	-2.6449
20/11/2012	0.003362	0.003362	-5.6951
21/11/2012	0.032058	0.032058	-3.4402
22/11/2012	0.033399	0.033399	-3.3992
23/11/2012	0.024006	0.024006	-3.7295
24/11/2012	0.015206	0.015206	-4.1861
25/11/2012	0.000811	0.000811	-7.1177
26/11/2012	0.708614	0.708614	-0.3444
27/11/2012	1.342684	1.342684	0.2947
28/11/2012	0.053985	0.053985	-2.9190
29/11/2012	1.427075	1.427075	0.3556
30/11/2012	1.925687	1.925687	0.6553
1/12/2012	0.084472	0.084472	-2.4713
2/12/2012	0.002006	0.002006	-6.2116
3/12/2012	0.003476	0.003476	-5.6619
4/12/2012	0.032093	0.032093	-3.4391
5/12/2012	0.002113	0.002113	-6.1595
6/12/2012	0.001628	0.001628	-6.4207
7/12/2012	0.006986	0.006986	-4.9638
8/12/2012	0.284823	0.284823	-1.2559
9/12/2012	0.001984	0.001984	-6.2227
10/12/2012	0.012443	0.012443	-4.3866
11/12/2012	0.061271	0.061271	-2.7924
12/12/2012	0.047696	0.047696	-3.0429
13/12/2012	0.030317	0.030317	-3.4960
14/12/2012	0.025006	0.025006	-3.6887
15/12/2012	0.001568	0.001568	-6.4582
16/12/2012	0.245138	0.245138	-1.4059
17/12/2012	0.028103	0.028103	-3.5719
18/12/2012	0.003242	0.003242	-5.7314
19/12/2012	0.007516	0.007516	-4.8907
20/12/2012	0.031569	0.031569	-3.4556
21/12/2012	0.001602	0.001602	-6.4363
22/12/2012	0.001180	0.001180	-6.7426
23/12/2012	0.095171	0.095171	-2.3521
24/12/2012	0.476606	0.476606	-0.7411
25/12/2012	0.001454	0.001454	-6.5334
26/12/2012	0.001312	0.001312	-6.6361
27/12/2012	0.524170	0.524170	-0.6459
28/12/2012	0.449513	0.449513	-0.7996
29/12/2012	0.042555	0.042555	-3.1570
30/12/2012	0.036171	0.036171	-3.3195
31/12/2012	0.001243	0.001243	-6.6905

Note:
Exclusions refer to upstream events only and do not refer MED exclusions.
MED calculation starts from 5 years prior to the relevant regulatory reporting year (e.g. 2013 requires data from 1 January 2008 to 31 December 2012).

Jemena Electricity Networks (Vic) Limited
STPIS Data Reporting
2013
Exclusions

Table 1: Exclusions

Date of event (DD/MM/YYYY)	Feeder ID / name	Feeder classification	Number of interruptions (unplanned)	Duration of interruption (unplanned) (mins)	Total unplanned minutes off supply	Event category (use Exclusion categories listed in section 3.3 (a) of the AER's STPIS)	Effect on unplanned SAIDI	Effect on unplanned SAIFI	Effect on unplaned MAIFI	Please provide separate explanation to confirm the outage was not due to inadequate transmission connection planning	Cause of event (Use categories listed in table 1, Template 6C)
					0.00						
					0.00						
					0.00						
					0.00						
					0.00						
					0.00						
					0.00						
					0.00						
					0.00						
					0.00						
					0.00						
					0.00						
					0.00						
					0.00						
					0.00						

Note:
The AER's *Electricity distribution network service providers, Service target performance incentive scheme* , November 2009, p. 22, defines SAIDI and SAIFI.
The AER will apply the ESCV's definition of MAIFI for transitional reasons. The ESCV's Information specification (Service performance) for Victorian Electricity Distributors, 1 January 2009, p. 30, defines MAIFI as follows:
MAIFI - The total number of momentary interruptions divided by the average number of distribution customers over the regulatory reporting period. (where the distribution customers are network or per feeder based, as appropriate).

Jemena Electricity Networks (Vic) Limited
Demand
2013

Table 1 Customer Numbers by Voltage Level

Customer numbers by voltage level	
Subtransmission	
Hsh Voltage	
Low Voltage Residential	
Low Voltage Non-Residential	
Total - all customers	0

Table 2 New Customer Connections

Note: 'Total customer numbers' is the total average of end of prior year customers and end of current year customers

New connections	
Total new connections	
New customer connections as a % of total customers	#DIV/0!

Table 3 Customer Disconnections

Note: 'Total customer numbers' is the total average of end of prior year customers and end of current year customers

Disconnections	
Total disconnections	
Disconnections as a % of total customers	#DIV/0!

Table 4 Electricity Consumption

Electricity consumption by voltage level (MWh)	
Subtransmission	
Hsh Voltage	
Low Voltage Residential	
Low Voltage Non-Residential	
Controlled load	
Total consumption	

Table 5 Maximum Coincident Demand at the Network Level

Note: a) Maximum Coincident Demand at the Network Level is calculated as the sum of all maximum coincident demand for zone substations and all feeders from terminal stations.
b) Forecasts should be the demand forecasts for the relevant regulatory year that were made at the time of the regulatory proposal
c) t+1 forecasts should be the latest updates to the demand forecasts for the regulatory year t+1.
d) The PoE level only applies to the forecasts

Network coincident maximum demand	Forecast	Actual: raw	Actual: weather normalised	Variation %	t+1 forecast
90% PoE level					
Network coincident maximum demand (MW)				#DIV/0!	
Network coincident maximum demand (MVA)				#DIV/0!	
50% PoE level					
Network coincident maximum demand (MW)				#DIV/0!	
Network coincident maximum demand (MVA)				#DIV/0!	
10% PoE level					
Network coincident maximum demand (MW)				#DIV/0!	
Network coincident maximum demand (MVA)				#DIV/0!	

Ashley

Table 6 Summer or winter non-coincident maximum demand by zone substation

Note: a) Forecasts should be the demand forecasts for the relevant regulatory year that were made at the time of the regulatory proposal
b) t+1 forecasts should be the latest updates to the demand forecasts for the regulatory year t+1.
c) The PoE level only applies to the forecasts

Summer and winter maximum demand - ZS																	
POE level = 50%	Forecast				Actual: raw				Actual: weather normalised				t+1 forecast				Nameplate rating (MVA)
Location	MW	MVA	MVAr	PF	MW	MVA	MVAr	PF	MW	MVA	MVAr	PF	MW	MVA	MVAr	PF	
Zone Substation 1 (ACI) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 1 (ACI) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 2 (APF) Customer substation Substation redevelopment & change of ownership expected around 2015/16 - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 2 (APF) Customer substation Substation redevelopment & change of ownership expected around 2015/16 - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 3 (AW) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 3 (AW) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 4 (BD) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 4 (BD) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 5 (BK) CitiPower Substation - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 5 (BK) CitiPower Substation - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 6 (BY) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 6 (BY) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 7 (CN) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 7 (CN) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 8 (CS) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 8 (CS) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 9 (COO) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 9 (COO) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 10 (EP A) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 10 (EP A) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 11 (EP B) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 11 (EP B) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 12 (ES) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 12 (ES) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 13 (FE) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 13 (FE) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 14 (FF) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 14 (FF) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 15 (FT) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 15 (FT) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 16 (FW) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 16 (FW) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 17 (HB) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 17 (HB) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 18 (MAT) Customer Substation - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 18 (MAT) Customer Substation - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 19 (MB) Customer Substation - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 19 (MB) Customer Substation - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 20 (NH) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 20 (NH) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 21 (NS) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 21 (NS) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 22 (NT) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 22 (NT) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 23 (P) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 23 (P) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 24 (PV) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 24 (PV) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 26 (SBY) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 26 (SBY) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 27 (SHM) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 27 (SHM) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 28 (ST) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 28 (ST) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 29 (TH) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 29 (TH) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 30 (TT) SPI Electricity Substation - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 30 (TT) SPI Electricity Substation - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 31 (VCO) Customer Substation - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 31 (VCO) Customer Substation - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 32 (WT) SPI Electricity Substation - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 32 (WT) SPI Electricity Substation - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 33 (YTS) - Summer maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	
Zone Substation 33 (YTS) - Winter maximum demand				#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	

Contents

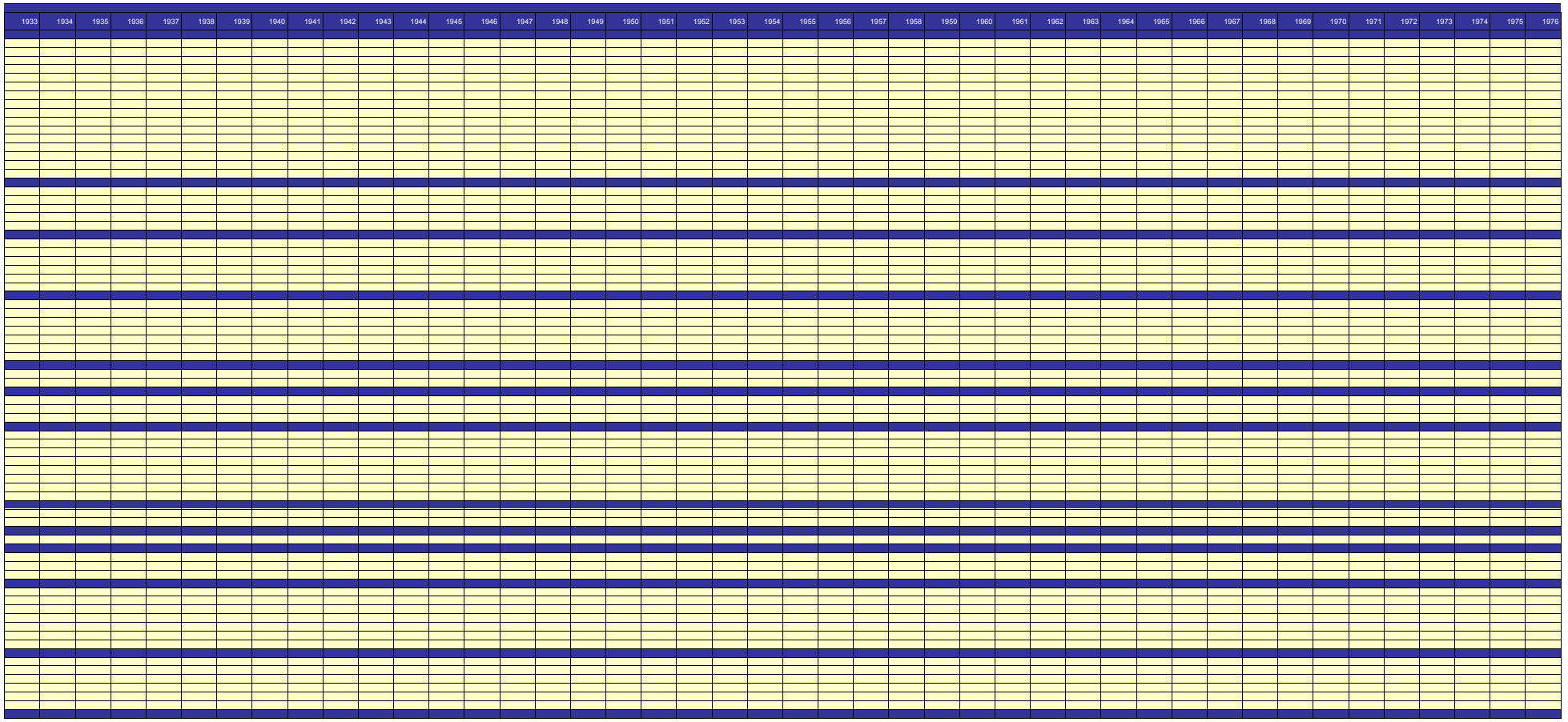
Jemena Electricity Networks (Vic) Limited
Asset Installation
2013

Instructions
Insert rows for each of its asset types under each high level asset group. Additional groups may be added if a particular asset is not encompassed by the asset groups in the table.
Develop a set of asset types under the high level asset groups that represent its network asset base.
In determining whether a new asset type is required, whether asset types should be aggregated or whether asset types should be disaggregated, the DNSP should consider:
- the proportion of the overall replacement expenditure forecast for the assets
- the differentiation of unit replacement costs into clear and distinguishable distributions
- the differentiation of replacement lives into clear and distinguishable distributions
- multiple 'end of life' actions such as 'replacement' or 'life extension' (eg pole staking) - in the case of 'life extension', the DNSP should appropriately account for this in defining the replacement life and unit cost for the asset category.

Table 1 For each asset type, provide:
a) the mean replacement asset life (years)
b) the standard deviation of the mean replacement asset life
c) the replacement unit cost ($ nominal).
d) the total number of asset failures during the regulatory year
e) the total quantity (number) of each asset type that was commissioned in the relevant regulatory reporting year.

Table 1 Asset age profile for distribution system assets **Source of Guidance**

Statutory Account code or reference to account code	Asset group	Replacement life (years)		Replacement unit cost	Number of asset failures	Total quantity replaced	Total quantity installed	Year Commissioned (number of assets commissioned in each year)																					
		Mean	Standard Deviation					1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
	Poles																													
	Staked Wooden Poles ST																													
	Staked Wooden Poles HV																													
	Staked Wooden Poles LV																													
	Staked Wooden Poles Public Light																													
	Wooden Poles ST																													
	Wooden Poles HV																													
	Wooden Poles LV																													
	Wooden Poles Public Light																													
	Concrete Poles ST																													
	Concrete Poles HV																													
	Concrete Poles LV																													
	Concrete Poles Public Light																													
	Steel Poles ST																													
	Steel Poles HV																													
	Steel Poles LV																													
	Steel Poles Public Light																													
	Pole top structures																													
	Wooden Cross Arm ST																													
	Wooden Cross Arm HV																													
	Wooden Cross Arm LV																													
	Steel Cross Arm ST																													
	Steel Cross Arm HV																													
	Conductors																													
	Conductor - Sub T																													
	Conductor - HV (ABC)																													
	Conductor - HV Bare																													
	Conductor - LV (ABC)																													
	Conductor - LV Bare																													
	Conductor - LV Service																													
	Underground cables																													
	Cable - Sub T Oil																													
	Cable - Sub T XLPE																													
	Cable - HV Paper																													
	Cable - HV XLPE																													
	Cable - LV Paper																													
	Cable - LV XLPE																													
	Cable - LV Service																													
	Services (incl. LV pillars and LV service pits)																													
	LV Pillars																													
	LV Service Pit																													
	Distribution transformers																													
	Ground/Indoor Transformer																													
	Kiosk/Padmount Transformer																													
	Pole Transformer																													
	Distribution switchgear																													
	O/H Air Break Switches - HV																													
	O/H Gas Switches - HV (RCGS/MGS)																													
	Ring Main Unit																													
	HV Isolators																													
	Isolators LV & Pole Mounted LV gear																													
	ACR																													
	O/H Fuses - HV (inc sub and line fuses)																													
	Surge Arrestor (Diverter) - HV																													
	Distribution 'other assets'																													
	Public Lighting Lanterns - Major Rd																													
	Public Lighting Lanterns - Minor Rd																													
	Zone transformers																													
	Zone Transformers																													
	Zone switchgear																													
	Disconnectors Zone Sub																													
	Indoor Circuit Breakers																													
	Outdoor Circuit Breakers																													
	Zone 'other assets'																													
	Capacitor Banks - Small																													
	Capacitor Banks - Large																													
	CTs and VTs																													
	DC Battery Bank																													
	DC Battery Chargers																													
	NER																													
	Zone Sub Building and Civil Works																													
	SCADA and protection																													
	Relays																													
	Supervisory Cable- Fibre																													
	Supervisory Cable Aerial - Metallic																													
	Supervisory Cable Underground - Metallic																													
	SCADA - PQ Meters																													
	SCADA - RTU's																													
	Other																													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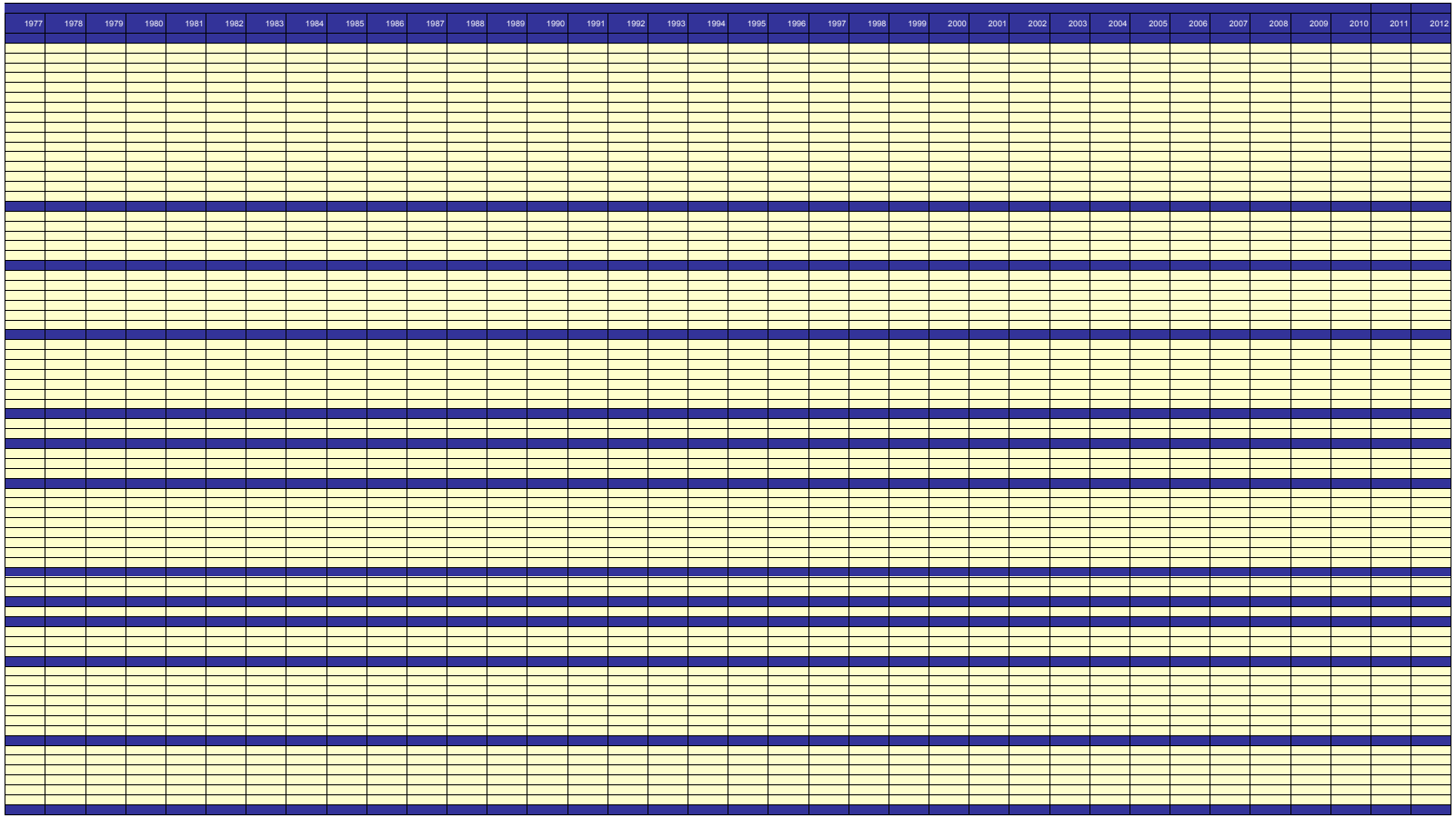
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Contents

Jemena Electricity Networks (Vic) Limited
Customer Service
2013

Table 1 Quality of supply

Over voltage events - due to high voltage injection	12
Customers receiving over-voltage - due to high voltage injection	485
Over voltage events - due to lightning	0
Customers receiving over-voltage - due to lightning	0
Over voltage events - due to voltage regulation or other cause	47
Customers receiving over-voltage - due to voltage regulation or other cause	5143
Voltage variations - steady state (zone sub)	72
Voltage variations - one minute (zone sub)	38
Voltage variations - 10 seconds (zone sub) Min<0.7	213
Voltage variations - 10 seconds (zone sub) Min<0.8	321
Voltage variations - 10 seconds (zone sub) Min<0.9	850
Voltage variations - steady state (feeder)	3392
Voltage variations - % zone subs monitored	100%
Voltage variations - % feeders monitored	91%

Table 2 Complaints - technical quality of supply

Complaints - technical quality of supply - number	167
Complaints by category (%)	
Low voltage supply	18%
Voltage dips	5%
Voltage swell	1%
Voltage spike (impulsive transient)	1%
TV or radio interference	1%
Noise from appliances	0%
Other	75%
Complaints by Likely Cause (%)	
Network equipment faulty	10%
Network interference by NSP equipment	0%
Network interference by another customer	0%
Network limitation	55%
Customer internal problem	3%
No problem identified	0%
Environmental	0%
Other	32%

Table 3 Customer service

Timely provision of services	
Connections made	7409
Connections not made on agreed date	5
Timely repair of faulty streetlights	
Streetlights - average monthly number "out"	255
Streetlights - not repaired by "fix by" date	4
Streetlights - average number of days to repair	3
Total streetlights	69058
Call Centre Performance (number, unless stated)	
Calls to call centre fault line	132673
Calls to fault line not answered within 30 seconds	29097
Calls to fault line - average waiting time before call answered	69
Calls abandoned - percentage	31%
Call centre - number of overload events	1
Customer complaints (number)	
Complaint - reliability of supply	18
Complaint - technical quality of supply	167
Complaint - administrative process or customer service	48
Complaint - connection or augmentation	80
Complaint - other	407
Complaint - AMI	890
Total complaints	1610

Note: for Table 3 **Calls to Call Centre Fault Line** means the total number of calls to the fault line to be reported, including any answered by an automated response service and terminated without being answered by an operator. Excludes missed calls where the fault line is overloaded.

JEN's explanatory notes

1 Voltage variations - steady state (zone sub) (cell H12)

An investigation will be carried out to identify the reasons of the increase in the number of steady state (>60 Sec) voltage variation events from zone substation PQ meter ES (Essendon Zone Substation) and ST (Somerton Zone Substation) which has largest contribution to these events.

2 Voltage variations - one minute (zone sub) (cell H13)

An investigation will be carried out to identify the reasons of the increase in the number of voltage variation events (one minute >10 sec & <60 sec) from zone substation PQ meter FW (Footscray West Zone Substation) which has largest contribution to these events.

3 Voltage variations - steady state (feeder) (cell H17)

The steady state voltage variations at end of feeders are still high for year 2013 as compared to year 2012. Jemena will carry out an investigation to identify the reasons for increase in the number of events from end of feeder meters BY14 (Braybrook), CS2 (Coburg South), EP3 (East Preston), FE6 (Footscray East) , FF90 (Fairfield), SHM14 (Sydenham) and YTS8 (Yarraville)

4 Voltage variations - % feeders monitored (cell H19)

Due to customer initiated project, one of the end of feeder PQ meter at AW (Airport West) zone substation area was taken out The meter will be put back to service at another site in January 2014. The other end-of-feeder power quality meter which is not It will not be re-installed until the feeder topology conversion work has been completed.

Jemena Electricity Networks (Vic) Limited
General Information
2013

Table 1 General Information

Number of metered supply points	Total no.	By type of customer		By supply voltage		
		Domestic	Non-Domestic	ST	HV	LV
CBD	0					
Urban	295,992	268,959	27,033	3	75	295,914
Rural Short	15,275	14,469	806	0	3	15,272
Rural Long	0					
Total number of metered supply points	**311,267**	**283,428**	**27,839**	**3**	**78**	**311,186**

Number of unmetered supply points	CBD	Urban	Short Rural	Long Rural
Total no.		6,837	190	

Energy delivered (GWh)	Total GWh	By type of customer		By supply voltage		
		Domestic	Non-Domestic	ST	HV	LV
CBD	0					
Urban	0					
Rural Short	0					
Rural Long	0					
Total energy	**4,254**	**1,257**	**2,997**	**315**	**696**	**3,243**

Line length (km)	Total km	Underground			Overhead		
		ST	HV	LV	ST	HV	LV
CBD	0						
Urban	5,261	15	564	838	272	1,196	2,376
Rural Short	875	4	71	188	59	484	69
Rural Long	0						
Total line length	**6,136**	**19**	**635**	**1,026**	**331**	**1,680**	**2,445**

Number and total capacity of transformers	Total no.	Capacity (MVA)
Distribution	6,077	2,436
Zone substations	61	1,633
Total	**6,138**	**4,069**

Customer numbers	
Sub transmission	3
High voltage	78
Low voltage - residential	283,428
Low voltage - non-residential	34,785
Total customer numbers	**318,294**

Number of poles	
Sub transmission	4,635
Distribution	74,234
Total	**78,869**

Other information	
Distribution losses (% of purchases)	4.19%
Network Service area (sq.km)	950
Peak Coincident Demand (MW)	959

Note: Distribution Loss factors are to be reported on a financial year basis

Contents

Jemena Electricity Networks (Vic) Limited
Planned Outages
2013

Table 1 Planned Outages

Date (DD/MM/YYYY)	Feeder ID / name	Feeder Classification	Reason for planned outage	Number of customers interrupted	Duration of interruption (mins)	Total minutes off supply (planned)	Effect on planned SAIDI	Effect on planned SAIFI	Effect on planned MAIFI
2/01/2013	CN 04	Urban	Regular Maintenance	8	115	920	0.68	0.01	0.00
5/01/2013	TT 10	Urban	Replace Overhead Assets	9	260	2,340	0.54	0.00	0.00
6/01/2013	AW 06	Urban	Replace Overhead Assets	24	450	10,800	2.21	0.00	0.00
7/01/2013	HB 14	Urban	Regular Maintenance	1	390	390	0.23	0.00	0.00
8/01/2013	AW 08	Urban	Upgrade Capacity - subs and LV	184	357	65,688	28.04	0.08	0.00
8/01/2013	CN 06	Urban	Regular Maintenance	35	135	4,725	2.27	0.02	0.00
8/01/2013	HB 24	Urban	Regular Maintenance	3	150	450	0.51	0.00	0.00
8/01/2013	TT 10	Urban	Regular Maintenance	3	300	900	0.21	0.00	0.00
9/01/2013	CN 04	Urban	Regular Maintenance	8	330	2,640	1.94	0.01	0.00
9/01/2013	TT 10	Urban	Replace Overhead Assets	3	290	870	0.20	0.00	0.00
11/01/2013	COO11	Rural-short	Regular Maintenance	3	185	555	0.34	0.00	0.00
14/01/2013	HB 14	Urban	Replace Overhead Assets	46	235	10,810	6.33	0.03	0.00
14/01/2013	NT 04	Urban	Improving Reliability	14	385	5,390	3.38	0.01	0.00
15/01/2013	CN 04	Urban	Replace Overhead Assets	11	420	4,620	3.40	0.01	0.00
15/01/2013	HB 14	Urban	Replace Overhead Assets	61	185	8,555	5.01	0.04	0.00
15/01/2013	SBY11	Rural-short	Regular Maintenance	13	120	1,560	0.52	0.00	0.00
16/01/2013	EP 36	Urban	Replace Overhead Assets	10	480	4,800	5.07	0.01	0.00
16/01/2013	HB 14	Urban	Replace Overhead Assets	17	230	3,910	2.29	0.01	0.00
16/01/2013	NT 04	Urban	Improving Reliability	28	338	9,464	5.93	0.02	0.00
16/01/2013	SBY11	Rural-short	Regular Maintenance	3	50	150	0.05	0.00	0.00
16/01/2013	SBY14	Rural-short	Regular Maintenance	1	70	70	0.02	0.00	0.00
16/01/2013	SHM14	Urban	Upgrade Capacity - subs and LV	103	445	45,835	12.02	0.03	0.00
17/01/2013	CN 04	Urban	Replace Overhead Assets	45	140	6,300	4.63	0.03	0.00
17/01/2013	FF 96	Urban	Regular Maintenance	2	300	600	0.59	0.00	0.00
18/01/2013	AW 14	Urban	Replace Overhead Assets	34	390	13,260	10.58	0.03	0.00
18/01/2013	TT 10	Urban	Replace Overhead Assets	31	404	12,524	2.86	0.01	0.00
18/01/2013	TT 10	Urban	Upgrade Capacity - subs and LV	11	120	1,320	0.30	0.00	0.00

19/01/2013	CN 02	Urban	Regular Maintenance	21	375	7,875	17.54	0.05	0.00
19/01/2013	ST 34	Urban	Replace Overhead Assets	16	402	6,432	21.37	0.05	0.00
20/01/2013	TT 10	Urban	Upgrade Capacity - subs and LV	31	390	12,090	2.76	0.01	0.00
21/01/2013	FW 08	Urban	Replace Overhead Assets	4	276	1,104	0.38	0.00	0.00
21/01/2013	PV 15	Urban	Replace Overhead Assets	42	342	14,364	8.43	0.02	0.00
22/01/2013	COO11	Rural-short	Regular Maintenance	59	345	15,427	9.40	0.04	0.00
22/01/2013	NT 11	Urban	Replace Overhead Assets	17	345	5,865	1.72	0.00	0.00
22/01/2013	SBY14	Rural-short	Regular Maintenance	12	225	2,700	0.67	0.00	0.00
23/01/2013	AW 08	Urban	Upgrade Capacity - subs and LV	101	445	44,945	19.18	0.04	0.00
23/01/2013	BD 11	Urban	Replace Overhead Assets	3	60	180	0.06	0.00	0.00
23/01/2013	NT 11	Urban	Replace Overhead Assets	33	255	8,415	2.46	0.01	0.00
24/01/2013	COO11	Rural-short	Regular Maintenance	110	303	33,330	20.31	0.07	0.00
24/01/2013	NT 04	Urban	Improving Reliability	15	393	5,895	3.69	0.01	0.00
24/01/2013	SBY14	Rural-short	Regular Maintenance	42	195	8,190	2.04	0.01	0.00
25/01/2013	COO13	Urban	Replace Underground Assets	2	60	120	0.03	0.00	0.00
25/01/2013	NT 11	Urban	Replace Overhead Assets	28	220	6,160	1.80	0.01	0.00
26/01/2013	NS 15	Urban	Regular Maintenance	73	120	7,220	4.67	0.05	0.00
27/01/2013	CN 05	Urban	Replace Overhead Assets	17	206	3,502	0.89	0.00	0.00
27/01/2013	CS 05	Urban	Replace Overhead Assets	3	345	1,035	0.22	0.00	0.00
29/01/2013	CN 06	Urban	Regular Maintenance	6	270	1,620	0.78	0.00	0.00
30/01/2013	AW 02	Urban	Regular Maintenance	39	181	7,059	2.30	0.01	0.00
30/01/2013	FF 87	Urban	Replace Overhead Assets	75	295	22,125	22.79	0.08	0.00
30/01/2013	SHM11	Rural-short	Upgrade Capacity - subs and LV	2	355	710	0.68	0.00	0.00
30/01/2013	YTS07	Urban	Replace Overhead Assets	13	407	5,291	5.72	0.01	0.00
31/01/2013	CS 05	Urban	Replace Overhead Assets	15	145	2,175	0.46	0.00	0.00
31/01/2013	NH 05	Urban	Regular Maintenance	242	140	33,880	7.51	0.05	0.00
31/01/2013	SBY14	Rural-short	Regular Maintenance	1	128	128	0.03	0.00	0.00
1/02/2013	CN 08	Urban	Replace Overhead Assets	111	401	44,511	21.88	0.05	0.00
1/02/2013	TT 08	Urban	Replace Overhead Assets	10	175	1,750	0.71	0.00	0.00
2/02/2013	NH 03	Urban	Upgrade Capacity - subs and LV	2	450	900	0.70	0.00	0.00
2/02/2013	ST 14	Urban	Regular Maintenance	1	346	346	4.38	0.01	0.00
3/02/2013	CN 02	Urban	Regular Maintenance	1	258	258	0.57	0.00	0.00

3/02/2013	CS 08	Urban	Replace Overhead Assets	85	356	30,260	10.26	0.03	0.00
3/02/2013	EP 42	Urban	Replace Overhead Assets	8	460	3,680	12.19	0.03	0.00
4/02/2013	FF 96	Urban	Upgrade Capacity - subs and LV	149	345	51,405	50.15	0.15	0.00
4/02/2013	NT 04	Urban	Upgrade Capacity - subs and LV	12	105	1,260	0.79	0.01	0.00
4/02/2013	ST 22	Urban	Replace Overhead Assets	4	180	720	0.12	0.00	0.00
4/02/2013	TT 08	Urban	Replace Underground Assets	40	59	2,360	0.96	0.02	0.00
5/02/2013	BD 14	Urban	Replace Overhead Assets	63	282	17,766	31.33	0.11	0.00
5/02/2013	ES 13	Urban	Replace Overhead Assets	32	220	7,040	3.83	0.02	0.00
5/02/2013	SBY14	Rural-short	Regular Maintenance	20	205	4,100	1.02	0.00	0.00
6/02/2013	COO11	Rural-short	Regular Maintenance	1	142	142	0.09	0.00	0.00
6/02/2013	HB 15	Urban	Upgrade Capacity - subs and LV	36	210	7,560	3.16	0.02	0.00
7/02/2013	HB 14	Urban	Replace Overhead Assets	26	184	4,784	2.80	0.02	0.00
7/02/2013	SBY32	Rural-short	Regular Maintenance	6	185	1,110	0.38	0.00	0.00
7/02/2013	ST 32	Urban	Regular Maintenance	1	43	43	0.01	0.00	0.00
8/02/2013	BD 07	Urban	Replace Overhead Assets	11	195	2,145	0.54	0.00	0.00
8/02/2013	CN 06	Urban	Replace Overhead Assets	67	197	13,199	6.35	0.03	0.00
8/02/2013	HB 15	Urban	Replace Overhead Assets	16	250	4,000	1.67	0.01	0.00
9/02/2013	BD 08	Urban	Replace Overhead Assets	20	453	9,060	11.89	0.03	0.00
9/02/2013	FF 89	Urban	Regular Maintenance	2	187	374	1.03	0.01	0.00
9/02/2013	ST 22	Urban	Upgrade Capacity - subs and LV	3	447	1,341	0.22	0.00	0.00
10/02/2013	AW 04	Urban	Regular Maintenance	30	280	8,400	4.33	0.02	0.00
10/02/2013	AW 04	Urban	Upgrade Capacity - subs and LV	8	360	2,880	1.48	0.00	0.00
10/02/2013	CN 04	Urban	Regular Maintenance	46	105	4,830	3.55	0.03	0.00
10/02/2013	CS 12	Urban	Regular Maintenance	4	345	1,380	0.71	0.00	0.00
11/02/2013	CN 02	Urban	Regular Maintenance	1	290	290	0.65	0.00	0.00
12/02/2013	HB 14	Urban	Replace Overhead Assets	10	369	3,690	2.16	0.01	0.00
13/02/2013	CS 02	Urban	Replace Overhead Assets	55	296	11,826	2.15	0.01	0.00
13/02/2013	HB 14	Urban	Replace Overhead Assets	21	230	4,830	2.83	0.01	0.00
14/02/2013	BD 07	Urban	Replace Overhead Assets	11	230	2,530	0.64	0.00	0.00
14/02/2013	FT 01	Urban	Upgrade Capacity - subs and LV	28	415	11,620	3.19	0.01	0.00

15/02/2013	FF 95	Urban	Replace Overhead Assets	30	175	5,250	3.20	0.02	0.00
15/02/2013	HB 14	Urban	Replace Overhead Assets	24	214	5,136	3.01	0.01	0.00
17/02/2013	AW 06	Urban	Upgrade Capacity - subs and LV	33	390	12,870	2.64	0.01	0.00
17/02/2013	NT 11	Urban	Replace Overhead Assets	19	400	7,600	2.22	0.01	0.00
19/02/2013	BD 01	Urban	Replace Overhead Assets	5	235	1,175	0.70	0.00	0.00
19/02/2013	CN 10	Urban	Upgrade Capacity - subs and LV	45	90	4,050	2.08	0.02	0.00
19/02/2013	FF 87	Urban	Replace Overhead Assets	69	65	4,485	4.62	0.07	0.00
19/02/2013	ST 22	Urban	Regular Maintenance	34	355	12,070	2.01	0.01	0.00
20/02/2013	AW 07	Urban	Replace Overhead Assets	56	275	15,400	3.38	0.01	0.00
20/02/2013	HB 24	Urban	Replace Overhead Assets	20	264	5,280	6.03	0.02	0.00
21/02/2013	BD 11	Urban	Upgrade Capacity - subs and LV	5	365	1,825	0.65	0.00	0.00
21/02/2013	CS 02	Urban	Replace Overhead Assets	97	270	26,190	4.76	0.02	0.00
22/02/2013	CS 03	Urban	Replace Overhead Assets	21	235	4,935	1.29	0.01	0.00
23/02/2013	BD 11	Urban	Regular Maintenance	1	550	550	0.20	0.00	0.00
23/02/2013	BD 13	Urban	Upgrade Capacity - subs and LV	3	275	825	1.61	0.01	0.00
23/02/2013	ES 11	Urban	Regular Maintenance	25	215	5,375	3.45	0.02	0.00
23/02/2013	SHM11	Rural-short	Regular Maintenance	2	232	464	0.45	0.00	0.00
24/02/2013	FW 09	Urban	Replace Overhead Assets	17	318	5,406	3.83	0.01	0.00
24/02/2013	HB 15	Urban	Tree Clearing Urban	67	126	8,442	3.53	0.03	0.00
24/02/2013	HB 15	Urban	Upgrade Capacity - subs and LV	52	238	4,522	1.89	0.02	0.00
25/02/2013	BD 15	Urban	Regular Maintenance	3	354	1,062	1.32	0.00	0.00
27/02/2013	COO11	Rural-short	Replace Overhead Assets	16	296	4,736	2.89	0.01	0.00
27/02/2013	CS 02	Urban	Replace Overhead Assets	37	300	11,100	2.02	0.01	0.00
27/02/2013	NS 09	Urban	Replace Underground Assets	21	245	5,145	5.38	0.02	0.00
28/02/2013	CN 10	Urban	Replace Overhead Assets	10	150	4,522	2.32	0.01	0.00
28/02/2013	COO11	Rural-short	Regular Maintenance	8	292	2,336	1.42	0.00	0.00
28/02/2013	CS 02	Urban	Replace Overhead Assets	151	243	36,693	6.67	0.03	0.00
28/02/2013	SBY14	Rural-short	Replace Overhead Assets	8	178	1,424	0.35	0.00	0.00
1/03/2013	SBY32	Rural-short	Regular Maintenance	58	20	1,160	0.40	0.02	0.00
1/03/2013	SHM11	Rural-short	Upgrade Capacity - subs and LV	2	255	510	0.49	0.00	0.00

2/03/2013	BY 12	Urban	Regular Maintenance	1	80	80	0.06	0.00	0.00
2/03/2013	NH 03	Urban	Upgrade Capacity - subs and LV	16	428	6,848	5.30	0.01	0.00
3/03/2013	AW 06	Urban	Replace Overhead Assets	17	220	3,740	0.77	0.00	0.00
3/03/2013	AW 11	Urban	Improving Reliability	16	368	5,888	12.45	0.03	0.00
3/03/2013	FW 13	Urban	Regular Maintenance	4	360	1,440	3.05	0.01	0.00
4/03/2013	FW 16	Urban	Replace Overhead Assets	29	215	6,235	2.46	0.01	0.00
5/03/2013	FF 88	Urban	Replace Overhead Assets	43	45	1,935	1.54	0.03	0.00
6/03/2013	BD 07	Urban	Replace Overhead Assets	31	170	5,270	1.33	0.01	0.00
6/03/2013	FW 16	Urban	Upgrade Capacity - subs and LV	23	366	8,418	3.33	0.01	0.00
7/03/2013	FF 96	Urban	Replace Overhead Assets	13	235	3,055	2.98	0.01	0.00
7/03/2013	TT 11	Urban	Upgrade Capacity - subs and LV	13	313	4,069	0.82	0.00	0.00
8/03/2013	BY 15	Urban	Regular Maintenance	4	35	140	0.14	0.00	0.00
8/03/2013	CN 10	Urban	Replace Overhead Assets	8	295	2,360	1.21	0.00	0.00
8/03/2013	HB 14	Urban	Replace Overhead Assets	11	55	605	0.35	0.01	0.00
9/03/2013	AW 12	Urban	Replace Overhead Assets	35	195	6,825	3.83	0.02	0.00
9/03/2013	BY 13	Urban	Regular Maintenance	7	90	630	0.84	0.01	0.00
9/03/2013	CS 02	Urban	Replace Overhead Assets	5	120	600	0.11	0.00	0.00
9/03/2013	FF 95	Urban	Replace Overhead Assets	6	170	1,020	0.62	0.00	0.00
10/03/2013	BY 12	Urban	Regular Maintenance	1	34	34	0.03	0.00	0.00
10/03/2013	FE 05	Urban	Upgrade Capacity - subs and LV	55	345	18,975	6.18	0.02	0.00
12/03/2013	HB 14	Urban	Replace Overhead Assets	5	205	1,025	0.60	0.00	0.00
13/03/2013	COO11	Rural-short	Improving Reliability	1	120	120	0.07	0.00	0.00
13/03/2013	HB 14	Urban	Replace Overhead Assets	21	205	4,305	2.52	0.01	0.00
13/03/2013	HB 15	Urban	Replace Overhead Assets	9	100	900	0.38	0.00	0.00
13/03/2013	SBY14	Rural-short	Replace Overhead Assets	194	224	43,456	10.80	0.05	0.00
14/03/2013	FW 17	Urban	Replace Overhead Assets	186	388	72,168	31.89	0.08	0.00
14/03/2013	HB 15	Urban	Replace Overhead Assets	14	259	3,626	1.52	0.01	0.00
14/03/2013	NT 11	Urban	Regular Maintenance	12	240	2,880	0.84	0.00	0.00
14/03/2013	TT 03	Urban	Replace Overhead Assets	2	176	352	0.10	0.00	0.00
14/03/2013	TT 08	Urban	Regular Maintenance	19	240	4,560	1.86	0.01	0.00

15/03/2013	CS 05	Urban	Replace Overhead Assets	56	280	15,680	3.32	0.01	0.00
15/03/2013	FF 95	Urban	Replace Overhead Assets	19	240	4,560	2.78	0.01	0.00
15/03/2013	NH 16	Urban	Replace Overhead Assets	26	195	5,070	2.01	0.01	0.00
16/03/2013	BD 04	Urban	Regular Maintenance	1	135	135	0.13	0.00	0.00
16/03/2013	BD 16	Urban	Regular Maintenance	129	315	40,635	28.14	0.09	0.00
16/03/2013	BY 15	Urban	Regular Maintenance	5	112	560	0.57	0.01	0.00
16/03/2013	YTS04	Urban	Regular Maintenance	12	330	3,960	5.13	0.02	0.00
17/03/2013	YTS04	Urban	Replace Overhead Assets	155	450	69,750	90.35	0.20	0.00
18/03/2013	FT 10	Urban	Improving Reliability	73	195	14,235	6.95	0.04	0.00
19/03/2013	FF 96	Urban	Replace Overhead Assets	16	270	4,320	4.21	0.02	0.00
20/03/2013	FT 01	Urban	Regular Maintenance	3	210	630	0.17	0.00	0.00
20/03/2013	FT 10	Urban	Improving Reliability	18	232	4,176	2.04	0.01	0.00
20/03/2013	SBY11	Rural-short	Replace Overhead Assets	27	310	8,370	2.82	0.01	0.00
20/03/2013	SHM11	Rural-short	Regular Maintenance	3	100	300	0.29	0.00	0.00
22/03/2013	CS 02	Urban	Replace Overhead Assets	28	180	5,040	0.92	0.01	0.00
22/03/2013	HB 15	Urban	Regular Maintenance	4	270	1,080	0.45	0.00	0.00
22/03/2013	SBY11	Rural-short	Regular Maintenance	2	131	262	0.09	0.00	0.00
23/03/2013	AW 11	Urban	Upgrade Capacity - subs and LV	4	390	1,560	3.30	0.01	0.00
23/03/2013	BD 11	Urban	Regular Maintenance	3	90	270	0.10	0.00	0.00
23/03/2013	HB 15	Urban	Replace Overhead Assets	3	180	540	0.23	0.00	0.00
24/03/2013	COO11	Rural-short	Road Works Council	182	575	104,650	63.77	0.11	0.00
24/03/2013	FW 04	Urban	Regular Maintenance	46	95	4,370	3.04	0.03	0.00
24/03/2013	NT 10	Urban	Regular Maintenance	1	135	135	0.13	0.00	0.00
24/03/2013	SBY31	Urban	Upgrade Capacity - subs and LV	60	465	27,900	13.22	0.03	0.00
25/03/2013	FF 88	Urban	Replace Overhead Assets	8	140	1,120	0.89	0.01	0.00
25/03/2013	FF 95	Urban	Replace Overhead Assets	9	185	1,665	1.01	0.01	0.00
25/03/2013	HB 24	Urban	Replace Overhead Assets	4	90	360	0.41	0.00	0.00
25/03/2013	ST 33	Urban	Upgrade Capacity - subs and LV	4	225	900	0.28	0.00	0.00
26/03/2013	CS 02	Urban	Regular Maintenance	21	140	2,940	0.53	0.00	0.00
26/03/2013	NS 08	Urban	Upgrade Capacity - subs and LV	12	113	1,356	1.18	0.01	0.00
26/03/2013	SBY14	Rural-short	Improving Reliability	239	194	4,030	1.00	0.06	0.00
28/03/2013	HB 14	Urban	Regular Maintenance	4	200	800	0.47	0.00	0.00
3/04/2013	FF 87	Urban	Regular Maintenance	32	150	4,800	4.94	0.03	0.00
3/04/2013	NH 08	Urban	Replace Overhead Assets	19	280	5,320	2.04	0.01	0.00
3/04/2013	SHM14	Urban	Regular Maintenance	26	189	4,914	1.29	0.01	0.00
4/04/2013	CN 03	Urban	Regular Maintenance	34	375	12,750	4.92	0.01	0.00

4/04/2013	NH 02	Urban	Regular Maintenance	46	350	16,100	3.81	0.01	0.00
4/04/2013	SHM14	Urban	Upgrade Capacity - subs and LV	9	171	1,539	0.40	0.00	0.00
4/04/2013	TT 11	Urban	Replace Overhead Assets	25	220	5,500	1.11	0.01	0.00
5/04/2013	ST 32	Urban	Replace Overhead Assets	3	540	1,620	0.27	0.00	0.00
6/04/2013	AW 09	Urban	Upgrade Capacity - subs and LV	3	403	1,209	0.49	0.00	0.00
6/04/2013	BD 04	Urban	Replace Overhead Assets	73	205	14,965	14.32	0.07	0.00
6/04/2013	BY 14	Urban	Regular Maintenance	1	120	120	0.04	0.00	0.00
7/04/2013	CN 05	Urban	Replace Overhead Assets	7	265	1,855	0.47	0.00	0.00
7/04/2013	FW 04	Urban	Upgrade Capacity - subs and LV	25	240	6,000	4.17	0.02	0.00
7/04/2013	NT 03	Urban	Regular Maintenance	2	480	960	0.30	0.00	0.00
7/04/2013	NT 15	Urban	Regular Maintenance	6	61	366	0.34	0.01	0.00
8/04/2013	HB 24	Urban	Regular Maintenance	1	120	120	0.14	0.00	0.00
9/04/2013	AW 06	Urban	Upgrade Capacity - subs and LV	18	285	5,130	1.05	0.00	0.00
9/04/2013	TT 10	Urban	Replace Overhead Assets	36	225	8,100	1.85	0.01	0.00
10/04/2013	HB 14	Urban	Replace Overhead Assets	12	225	2,700	1.58	0.01	0.00
10/04/2013	HB 24	Urban	Replace Overhead Assets	23	315	7,245	8.28	0.03	0.00
11/04/2013	CN 03	Urban	Regular Maintenance	34	488	16,592	6.41	0.01	0.00
11/04/2013	SBY14	Rural-short	Replace Overhead Assets	194	450	87,300	21.70	0.05	0.00
12/04/2013	HB 14	Urban	Replace Overhead Assets	39	210	8,190	4.80	0.02	0.00
12/04/2013	HB 15	Urban	Replace Overhead Assets	77	334	25,718	10.76	0.03	0.00
13/04/2013	FF 89	Urban	Upgrade Capacity - subs and LV	62	485	30,070	82.61	0.17	0.00
13/04/2013	ST 13	Urban	Upgrade Capacity - subs and LV	1	308	308	1.63	0.01	0.00
14/04/2013	CN 06	Urban	Regular Maintenance	2	180	360	0.17	0.00	0.00
15/04/2013	SBY32	Rural-short	Replace Overhead Assets	7	610	4,270	1.47	0.00	0.00
16/04/2013	HB 23	Urban	Replace Overhead Assets	85	218	18,530	12.52	0.06	0.00
16/04/2013	SBY32	Rural-short	Replace Overhead Assets	4	500	2,000	0.69	0.00	0.00
17/04/2013	FF 88	Urban	Upgrade Capacity - subs and LV	95	410	38,950	31.04	0.08	0.00
17/04/2013	SBY32	Rural-short	Replace Overhead Assets	8	495	3,960	1.37	0.00	0.00
18/04/2013	EP 34	Urban	Improving Reliability	5	115	575	0.40	0.00	0.00
18/04/2013	HB 24	Urban	Replace Overhead Assets	37	260	9,620	10.99	0.04	0.00

19/04/2013	FE 08	Urban	Replace Overhead Assets	5	120	600	0.27	0.00	0.00
19/04/2013	PV 13	Urban	Upgrade Capacity - subs and LV	69	330	22,770	7.34	0.02	0.00
19/04/2013	PV 31	Urban	Regular Maintenance	3	180	540	0.28	0.00	0.00
20/04/2013	BD 04	Urban	Upgrade Capacity - subs and LV	2	315	630	0.60	0.00	0.00
20/04/2013	BY 14	Urban	Regular Maintenance	4	75	300	0.10	0.00	0.00
20/04/2013	PV 13	Urban	Upgrade Capacity - subs and LV	164	312	51,168	16.50	0.05	0.00
21/04/2013	AW 03	Urban	Upgrade Capacity - subs and LV	10	320	3,200	12.55	0.04	0.00
21/04/2013	CN 08	Urban	Upgrade Capacity - subs and LV	1	350	350	0.17	0.00	0.00
22/04/2013	NH 08	Urban	Regular Maintenance	3	179	537	0.21	0.00	0.00
22/04/2013	PV 23	Urban	Regular Maintenance	2	60	120	0.05	0.00	0.00
23/04/2013	TT 10	Urban	Replace Overhead Assets	23	130	2,990	0.68	0.01	0.00
24/04/2013	COO11	Rural-short	Replace Overhead Assets	28	520	14,560	8.87	0.02	0.00
24/04/2013	YTS03	Urban	Regular Maintenance	1	360	360	0.55	0.00	0.00
26/04/2013	CN 08	Urban	Regular Maintenance	4	474	1,896	0.93	0.00	0.00
26/04/2013	HB 22	Urban	Replace Overhead Assets	10	195	1,950	1.72	0.01	0.00
26/04/2013	P 62	Urban	Regular Maintenance	27	330	8,910	13.28	0.04	0.00
27/04/2013	NH 09	Urban	Upgrade Capacity - subs and LV	36	345	11,790	18.54	0.06	0.00
28/04/2013	CS 08	Urban	Replace Overhead Assets	91	360	32,760	11.11	0.03	0.00
29/04/2013	CN 05	Urban	Regular Maintenance	20	235	4,700	1.19	0.01	0.00
29/04/2013	FF 88	Urban	Regular Maintenance	8	360	2,880	2.29	0.01	0.00
29/04/2013	SBY32	Rural-short	Improving Reliability	4	195	321	0.11	0.00	0.00
30/04/2013	CS 05	Urban	Replace Overhead Assets	55	270	14,850	3.15	0.01	0.00
30/04/2013	PV 14	Urban	Replace Overhead Assets	47	355	16,685	6.05	0.02	0.00
30/04/2013	SBY32	Rural-short	Improving Reliability	3	430	1,290	0.44	0.00	0.00
30/04/2013	SHM14	Urban	Upgrade Capacity - subs and LV	103	482	49,646	13.02	0.03	0.00
1/05/2013	FF 88	Urban	Replace Overhead Assets	43	256	11,008	8.77	0.03	0.00
1/05/2013	HB 15	Urban	Replace Overhead Assets	122	180	21,960	9.19	0.05	0.00
1/05/2013	SBY32	Rural-short	Improving Reliability	3	170	510	0.18	0.00	0.00
2/05/2013	CN 04	Urban	Regular Maintenance	1	120	120	0.09	0.00	0.00
2/05/2013	COO11	Rural-short	Regular Maintenance	9	279	2,511	1.53	0.01	0.00
2/05/2013	HB 14	Urban	Replace Overhead Assets	137	247	33,839	19.81	0.08	0.00
2/05/2013	SBY32	Rural-short	Improving Reliability	2	158	316	0.11	0.00	0.00
3/05/2013	FF 95	Urban	Regular Maintenance	2	118	236	0.14	0.00	0.00
3/05/2013	HB 15	Urban	Replace Overhead Assets	58	75	4,350	1.82	0.02	0.00

4/05/2013	PV 13	Urban	Upgrade Capacity - subs and LV	1	236	236	0.08	0.00	0.00
5/05/2013	AW 01	Urban	Regular Maintenance	14	345	4,830	6.66	0.02	0.00
6/05/2013	CN 06	Urban	Regular Maintenance	6	120	720	0.35	0.00	0.00
6/05/2013	CS 05	Urban	Replace Overhead Assets	14	288	4,032	0.85	0.00	0.00
7/05/2013	SBY14	Rural-short	Replace Overhead Assets	194	463	89,822	22.33	0.05	0.00
7/05/2013	TT 03	Urban	Replace Overhead Assets	57	215	12,255	3.65	0.02	0.00
8/05/2013	YTS06	Urban	Replace Overhead Assets	18	256	4,608	5.39	0.02	0.00
9/05/2013	NT 17	Urban	Replace Overhead Assets	72	110	7,920	2.83	0.03	0.00
10/05/2013	HB 15	Urban	Replace Overhead Assets	1	60	60	0.03	0.00	0.00
10/05/2013	NT 17	Urban	Replace Overhead Assets	15	98	1,470	0.53	0.01	0.00
11/05/2013	HB 24	Urban	Replace Overhead Assets	15	70	1,050	1.20	0.02	0.00
11/05/2013	PV 24	Urban	Regular Maintenance	1	26	26	0.02	0.00	0.00
13/05/2013	HB 14	Urban	Replace Overhead Assets	3	70	210	0.12	0.00	0.00
13/05/2013	NH 05	Urban	Regular Maintenance	69	225	15,525	3.44	0.02	0.00
13/05/2013	SBY32	Rural-short	Improving Reliability	4	485	1,940	0.67	0.00	0.00
14/05/2013	SBY32	Rural-short	Regular Maintenance	13	131	1,703	0.59	0.00	0.00
14/05/2013	TT 10	Urban	Regular Maintenance	31	225	6,975	1.60	0.01	0.00
15/05/2013	CS 02	Urban	Replace Overhead Assets	12	250	3,000	0.55	0.00	0.00
15/05/2013	PV 12	Urban	Replace Overhead Assets	33	245	8,085	17.31	0.07	0.00
15/05/2013	TT 11	Urban	Regular Maintenance	13	170	2,210	0.45	0.00	0.00
16/05/2013	CN 07	Urban	Regular Maintenance	6	225	1,350	0.25	0.00	0.00
16/05/2013	HB 14	Urban	Regular Maintenance	5	275	1,375	0.81	0.00	0.00
17/05/2013	AW 06	Urban	Replace Overhead Assets	68	220	14,960	3.07	0.01	0.00
17/05/2013	CS 03	Urban	Improving Reliability	1	450	450	0.12	0.00	0.00
17/05/2013	HB 22	Urban	Regular Maintenance	43	300	12,900	11.39	0.04	0.00
17/05/2013	NH 05	Urban	Replace Overhead Assets	7	240	1,680	0.37	0.00	0.00
18/05/2013	BY 14	Urban	Improving Reliability	15	90	1,350	0.47	0.01	0.00
18/05/2013	FF 88	Urban	Regular Maintenance	4	120	480	0.38	0.00	0.00
18/05/2013	FF 95	Urban	Regular Maintenance	5	150	750	0.46	0.00	0.00
18/05/2013	ST 13	Urban	Upgrade Capacity - subs and LV	1	120	120	0.63	0.01	0.00
19/05/2013	CN 04	Urban	Replace Overhead Assets	42	365	15,330	11.27	0.03	0.00
19/05/2013	COO11	Rural-short	Regular Maintenance	3	229	687	0.42	0.00	0.00
19/05/2013	PV 31	Urban	Replace Underground Assets	13	240	3,120	1.60	0.01	0.00
19/05/2013	ST 34	Urban	Upgrade Capacity - subs and LV	6	385	2,310	7.67	0.02	0.00

20/05/2013	PV 13	Urban	Regular Maintenance	3	120	360	0.12	0.00	0.00
20/05/2013	PV 22	Urban	Improving Reliability	8	120	960	0.39	0.00	0.00
21/05/2013	CN 05	Urban	Regular Maintenance	1	300	300	0.08	0.00	0.00
21/05/2013	CN 06	Urban	Upgrade Capacity - subs and LV	74	205	15,170	7.29	0.04	0.00
21/05/2013	TT 08	Urban	Regular Maintenance	49	115	5,635	2.30	0.02	0.00
22/05/2013	AW 07	Urban	Replace Overhead Assets	37	370	13,690	3.01	0.01	0.00
22/05/2013	CN 04	Urban	Replace Overhead Assets	9	325	2,925	2.15	0.01	0.00
23/05/2013	CN 05	Urban	Replace Overhead Assets	18	135	2,430	0.62	0.00	0.00
23/05/2013	CN 10	Urban	Regular Maintenance	24	110	2,640	1.36	0.01	0.00
23/05/2013	CS 02	Urban	Replace Overhead Assets	62	260	16,120	2.93	0.01	0.00
24/05/2013	AW 07	Urban	Upgrade Capacity - subs and LV	3	285	855	0.19	0.00	0.00
24/05/2013	CS 02	Urban	Replace Overhead Assets	28	296	8,288	1.51	0.01	0.00
24/05/2013	EP 37	Urban	Replace Overhead Assets	50	205	10,250	12.58	0.06	0.00
24/05/2013	FW 09	Urban	Replace Overhead Assets	14	200	2,800	1.98	0.01	0.00
25/05/2013	CS 05	Urban	Upgrade Capacity - subs and LV	46	330	15,180	3.22	0.01	0.00
26/05/2013	BD 09	Urban	Regular Maintenance	5	73	365	0.53	0.01	0.00
26/05/2013	CN 11	Urban	Upgrade Capacity - subs and LV	4	518	2,072	0.82	0.00	0.00
27/05/2013	CN 05	Urban	Replace Overhead Assets	6	230	1,020	0.26	0.00	0.00
28/05/2013	CN 06	Urban	Replace Overhead Assets	11	440	4,840	2.33	0.01	0.00
28/05/2013	NH 05	Urban	Replace Overhead Assets	8	175	1,400	0.31	0.00	0.00
28/05/2013	NH 08	Urban	Replace Overhead Assets	113	305	34,465	13.22	0.04	0.00
28/05/2013	PV 23	Urban	Regular Maintenance	5	315	1,575	0.67	0.00	0.00
29/05/2013	COO11	Rural-short	Regular Maintenance	4	180	720	0.44	0.00	0.00
29/05/2013	CS 13	Urban	Replace Underground Assets	49	360	17,640	9.93	0.03	0.00
30/05/2013	HB 14	Urban	Replace Overhead Assets	148	180	26,640	15.60	0.09	0.00
30/05/2013	NT 11	Urban	Replace Overhead Assets	14	208	2,912	0.85	0.00	0.00
30/05/2013	PV 24	Urban	Regular Maintenance	2	170	340	0.21	0.00	0.00
30/05/2013	SBY14	Rural-short	Upgrade Capacity - subs and LV	1	290	290	0.07	0.00	0.00
31/05/2013	PV 22	Urban	Replace Overhead Assets	17	360	6,120	2.46	0.01	0.00
31/05/2013	SBY32	Rural-short	Regular Maintenance	4	178	712	0.25	0.00	0.00
2/06/2013	AW 06	Urban	Regular Maintenance	2	300	600	0.12	0.00	0.00

2/06/2013	FF 95	Urban	Replace Overhead Assets	14	220	3,080	1.88	0.01	0.00
2/06/2013	ST 23	Urban	Regular Maintenance	1	25	25	0.18	0.01	0.00
3/06/2013	SBY32	Rural-short	Regular Maintenance	8	52	416	0.14	0.00	0.00
4/06/2013	HB 24	Urban	Replace Overhead Assets	52	255	13,260	15.15	0.06	0.00
4/06/2013	NT 17	Urban	Replace Overhead Assets	24	190	4,560	1.63	0.01	0.00
5/06/2013	AW 07	Urban	Upgrade Capacity - subs and LV	28	360	10,080	2.22	0.01	0.00
5/06/2013	CN 03	Urban	Replace Overhead Assets	50	210	10,500	4.05	0.02	0.00
5/06/2013	PV 14	Urban	Upgrade Capacity - subs and LV	58	364	21,112	7.66	0.02	0.00
6/06/2013	HB 23	Urban	Regular Maintenance	27	90	2,430	1.64	0.02	0.00
6/06/2013	NT 17	Urban	Improving Reliability	55	380	20,900	7.47	0.02	0.00
6/06/2013	SHM11	Rural-short	Regular Maintenance	57	32	1,824	1.75	0.05	0.00
7/06/2013	BD 07	Urban	Replace Overhead Assets	12	195	2,340	0.59	0.00	0.00
7/06/2013	ES 13	Urban	Replace Overhead Assets	11	325	3,575	1.95	0.01	0.00
7/06/2013	TT 10	Urban	Replace Overhead Assets	11	215	2,365	0.54	0.00	0.00
8/06/2013	CS 05	Urban	Upgrade Capacity - subs and LV	60	366	21,960	4.66	0.01	0.00
9/06/2013	FF 89	Urban	Regular Maintenance	9	90	810	2.23	0.02	0.00
9/06/2013	FW 05	Urban	Regular Maintenance	12	294	3,528	2.15	0.01	0.00
9/06/2013	HB 14	Urban	Regular Maintenance	36	215	7,740	4.53	0.02	0.00
9/06/2013	NH 17	Urban	Regular Maintenance	2	100	200	0.09	0.00	0.00
9/06/2013	SHM11	Rural-short	Regular Maintenance	2	20	40	0.04	0.00	0.00
10/06/2013	P 66	Urban	Replace Underground Assets	24	95	2,280	3.19	0.03	0.00
11/06/2013	AW 07	Urban	Replace Overhead Assets	5	210	1,050	0.23	0.00	0.00
11/06/2013	CN 05	Urban	Regular Maintenance	89	210	18,690	4.74	0.02	0.00
11/06/2013	NH 05	Urban	Regular Maintenance	3	480	1,440	0.32	0.00	0.00
12/06/2013	ES 02	Urban	Upgrade Capacity - subs and LV	133	186	24,738	16.85	0.09	0.00
12/06/2013	NH 08	Urban	Regular Maintenance	24	125	3,000	1.15	0.01	0.00
13/06/2013	AW 05	Urban	Replace Overhead Assets	11	270	2,970	5.47	0.02	0.00
13/06/2013	AW 09	Urban	Replace Overhead Assets	2	150	300	0.12	0.00	0.00
13/06/2013	PV 14	Urban	Regular Maintenance	57	450	25,650	9.30	0.02	0.00
14/06/2013	COO11	Rural-short	Regular Maintenance	3	133	399	0.24	0.00	0.00
14/06/2013	SBY14	Rural-short	Replace Overhead Assets	211	417	7,178	1.78	0.05	0.00
15/06/2013	AW 07	Urban	Replace Overhead Assets	44	345	7,440	1.64	0.01	0.00
15/06/2013	EP 09	Urban	Regular Maintenance	2	15	30	0.13	0.01	0.00
16/06/2013	NT 15	Urban	Replace Underground Assets	10	90	900	0.84	0.01	0.00

16/06/2013	YTS03	Urban	Replace Overhead Assets	22	110	2,380	3.67	0.03	0.00
18/06/2013	NH 08	Urban	Regular Maintenance	133	300	37,680	14.45	0.05	0.00
18/06/2013	NS 12	Urban	Regular Maintenance	7	57	399	0.31	0.01	0.00
18/06/2013	NT 17	Urban	Replace Overhead Assets	70	402	28,140	10.06	0.03	0.00
19/06/2013	COO11	Rural-short	Replace Overhead Assets	52	345	17,940	10.93	0.03	0.00
19/06/2013	NH 03	Urban	Replace Overhead Assets	25	220	5,500	4.25	0.02	0.00
19/06/2013	NT 17	Urban	Replace Overhead Assets	171	287	49,077	17.55	0.06	0.00
20/06/2013	AW 07	Urban	Improving Reliability	5	315	1,575	0.35	0.00	0.00
20/06/2013	EP 37	Urban	Replace Overhead Assets	19	235	4,465	5.48	0.02	0.00
21/06/2013	COO11	Rural-short	Regular Maintenance	9	283	2,547	1.55	0.01	0.00
21/06/2013	CS 05	Urban	Upgrade Capacity - subs and LV	2	5	10	0.00	0.00	0.00
21/06/2013	NT 17	Urban	Regular Maintenance	2	150	300	0.11	0.00	0.00
22/06/2013	CS 13	Urban	Regular Maintenance	10	210	2,100	1.18	0.01	0.00
23/06/2013	BD 01	Urban	Replace Overhead Assets	6	210	1,260	0.75	0.00	0.00
23/06/2013	CN 05	Urban	Replace Overhead Assets	31	193	5,983	1.52	0.01	0.00
23/06/2013	YTS03	Urban	Upgrade Capacity - subs and LV	114	400	45,600	70.26	0.18	0.00
24/06/2013	NH 05	Urban	Upgrade Capacity - subs and LV	58	255	14,790	3.28	0.01	0.00
24/06/2013	PV 22	Urban	Improving Reliability	8	120	960	0.39	0.00	0.00
25/06/2013	COO11	Rural-short	Regular Maintenance	93	195	18,135	11.05	0.06	0.00
25/06/2013	COO11	Rural-short	Replace Overhead Assets	5	327	1,635	1.00	0.00	0.00
25/06/2013	NH 05	Urban	Replace Overhead Assets	2	360	720	0.16	0.00	0.00
25/06/2013	NT 11	Urban	Replace Overhead Assets	9	125	1,125	0.33	0.00	0.00
25/06/2013	ST 22	Urban	Replace Underground Assets	56	260	14,560	2.42	0.01	0.00
26/06/2013	COO11	Rural-short	Regular Maintenance	8	67	536	0.33	0.00	0.00
26/06/2013	FE 09	Urban	Replace Overhead Assets	9	210	1,890	0.48	0.00	0.00
27/06/2013	FW 05	Urban	Regular Maintenance	14	240	3,360	2.05	0.01	0.00
27/06/2013	PV 31	Urban	Replace Overhead Assets	48	205	9,840	5.03	0.02	0.00
27/06/2013	SBY11	Rural-short	Replace Underground Assets	14	140	1,960	0.66	0.00	0.00
28/06/2013	COO21	Urban	Regular Maintenance	9	191	1,719	0.89	0.00	0.00
30/06/2013	CN 04	Urban	Regular Maintenance	4	278	1,112	0.82	0.00	0.00
30/06/2013	ST 23	Urban	Replace Overhead Assets	53	300	15,864	112.51	0.38	0.00
1/07/2013	COO11	Rural-short	Regular Maintenance	3	240	540	0.33	0.00	0.00

1/07/2013	CS 03	Urban	Replace Overhead Assets	59	270	15,930	4.16	0.02	0.00
2/07/2013	CS 03	Urban	Replace Overhead Assets	126	219	27,594	7.20	0.03	0.00
2/07/2013	NH 03	Urban	Regular Maintenance	12	390	4,680	3.62	0.01	0.00
2/07/2013	SBY11	Rural-short	Regular Maintenance	1	45	45	0.02	0.00	0.00
3/07/2013	AW 02	Urban	Upgrade Capacity - subs and LV	61	480	29,280	9.56	0.02	0.00
3/07/2013	CN 03	Urban	Regular Maintenance	36	153	5,508	2.13	0.01	0.00
4/07/2013	AW 02	Urban	Upgrade Capacity - subs and LV	61	345	21,045	6.87	0.02	0.00
4/07/2013	TT 11	Urban	Replace Overhead Assets	1	240	240	0.05	0.00	0.00
6/07/2013	ST 34	Urban	Regular Maintenance	75	320	24,000	79.73	0.25	0.00
7/07/2013	BD 01	Urban	Upgrade Capacity - subs and LV	10	437	4,370	2.62	0.01	0.00
7/07/2013	BD 04	Urban	Tree Clearing Urban	53	267	14,151	13.54	0.05	0.00
7/07/2013	CN 02	Urban	Regular Maintenance	67	242	16,214	36.11	0.15	0.00
7/07/2013	NH 09	Urban	Replace Overhead Assets	9	285	2,565	4.03	0.01	0.00
8/07/2013	AW 07	Urban	Regular Maintenance	5	120	600	0.13	0.00	0.00
9/07/2013	SBY31	Urban	Regular Maintenance	228	230	52,440	24.85	0.11	0.00
10/07/2013	NT 17	Urban	Replace Overhead Assets	20	370	7,400	2.65	0.01	0.00
10/07/2013	YTS03	Urban	Upgrade Capacity - subs and LV	22	425	9,350	14.41	0.03	0.00
11/07/2013	COO21	Urban	Regular Maintenance	8	330	2,640	1.37	0.00	0.00
11/07/2013	EP 37	Urban	Replace Overhead Assets	83	245	20,335	24.95	0.10	0.00
11/07/2013	SBY11	Rural-short	Regular Maintenance	11	72	645	0.22	0.00	0.00
12/07/2013	COO11	Rural-short	Upgrade Capacity - subs and LV	1	101	101	0.06	0.00	0.00
12/07/2013	HB 24	Urban	Regular Maintenance	14	235	3,290	3.76	0.02	0.00
12/07/2013	SBY32	Rural-short	Regular Maintenance	46	244	11,224	3.87	0.02	0.00
13/07/2013	PV 14	Urban	Upgrade Capacity - subs and LV	6	310	1,860	0.67	0.00	0.00
13/07/2013	TH 13	Urban	Regular Maintenance	10	53	530	9.64	0.18	0.00
14/07/2013	EP 34	Urban	Regular Maintenance	4	300	1,200	0.83	0.00	0.00
14/07/2013	EP 36	Urban	Replace Overhead Assets	1	250	250	0.26	0.00	0.00
14/07/2013	NT 10	Urban	Regular Maintenance	8	120	900	0.87	0.01	0.00
14/07/2013	P 62	Urban	Replace Overhead Assets	4	135	540	0.80	0.01	0.00
15/07/2013	CN 05	Urban	Replace Overhead Assets	2	180	360	0.09	0.00	0.00
16/07/2013	AW 05	Urban	Replace Overhead Assets	10	390	3,900	7.18	0.02	0.00
16/07/2013	AW 09	Urban	Replace Overhead Assets	2	150	300	0.12	0.00	0.00
16/07/2013	CN 03	Urban	Improving Reliability	4	120	480	0.19	0.00	0.00
16/07/2013	COO11	Rural-short	Replace Overhead Assets	4	245	980	0.60	0.00	0.00

16/07/2013	CS 05	Urban	Regular Maintenance	46	225	10,350	2.19	0.01	0.00
16/07/2013	NH 02	Urban	Regular Maintenance	5	295	1,475	0.35	0.00	0.00
17/07/2013	CN 03	Urban	Upgrade Capacity - subs and LV	214	422	90,308	34.87	0.08	0.00
17/07/2013	FW 17	Urban	Tree Clearing Urban	19	393	7,467	3.30	0.01	0.00
17/07/2013	NT 17	Urban	Replace Overhead Assets	5	380	1,900	0.68	0.00	0.00
18/07/2013	NT 03	Urban	Replace Overhead Assets	35	445	15,575	4.94	0.01	0.00
18/07/2013	NT 11	Urban	Replace Underground Assets	6	265	1,590	0.47	0.00	0.00
19/07/2013	CN 05	Urban	Improving Reliability	28	305	8,540	2.17	0.01	0.00
19/07/2013	FF 95	Urban	Replace Overhead Assets	28	210	5,880	3.58	0.02	0.00
19/07/2013	SBY32	Rural-short	Regular Maintenance	2	240	480	0.17	0.00	0.00
19/07/2013	SBY32	Rural-short	Upgrade Capacity - subs and LV	3	180	540	0.19	0.00	0.00
20/07/2013	CN 05	Urban	Replace Overhead Assets	39	293	11,427	2.90	0.01	0.00
20/07/2013	TT 10	Urban	Replace Overhead Assets	20	270	5,400	1.23	0.00	0.00
21/07/2013	ES 07	Urban	Upgrade Capacity - subs and LV	35	330	11,550	9.04	0.03	0.00
21/07/2013	FF 95	Urban	Replace Overhead Assets	117	310	36,270	22.09	0.07	0.00
22/07/2013	FE 09	Urban	Replace Overhead Assets	74	356	26,344	6.66	0.02	0.00
22/07/2013	NS 18	Urban	Improving Reliability	5	55	275	0.16	0.00	0.00
23/07/2013	CN 03	Urban	Regular Maintenance	13	108	1,404	0.54	0.01	0.00
23/07/2013	CN 05	Urban	Replace Overhead Assets	3	145	435	0.11	0.00	0.00
23/07/2013	TT 11	Urban	Regular Maintenance	6	230	1,380	0.28	0.00	0.00
24/07/2013	FF 95	Urban	Replace Overhead Assets	73	150	10,950	6.67	0.04	0.00
24/07/2013	FW 08	Urban	Regular Maintenance	115	130	14,950	5.10	0.04	0.00
25/07/2013	FE 08	Urban	Replace Overhead Assets	1	360	360	0.16	0.00	0.00
26/07/2013	CN 05	Urban	Regular Maintenance	5	180	900	0.23	0.00	0.00
26/07/2013	CS 05	Urban	Replace Overhead Assets	60	163	9,780	2.07	0.01	0.00
26/07/2013	CS 12	Urban	Replace Overhead Assets	50	192	9,600	4.92	0.03	0.00
26/07/2013	ES 13	Urban	Replace Overhead Assets	10	291	2,910	1.58	0.01	0.00
26/07/2013	SHM14	Urban	Replace Underground Assets	22	580	12,760	3.35	0.01	0.00
27/07/2013	NS 12	Urban	Upgrade Capacity - subs and LV	28	290	8,120	6.24	0.02	0.00
28/07/2013	FE 05	Urban	Replace Overhead Assets	51	255	13,005	4.24	0.02	0.00
29/07/2013	COO11	Rural-short	Regular Maintenance	12	14	168	0.10	0.01	0.00
29/07/2013	SBY32	Rural-short	Regular Maintenance	3	20	60	0.02	0.00	0.00

30/07/2013	COO11	Rural-short	Regular Maintenance	3	98	222	0.14	0.00	0.00
30/07/2013	EP 37	Urban	Replace Overhead Assets	21	215	4,330	5.31	0.03	0.00
30/07/2013	FF 88	Urban	Regular Maintenance	1	5	5	0.00	0.00	0.00
30/07/2013	FF 95	Urban	Replace Overhead Assets	22	90	1,980	1.21	0.01	0.00
30/07/2013	ST 32	Urban	Upgrade Capacity - subs and LV	4	411	1,644	0.27	0.00	0.00
31/07/2013	BD 03	Urban	Replace Underground Assets	1	60	60	0.17	0.00	0.00
31/07/2013	FF 88	Urban	Regular Maintenance	42	134	5,628	4.48	0.03	0.00
31/07/2013	FF 88	Urban	Road Works Council	22	116	2,552	2.03	0.02	0.00
31/07/2013	NH 08	Urban	Regular Maintenance	14	390	3,996	1.53	0.01	0.00
31/07/2013	NT 17	Urban	Replace Overhead Assets	16	165	2,640	0.94	0.01	0.00
2/08/2013	EP 37	Urban	Replace Overhead Assets	20	185	3,700	4.54	0.02	0.00
2/08/2013	PV 31	Urban	Regular Maintenance	1	210	210	0.11	0.00	0.00
3/08/2013	FW 04	Urban	Replace Underground Assets	8	105	840	0.58	0.01	0.00
4/08/2013	CN 10	Urban	Improving Reliability	4	270	1,080	0.56	0.00	0.00
4/08/2013	FW 08	Urban	Regular Maintenance	1	52	52	0.02	0.00	0.00
4/08/2013	PV 12	Urban	Regular Maintenance	121	128	15,488	33.16	0.26	0.00
5/08/2013	FE 09	Urban	Upgrade Capacity - subs and LV	94	360	33,840	8.56	0.02	0.00
5/08/2013	TT 11	Urban	Regular Maintenance	40	200	8,000	1.62	0.01	0.00
6/08/2013	EP 37	Urban	Replace Overhead Assets	52	330	17,160	21.06	0.06	0.00
6/08/2013	NT 11	Urban	Replace Overhead Assets	24	210	5,040	1.47	0.01	0.00
6/08/2013	YTS06	Urban	Regular Maintenance	26	266	6,916	8.09	0.03	0.00
7/08/2013	CN 08	Urban	Replace Overhead Assets	49	221	10,829	5.32	0.02	0.00
7/08/2013	FF 95	Urban	Regular Maintenance	117	240	28,080	17.10	0.07	0.00
8/08/2013	CN 08	Urban	Replace Overhead Assets	7	267	1,869	0.92	0.00	0.00
8/08/2013	NH 17	Urban	Replace Overhead Assets	56	115	6,440	2.89	0.03	0.00
9/08/2013	ES 13	Urban	Improving Reliability	3	65	195	0.11	0.00	0.00
10/08/2013	SBY33	Urban	Regular Maintenance	41	165	5,805	1.96	0.01	0.00
11/08/2013	CS 03	Urban	Replace Overhead Assets	1	300	300	0.08	0.00	0.00
11/08/2013	NH 02	Urban	Replace Overhead Assets	247	129	31,863	7.53	0.06	0.00
11/08/2013	NH 09	Urban	Replace Overhead Assets	2	220	275	0.43	0.00	0.00
11/08/2013	NT 17	Urban	Regular Maintenance	28	136	3,808	1.36	0.01	0.00
11/08/2013	SBY31	Urban	Regular Maintenance	16	420	6,720	3.18	0.01	0.00
12/08/2013	FE 09	Urban	Upgrade Capacity - subs and LV	24	300	7,200	1.82	0.01	0.00
13/08/2013	FE 09	Urban	Upgrade Capacity - subs and LV	81	465	37,665	9.53	0.02	0.00

14/08/2013	CN 08	Urban	Extended Electricity Supply	20	405	8,100	3.98	0.01	0.00
14/08/2013	FW 16	Urban	Regular Maintenance	193	227	43,811	17.32	0.08	0.00
15/08/2013	CS 03	Urban	Replace Overhead Assets	13	360	4,680	1.22	0.00	0.00
15/08/2013	FE 09	Urban	Upgrade Capacity - subs and LV	75	330	24,750	6.26	0.02	0.00
15/08/2013	SBY11	Rural-short	Upgrade Capacity - subs and LV	3	149	447	0.15	0.00	0.00
15/08/2013	SHM11	Rural-short	Extended Electricity Supply	30	392	11,760	11.31	0.03	0.00
16/08/2013	FW 16	Urban	Replace Overhead Assets	265	370	98,050	38.75	0.10	0.00
16/08/2013	HB 15	Urban	Replace Overhead Assets	41	240	9,840	4.12	0.02	0.00
16/08/2013	SBY32	Rural-short	Regular Maintenance	2	240	480	0.17	0.00	0.00
16/08/2013	SBY32	Rural-short	Upgrade Capacity - subs and LV	3	265	795	0.27	0.00	0.00
17/08/2013	NT 03	Urban	Replace Overhead Assets	10	307	3,070	0.97	0.00	0.00
17/08/2013	PV 14	Urban	Regular Maintenance	22	260	5,720	2.07	0.01	0.00
18/08/2013	CN 01	Urban	Regular Maintenance	9	396	3,564	34.60	0.09	0.00
18/08/2013	COO11	Rural-short	Regular Maintenance	197	335	65,995	40.22	0.12	0.00
18/08/2013	ES 13	Urban	Upgrade Capacity - subs and LV	32	370	11,840	6.44	0.02	0.00
18/08/2013	FT 13	Urban	Replace Overhead Assets	34	279	9,486	5.29	0.02	0.00
19/08/2013	CN 04	Urban	Replace Overhead Assets	62	210	13,020	9.57	0.05	0.00
20/08/2013	COO13	Urban	Replace Overhead Assets	13	130	1,690	0.43	0.00	0.00
20/08/2013	CS 03	Urban	Improving Reliability	29	99	2,871	0.75	0.01	0.00
22/08/2013	ES 12	Urban	Improving Reliability	6	180	1,080	0.88	0.00	0.00
23/08/2013	ES 13	Urban	Improving Reliability	57	205	11,685	6.36	0.03	0.00
23/08/2013	HB 24	Urban	Replace Overhead Assets	5	180	900	1.03	0.01	0.00
23/08/2013	NT 17	Urban	Replace Overhead Assets	2	135	270	0.10	0.00	0.00
23/08/2013	YTS02	Urban	Replace Overhead Assets	26	390	10,140	73.48	0.19	0.00
24/08/2013	SBY32	Rural-short	Replace Overhead Assets	3	255	765	0.26	0.00	0.00
24/08/2013	SBY33	Urban	Replace Overhead Assets	8	60	480	0.16	0.00	0.00
25/08/2013	CN 05	Urban	Replace Overhead Assets	10	135	1,350	0.34	0.00	0.00
25/08/2013	FE 08	Urban	Upgrade Capacity - subs and LV	17	835	14,195	6.29	0.01	0.00
27/08/2013	EP 37	Urban	Replace Overhead Assets	83	274	22,742	27.90	0.10	0.00
27/08/2013	ES 13	Urban	Improving Reliability	26	335	8,710	4.74	0.01	0.00

27/08/2013	HB 14	Urban	Replace Overhead Assets	122	247	30,134	17.64	0.07	0.00
27/08/2013	SA 06	Urban	Regular Maintenance	16	120	1,920	13.43	0.11	0.00
27/08/2013	SBY32	Rural-short	Regular Maintenance	11	90	756	0.26	0.00	0.00
28/08/2013	BD 11	Urban	Replace Overhead Assets	6	178	1,068	0.38	0.00	0.00
28/08/2013	ES 03	Urban	Replace Overhead Assets	73	227	16,571	6.34	0.03	0.00
28/08/2013	SBY32	Rural-short	Regular Maintenance	6	80	420	0.14	0.00	0.00
28/08/2013	TT 08	Urban	Replace Overhead Assets	12	205	2,460	1.00	0.00	0.00
29/08/2013	CS 08	Urban	Improving Reliability	77	355	27,335	9.27	0.03	0.00
29/08/2013	FT 01	Urban	Replace Overhead Assets	86	345	29,670	8.16	0.02	0.00
29/08/2013	HB 15	Urban	Upgrade Capacity - subs and LV	89	405	36,045	15.08	0.04	0.00
30/08/2013	BD 07	Urban	Replace Overhead Assets	2	180	360	0.09	0.00	0.00
30/08/2013	CN 03	Urban	Improving Reliability	81	170	13,770	5.32	0.03	0.00
30/08/2013	CN 11	Urban	Replace Overhead Assets	68	5	340	0.13	0.03	0.00
30/08/2013	PV 31	Urban	Regular Maintenance	1	193	193	0.10	0.00	0.00
31/08/2013	ES 13	Urban	Replace Overhead Assets	15	50	750	0.41	0.01	0.00
31/08/2013	FE 08	Urban	Regular Maintenance	3	20	60	0.03	0.00	0.00
31/08/2013	ST 34	Urban	Replace Overhead Assets	19	100	1,900	6.31	0.06	0.00
31/08/2013	TH 12	Urban	Replace Overhead Assets	6	490	2,940	117.60	0.24	0.00
1/09/2013	BD 13	Urban	Upgrade Capacity - subs and LV	8	176	1,408	2.74	0.02	0.00
1/09/2013	CN 07	Urban	Replace Overhead Assets	19	226	4,294	0.80	0.00	0.00
1/09/2013	EP 37	Urban	Upgrade Capacity - subs and LV	73	412	30,076	36.90	0.09	0.00
1/09/2013	FW 08	Urban	ULZSINTLET	5	550	2,750	0.94	0.00	0.00
1/09/2013	SHM12	Urban	Regular Maintenance	4	105	400	0.14	0.00	0.00
3/09/2013	CS 03	Urban	Replace Overhead Assets	10	360	3,600	0.94	0.00	0.00
3/09/2013	ST 22	Urban	Extended Electricity Supply	9	432	3,888	0.65	0.00	0.00
3/09/2013	ST 22	Urban	Replace Overhead Assets	28	225	6,300	1.05	0.00	0.00
4/09/2013	FE 08	Urban	Replace Overhead Assets	206	277	57,062	25.30	0.09	0.00
4/09/2013	SHM14	Urban	Replace Underground Assets	71	390	27,690	7.26	0.02	0.00
4/09/2013	ST 22	Urban	Upgrade Capacity - subs and LV	33	301	9,933	1.65	0.01	0.00
5/09/2013	CN 05	Urban	Regular Maintenance	17	390	6,630	1.68	0.00	0.00
5/09/2013	SHM11	Rural-short	Regular Maintenance	9	67	498	0.48	0.01	0.00

5/09/2013	TT 11	Urban	Replace Overhead Assets	36	305	10,980	2.22	0.01	0.00
6/09/2013	CN 05	Urban	Regular Maintenance	5	180	900	0.23	0.00	0.00
6/09/2013	NH 16	Urban	Replace Overhead Assets	25	140	3,500	1.38	0.01	0.00
7/09/2013	BD 07	Urban	Regular Maintenance	168	293	49,224	12.42	0.04	0.00
7/09/2013	FE 09	Urban	Upgrade Capacity - subs and LV	35	330	11,550	2.92	0.01	0.00
8/09/2013	FE 09	Urban	Upgrade Capacity - subs and LV	84	320	26,880	6.80	0.02	0.00
8/09/2013	FW 06	Urban	Regular Maintenance	5	1,130	5,650	5.91	0.01	0.00
9/09/2013	SHM11	Rural-short	Regular Maintenance	9	70	308	0.30	0.01	0.00
10/09/2013	CS 03	Urban	Replace Overhead Assets	38	350	13,300	3.47	0.01	0.00
10/09/2013	SHM11	Rural-short	Regular Maintenance	2	48	84	0.08	0.00	0.00
11/09/2013	EP 34	Urban	Regular Maintenance	8	255	2,040	1.41	0.01	0.00
11/09/2013	FE 05	Urban	Regular Maintenance	110	227	24,970	8.13	0.04	0.00
11/09/2013	FW 05	Urban	Replace Overhead Assets	27	227	6,129	3.74	0.02	0.00
11/09/2013	SBY32	Rural-short	Regular Maintenance	14	112	1,568	0.54	0.00	0.00
11/09/2013	SBY32	Rural-short	Upgrade Capacity - subs and LV	4	290	1,160	0.40	0.00	0.00
12/09/2013	EP 34	Urban	Replace Overhead Assets	4	235	940	0.65	0.00	0.00
12/09/2013	SHM14	Urban	Regular Maintenance	6	53	275	0.07	0.00	0.00
13/09/2013	NH 05	Urban	Regular Maintenance	2	150	300	0.07	0.00	0.00
13/09/2013	NH 20	Urban	Replace Overhead Assets	71	285	20,235	10.64	0.04	0.00
14/09/2013	SHM11	Rural-short	Regular Maintenance	62	85	4,441	4.27	0.06	0.00
14/09/2013	ST 23	Urban	Regular Maintenance	2	180	360	2.55	0.01	0.00
15/09/2013	BY 11	Urban	Replace Overhead Assets	17	285	4,845	1.21	0.00	0.00
15/09/2013	NT 03	Urban	Replace Overhead Assets	23	359	8,257	2.62	0.01	0.00
17/09/2013	BD 07	Urban	Replace Overhead Assets	39	195	7,605	1.92	0.01	0.00
17/09/2013	FF 95	Urban	Replace Overhead Assets	83	241	20,003	12.18	0.05	0.00
18/09/2013	SBY11	Rural-short	Regular Maintenance	6	165	990	0.33	0.00	0.00
18/09/2013	SBY14	Rural-short	Regular Maintenance	20	55	1,100	0.27	0.00	0.00
18/09/2013	ST 22	Urban	Extended Electricity Supply	36	480	17,280	2.87	0.01	0.00
19/09/2013	CN 04	Urban	Regular Maintenance	2	125	250	0.18	0.00	0.00
19/09/2013	FE 08	Urban	Upgrade Capacity - subs and LV	1	120	120	0.05	0.00	0.00
21/09/2013	FW 04	Urban	Replace Overhead Assets	22	390	8,580	5.96	0.02	0.00
22/09/2013	EP 09	Urban	Replace Overhead Assets	19	65	1,235	5.26	0.08	0.00
22/09/2013	FW 08	Urban	Upgrade Capacity - subs and LV	6	394	2,364	0.81	0.00	0.00
22/09/2013	FW 16	Urban	Regular Maintenance	1	86	86	0.03	0.00	0.00

22/09/2013	TT 08	Urban	Replace Overhead Assets	61	305	18,605	7.60	0.02	0.00
23/09/2013	COO11	Rural-short	Replace Overhead Assets	5	438	2,190	1.33	0.00	0.00
23/09/2013	SHM11	Rural-short	Replace Overhead Assets	3	125	375	0.36	0.00	0.00
24/09/2013	BY 11	Urban	Replace Overhead Assets	34	180	6,120	1.53	0.01	0.00
24/09/2013	PV 13	Urban	Replace Overhead Assets	2	200	400	0.13	0.00	0.00
24/09/2013	SA 02	Rural-short	Replace Overhead Assets	6	235	1,410	22.38	0.10	0.00
24/09/2013	ST 22	Urban	Replace Plant and Equipment	59	415	24,485	4.07	0.01	0.00
25/09/2013	FW 17	Urban	Replace Overhead Assets	7	300	2,100	0.93	0.00	0.00
25/09/2013	SHM14	Urban	Regular Maintenance	6	101	606	0.16	0.00	0.00
26/09/2013	CS 12	Urban	Replace Overhead Assets	52	435	22,620	11.59	0.03	0.00
26/09/2013	ES 02	Urban	Upgrade Capacity - subs and LV	63	242	15,246	10.39	0.04	0.00
26/09/2013	SHM14	Urban	Regular Maintenance	27	330	8,910	2.34	0.01	0.00
27/09/2013	SBY32	Rural-short	Regular Maintenance	2	300	600	0.21	0.00	0.00
27/09/2013	TT 03	Urban	Regular Maintenance	31	155	4,805	1.43	0.01	0.00
29/09/2013	CS 05	Urban	Replace Overhead Assets	34	290	9,860	2.09	0.01	0.00
29/09/2013	FW 04	Urban	Replace Overhead Assets	8	500	4,000	2.78	0.01	0.00
30/09/2013	AW 08	Urban	Regular Maintenance	2	180	360	0.15	0.00	0.00
30/09/2013	ES 03	Urban	Regular Maintenance	47	350	16,450	6.29	0.02	0.00
30/09/2013	PV 22	Urban	Replace Overhead Assets	39	225	8,775	3.52	0.02	0.00
30/09/2013	TT 03	Urban	Regular Maintenance	11	240	2,181	0.65	0.00	0.00
2/10/2013	SHM11	Rural-short	Regular Maintenance	2	300	600	0.58	0.00	0.00
3/10/2013	SBY11	Rural-short	Regular Maintenance	27	45	1,215	0.41	0.01	0.00
3/10/2013	SBY32	Rural-short	Replace Overhead Assets	24	274	6,576	2.27	0.01	0.00
4/10/2013	AW 02	Urban	Replace Overhead Assets	64	507	32,448	10.59	0.02	0.00
4/10/2013	FE 06	Urban	Regular Maintenance	9	210	1,890	0.45	0.00	0.00
4/10/2013	TT 03	Urban	Regular Maintenance	20	210	1,770	0.53	0.01	0.00
4/10/2013	TT 03	Urban	Replace Overhead Assets	29	245	7,105	2.11	0.01	0.00
5/10/2013	AW 01	Urban	Upgrade Capacity - subs and LV	44	318	13,992	19.30	0.06	0.00
5/10/2013	TT 10	Urban	Improving Reliability	61	333	20,313	4.65	0.01	0.00
5/10/2013	TT 11	Urban	Replace Overhead Assets	9	280	2,520	0.51	0.00	0.00
6/10/2013	FT 14	Urban	Replace Plant and Equipment	2	222	444	0.28	0.00	0.00
6/10/2013	TT 10	Urban	Regular Maintenance	3	180	540	0.12	0.00	0.00

6/10/2013	TT 11	Urban	Replace Overhead Assets	17	345	5,865	1.19	0.00	0.00
7/10/2013	TT 03	Urban	Replace Overhead Assets	13	310	4,030	1.20	0.00	0.00
7/10/2013	TT 10	Urban	Replace Overhead Assets	29	316	9,164	2.10	0.01	0.00
7/10/2013	TT 11	Urban	Improving Reliability	63	348	21,924	4.44	0.01	0.00
8/10/2013	COO11	Rural-short	Replace Overhead Assets	6	491	2,946	1.80	0.00	0.00
8/10/2013	NH 02	Urban	Replace Overhead Assets	21	225	4,725	1.12	0.00	0.00
8/10/2013	SBY11	Rural-short	Regular Maintenance	14	290	4,060	1.37	0.00	0.00
8/10/2013	SBY11	Rural-short	Tree Clearing/Bushfire Mitigation	48	240	6,528	2.20	0.02	0.00
8/10/2013	SHM12	Urban	Upgrade Capacity - subs and LV	162	475	76,950	27.19	0.06	0.00
8/10/2013	TT 10	Urban	Replace Overhead Assets	72	310	22,320	5.10	0.02	0.00
9/10/2013	COO11	Rural-short	Regular Maintenance	1	99	99	0.06	0.00	0.00
9/10/2013	NH 05	Urban	Regular Maintenance	12	240	2,880	0.64	0.00	0.00
9/10/2013	NH 08	Urban	Regular Maintenance	67	160	10,720	4.11	0.03	0.00
9/10/2013	SHM11	Rural-short	Regular Maintenance	2	151	302	0.29	0.00	0.00
9/10/2013	TT 11	Urban	Replace Overhead Assets	93	110	10,230	2.07	0.02	0.00
10/10/2013	COO11	Rural-short	Regular Maintenance	5	242	1,210	0.74	0.00	0.00
10/10/2013	NH 05	Urban	Replace Overhead Assets	42	180	7,560	1.68	0.01	0.00
11/10/2013	COO11	Rural-short	Tree Clearing/Bushfire Mitigation	2	100	200	0.12	0.00	0.00
11/10/2013	SBY32	Rural-short	Regular Maintenance	13	195	2,535	0.87	0.00	0.00
11/10/2013	TT 03	Urban	Regular Maintenance	28	240	6,720	2.00	0.01	0.00
11/10/2013	TT 03	Urban	Replace Overhead Assets	2	270	540	0.16	0.00	0.00
12/10/2013	CS 02	Urban	Regular Maintenance	39	250	9,750	1.77	0.01	0.00
12/10/2013	CS 05	Urban	Replace Overhead Assets	13	70	910	0.19	0.00	0.00
12/10/2013	ST 34	Urban	Regular Maintenance	20	435	8,700	28.90	0.07	0.00
13/10/2013	EP 20	Urban	Replace Plant and Equipment	3	409	1,227	3.98	0.01	0.00
13/10/2013	ES 03	Urban	Regular Maintenance	44	113	4,972	1.90	0.02	0.00
13/10/2013	NH 12	Urban	Replace Plant and Equipment	1	176	176	9.78	0.06	0.00
14/10/2013	EP 11	Urban	Upgrade Capacity - subs and LV	55	410	22,550	47.88	0.12	0.00
14/10/2013	TT 03	Urban	Regular Maintenance	11	390	4,290	1.28	0.00	0.00
15/10/2013	EP 02	Urban	Regular Maintenance	55	307	16,885	259.77	0.85	0.00
15/10/2013	EP 20	Urban	Upgrade Capacity - subs and LV	14	305	4,270	13.86	0.05	0.00
15/10/2013	HB 14	Urban	Short Interruption	21	133	2,793	1.64	0.01	0.00

16/10/2013	EP 11	Urban	Replace Overhead Assets	41	205	8,405	17.85	0.09	0.00
16/10/2013	SBY32	Rural-short	Replace Overhead Assets	91	368	33,488	11.54	0.03	0.00
16/10/2013	TT 03	Urban	Replace Overhead Assets	24	220	5,280	1.57	0.01	0.00
17/10/2013	SHM14	Urban	Upgrade Capacity - subs and LV	160	458	73,280	19.22	0.04	0.00
17/10/2013	ST 32	Urban	Regular Maintenance	3	450	1,350	0.22	0.00	0.00
17/10/2013	TT 03	Urban	Regular Maintenance	46	330	9,300	2.77	0.01	0.00
18/10/2013	SHM12	Urban	Extended Electricity Supply	7	355	2,485	0.88	0.00	0.00
18/10/2013	SHM14	Urban	Regular Maintenance	27	125	3,375	0.89	0.01	0.00
18/10/2013	TT 03	Urban	Regular Maintenance	9	300	2,700	0.80	0.00	0.00
18/10/2013	TT 08	Urban	Regular Maintenance	40	310	12,400	5.06	0.02	0.00
19/10/2013	FW 06	Urban	Regular Maintenance	10	155	1,550	1.62	0.01	0.00
19/10/2013	TT 10	Urban	Replace Overhead Assets	29	276	8,004	1.83	0.01	0.00
20/10/2013	CS 12	Urban	Replace Overhead Assets	32	205	6,560	3.36	0.02	0.00
20/10/2013	ES 03	Urban	Replace Overhead Assets	41	210	8,610	3.29	0.02	0.00
20/10/2013	NT 15	Urban	Regular Maintenance	142	240	34,080	31.85	0.13	0.00
20/10/2013	SBY14	Rural-short	Regular Maintenance	2	178	356	0.09	0.00	0.00
20/10/2013	TT 10	Urban	Replace Overhead Assets	12	305	3,660	0.84	0.00	0.00
21/10/2013	TT 10	Urban	Replace Overhead Assets	35	210	7,350	1.68	0.01	0.00
22/10/2013	COO11	Rural-short	Regular Maintenance	23	266	6,062	3.69	0.01	0.00
22/10/2013	TT 11	Urban	Replace Overhead Assets	16	240	3,840	0.78	0.00	0.00
23/10/2013	CS 02	Urban	Improving Reliability	3	157	471	0.09	0.00	0.00
23/10/2013	FW 04	Urban	Replace Overhead Assets	121	126	15,246	10.59	0.08	0.00
23/10/2013	TT 11	Urban	Replace Overhead Assets	43	480	14,880	3.01	0.01	0.00
23/10/2013	YTS06	Urban	Replace Overhead Assets	34	355	12,070	14.12	0.04	0.00
24/10/2013	FF 89	Urban	Replace Overhead Assets	22	330	7,260	19.95	0.06	0.00
24/10/2013	SBY14	Rural-short	Regular Maintenance	43	277	11,911	2.96	0.01	0.00
24/10/2013	TT 11	Urban	Replace Overhead Assets	17	155	2,485	0.50	0.00	0.00
24/10/2013	YTS06	Urban	Replace Overhead Assets	34	410	13,940	16.30	0.04	0.00
25/10/2013	BD 01	Urban	Regular Maintenance	31	390	12,090	7.24	0.02	0.00
25/10/2013	CS 02	Urban	Replace Overhead Assets	65	225	14,625	2.66	0.01	0.00
25/10/2013	FW 16	Urban	Replace Overhead Assets	16	235	3,760	1.49	0.01	0.00
25/10/2013	ST 32	Urban	Regular Maintenance	3	343	1,029	0.17	0.00	0.00

26/10/2013	NH 20	Urban	Replace Overhead Assets	25	335	8,375	4.41	0.01	0.00

Contents

Jemena Electricity Networks (Vic) Limited
Annual Feeder Reliability
2013

Table 1 Annual Feeder Reliability Data

Feeder ID / name	Description of the service area for the feeder	Feeder classification	Number of distribution customers	Length of high voltage distribution lines (overhead)	Length of high voltage distribution lines (underground)	Maximum demand (MVA)	Energy not supplied (unplanned) (MWh)	Energy not supplied (planned) (MWh)	Total number of unplanned outages	Total unplanned minutes off-supply	Unplanned minutes off-supply (after removing excluded events and MED)	Unplanned interruptions (SAIFI)	Unplanned interruptions (SAIFI) (after removing excluded events and MED)	Total number of planned outages	Total planned minutes off-supply	Planned interruptions (SAIFI)	Total number of momentary feeder outages	Total number of momentary feeder section outages	Momentary interruptions due to feeder outages (MAIFI)	Momentary interruptions due to feeder outages (MAIFI) (after removing excluded events and MED)	Momentary interruptions due to feeder section outages (MAIFI)	Monetary interruptions due to feeder section outages (MAIFI) (after removing excluded events and MED)	Low Reliability Feeder (SAIDI)	Low Reliability Feeder (MAIFI)
AW 01	Airport West	Urban	725	4.68	4.32	8.95	1.83	0.43	6	23956	23956	1623	1623	2	18822	58	0	0	0	0	0	0	N	N
AW 02	Airport West	Urban	3064	11.05	2.97	10.10	5.47	0.59	7	250942	250942	7302	7302	4	89832	225	0	0	0	0	0	0	N	N
AW 03	Airport West	Urban	255	6.11	3.96	12.50	22.15	0.34	5	62311	23715	563	298	1	3200	10	0	0	0	0	0	0	N	N
AW 04	Airport West	Urban	1940	11.40	10.76	13.22	5.52	0.18	6	115900	115900	3891	3891	4	12548	41	1	0	1901	1901	0	0	N	N
AW 05	Airport West	Urban	543	4.89	0.88	7.58	3.36	0.18	2	39215	39215	1076	1076	2	6870	21	1	0	536	536	0	0	N	N
AW 06	Airport West	Urban	4876	16.71	1.65	12.38	4.47	0.16	11	409592	409098	7679	7678	6	48100	162	0	2	0	0	4266	4266	N	N
AW 07	Airport West	Urban	4550	16.16	5.71	10.90	0.63	0.16	9	61101	24254	330	154	9	50690	183	0	0	0	0	0	0	N	N
AW 08	Airport West	Urban	2343	14.45	8.28	10.17	3.69	1.06	9	138383	116283	4882	4809	4	132593	347	1	0	2329	0	0	0	N	N
AW 09	Airport West	Urban	2446	9.49	7.26	8.19	0.15	0.01	6	8183	8183	38	38	3	1809	7	0	0	0	0	0	0	N	N
AW 11	Airport West	Urban	473	6.00	3.31	9.22	5.84	0.29	10	46911	46911	986	986	3	7673	21	1	0	445	445	0	0	N	N
AW 12	Airport West	Urban	1784	5.70	6.95	6.74	1.83	0.06	5	67295	66847	2021	2020	1	6825	35	0	0	0	0	0	0	N	N
AW 14	Airport West	Urban	1253	8.94	4.71	9.75	1.23	0.26	3	19015	19015	1302	1302	1	13260	34	0	0	0	0	0	0	N	N
BD 01	Broadmeadows	Urban	1671	11.21	5.51	10.52	14.09	0.21	7	382771	382771	6694	6694	5	19102	53	0	2	0	0	1114	1114	N	N
BD 02	Broadmeadows	Urban	1	0.67	0.07	8.54	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
BD 03	Broadmeadows	Urban	352	4.00	5.67	10.52	0.05	0.00	0	216	216	2	2	1	60	1	1	0	356	356	0	0	N	N
BD 04	Broadmeadows	Urban	1045	8.11	4.43	10.17	11.20	0.38	10	265493	265493	4252	4252	4	29881	129	1	0	1037	1037	0	0	Y	N
BD 06	Broadmeadows	Urban	1	0.75	0.08	8.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
BD 07	Broadmeadows	Urban	3962	25.20	2.05	15.09	3.99	0.31	10	269588	269588	10637	10637	7	69474	274	1	1	661	661	3718	3718	N	N
BD 08	Broadmeadows	Urban	762	8.49	0.86	7.54	0.10	0.15	1	1873	1873	12	12	1	9060	20	2	2	1528	1528	591	591	N	N
BD 09	Broadmeadows	Urban	689	5.18	1.29	5.22	0.25	0.01	2	5076	5076	52	52	1	365	5	1	0	686	686	0	0	N	N
BD 10	Broadmeadows	Urban	1111	6.69	4.31	12.16	4.66	0.00	3	77673	71543	1184	1166	0	0	0	0	0	0	0	0	0	N	N
BD 11	Broadmeadows	Urban	2797	10.07	1.72	7.74	0.62	0.02	5	34190	34068	409	408	5	3893	18	0	0	0	0	0	0	N	N
BD 13	Broadmeadows	Urban	514	10.00	3.10	12.69	5.77	0.07	4	52561	52493	1043	1042	2	2233	11	4	0	2067	2067	0	0	N	N
BD 14	Broadmeadows	Urban	567	6.66	2.98	10.06	0.04	0.24	0	867	867	6	6	1	17766	63	2	0	1146	1146	0	0	N	N
BD 15	Broadmeadows	Urban	804	8.64	1.60	10.63	0.19	0.03	1	1917	1917	12	12	1	1062	3	0	0	0	0	0	0	N	N
BD 16	Broadmeadows	Urban	1444	9.05	2.40	8.04	0.06	0.47	0	1438	853	6	5	1	40635	129	0	0	0	0	0	0	N	N
BY 11	Braybrook	Urban	4005	16.44	2.44	9.22	4.34	0.05	16	313441	303534	4768	4753	2	10965	51	0	1	0	0	2601	2601	N	N
BY 12	Braybrook	Urban	1243	4.68	0.70	3.16	2.95	0.00	14	155909	120224	1981	1926	2	114	2	1	1	1244	1244	738	738	N	N
BY 13	Braybrook	Urban	752	3.00	1.75	12.88	3.59	0.02	4	33431	21144	81	57	1	630	7	1	0	851	851	0	0	N	N
BY 14	Braybrook	Urban	2887	12.05	3.32	7.35	6.59	0.02	12	457550	91918	3211	280	4	5010	56	0	0	0	0	0	0	N	N
BY 15	Braybrook	Urban	989	6.14	2.21	7.54	19.17	0.01	9	322243	322243	4610	4610	2	700	9	0	0	0	0	0	0	Y	N
CN 01	Coburg North	Urban	103	1.87	0.31	7.58	16.18	1.05	5	23315	23315	336	336	2	5034	16	0	0	0	0	0	0	Y	N
CN 02	Coburg North	Urban	449	4.85	0.93	8.92	14.74	0.74	8	146969	146969	1953	1953	5	24637	90	0	0	0	0	0	0	Y	N
CN 03	Coburg North	Urban	2590	9.26	1.92	6.55	7.01	0.62	9	538522	538522	9451	9451	9	159088	493	3	0	7678	7678	0	0	N	N
CN 04	Coburg North	Urban	1360	7.39	5.73	10.06	14.74	1.89	8	221673	221673	6202	6202	13	94612	319	2	0	2531	2531	0	0	N	N
CN 05	Coburg North	Urban	3941	13.05	1.59	8.00	5.89	0.24	14	500154	494360	16023	16004	17	69022	298	0	0	0	0	0	0	N	N
CN 06	Coburg North	Urban	2080	9.85	1.33	7.35	2.46	0.49	7	104536	103385	4241	4231	8	68984	271	2	0	4168	4168	0	0	N	N
CN 07	Coburg North	Urban	5391	15.79	1.30	9.14	2.54	0.37	6	239731	239731	12854	12854	10	115747	400	1	0	4935	4935	0	0	N	N
CN 08	Coburg North	Urban	2034	6.71	0.91	2.71	1.62	0.17	5	187725	187725	5372	5372	6	67555	192	1	0	1271	1271	0	0	N	N
CN 09	Coburg North	Urban	48	2.43	0.54	4.50	0.35	4.33	2	506	506	48	48	3	20866	46	0	0	0	0	0	0	Y	N
CN 10	Coburg North	Urban	1945	6.25	1.07	8.54	0.86	0.14	5	27276	26793	1999	1998	5	14652	91	0	0	0	0	0	0	N	N
CN 11	Coburg North	Urban	2523	8.81	1.35	7.13	2.34	0.12	14	169752	169752	5642	5642	4	30129	169	0	0	0	0	0	0	N	N
COO11	Coolaroo	Rural-short	1641	135.85	24.36	8.65	1.33	4.59	15	34975	34707	682	681	50	401295	1342	1	6	1085	1085	2506	2506	N	N
COO12	Coolaroo	Urban	1	0.27	0.55	4.76	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
COO13	Coolaroo	Urban	3912	6.23	11.30	10.75	2.16	0.01	4	183951	183951	3986	3986	2	1810	15	0	0	0	0	0	0	N	N
COO14	Coolaroo	Urban	2507	1.38	13.88	5.30	0.43	0.00	8	36518	36518	171	171	0	0	0	0	0	0	0	0	0	N	N
COO21	Coolaroo	Urban	1926	16.85	10.58	7.61	1.55	0.12	5	78842	19894	973	92	4	20657	103	0	1	0	0	881	881	N	N
COO22	Coolaroo	Urban	2463	0.71	19.29	10.39	1.30	0.00	5	49779	49779	201	201	0	0	0	0	0	0	0	0	0	N	N
CS 02	Coburg South	Urban	5504	14.57	1.05	10.59	3.31	0.49	17	346852	315345	6271	6167	18	169715	724	0	1	0	0	1289	1289	N	N
CS 03	Coburg South	Urban	3833	10.91	2.38	8.99	12.99	0.35	12	826775	509850	16014	11724	9	73660	298	2	1	7607	7607	2939	2939	N	N
CS 05	Coburg South	Urban	4717	12.11	0.71	8.57	2.12	0.33	13	204576	161770	2314	2161	12	105822	404	0	0	0	0	0	0	N	N
CS 08	Coburg South	Urban	2948	8.58	2.21	7.28	5.36	0.74	10	289389	289109	3484	3483	4	133930	358	3	1	7831	7831	1691	1691	N	N
CS 09	Coburg South	Urban	1993	4.03	1.83	4.66	1.80	0.00	10	137074	119941	4057	4008	0	0	0	1	1	1981	0	1304	1304	N	N
CS 12	Coburg South	Urban	1952	9.13	0.89	6.53	2.93	0.41	9	108483	82393	311	236	5	50450	187	0	0	0	0	0	0	N	N
CS 13	Coburg South	Urban	1777	5.58	2.52	3.28	1.23	0.08	8	90373	90373	590	590	3	19992	95	0	0	0	0	0	0	N	N
EP 02	East Preston	Urban	65	0.77	0.47	2.65	0.00	0.73	0	0	0	0	0	1	16885	55	0	0	0	0	0	0	N	N
EP 03	East Preston	Urban	94	1.04	0.46	1.63	0.01	0.00	0	164	164	1	1	0	0	0	0	0	0	0	0	0	N	N
EP 04	East Preston	Urban	13	1.13	0.37	1.11	0.30	0.00	1	745	745	2	2	0	0	0	0	0	0	0	0	0	N	N
EP 07	East Preston	Urban	44	1.92	0.72	2.70	0.03	0.00	0	112	112	1	1	0	0	0	0	0	0	0	0	0	N	N
EP 09	East Preston	Urban	235	2.55	0.66	3.35	0.22	0.03	2	2952	808	46	42	2	1265	21	0	0	0	0	0	0	N	N
EP 11	East Preston	Urban	471	3.85	0.55	2.02	0.01	0.19	0	472	472	4	4	2	30955	96	1	0	515	515	0	0	N	N
EP 16	East Preston	Urban	56	1.95	0.15	2.91	0.03	0.00	0	95	95	1	1	0	0	0	0	0	0	0	0	0	N	N
EP 17	East Preston	Urban	130	1.02	0.60	3.33	0.00	1.15	0	0	0	0	0	3	24840	64	0	0	0	0	0	0	N	N
EP 18	East Preston	Urban	16	1.27	0.59	1.66	0.72	0.00	1	1553	1553	9	9	0	0	0	1	0	16	16	0	0	N	N
EP 20	East Preston	Urban	308	2.50	0.16	3.30	2.04	0.18	6	37338	37338	361	361	4	11281	55	0	0	0	0	0	0	N	N
EP 27	East Preston	Urban	26	0.05	1.49	1.87	0.03	0.00	1	120	120	3	3	0	0	0	0	0	0	0	0	0	N	N
EP 34	East Preston	Urban	1445	5.20	0.75	2.90	0.09	0.01	3	9291	8987	84	83	4	4755	21	0	0	0	0	0	0	N	N
EP 35	East Preston	Urban	31	1.88	0.40	2.95	0.19	0.00	0	326	326	2	2	0	0	0	0	0	0	0	0	0	N	N
EP 36	East Preston	Urban	946	5.22	0.15	2.13	0.25	0.17	2	21595	21595	1001	1001	5	47515	92	0	0	0	0	0	0	N	N
EP 37	East Preston	Urban	815	3.68	0.33	3.19	0.15	0.81	1	6235	6235	58	58	9	113058	401	0	0	0	0	0	0	N	N
EP 41	East Preston	Urban	56	1.41	0.54	2.83	0.05	0.00	0	190	190	2	2	0	0	0	0	0	0	0	0	0	N	N
EP 42	East Preston	Urban	302	2.65	0.54	2.96	2.23	0.07	2	37038	37038	290	290	1	3680	8	0	0	0	0	0	0	N	N
ES 01	Essendon	Urban	1136	4.33	0.54	5.11	0.09	0.00	1	3912	3912	37	37	0	0	0	0	0	0	0	0	0	N	N
ES 02	Essendon	Urban	1468	5.02	0.72	4.02	0.43	0.35	6	30652	29622	271	268	4	83346	348	0	0	0	0	0	0	N	N
ES 03	Essendon	Urban	2614	7.62	1.13	6.57	2.04	0.16	5	179018	167528	1983	1950	4	46603	205	2	0	2115	2115	0	0	N	N
ES 06	Essendon	Urban	2034	5.73	1.96	5.58	0.29	0.00	4	19844	4031	96	35	0	0	0	0	0	0	0	0	0	N	N
ES 07	Essendon	Urban	1277	3.78	0.45	3.07	0.29	0.05	2	22007	22007	115	115	1	11550	35	0	0	0	0	0	0	N	N
ES 11	Essendon	Urban	1558	3.42	0.55	4.52	0.43	0.02	5	29050	28833	211	210	1	5375	25	0	0	0	0	0	0	N	N
ES 12	Essendon	Urban	1232	2.76	1.80	4.88	0.05	0.01	1	2495	2495	29	29	1	1080	6	0	0	0	0	0	0	N	N
ES 13	Essendon	Urban	1838	4.25	1.01	5.79	0.13	0.27	2	6954	6954	74	74	8	46705	186	0	0	0	0	0	0	N	N
ES 14	Essendon	Urban	1050	3.86	1.80	4.59	0.38	0.00	3	18028	9874	122	91	0	0	0	0	0	0	0	0	0	N	N
FE 05	Footscray	Urban	3070	8.43	0.86	7.28	7.11	0.24	15	508545	487181	6719	6665	3	56950	216	1	0	3063	3063	0	0	N	N
FE 06	Footscray	Urban	4184	9.99	8.44	12.00	3.12	0.22	7	156389	156389	794	794	3	36066	123	0	0	0	0	0	0	N	N
FE 08	Footscray	Urban	2255	3.44	5.01	9.37	0.47	0.95	4	15713	15713	135	135	9	106837	314	0	0	0	0	0	0	N	N
FE 09	Footscray	Urban	3954	7.77	1.15	6.17	1.95	0.49	13	204315	204315	2777	2777	8	170119	476	2	0	7638	7638	0	0	N	N
FF 87	Fairfield	Urban	971	2.64	0.24	1.93	0.82	0.14	2	56030	56030	1024	1024	3	31410	176	0	0	0	0	0	0	N	N
FF 88	Fairfield	Urban	1255	3.95	0.37	2.16	0.02	0.24	0	1627	1627	8	8	10	75218	307	0	0	0	0	0	0	N	N
FF 89	Fairfield	Urban	364	3.91	0.85	2.49	0.00	0.43	0	99	99	1	1	4	38514	95	0	0	0	0	0	0	N	N
FF 90	Fairfield	Urban	1027	3.42	0.39	2.48	0.10	0.00	2	6595	6595	63	63	0	0	0	0	0	0	0	0	0	N	N
FF 95	Fairfield	Urban	1642	4.79	0.07	3.06	0.47	0.37	4	46047	46047	330	330	13	119724	525	0	0	0	0	0	0	N	N
FF 96	Fairfield	Urban	1025	3.69	0.39	2.30	0.22	0.21	1	18583	18583	58	58	4	59380	180	0	0	0	0	0	0	N	N
FT 01	Flemington	Urban	3638	6.70	2.65	7.34	0.79	0.14	6	71571	23840	351	220	3	41920	117	0	0	0	0	0	0	N	N
FT 02	Flemington	Urban	279	1.59	5.38	2.34	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
FT 04	Flemington	Urban	1008	2.85	2.19	3.98	0.19	0.00	3	6697	6697	50	50	0	0	0	0	0	0	0	0	0	N	N
FT 05	Flemington	Urban	2401	4.68	2.03	4.23	0.06	0.00	1	5167	5167	42	42	0	0	0	3	0	7172	7172	0	0	N	N
FT 06	Flemington	Urban	282	0.95	1.26	2.17	0.02	0.00	0	394	394	4	4	0	0	0	0	0	0	0	0	0	N	N
FT 09	Flemington	Urban	1717	3.08	3.22	4.65	4.24	0.06	10	195765	195765	5552	5552	1	8925	21	0	0	0	0	0	0	N	N
FT 10	Flemington	Urban	2049	4.16	1.71	4.02	1.62	0.08	4	111743	88177	2261	2106	2	18411	91	1	0	2042	2042	0	0	N	N
FT 13	Flemington	Urban	1793	3.00	5.56	5.81	0.33	0.05	2	19775	19775	59	59	1	9486	34	0	0	0	0	0	0	N	N
FT 14	Flemington	Urban	1562	1.88	1.70	4.65	6.78	0.00	2	289978	289978	2368	2368	1	444	2	2	0	1229	1229	0	0	N	N
FT 15	Flemington	Urban	89	0.13	0.94	3.43	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
FW 04	Footscray West	Urban	1439	5.48	1.50	7.74	2.96	0.52	8	71718	63968	1141	1111	7	41760	236	2	0	2820	2820	0	0	N	N
FW 05	Footscray West	Urban	1640	7.47	1.14	4.53	4.36	0.06	7	277043	277043	4991	4991	3	13017	53	0	0	0	0	0	0	N	N
FW 06	Footscray West	Urban	956	5.63	2.65	4.80	1.09	0.07	4	32890	32890	186	186	2	7200	15	0	0	0	0	0	0	N	N
FW 08	Footscray West	Urban	2932	8.60	0.83	8.31	3.29	0.29	16	223429	214205	3545	3529	8	64777	256	1	0	2910	2910	0	0	N	N
FW 09	Footscray West	Urban	1413	9.07	3.67	8.54	6.39	0.37	7	155261	155261	1737	1737	5	30306	89	1	0	1342	1342	0	0	N	N
FW 13	Footscray West	Urban	472	5.14	0.64	11.32	18.64	0.08	5	97243	97243	1477	1477	1	1440	4	1	0	471	471	0	0	N	N
FW 16	Footscray West	Urban	2530	9.18	0.25	4.76	5.41	0.67	11	385473	357152	4390	4341	6	160360	527	0	0	0	0	0	0	N	N
FW 17	Footscray West	Urban	2263	8.59	0.31	4.00	3.23	0.25	10	316521	276150	2853	2782	3	81735	212	0	0	0	0	0	0	N	N
HB 14	Heidelberg	Urban	1708	5.31	2.00	4.99	2.42	0.88	5	134393	134393	3521	3521	22	162461	770	3	0	5103	5103	0	0	N	N
HB 15	Heidelberg	Urban	2390	9.39	1.28	5.89	0.52	0.57	4	37931	37931	175	175	16	137658	624	0	0	0	0	0	0	N	N
HB 22	Heidelberg	Urban	1133	5.01	0.90	3.85	1.45	0.09	6	68725	68725	1303	1303	2	14850	53	0	0	0	0	0	0	N	N
HB 23	Heidelberg	Urban	1480	5.48	0.52	3.64	0.81	0.34	3	66977	66548	575	573	5	94865	317	0	0	0	0	0	0	N	N
HB 24	Heidelberg	Urban	875	6.47	0.35	3.45	1.55	0.27	5	72775	72775	1527	1527	10	41575	174	0	0	0	0	0	0	N	N
HB 31	Heidelberg	Urban	740	1.51	0.53	3.62	5.70	0.00	1	177960	177960	749	749	0	0	0	0	0	0	0	0	0	N	N
HB 32	Heidelberg	Urban	513	2.07	0.58	3.14	0.57	0.02	1	15764	15764	516	516	1	1440	6	1	0	514	514	0	0	N	N
NH 02	North Heidelberg	Urban	4230	16.30	4.11	8.69	4.56	0.26	9	405778	405778	5216	5216	5	77563	384	0	3	0	0	5938	5938	N	N
NH 03	North Heidelberg	Urban	1293	9.16	0.78	7.58	6.23	0.18	5	187804	187804	2735	2735	4	17928	55	1	0	1288	1288	0	0	N	N
NH 05	North Heidelberg	Urban	4512	16.19	1.13	6.48	2.11	0.27	3	234077	70171	3392	1272	12	99935	597	2	2	7839	7839	4208	4208	N	N
NH 08	North Heidelberg	Urban	2607	11.64	1.33	5.26	5.98	0.29	7	590109	590109	8675	8675	10	95718	373	0	1	0	0	1375	1375	N	N
NH 09	North Heidelberg	Urban	636	6.50	1.28	9.64	0.61	0.40	6	6729	6729	84	84	5	14630	47	0	0	0	0	0	0	N	N
NH 12	North Heidelberg	Urban	18	0.00	4.03	4.84	0.00	0.10	0	0	0	0	0	1	176	1	0	0	0	0	0	0	N	N
NH 13	North Heidelberg	Urban	405	0.81	2.79	6.36	0.07	0.00	0	455	455	2	2	0	0	0	0	0	0	0	0	0	N	N
NH 16	North Heidelberg	Urban	2528	7.18	4.49	7.66	2.95	0.05	5	166809	166809	513	513	2	8570	51	1	0	2537	2537	0	0	N	N
NH 17	North Heidelberg	Urban	2230	8.16	2.26	7.01	0.35	1.50	3	16136	8695	101	83	5	228116	606	1	0	2221	2221	0	0	N	N
NH 20	North Heidelberg	Urban	1901	7.58	2.29	3.14	1.52	0.10	2	136004	135758	1947	1946	2	28610	96	0	0	0	0	0	0	N	N
NS 07	North Essendon	Urban	992	3.71	1.68	4.34	3.57	0.00	1	125348	1916	1060	10	0	0	0	0	0	0	0	0	0	N	N
NS 08	North Essendon	Urban	1153	2.95	0.26	2.78	0.29	0.01	2	20966	19970	71	68	2	3246	18	0	0	0	0	0	0	N	N
NS 09	North Essendon	Urban	957	3.66	1.15	3.91	0.07	0.04	0	2485	2485	11	11	1	5145	21	0	0	0	0	0	0	N	N
NS 11	North Essendon	Urban	0	0.00	0.05	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
NS 12	North Essendon	Urban	1302	3.68	1.17	3.16	0.24	0.11	3	21814	21814	192	192	3	35039	113	0	0	0	0	0	0	N	N
NS 14	North Essendon	Urban	1402	5.61	1.26	4.76	1.70	0.00	4	102068	102068	1617	1617	0	0	0	2	0	2829	2829	0	0	N	N
NS 15	North Essendon	Urban	1547	4.41	1.15	4.38	0.14	0.03	4	8502	8502	43	43	2	7220	73	0	0	0	0	0	0	N	N
NS 16	North Essendon	Urban	707	3.19	0.42	1.75	0.37	0.00	2	30762	30669	728	727	0	0	0	0	0	0	0	0	0	N	N
NS 17	North Essendon	Urban	821	3.58	0.51	2.55	0.63	0.09	7	42679	39916	346	334	3	19795	109	0	0	0	0	0	0	N	N
NS 18	North Essendon	Urban	1735	3.45	2.64	10.06	6.32	0.00	2	160852	160852	3478	3478	1	275	5	0	0	0	0	0	0	N	N
NT 01	Newport	Urban	2	0.67	5.65	4.23	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
NT 03	Newport	Urban	3154	11.30	3.91	10.48	7.62	0.43	12	454896	150269	3987	468	5	84646	238	1	0	3362	3362	0	0	N	N
NT 04	Newport	Urban	1597	3.38	1.95	8.00	1.48	0.25	5	38690	38500	141	140	4	22009	69	0	0	0	0	0	0	N	N
NT 10	Newport	Urban	1029	1.89	0.83	1.98	0.79	0.00	1	64508	64508	932	932	3	1035	9	0	0	0	0	0	0	N	N
NT 11	Newport	Urban	3418	9.56	2.12	9.32	5.97	0.16	8	474276	474276	4946	4946	9	41587	162	0	3	0	0	4506	4506	N	N
NT 15	Newport	Urban	1070	5.41	2.94	5.26	0.47	0.24	7	20508	14724	91	70	3	35346	158	1	0	3569	3569	0	0	N	N
NT 16	Newport	Urban	213	2.94	1.61	5.26	0.17	0.00	1	2593	2593	533	533	0	0	0	0	0	0	0	0	0	N	N
NT 17	Newport	Urban	2796	8.69	2.88	2.89	1.25	0.23	8	208088	208088	694	694	12	128385	480	0	6	0	0	4636	4636	N	N
P 56	Preston	Urban	2	2.05	0.26	1.43	1.25	0.00	1	833	833	2	2	0	0	0	0	0	0	0	0	0	Y	N
P 57	Preston	Urban	102	1.79	0.28	0.29	0.57	0.00	1	42632	42632	101	101	0	0	0	0	0	0	0	0	0	Y	N
P 58	Preston	Urban	0	0.13	0.04	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
P 59	Preston	Urban	823	2.89	1.61	1.10	0.08	0.00	2	10393	10393	61	61	0	0	0	0	0	0	0	0	0	N	N
P 61	Preston	Urban	84	0.51	0.15	0.27	0.00	0.00	0	239	239	2	2	0	0	0	0	0	0	0	0	0	N	N
P 62	Preston	Urban	671	1.82	0.81	3.35	0.03	0.08	0	961	961	7	7	2	9450	31	0	0	0	0	0	0	N	N
P 63	Preston	Urban	842	2.83	0.13	2.31	0.01	0.00	0	877	877	6	6	0	0	0	0	0	0	0	0	0	N	N

P 65	Preston	Urban	256	0.41	0.13	0.98	0.00	0.00	0	71	71	1	1	0	0	0	0	0	0	0	0	0	N	N
P 66	Preston	Urban	715	2.17	0.66	3.11	0.47	0.33	5	19256	19256	99	99	3	44184	180	0	0	0	0	0	0	N	N
PV 12	Pascoe Vale	Urban	467	2.62	1.65	1.34	0.07	0.13	1	3923	3198	31	30	2	23573	154	0	0	0	0	0	0	N	N
PV 13	Pascoe Vale	Urban	3101	10.06	0.53	4.93	0.15	0.20	2	16784	16347	104	103	5	74934	239	0	0	0	0	0	0	N	N
PV 14	Pascoe Vale	Urban	2757	10.07	0.93	5.58	1.89	0.22	4	189745	11785	2883	103	6	72107	196	0	0	0	0	0	0	N	N
PV 15	Pascoe Vale	Urban	1704	5.39	0.37	3.37	0.12	0.04	3	12168	12168	94	94	1	14364	42	0	0	0	0	0	0	N	N
PV 21	Pascoe Vale	Urban	1236	5.60	0.18	2.53	0.33	0.00	1	26329	26329	333	333	0	0	0	0	0	0	0	0	0	N	N
PV 22	Pascoe Vale	Urban	2492	9.89	0.43	5.72	1.51	0.05	7	147219	147219	2787	2787	4	16815	72	1	1	1563	1563	817	817	N	N
PV 23	Pascoe Vale	Urban	2344	8.20	0.17	4.82	0.14	0.01	2	13686	13686	94	94	2	1695	7	1	0	2321	2321	0	0	N	N
PV 24	Pascoe Vale	Urban	1643	6.89	0.54	4.52	0.65	0.00	1	39149	39149	84	84	2	366	3	1	0	1573	1573	0	0	N	N
PV 31	Pascoe Vale	Urban	1956	5.81	1.47	4.46	2.14	0.07	1	132634	132634	274	274	5	13903	66	0	0	0	0	0	0	N	N
SA 02	St Alban	Rural-short	63	14.04	0.00	0.23	0.07	0.01	2	4070	4070	19	19	1	1410	6	0	0	0	0	0	0	N	N
SA 06	St Alban	Urban	143	4.31	1.20	0.46	0.01	0.01	1	641	641	5	5	1	1920	16	0	0	0	0	0	0	N	N
SA 10	St Alban	Urban	43	1.26	0.82	0.04	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
SA 12	St Alban	Urban	1836	1.09	6.19	3.81	0.31	0.00	1	30655	30655	1827	1827	0	0	0	0	0	0	0	0	0	N	N
SBY11	Sunbury	Rural-short	2973	62.19	10.74	6.86	2.14	0.16	24	148296	148296	3963	3963	24	37364	208	1	0	2947	2947	0	0	N	N
SBY14	Sunbury	Rural-short	4023	90.94	23.10	10.94	10.55	1.59	17	610720	610720	14166	14166	30	307772	1364	2	1	7605	7605	1025	1025	N	N
SBY31	Sunbury	Urban	2110	6.81	7.97	7.35	0.35	0.65	2	14415	14415	2116	2116	4	90480	316	1	0	2105	2105	0	0	N	N
SBY32	Sunbury	Rural-short	2901	116.58	10.26	6.36	8.01	0.33	29	615828	615828	11788	11788	42	83511	374	2	11	5796	5796	6845	6845	N	N
SBY33	Sunbury	Urban	2964	14.16	4.57	6.10	0.10	0.02	2	8243	7745	175	174	3	6285	49	0	0	0	0	0	0	N	N
SHM11	Sydenham	Rural-short	1040	64.56	2.63	2.86	0.94	0.14	14	46742	46742	327	327	22	22342	189	0	1	0	0	2698	2698	N	N
SHM12	Sydenham	Urban	2830	4.71	14.96	8.04	0.09	0.34	2	6540	6540	35	35	4	79835	173	0	0	0	0	0	0	N	N
SHM14	Sydenham	Urban	3813	18.96	22.39	10.82	9.71	0.99	13	673484	672127	13724	13714	13	228830	560	2	0	7408	7408	0	0	N	N
SHM21	Sydenham	Urban	4863	3.89	20.24	10.14	1.86	0.00	3	172131	172131	3732	3732	0	0	0	2	0	9709	9709	0	0	N	N
SHM24	Sydenham	Urban	1	0.00	0.81	7.58	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
ST 11	Somerton	Urban	179	6.92	3.80	6.13	7.77	0.00	3	25778	25778	244	244	0	0	0	0	0	0	0	0	0	N	N
ST 12	Somerton	Urban	239	9.61	3.14	8.41	8.50	0.09	5	29376	29376	510	510	2	1060	8	2	0	478	478	0	0	N	N
ST 13	Somerton	Urban	189	4.79	4.26	6.36	1.18	0.03	1	5487	5487	191	191	2	428	2	0	0	0	0	0	0	N	N
ST 14	Somerton	Urban	79	0.00	4.99	7.20	0.00	0.09	0	0	0	0	0	1	346	1	0	0	0	0	0	0	N	N
ST 21	Somerton	Urban	2	0.00	1.17	0.38	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
ST 22	Somerton	Urban	6014	19.08	32.90	16.19	8.32	0.70	13	536167	536167	14216	14216	14	150733	474	1	2	5110	5110	3681	3681	N	N
ST 23	Somerton	Urban	141	7.12	3.50	11.35	3.91	2.77	1	6879	6879	25	25	5	16249	56	0	1	0	0	72	72	N	N
ST 24	Somerton	Urban	1	0.00	3.77	4.92	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
ST 31	Somerton	Urban	1	0.00	0.62	6.67	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
ST 32	Somerton	Urban	6009	10.98	27.27	9.64	1.63	0.02	7	156671	156671	5885	5885	5	5686	14	0	2	0	0	6180	6180	N	N
ST 33	Somerton	Urban	3170	10.26	4.84	8.31	0.09	0.00	2	6782	6782	65	65	1	900	4	0	1	0	0	2439	2439	N	N
ST 34	Somerton	Urban	301	7.20	6.76	10.06	3.46	2.03	3	22236	22236	335	335	5	43342	136	0	0	0	0	0	0	N	N
TH 11	Tottenham	Urban	61	3.10	0.83	4.00	10.21	0.51	4	17686	17686	131	131	1	2940	12	2	0	120	120	0	0	Y	N
TH 12	Tottenham	Urban	25	3.49	0.67	11.32	13.29	2.02	4	5794	5794	60	60	1	2940	6	1	0	27	27	0	0	Y	N
TH 13	Tottenham	Urban	55	3.23	0.50	6.29	2.57	0.17	3	3169	3169	16	16	2	710	11	0	0	0	0	0	0	N	N
TH 14	Tottenham	Urban	0	0.00	0.07	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
TH 21	Tottenham	Urban	165	5.48	0.80	13.11	4.23	0.00	5	19764	18819	209	206	0	0	0	2	0	350	350	0	0	N	N
TH 22	Tottenham	Urban	885	10.35	3.75	5.33	3.96	0.01	11	137830	105945	1142	1099	1	688	2	0	0	0	0	0	0	N	N
TH 23	Tottenham	Urban	2	0.00	0.07	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
TH 24	Tottenham	Urban	0	0.00	0.07	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
TT 03	Thomastown	Urban	3360	13.16	4.28	9.49	3.16	1.18	9	214005	211239	3231	3221	27	266300	928	1	1	2824	2824	1124	1124	N	N
TT 08	Thomastown	Urban	2449	12.23	1.55	6.52	1.78	0.23	11	112558	112558	592	592	8	47770	231	1	0	2432	2432	0	0	N	N
TT 10	Thomastown	Urban	4373	14.00	0.64	7.96	1.22	0.66	11	99515	81072	782	618	21	179792	596	1	0	4339	4339	0	0	N	N
TT 11	Thomastown	Urban	4939	18.36	1.04	9.49	2.46	0.59	18	222958	222795	6651	6650	24	179021	689	1	0	5366	5366	0	0	N	N
WT 04	Watsonia	Urban	143	3.07	1.58	2.21	0.27	0.00	2	2507	2507	167	167	0	0	0	1	0	146	146	0	0	N	N
YTS01	Yarraville	Urban	2491	7.88	13.82	5.91	0.34	0.00	6	22812	22812	240	240	0	0	0	1	0	2530	2530	0	0	N	N
YTS02	Yarraville	Urban	138	1.66	1.06	4.08	17.23	0.98	2	53261	53261	170	170	1	10140	26	0	0	0	0	0	0	Y	N
YTS03	Yarraville	Urban	649	4.78	2.75	6.21	7.03	1.64	7	105664	71450	1976	1300	7	82344	201	0	0	0	0	0	0	Y	N
YTS04	Yarraville	Urban	772	3.35	1.66	3.54	3.00	0.62	7	107676	107676	2391	2391	3	74160	168	0	0	0	0	0	0	N	N
YTS05	Yarraville	Urban	1	0.01	0.83	3.16	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N
YTS06	Yarraville	Urban	855	7.98	1.32	3.47	6.46	0.32	11	240319	238884	3834	3777	5	39094	116	0	0	0	0	0	0	Y	N
YTS07	Yarraville	Urban	925	2.13	5.83	1.71	0.45	0.01	1	48103	48103	926	926	1	5291	13	0	0	0	0	0	0	N	N
YTS08	Yarraville	Urban	510	6.29	5.08	4.23	4.75	0.00	4	93271	31166	644	565	0	0	0	0	0	0	0	0	0	N	N
YTS10	Yarraville	Urban	1	0.00	0.64	13.22	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N

Jemena Electricity Networks (Vic) Limited
Cause of Outages and Worst Served 15 per cent customers
2013

Contents

Table 1 Causes of Unplanned Sustained Outages

Cause of outage	Number of outages
Weather	174
Equipment failure	440
Operational error	3
Vegetation	27
Animals	97
Third party impacts	114
Transmission failure	0
Load shedding	0
Inter-distributor connection failure	4
Other	101

Table 2 Minutes off Supply for Worst Served 15 per cent customers

Minutes off supply (worst 15%)	184

The AER will use the ESCV's definition of minutes of supply for worst served 15% of customers. This is defined as the total annual minutes off supply (SAIDI for planned and unplanned sustained interruptions) experienced by the 15% of customers in the distribution business area connected by those feeders experiencing the longest time off supply.

Jemena Electricity Networks (Vic) Ltd

Response to the annual Regulatory Information Notice for the 2013 regulatory year

Appendix 1-3

Reconciliation between statutory accounts and regulatory accounting statements

Public

29 April 2014

Jemena
Vital Service. Vital Planet.

JEN RIN - (Section 1c) Details ($000's)		Template 1 Income Statement	Comments
Statutory Accounts		**98,531**	***Profit after tax per page 3 of statutory accounts***
Revenue		**1,632**	
Net Designated Pricing charges and Jurisdictional Schemes	*11,852*		*Timing difference between recovery and costs for designated pricing charges and jurisdictional scheme.*
Customer Contributions	*(10,159)*		*Not carried into Regulatory Accounts per Appendix A 4.1 (a)*
Other Revenue	*(62)*		*Revesal of CY12 RIN adjustments.*
Cost of Sales		**39**	
Net Designated Pricing charges and Jurisdictional Schemes	*39*		*Variance between accrual and actual for cross bounday charges.*
Operating & Maintenance Expenses		**362**	
Amounts included in Statutory ESF CAM Allocation, which is not directly related to JEN (increase to Statutory NPAT)	*(274)*		*Statutory accounts included costs allocated from other Jemena Group Assets, that do not relate to JEN.*
Depreciation on Corporate Assets	*(992)*		*For statutory purposes some JEN assets are depreciated at the corporate level (Jemena Group). This adjustment moves the depreciation to JEN's level for RIN purposes.*
AMI Opex	*530*		*AMI Opex True Up (post December 2013 reconciliation for calendar year 2013)*
Reversal of CY13 Works Delivery opex true up	*1,175*		*The Statutory Accounts includes a reversal of a CY13 true up of Works Delivery opex costs. This has been backed out of the RIN as it relates to the prior year.*
Other Expenses	*(47)*		*Recoverable works expenses that are incorrectly allocated to capex in the Statutory Accounts.*
Hedge Reserve Correction	(31)		*Hedge Reserve Movement correction.*
Finance Costs		**28**	
Interest expense	28		*Finance costs are not carried into Regulatory Accounts.*
Depreciation		**(5,147)**	
Depreciation on the Customer Contribution component	*3,350*		*Reversed for Regulatory Accounts Statement purposes.*
Accounting Value write down of Book Assets in 2005.	*(4,613)*		*Value write down in the JEN FAR, however the RAB is not adjusted therefore the asset value for RIN purposes is higher (than the written down value in Statutory accounts) and so is the depreciation.*
IS assets not in JEN FAR	*(3,884)*		*IS assets that are not in JEN FAR have been manually depreciated outside the FAR and included in the RIN accounts*
Income Tax		**41,017**	
Reversal of Income Tax	*41,017*		*Reversed for Regulatory Accounts Statement purposes.*
TOTAL "JEN" PER RIN Template 1 - Income Statement		**136,462**	

JEN RIN - (Section 1c) Details ($000's)	Template 6a	Template 6b	Comments
Statutory Accounts	**179,704**	**179,704**	***Source stat accounts (Notes 8 & 9)***
Adjustments			
Customer Contributions	(10,159)	(10,159)	*Stat accounts include customer contributions.*
Insurance works	(265)	(265)	*Insurance works are excluded for RAB purposes.*
TOTAL PER RIN SCHEDULES	**169,279**	**169,279**	

Jemena Electricity Networks (Vic) Ltd

Response to the annual Regulatory Information Notice for the 2013 regulatory year

Appendix 1-4

JEN regulatory accounting principles and policies (2013)

Public

30 April 2014

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JEMENA ELECTRICITY NETWORKS (VIC) LTD

REGULATORY ACCOUNTING PRINCIPLES AND POLICIES (2013)

Jemena Electricity Networks (Vic) Ltd (**JEN**) prepares the Regulatory Accounting Statements consistently with the requirements listed in the RIN as issued by the AER under Division 4 and Part 3 of the National Electricity (Victoria) Law. As its underlying principle, JEN prepares its statutory accounts compliant with the Australian Accounting Standards and the Statement of Significant Accounting Policies in the notes to the accounts, and only varies from these Standards and Policies where specifically required or permitted by the RIN.

The source of all financial information for the regulatory financial statements is the JEN general ledger and its support systems. JEN also uses data from other related party entities which is contained in their general ledger and support systems.

Revenues and costs contained in the General Ledger that can be directly attributed are assigned to the respective categories. However, if the revenue or cost cannot be directly attributed, an allocator is applied on a causation basis. At all times, JEN will apply transparent and verifiable allocators.

JEN will provide full and complete cooperation with the external auditors. All information provided is intended to be sufficient to enable the auditors to verify accuracy and compliance with the requirements of the RIN.

Jemena Electricity Networks (Vic) Ltd

Response to the annual Regulatory Information Notice for the 2013 regulatory year

Appendix 1-5

JEN Capitalisation Policy (2013)

Confidential

30 April 2014

Jemena Electricity Networks (Vic) Ltd

Response to the annual Regulatory Information Notice for the 2013 regulatory year

Appendix 1-6

Cost allocation methodology (as approved by the AER, 18 February 2010)

Public

30 April 2014

Jemena Electricity Networks (Vic) Ltd

Cost allocation methodology

18 February 2010

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1 Introduction

Jemena Electricity Networks (Vic) Ltd (**JEN**) is the owner of the electricity network covering the northwest area of Melbourne metropolitan. JEN provides services including (but not limited to) those listed in Table 1-1 to over 300,000 customers. Table 1-1 groups the services by JEN's proposed classification of those services under the National Electricity Rules (**NER**). This classification may change, depending on the outcome of the 2011-15 distribution price review process being undertaken by the Australian Energy Regulator (**AER**).

Table 1-1: JEN Services

Services	Descriptions
Standard Control Services	• Construction of the distribution network • Economic connection and augmentation works for new connections • Maintenance and operation of the distribution network and connection assets • Planning and designing the distribution network • Emergency response • Administrative support (e.g. network billing)
Alternative Control Services	• Uneconomic connection and augmentation works for routine new connections • Metering data provider services for unmetered supplies with Type 7 metering installations • Supply enhancement at customer request • Emergency recoverable works (i.e. emergency works where customer is at fault) • Preparation of design and specification for 3rd parties in relation to customer initiated works that are contestable • Auditing of design and contestable construction undertaken by 3rd parties • Energisation and de-energisation of supply points • Temporary supply services • Service truck visits & wasted truck attendance • Location of underground cables • Elective underground service where an existing overhead service exists • Covering of low voltage mains for safety reasons • Testing of metering installations • Supply abolishment • Fault response — not DNSP fault • Damage to overhead service cables by third parties • High load escorts — lifting overhead lines • Operation, repair, replacement and maintenance of DNSP public lighting assets
Negotiated Distribution Services	• Uneconomic connection and augmentation works for non-routine new connections

Services	Descriptions
	• Public lighting services - New public lighting • Public lighting services – Alteration and relocation of public lighting assets

This document addresses the allocation of costs to the above mentioned services.

If the service classifications in the AER's final distribution determination differ from those outlined in this CAM, JEN will amend sections this CAM in accordance with clause 4.2(a) of the cost allocation guidelines.

2 Organisational and operational structure

JEN is a 100 per cent owned subsidiary of Jemena Ltd (**JEM**). JEN is a wholly owned subsidiary of SPI (Australia) Assets Pty Ltd (**SPIAA**), which is in turn 100 per cent owned by Singapore Power International (**SPI**). Refer to Appendix 1 for the corporate structure of SPIAA's holdings, which include JEN and JEM.

While JEN owns the electricity network assets, Jemena Asset Management Pty Ltd (**JAM**) provides all maintenance and capital expenditure services through in-house and external resources whereas enterprise support services, such as Legal, Finance and Human Resources, are provided to JEN by JEM.

As such, the Senior Management group directing the JEN business entity resides within JEM, while the day to day operational management of network services is provided by JAM. JEM's operational structure, as it relates to JEN, is set out in Appendix 2. Appendix 3 also provides a visual representation of the flow of distribution services and contributing services from JEN and its subcontractors through to customers.

Apart from JEN, JAM also provides services to:

- other assets owned or part-owned by JEM or SPIAA, such as Jemena Gas Networks, ActewAGL and, in conjunction with Jemena Asset Management (6) Pty Ltd (**JAM 6**), United Energy Distribution Pty Ltd (**UED**) and Multinet Gas (DB No.1) Pty Ltd and Multinet Gas (DB No.2) Pty Ltd trading as Multinet Gas Distribution Partnership (**MGH**); and

- external clients, such as Aurora Energy, SP AusNet (**SPN**) and Powercor.

3 Nature, scope and purpose

Sections 2.2 and 3.2 of the Victorian Cost Allocation Guidelines (**the Guidelines**) outline the requirements applicable to a Victorian distribution network service provider (**DNSP**) in preparing and submitting its proposed cost allocation method (**CAM**) to the AER for approval, including the development of detailed principles and policies for attributing costs to, or allocating costs between the categories of distribution services it provides.

In addition, the cost allocation principles, policies and approach are to be consistent with the ring-fencing guidelines set out in clause 6.17 of the NER. The CAM therefore complies with previous jurisdictional ring fencing requirements and will continue to do so until such time as these are replaced by the AER's new distribution ring fencing guidelines (in accordance with National Electricity Rules clause 11.15.5) after which time Jemena Group will ensure that the CAM complies with the requirements of the final Ring-Fencing Guideline once it is published.

Clause 6.15.1 of the NER requires JEN to comply with the CAM approved by the AER for relevant regulatory reporting, as noted in section 5.1(b) of the Guidelines.

Accordingly, JEN has prepared the CAM, as detailed in this document, for the purposes of JEN regulatory cost allocations over the 2011-15 regulatory period (**the regulatory period**). The CAM has been developed with regard to previous cost allocations in accordance with the Victorian Essential Services Commission (**ESC**) distribution pricing determination and as a consequence complies with those requirements and with the reporting requirements of Guideline 3. It is intended to provide an approach for allocating costs for regulatory reporting purposes.

JEN is aware that the Guideline requires that the CAM allow for the effective comparison of historical and forecast cost allocations between periods. However, JEN's electricity network was owned by AGL until October 2006 and the organisational structure of the company has changed considerably as a result of the change of ownership since then by Alinta Ltd and now SPIAA. Furthermore, JEN does not have access to certain past data relating to the periods of prior ownership.

For these reasons, JEN is not able to apply an identical cost allocation methodology to that used in the years up to 2007, to the 2008 calendar year or future years and is not able to reproduce the costs for the years prior to 2008 in an identical manner to the proposed CAM.

However, despite the detailed cost allocation methodologies being different, comparisons with prior, current and future periods are not materially impacted by these changes. The underlying approach that has been adopted in assigning direct costs based mainly on activity based costing, cost centre and general ledger account balances and the allocation of shared costs via the use of a causal based allocator, has remained substantially similar.

Accordingly, the CAM has been designed to achieve consistency with the previous allocation methodology to the maximum extent practicable, and to allow for comparison of historical and forecast cost allocation between the 2006-10 and the 2011-15 regulatory periods by:

- utilising present accounting processes and systems that support JEN's compliance with management and financial reporting requirements, and
- taking into account incremental enhancements to present systems, such as the recent implementation of time-writing.

Furthermore, JEN has developed the proposed CAM as the means to allocate costs going forward in a consistent manner that meets all other regulatory requirements to the maximum practicable extent.

Applying the CAM will ensure that:

- costs are reported consistently in each year of the regulatory period;
- costs are attributed directly to or allocated between categories of distribution services based on the substance (over the legal form) of the underlying transaction or event; and
- direct costs are only allocated once to one category of distribution services and shared costs are only allocated once between categories of distribution services.

4 Accountabilities and responsibilities

If approved by the AER, the CAM will commence on 1 January 2011. The CAM, once in place, is also expected to be used for all regulatory reporting purposes. It will primarily be used for annual Regulatory Accounts reporting and for determining the appropriate costs to support and substantiate future price submissions to the AER.

Jemena Group is committed to the ongoing application of the CAM which will be approved formally by the JEM Leadership Team prior to implementation. Furthermore, a statement outlining JEM's commitment to the ongoing application of the CAM will be detailed in a Regulatory Accounting Policy Statement, and maintained on the JEM website.

The CAM will be the primary responsibility of the General Manager, Finance, Infrastructure Investments, who will:

- conduct periodic reviews of the CAM;
- liaise with the CFO, Business Unit Managers, Finance Managers and their staff where issues are raised; and
- act as the reference point for all queries regarding the CAM in relation to Regulatory matters.

Any potential change to the CAM will be subjected to a materiality test. For purposes of determining materiality, JEN has adopted the AER's definition used in its Cost Allocation Guidelines – that is, "an item is material if its omission, misstatement or nondisclosure has the potential to prejudice the understanding of the financial position of the DNSP (Distribution Network Service Provider), gained by an assessment of financial information relating to the DNSP". The process by which JEN will monitor compliance with the CAM is outlined in section 8.

5 Distribution services

JEN provides distribution services, including standard control services, prescribed metering services, alternative control services, negotiated services and other unregulated services as set out in Table 5-1. JEN allocates its costs between all these categories of services.

Standard Control Services (formerly prescribed services) include the provision of network capability and maintenance of the distribution network. They cover services such as asset maintenance, vegetation control and restoration of supply. These services are provided to all

residential, small business and large business end-users of the network. The costs for providing these services are recovered via electricity tariffs that have been approved by the AER.

Alternative Control Services (formerly part of excluded services) include disconnections and reconnections for existing sites, metering services for unmetered supplies, operation, maintenance and repairs of public lighting assets, service truck visits, covering of low voltage mains, meter equipment testing and meter conversions, and elective underground services. The costs of providing these services are recovered by either a set fee approved by the AER or via a quoted price.

Negotiated Distribution Services (formerly part of excluded services) include uneconomic connection and augmentation works for new connections, new public lighting and relocation of public lighting assets. The costs of providing these services are recovered by cost negotiation and agreement with the end-user.

Prescribed Metering Services include the provision of meter data services. The approval of charges for providing these services is covered by a process outside of Chapter 6 of the NER.

Unregulated services include metering services that are not regulated by the NER, as well as network-related services provided by JEN not covered by the other classifications.

Table 5-1: Distribution services performed by JEN

Distribution service provided	Persons to whom services are provided
Standard control services	End-use electricity customers i.e. residential, small business and large business entities.
Prescribed metering services	
Alternative control services	
Negotiated services	Services performed directly for customers.
Other unregulated services	

Notes:

- Standard control, prescribed metering and alternative control services are undertaken for end-use electricity customers within the geographical boundaries of the network. These users are themselves customers of various electricity retailers. JEN therefore invoices relevant retailers for the various distribution services provided to these end-users.
- JEN deals directly with Councils for public lighting services. Negotiated services and other distribution services are performed for, and charged directly to, the particular customer.

6 Cost allocation principles and policies

6.1 Overview of Costing Processes in Jemena Group

As discussed in section 2, JEN, JAM and JEM are part of the Jemena Group, which also includes other assets. Relevant Jemena Group costing processes and how they relate to JEN's CAM are explained as follows.

JEM utilises the SAP Enterprise Resource Planning (**ERP**) corporate business system to capture, control and report its costs by general ledger cost account within cost centres. Most direct costs are

assigned to unique client projects codes by assigning costs to Work Breakdown Structures (**WBS**) (individual job numbers) which in turn are grouped to individual activity codes that identify WBS projects of a similar nature (such as pole inspections for maintenance or pole replacements for capital works). These codes capture costs associated with individual projects that relate to specific client contracts and activity types required for management and regulatory reporting. These costs are captured within the SAP ERP project accounting ledger.

Shared (or indirect) costs are costed to general ledger accounts within cost centres, similar to direct costs. These shared costs do not relate to one particular activity but rather support a range of business activities.

6.2 Directly attributable costs

Labour costs for work performed and other costs incurred (such as materials consumed) on capital construction jobs, maintenance jobs and certain types of operational work, are allocated to a unique project code linked to an activity code in SAP. The labour costs allocated to these unique project codes can be traced back to the organisational group that incurred these costs and the cost function that identifies the type of cost, such as labour and materials. In this way, SAP ERP project accounting effectively tracks each individual client project via unique client project codes. These project codes are used to capture direct costs associated with individual projects that relate to specific client contracts, client activity types and client billing types. These costs are treated as 'direct' in nature. For any instance where a direct cost has not been assigned to a specific activity code that enables the nature of the service being provided to be clearly identified, the cost will be allocated as if it is a shared cost (see section 6.3 below).

Specifically, the SAP system enables JAM to capture and report project costs (i.e. direct costs) by WBS element. Each WBS element corresponds to an activity type, which relates to the nature of the works carried out of a capital, operating and maintenance nature. The activity type also identifies the type of service being provided and is therefore used to directly assign these costs to standard control, alternative control and negotiated distribution services.

Following the allocation of direct costs to activity codes, there remain unallocated regional direct costs, which represent a residual amount that has not been allocated to specific projects. Where costs can be identified as relating directly to specific regulatory cost categories (such as costs residing in a billing cost centre that relate to the network use of system billing), they are allocated to the particular type of service provided – standard control, alternative control, negotiated distribution services or unregulated services. Where these costs cannot be specifically assigned, they form part of the shared cost allocation process, as described in section 6.3.

Cost items, such as labour and materials, are allocated in the manner described below. Table 6.2 summarises what is included in each cost item and the basis for allocation of these costs. Specifically, the costs listed in this table are directly allocated to standard control services, alternative control services, negotiated distribution services, prescribed metering services and unclassified services.

SAP electronic timesheet processing commenced in December 2009 and is expected to be fully operational by March 2010. Under this approach *all* Jemena Group staff, will be required to capture their actual hours against a variety of cost objects (cost centre, profit centre, WBS or Program Maintenance order). These cost objects will range from existing unique chargeable client projects, indirect client contracts to other internal projects. Accordingly, labour based activity costs will be used wherever possible for reporting all directly attributable costs in the next regulatory period.

All materials issued to capital and maintenance jobs have an on-cost added to recovery the costs of operating the Logistics (stores) cost centre and the procurement function for JEN. This process was put in place to ensure that these costs were correctly assigned to the jobs that were users of this service. This on-cost amount is included in the WBS and activities (refer above) for all capital and maintenance jobs as a component of the total cost of that work and therefore is an automated process within SAP. After assigning the cost to each job, a credit equivalent to the amount of the on-cost on the material item issued from the store is offset against the operating costs of the Logistics cost centre to ensure that the costs of operating the Logistics cost centre and JEN procurement function is only allocated once. As the on-cost rate is generally fixed for the year, there may be an over or under recovery of the costs of running the Logistics cost centre and JEN procurement function, depending on the total amount of store operating and procurement costs to be allocated and the amount of materials consumed each year. Any over (credit) or under (debit) cost recovery is retained within the Logistics cost centre and will form part of the shared costs to be distributed as outlined in section 6.3 below. This process is illustrated in the following example in relation to one item of materials worth $1000 (before applying the on-cost):

Value of Materials Issued from Store	On cost rate	Total cost of materials costed to the job	Credit to Inventory	Credit to Logistics cost centre	Logistics Cost centre and Procurement function for JEN	Comment
$1000	8%	$1080	$1000	$80	$400,000 ($80) $399,920	Total annual cost of operating Logistics and JEN related procurement functions. Less on-cost recovery Total remaining amount of the annual operating cost of the Logistics Cost Centre and JEN procurement functions to be recovered from future material issues from the store.

Reports utilising data from SAP which show the costs of the Logistics store and the JEN procurement function as well as the amount of the on-cost credited to the Logistics cost centre, will enable the cost allocation process and its outputs above to be verified.

Costs reported under certain general ledger accounts are also assigned directly to specific cost categories (for example Guaranteed Service Levels costs have their own General Ledger account). Costs in these accounts are able to be assigned to standard control, alternative control and negotiated distribution services using the definitions contained in the ESC's Guideline 3.

The activity codes are also used to appropriately assign costs to standard control, alternative control, negotiated distribution and other unregulated services, as each of these activity codes are uniquely and individually identified to the different service categories. For example, the activity

codes allow costs to be identified that relate to pole inspections, vegetation control, overhead line maintenance, fault and emergency (all of which relate to standard control services), public lighting (alternative control service), connection of embedded generation (negotiated service) and meter data services (unregulated services).

Directly attributable costs are shown in Table 6-1: Directly Attributable Costs below:

Table 6-1: Directly Attributable Costs

Cost Location	Cost Item	Cost Relationship	Allocator	Description	Basis of Allocation	Services Allocated To
JAM	Direct Labour Costs	Direct	N/A	Direct labour costs include: 'Normal and overtime salaries and wages, associated payroll on-costs and employee & industry allowances and the recovery of motor vehicle and plant costs	Field crews complete timesheets that record their actual hours worked on individual projects. 'These timesheets are usually entered into SAP by local Business Service Officers. A minority of field based personnel, and all office based personnel, enter their timesheet data directly into SAP. SAP functionality then enables an automatically generated direct labour cost transfer posting from the employee's cost centre to the relevant project.	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JAM	Subcontractor Costs	Direct	N/A	External labour contractors may be sourced to supplement the existing workforce for specific projects, additional workloads or to cover employee absences.	Subcontractor costs are receipted against the outstanding purchase order and recognised against the project.	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JAM	Material Costs	Direct	N/A	Material costs include stock items distributed through JEM's centralised warehouse and specific purchases of irregular or low turnover items. An on-cost is added to stock material to cover the cost of purchasing, warehousing and delivery of materials held in the central store.	Material costs are assigned via the SAP materials management system. This system enables materials from stores to be issued to individual capital and maintenance projects. Materials can also be purchased from an external party, via a SAP purchase order process. When the goods are receipted against the outstanding purchase order, the material costs are recognised against the relevant project.	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEN	Other Direct Costs	Direct	N/A	Other costs include such items as High Voltage injection payments, distribution licence fees and other governmental charges such as council rates.	Other costs are posted to the relevant project via the accounts payable function or directly to a cost category where appropriate by reference to the cost centre or general ledger account.	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated

6.3 Shared costs

In addition to direct costs, JEN and its service providers also incur shared costs. These costs do not directly relate to the delivery of specific categories of JEN's services, but do relate indirectly to all services provided by JEN. These costs therefore need to be assigned to service categories via the use of an allocator.

6.3.1 Shared cost summary

A summary of JEN's shared costs is provided in Table 6-2 below

Table 6-2: JEN Assignment of allocators to cost items

Cost Location	Cost Item	Cost Relationship	Description	Services Allocated To
JEM ESF	Chief Executive Officer	Shared - Causal	Management of regulated asset base, equity investments in regulated assets and asset management functions.	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEM ESF	Chief Financial Officer	Shared - Causal	Management of financial reporting & financial management, and funds management	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEM ESF	Corporate Accounting	Shared - Causal	External corporate reporting of the Jemena group of companies	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEM ESF	Energy Investments	Shared - Causal	Strategic and operational management of regulated assets.	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEM ESF	Financial Strategy	Shared - Causal	Management of corporate business systems	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEM ESF	Financial Accounting	Shared - Causal	Management of Financial Accounting	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEM ESF	Investment Analysis	Shared - Causal	Strategic financial management of assets and potential corporate acquisitions	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEM ESF	Legal	Shared - Causal	Regulatory, employer and contract management; company secretarial	Standard Control Prescribed Metering Alternate Control Negotiated

Cost Location	Cost Item	Cost Relationship	Description	Services Allocated To
				Other Unregulated
JEM ESF	Business Services	Shared - Causal	Customer service and marketing functions	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEM ESF	Corporate Affairs	Shared - Causal	Management of corporate communications to employees and clients	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEM ESF	Health Safety & Environment (HSE)	Shared - Causal	Employee HSE training and monitoring	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEM ESF	Human Resources	Shared - Causal	Management of recruitment and payroll services	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEM ESF	Financial Improvement	Shared - Causal	Management of Jemena corporate business structure	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEM ESF	Information Services	Shared - Causal	Provision & management of IT infrastructure and services both general and client specific.	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEM ESF	Regulatory	Shared - Causal	Strategic and operational regulatory compliance	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEM ESF	Risk & Insurance	Shared - Causal	Internal audit and risk assessment.	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JEM ESF	Taxation	Shared - Causal	Management of indirect and direct tax compliance and planning.	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated

Cost Location	Cost Item	Cost Relationship	Description	Services Allocated To
JEM ESF	Treasury	Shared - Causal	Management of cash flow and funding arrangements	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JAM Corporate	Asset Services	Shared - Causal	Asset Strategy and Engineering Services	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JAM Corporate	Chief Operating Officer	Shared - Causal	Management of Asset Strategy and Infrastructure Services functions.	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JAM Corporate	Regional	Shared - Causal		Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JAM Corporate	Finance	Shared - Causal	Management of financial reporting & financial management	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JAM Corporate	Business Strategy	Shared - Causal	Management of Business & Commercial Strategy and Planning function.	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JAM Corporate	Business Services & IT	Shared - Causal	Management and service delivery of customer relations management, call centre management and meter reading services functions.	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JAM Corporate	Regulatory	Shared - Causal	Strategic and operational regulatory compliance	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated
JAM Corporate	Program Management	Shared - Causal	Management of program methodology and project office functions.	Standard Control Prescribed Metering Alternate Control Negotiated Other Unregulated

6.3.2 Shared costs allocation

The shared costs applicable to JEN are allo cated to standard control, alternative control, negotiated distribution services and unregulated services based on the proportion of direct costs for each service category to total direct costs.

This allocator is based on the view that direct costs are the most appropriate method to allocate shared costs across service categories and provide an easily verifiable method that can be consistently applied each year. They also enable the amount of shared costs allocated to each service category to be replicated by reference to the percentage of direct costs relating to each service category (as reported in the regulatory accounts) and then applied to the total amount of shared costs.

To illustrate this, assume that the total operating and maintenance costs of JEN are $80 m consisting of $50m direct costs and $30m shared (indirect) costs. Of the $50m direct costs, assume that $40m relates to SCS (or 80% of total direct costs), $7m to ACS (14% of total direct costs), $1m to NDS (2% of total direct costs) and $2m to unregulated services (4% of total direct costs). The actual direct costs would be determined via the process described in section 6.2 above. The allocation of the $30m of shared costs to the various service categories will be made by allocating 80% of $30m which is $24m to SCS, 14% of $30m which is $4.2m to ACS and so on for the other service categories. Table 6-3 below shows the relevant calculations for the example.

Table 6-3: Shared cost allocation calculation example

	Total	Service Category			
		SCS	ACS	NDS	Unregulated
$ Direct costs	50M	40M	7M	1M	2M
% of Direct Costs:	100%	80%	14%	2%	4%
$ Shared Costs	30M	24M	4.2M	0.6M	1.2M
$ Total costs	80M	64M	11.2M	1.6M	3.2M

Note that during the roll-out phase of the AMI program, all AMI-related costs are outsourced and are being captured and reported separately from all other costs incurred by JEN. Under the AER's classification, AMI metering services are considered to be unregulated services for the 2011-2015 regulatory period. During the commencement of the operational phase of AMI metering services, JAM will establish accounting processes to capture direct costs within a separate cost category for JEN.

7 Record maintenance

All relevant documentation, namely the final approved Regulatory Accounts, the supporting audit opinions and other approvals (such as the Audit Tripartite Deed), together with all the records supporting the allocation of costs (direct or shared) are maintained on Jemena Group's accounting systems and Information System database.

These records are supported by the company's comprehensive record protection procedures and practices, as well as relevant data recovery and back up processes.

Information contained in this database is provided to auditors upon request to enable audits of the Regulatory Accounts and other documents to take place as necessary.

8 Compliance monitoring

8.1 Day to Day Use of the CAM

The CAM utilises the activity code data derived from the timewriting process and the charging of costs to jobs that are linked to these activity codes. Some direct costs assigned to the service categories in the CAM are based on costs reported in the SAP general ledger by cost centre and general ledger account. The quality of this data, which is also used extensively in management reporting and is an integral part of the SAP financial data used for the preparation of statutory accounts, is constantly monitored by management and accounting staff as part of the regular business reporting and financial analysis processes in Jemena Group. Both external and internal audits are conducted on the processes used to produce the costs and any material discrepancies or abnormalities are reported to management for rectification. Follow up procedures apply to ensure appropriate action is undertaken within agreed timeframes.

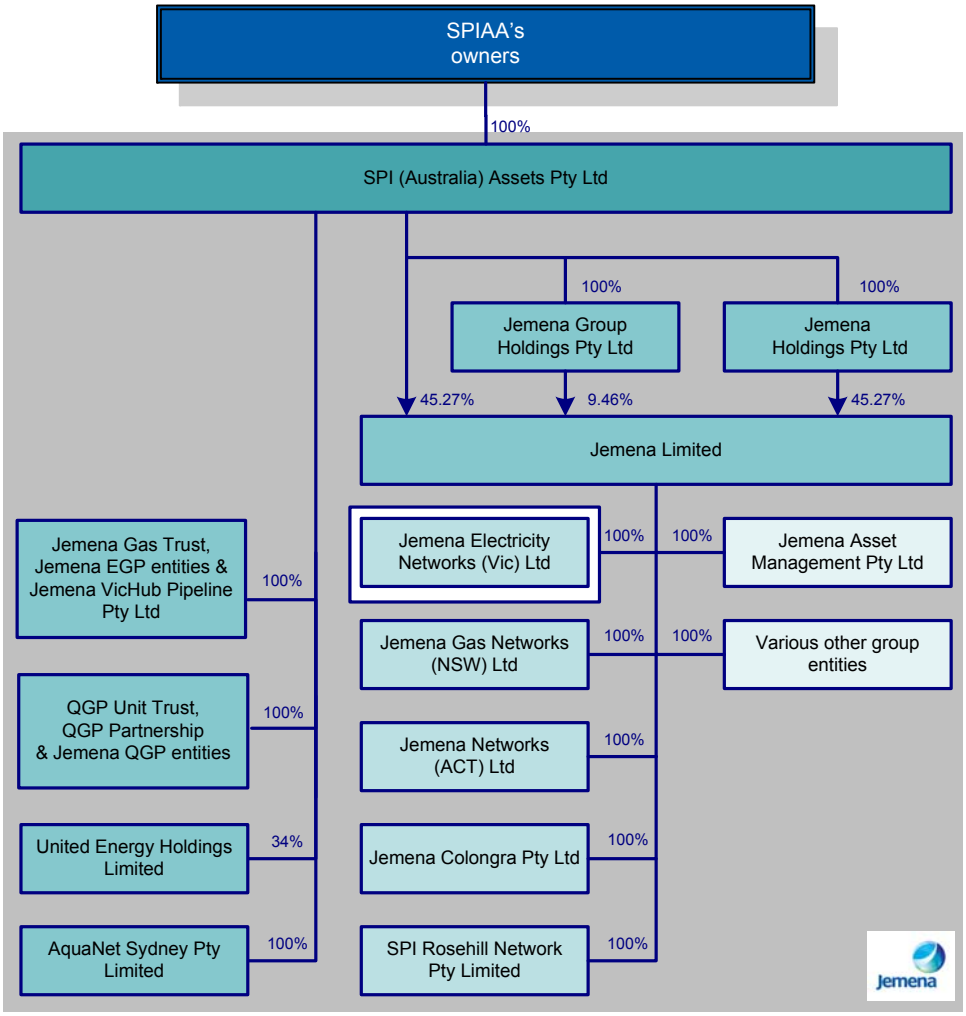
Note that the operational management by JAM of day to day JEN network services, reflected in the costs reported in these activity codes, is embedded in an asset management agreement between JEN and JAM.

8.2 Use of the CAM in Regulatory Reporting

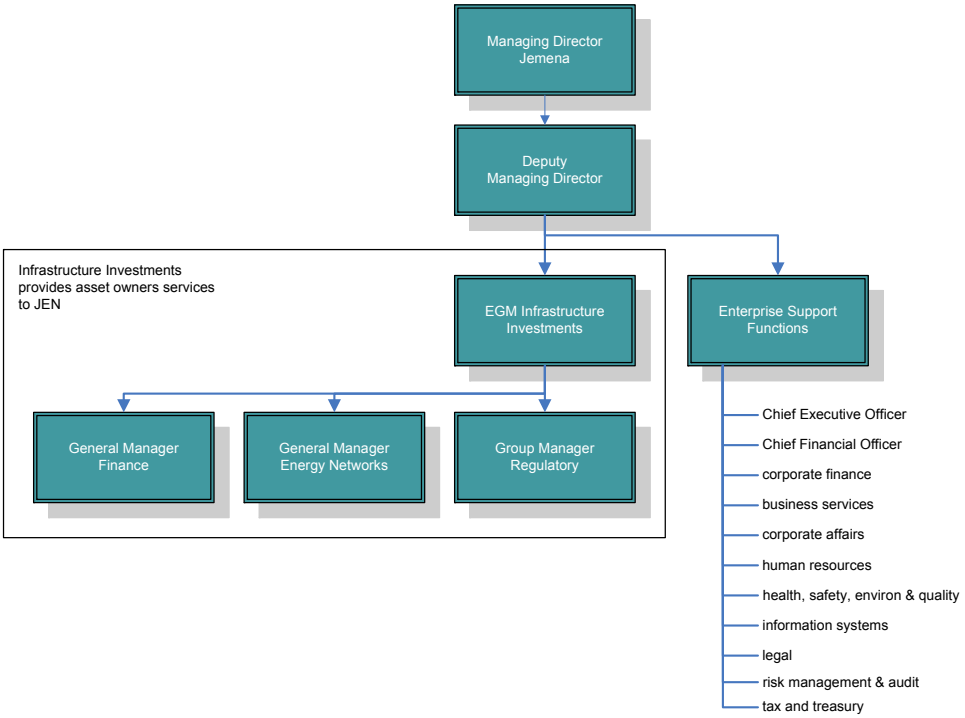
Regulatory Accounts are reviewed and endorsed by JEN management, and include an explicit statement (having made all the relevant inquiries) that the financial statements have been prepared in accordance with the approved CAM. In addition, the accounts will also be reviewed by independent auditors.

Through the management review and the audit processes, JEN will satisfy itself whether the costs have been correctly assigned to the service categories. In addition, both JEM and JAM are also required to provide JEN with all reasonable assistance and cooperation to enable JEN to provide information required to be given to the AER, including the allocation or designation of any fees, charges, costs or other amounts in a manner which reflects any methodology approved by the AER.

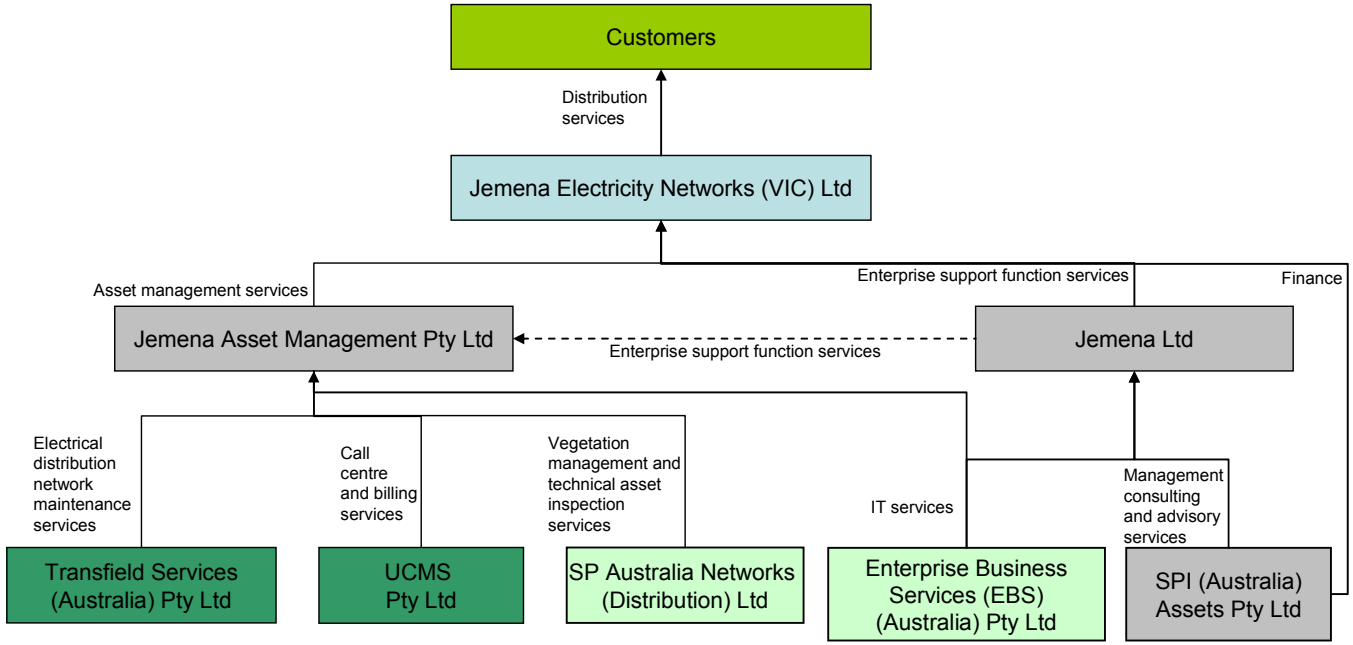
Appendix 1 – SPIAA's Corporate Holdings



Appendix 2 – Operational Structure of Jemena Limited



Appendix 3 – Flow of Distribution and Contributing Services for JEN and its subcontractors



Key:

- Related provider of contributing services
- Provider of further significant outsourced services that is related to SPI or entities controlled by SPI
- Provider of further significant outsourced services that is not related to SPI or entities controlled by SPI

Glossary

CAM	Cost Allocation Methodology
CC's	Cost Centres
Contract	Service and/or construction contract with Assets or external clients.
Customers	Electricity retailers and/or end customers of electricity.
EBS	Enterprise Business Services (Australia) Pty Ltd.
ERP	Enterprise Resource Planning
ESF	Enterprise Service Functions (include but are not limited to functions such as Finance, Audit, Risk, Legal and IT functions) provided by JEM or EBS
JAM	Jemena Asset Management Pty Ltd, the asset and infrastructure management company that provides various services to Assets (including JEN) and external clients.
JAM 6	Jemena Asset Management (6) Pty Ltd
JEM	Jemena Ltd, holding company of JEN and JAM.
Jemena Group	Refers jointly to SPIAA, JEM, JAM and all Assets
JEN	Jemena Electricity Networks (Vic) Ltd, owner of the electricity network covering the northwest area of Melbourne metropolitan. JEN is a client of JAM
JGN	Jemena Gas Networks (NSW) Ltd. JGN is a client of JAM
MGH	Multinet Gas (DB No.1) Pty Ltd and Multinet Gas (DB No.2 Pty Ltd trading as Multinet Gas Distribution Partnership, owner of the gas network servicing Melbourne's inner, outer eastern and south eastern suburbs. In conjunction with JAM 6, JAM provides services to MGH.
NER	National Electricity Rules
SPI	Singapore Power International Pte Ltd, holding company of SPI (Australia) Assets Pty Ltd.
SPIAA	SPI (Australia) Assets Pty Ltd, holding company of JEM
WBS	Work Breakdown Structures

Jemena Electricity Networks (Vic) Ltd

Response to the annual Regulatory Information Notice for the 2013 regulatory year

Appendix 1-7

Special purpose financial report

Confidential

29 April 2014

Jemena Electricity Networks (Vic) Ltd

Response to the annual Regulatory Information Notice for the 2013 regulatory year

Appendix 1-8

PB: Audit report (for non-financial information)

Public

30 April 2014

Jemena
Vital Service. Vital Planet.

Jemena Electricity Networks Pty Ltd

Audit of Jemena's 2013 Regulatory Information Notice - Non-financial information

24 March 2014

PARSONS BRINCKERHOFF

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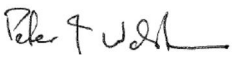
Approved by:	P Walshe	Date: 24/03/2014	Signature: 

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Auditor's Statement

Parsons Brinckerhoff audited the RIN information prepared by Jemena Electricity Networks Pty Ltd (JEN) for the Australian Energy Regulator for the period 1 January 2013 to 31 December 2013 in respect of the Service Target Performance Incentive Scheme (STPIS).

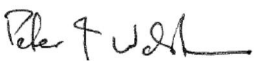
Parsons Brinckerhoff meets the requirements of "Class of person to conduct the audit" as outlined in Appendix E, paragraph 2.1 of the Regulatory Information Notice (RIN).

This audit report has been prepared in accordance with the audit requirements outlined in Appendix E of the RIN. The auditor's responsibility is to make an assessment of the processes, procedures and systems employed by JEN to produce the information required. Accordingly, Parsons Brinckerhoff has assigned a compliance grade to each parameter relating to the STPIS.

The audit grades are summarised in Table 1.1 below.

The audit involved performing procedures to obtain audit evidence about the information and disclosures in the RIN. The procedures used depended on the auditor'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 audit procedures that are appropriate in the circumstances.

Yours sincerely



Peter Walshe
Principal Consultant
Parsons Brinckerhoff Australia Pty Limited

Table 1.1 Audit grades - Jemena's 2013 Regulatory Information Notice - Non-financial information

Item	Compliance Grade
STPIS – reliability parameters	
Customer numbers	Compliant
Unplanned SAIDI	Compliant
Unplanned SAIFI	Compliant
Unplanned MAIFI	Compliant
Planned Outages	
▪ SAIDI	Compliant
▪ SAIFI	Compliant
MED threshold	Compliant
Exclusions	Compliant
STPIS – customer service parameters	
Telephone answering	Compliant
New connections	Compliant
Street light repair	Compliant
GSLs (jurisdictional scheme)	
▪ Appointments (ex AMI)	Compliant
▪ Appointments (AMI only)	Compliant
▪ Duration	Compliant
▪ Sustained interruptions	Compliant
▪ Momentary interruptions	Compliant
▪ Street lights	Compliant
▪ Planned interruptions	Compliant

Source: Parsons Brinckerhoff findings

Contents



1. Introduction

This section of the report provides background on the need for the work, describes the audit and review approach undertaken by Parsons Brinckerhoff and sets out the report structure.

1.1 Background

The Australian Energy Regulator (AER) has issued a Regulatory Information Notice (RIN) under Division 4 of Part 3 of the National Electricity (Victoria) Law to Jemena Electricity Networks Pty Ltd (JEN) on 5 June 2011. This notice requires JEN to provide and to prepare and maintain information in a manner and form specified in the Notice. The requirements which must be complied with and the information which must be provided by JEN to the AER (in respect of Victorian electricity distribution services) are for the purpose of:

- monitoring the compliance of JEN with the 2011-15 distribution determination
- publishing reports
- making future distribution determinations.

1.2 Scope of work

JEN engaged Parsons Brinckerhoff to undertake a compliance audit of the non-financial information provided by JEN to the AER for the period 1 January 2013 to 31 December 2013.

The information audited was:

- regulatory templates 1a, 1b, 1c, 1d and 1e in respect of the Service Target Performance Incentive Scheme (STPIS)

This report does not include the audit of:

- regulatory template 2 in respect of demand forecasts
- regulatory template 3 in respect of asset installation.

1.3 Persons conducting the audit

Appendix E of the RIN sets out requirements for the class of person to conduct the audit. Parsons Brinckerhoff's attests that it meets these requirements, specifically:

- Parsons Brinckerhoff is independent from JEN and all of its related bodies corporate.
- A trained lead auditor managed the audit process and is responsible for the audit.

- Members of the audit team have audit experience gained through conducting performance audits of electricity businesses, including data sampling in the electricity industry.
- Members of the audit team have the relevant technical knowledge of the areas audited and the associated engineering, IT systems, asset management and customer service aspects. They also understand the procedures and methodologies underlying the data and the AER's relevant definitions for all information.

1.4 Overview of audit methodology

The auditor's audit approach was conducted in compliance with the audit requirements outlined in Appendix E of the RIN. The audit approach reflects a reasonable or positive level of assurance.

Audited items were assessed for their reliability as determined from the review of the processes, procedures and systems used to generate the data. The audit of the STPIS data also extended to whether the processes, systems and procedures used to produce the data were reliable, correctly applied, consistent with the parameter definitions and exclusions of the STPIS, and whether systems were able to competently identify and correct errors.

This audit focused on two specific areas: firstly, identifying and assessing any changes to the systems and procedures that have occurred since those audited for the 2012 calendar year; and secondly, assessing the systems and procedures that have been put in place to ensure quality control and data verification have been undertaken.

The audit methodology involved the following steps:

- Develop audit procedures
- Review existing material
- On-site review
- Draft report
- Final report.

This is the third time Parsons Brinckerhoff has undertaken the audit of JEN's RIN. ASAE 3000 allows the auditor to rely on the results of previous audit findings and focus on changes that occurred between audit periods. Clauses 3.2(b)(v) and 3.2(b)(vi) in Appendix E of the RIN require the auditor to assess for changes since the last audit was conducted and if the data correlates to the previous audit. To comply with these requirements, Parsons Brinckerhoff was able to rely on the previous audit and focus on assessing any changes to the systems and procedures.

1.5 Audit grades

The grading system used to assess the information provided was designed to align to the assessment criteria specified in Appendix E of the RIN and requirements of ASAE 3000. The grading system assesses each input to the RIN against six criteria using a three part scale – green, orange and red. The criteria and scale are described in Table 1.1 and Table 1.2. The assessments of each of the criteria are then considered together to apply an overall compliance grade to the data input. The four possible compliance grades are described in Table 1.3. The final result for each item assessed will be a 'sum' of the 6 criteria based on the following guidelines:

- If only 'green' is assigned, then the item will be compliant.

- If there is one or more 'orange' assigned, a judgment will be made on the overall materiality of any errors introduced by the identified gaps to determine if the item is mostly-compliant or non-compliant. Reasons will be provided for the judgement.
- If there is one or more 'red' assigned, then the result will be non-compliant. Reasons will be provided for the judgement.

The auditor notes that an assessment of the accuracy of the information presented in the RIN was not required to be assessed under the Appendix E of the RIN issued by the AER for JEN.

Table 1.1 Reliability assessment levels and descriptions

Criteria	Description
1	Reliability: Reliable systems have been established to provide, prepare and maintain the information.
2	Documentation: The processes and procedures are complete, well documented, approved, subject to regular review, and are accessible by staff.
3	Understanding: Staff have a good understanding of the processes, systems and procedures and applied them correctly during the audit period.
4	Definitions: The correct parameter and calculation definitions, as defined by the AER, were applied.
5	Error correction: The systems and procedures used are able to competently identify and correct errors or unusual trends that suggest errors in information entry or manipulation.
6	Repeatability: The systems provide information that corresponds to previously provided information.

Source: Parsons Brinckerhoff

Table 1.2 Reliability assessment levels and descriptions

Grade	Description
	Criteria is met
	Criteria is not met but the gaps have an immaterial effect
	Criteria is not met and the gaps result in material error(s)

Source: Parsons Brinckerhoff

Table 1.3 Compliance assessment levels and descriptions

Grade	Description
Compliant	All definitions are consistent with the requirements. Systems, processes and procedures have been implemented for all aspect of data gathering and reporting.
Mostly-Compliant	Most definitions are consistent with the requirements. Those definitions that are not consistent have an immaterial impact on the reported information. Systems, processes and procedures have been implemented for most aspect of data gathering and reporting. Those aspects that are not cover by systems, processes or procedures have an immaterial impact on the reported information.
Non-Compliant	Not all definitions are consistent with the requirements. Systems, processes and procedures have not been implemented for data gathering and reporting.
N/A	There are no definitions that need to be complied with for this particular process.

Source: Parsons Brinckerhoff

1.6 Report structure

This audit report is structured as follows:

- Section 2 STPIS – reliability parameters
- Section 3 STPIS – customer service parameters



2. STPIS – reliability parameters

This section outlines the auditor's assessment of the reliability of JEN's system, processes and procedures used to report the STPIS RIN figures in relation to reliability of supply (Templates 1a, 1c, and 1d of the RIN) and exclusions (Template 1e of the RIN).

2.1 Summary of audit requirement

Section 3.2 of Appendix E of the RIN sets out the audit requirements. The focus of the audit is on the reliability of the processes and procedures used, and the systems applied, to provide, prepare and maintain the information required by RIN templates 1a, 1c, 1d and 1e.

The auditor is to assess whether the processes, procedures and systems were correctly used and applied by the relevant staff, and that the definitions and data exclusions were in accordance with the STPIS.

Further, the auditor must assess whether the systems used are able to competently identify and correct errors, and if the RIN templates being audited show any corrections.

In relation to exclusions, the audit requirement involves an assessment of the reasons for any exclusions and the measurement of those exclusions.

2.2 Overview of JEN's reliability of supply reporting systems

2.2.1 Outage data management systems

Outages on the electricity network are recorded using a suite of data bases, with inputs from the network model and operators mostly in real time. A flow diagram of JEN's data collection, recording and reporting process is outlined in Figure 2-1.

The key systems are described below.

The Outage Management System (**OMS**) was implemented in June 2010. It records switching data directly from SCADA and receives data from non-telemetered devices from operators changing status of switches. Customer numbers are built into OMS via the Network Model. Complex switching records can be cancelled and recreated (if corrections are required) and logs of all corrections are retained.

The Operation Instruction Writer (**OIW**) is used by operators to develop switching procedures and record actual open/close times for non-telemetered devices when dealing with field crews. Actual open and close times are manually recorded on an OIW form for each isolation or restoration of customers.

COGNOS is a front-end reporting tool/application used to extract data from OMS, using prewritten filters/scripts to produce defined report formats, and output the data into various formats including PDF, Excel and text files. COGNOS is not a database and therefore does not store data.

CMOS is the database that stores information extracted from OMS by COGNOS. The data is stored in an Access data base and can be modified by JEN staff.

The Supervisory Control and Data Acquisition (**SCADA**) system inputs operations of all telemetered equipment directly into OMS. Each open/close signal input by SCADA is time stamped.

The **Network Model** shows the configuration of the network, which is updated daily, and allows OMS to calculate the number of customers affected by each outage. Customer information is input into the network model by three systems: GIS, CIS+ and AMI.

The **Daily Situation Report** is a report produced daily that includes the output of the OIW which identifies any manual switching events and the actual times that the switching occurred.

The **Monthly Change Log** captures any changes to data in CMOS. It is reviewed for anomalies and for verification against the Daily Situation Reports.

GIS, SAP and **CIS+** are the sources of customer number data, including customer geographical locations and network connection points that is input into the Network Model and used by OMS to calculate the number of customers affected by each outage. SAP is the database of customers having smart meters installed as part of the Advanced Metering Infrastructure program.

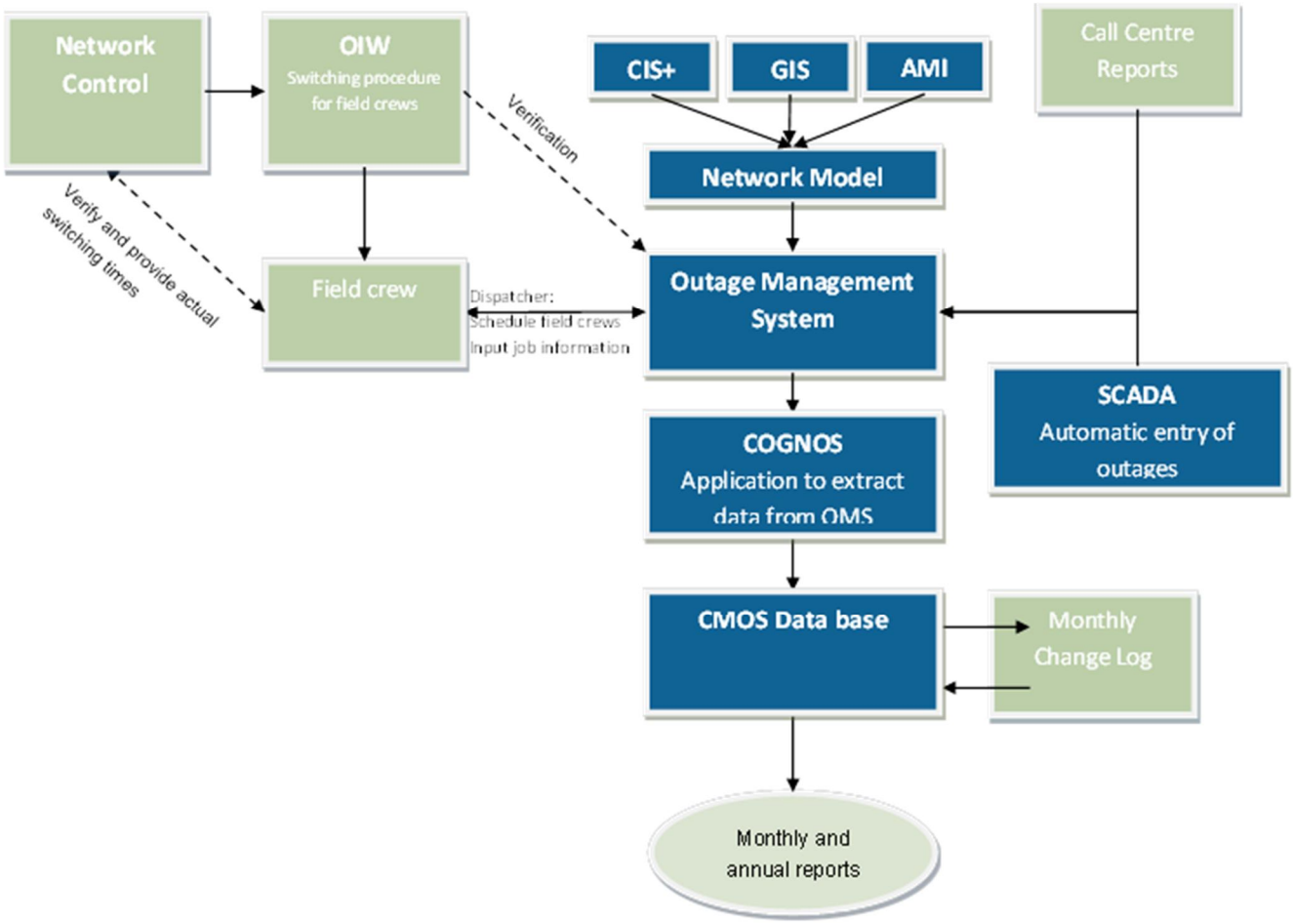


Figure 2-1 Flow diagram of JEN's reliability data reporting systems

2.2.2 Definition of feeder categories

The STPIS classifies feeders as CBD, Urban, Rural Short or Rural Long. JEN's network contains only Urban and Rural Short type feeders. These are classified in accordance with the STPIS definitions, viz:

- CBD – supplies predominantly high rise commercial buildings, supplied by a predominantly underground distribution network containing significant interconnection and redundancy compare to urban areas
- Urban – not a CBD feeder, with actual maximum demand over the reporting period per total feeder route length greater than 0.3 MVA/km
- Rural short – not a CBD or Urban feeder with a total feeder route length less than 200km
- Rural long – not a CBD or Urban feeder with a total feeder route length greater than 200km

JEN assesses the feeders annually at the start of each year for the previous year, i.e. January 2014 data is used to classify the feeders for the 2013 calendar year. The feeder length is taken from GIS and the maximum feeder demand is obtained from the Network Planning and Development Group.

The following processes are implemented for specific feeders:

- Feeders that have capacity reserved for backup supply or other reasons are assigned a classification as though the reserve capacity was being utilised. That is, they are classified the same as the primary feeder.

- New feeders are assigned a classification based on the forecast load density.
- There are four feeders shared with Powercor:
  - SA2 is rural short based on max demand/length in the JEN network area
  - SA12 is urban based on max demand/length in the JEN network area
  - SA6 and SA10 are both urban based on the classification of feeders in the surrounding area, as the demand or length in the JEN area is too small to correctly classify these feeders.

A copy of the report is retained so the system configuration can be compared in subsequent years.

Detailed attention is given to feeders which are close to the boundary conditions.

2.2.3 Customer numbers

Customer numbers are held in the Network Model which is updated daily from three information sources: GIS, CIS+ and SAP. There are only 83 high voltage customers, and they are managed and reported by the Stakeholder Relations group. The definition of a customer used by JEN is consistent with the STPIS definition, being defined as a premise having an assigned National Metering Identifier (NMI).

The customer numbers used for the calculation of STPIS metrics are updated at the start of each month and used for the purpose of daily and monthly internal reporting for that month. Consistent with the RIN definitions, the total customer number used for reporting annual reliability measures is the simple average of the customer numbers at the beginning and end of the reporting period.

Non metered supplies which are included in the Network Model are included in the count of the number of customers interrupted by an outage, but street lighting is not included.

Low voltage customers with a smart meter installed as part of the Advanced Metering Infrastructure (AMI) project are captured in SAP and are reported by running a query through COGNOS. All other low voltage customers are captured in the CIS+ system and are reported by extracting the data from CIS+ into an Excel spread sheet.

The Urban/Rural split utilised for RIN reporting is based on the number of customers in the Network Feeder Model. The proportional split of customers is applied to the numbers extracted from the billing system.

The customer numbers from CIS+, AMI and Stakeholder Relations are manually entered into the reporting spread sheet.

The process is captured in the procedure *JEN AER Customer Numbers Procedure JEN PR 0017*. This procedure was applied for the 2013 RIN data.

2.2.4 Unplanned outages

Two systems capture unplanned outage information. These systems cover telemetered and non-telemetered devices.

All telemetered devices (which include substation circuit breakers and remote controllable switches) are connected to OMS via SCADA and the opening and closing of the devices are recorded automatically with a date and time stamp. The number of customers affected is calculated by OMS based on the customers attached downstream from the opened switch as described in the network model. The start time of an outage associated with a telemetered device is taken as the timestamp associated with the opening of that device.

For non-telemetered devices, the start time of an outage is recorded as the time of the first customer call reporting an interruption to supply.

The end time of the outage is taken as the time of closing the HV or LV switching device that restores supply, as reported by the field crew undertaking the switching activity. This includes staged restorations where the actual number of customers to which supply is restored is recorded at each stage.

Network operators record restoration times on the OIW form immediately when receiving calls from field crews. There can be a time delay before the Network Controllers are able to update the network model with the actual status of the switches. During the end of month validation process, the switching time that is automatically recorded in OMS is checked against the OIW logs and updated if required.

Single phase losses are given the following treatment:

- HV single phase loss causes outage to 67% of load (phase to phase connections)
- LV single phase loss causes outage to 33% of load (phase to neutral connections)
- Interruptions to a single premise are included in the calculation of SAIDI and SAIFI
- Temporary changes to system normal configurations are taken into account when determining the number of customers interrupted through updating the Network Model.

At the end of each month, the data in OMS is exported to CMOS where it is subject to a verification and data cleansing process. Minor issues are only corrected in the CMOS database but major issues are resolved by the network controller in the OMS

- outages are checked to ensure staged restorations are counted as one fault, rather than multiple outages
- feeder ACR operations are checked against the OMS 59 report, OIW and network controller logs
- all outages with durations less than 30 minutes or greater than 600 minutes (potential outliers) are checked to ensure they are correct and not due to manual transcription or other errors
- due to the delay between receiving a switching confirmation and updating the network model, actual switching times are verified against OIW and the controllers log book
- OMS has a time discrimination limitation in recognising when two switches operate close together, i.e. an ACR and its upstream CB. This is adjusted once data is in CMOS.

The number of customers interrupted is identified by OMS through the Network Model. This includes temporary load transfers and disconnections.

The verification process is captured in the procedure *JEN AER Network Reliability Reporting Procedure, JEN PR 0502*. This procedure was applied for the 2013 RIN data.

2.2.5 Planned outages

Planned outages are requested via the Works Scheduling System WSS. The control centre planner drafts a switching instruction. On the day of the planned interruption, the controller directs the field crew who undertake the switching activity. The times of the interruption are recorded in the control room. The controller then records the switching times in OMS.

2.2.6 Cause codes for outage data

When an event occurs on the network, OMS requires a cause code to be entered. The details of the event are entered into OMS by the Network Controller as the event is being rectified.

During the 2013 audit period, JEN used cause codes that had been developed internally to provide sufficient information for reliability strategy planning. However, the AER has specified that different cause codes are to be reported as part of the RIN.

JEN undertook a review process:

- to confirm cause codes that were reported
- assess the causes for events which did not have a cause code and allocate an appropriate code
- map the internal cause codes to the AER cause codes.

Cause codes were included in the monthly data verification and cleansing processes and were verified again at the end of year when assembling the RIN data.

The cause code capture, mapping and verification process is captured in the procedure *JEN AER Network Reliability Reporting Procedure, JEN PR 0502*. This procedure was applied for the 2013 RIN data.

2.2.7 Extracting data for calculating reliability measures

The COGNOS application extracts data from the OMS database according to predefined filters. The extracted data is imported to the CMOS Access database and a report is run monthly for internal reporting and annually for RIN reporting.

Prior to running the annual report, a data cleansing process is undertaken aimed at improving data accuracy. The data is verified and cleansed to correct anomalies or known errors, such as time stamps for manual switch changes where a more accurate time is stored in another location, such as the OIW.

A change log is run monthly to capture all changes to the CMOS data made as part of the cleansing and verifying process

To define the number of customers in each feeder category, the proportion of customers allocated to Rural Short and Urban feeder types in the Network Model is applied to the more accurate total customer numbers extracted from the billing information systems.

The process used for data extraction from OMS and verification of the extracted data in Excel and again in an Access database are described in the procedure *JEN AER Network Reliability Reporting Procedure, JEN PR 0502*. This procedure was applied for the 2013 RIN data. This procedure also describes the process used to fill in Templates 1a and 1c.

2.2.8 Definition of reliability measures

JEN reports on the three reliability measures using the AER definitions as defined below:

System Average Interruption Duration Index (SAIDI):

$$\frac{\sum_{1\ Jan\ 2013}^{31\ Dec\ 2013} Actual\ affected\ customer\ numbers\ \times Acutal\ interuption\ duration}{Simple\ average\ of\ annual\ customer\ numbers}$$

System Average Interruption Frequency Index (SAIFI):

$$\frac{\sum_{1\ Jan\ 2013}^{31\ Dec\ 2013} Actual\ number\ of\ customers\ interrupted}{Simple\ average\ of\ annual\ customer\ numbers}$$

Momentary Average Interruption Frequency Index (MAIFIe):

$$\frac{\sum_{1\ Jan\ 2013}^{31\ Dec\ 2013} Actual\ number\ of\ customers\ interruptions\ \leq 1minute}{Simple\ average\ of\ annual\ customer\ numbers}$$

The calculations of SAIDI and SAIFI exclude momentary outages.

Customer numbers used for the numerator of the calculations are taken from OMS and are the customer numbers on the affected feeder as defined in the Network Model. The customer numbers used in the denominator are those from the billing information systems as described in the Definition of Customers section above.

All data used to calculate reliability measures is obtained from the verified and cleansed CMOS data.

All reclosers on the JEN network are telemetered so all data for the calculation of MAIFI is obtained through OMS. Only 5 reclosers on the JEN network have multi reclose functions enabled, all others only have one attempt to reclose before they lock out (remain open).

2.2.9 MED threshold

The MED boundary is calculated based on the daily SAIDI contribution (i.e. excluding momentary outages) for the previous 5 year period as defined by the AER and the 2.5β Methodology. The daily performance data is entered into the RIN Template 1c and the 5 year daily SAIDI history, excluding the Section3.3(a) exclusions, is entered into the RIN Template 1d. A formula automatically calculates and identifies the MEDs.

2.2.10 Exclusions

Events may be excluded from the reliability measure calculations if the SAIDI on that day exceeds the Major Event Day threshold or if they meet the definitions for Exclusion categories as defined by the AER in Section 3.3(a) of the STPIS.

Events that meet the criterion for exclusion from the calculation of the reliability parameters are identified by the Senior Asset Performance Engineer and are confirmed with the TNSP (SP AusNet) and are then notated in CMOS.

The process used for gathering data required for exclusions is described in the procedure *JEN AER Network Reliability Reporting Procedure, JEN PR 0502* for Template 1e, and *JEN AER RIN Non-Financial Information Reporting Procedure, JEN PR 0503* for Template 1d. This procedure was applied for the 2013 RIN data.

2.3 Objective evidence

The following evidence supports the findings.

2.3.1 Documents reviewed

Table 2.1 Documents reviewed for STPIS – reliability parameters

Document title	Document reference
JEN AER Customer Numbers Procedure	JEN PR 0017
AER Network Reliability Reporting Procedure	JEN PR 0502

Document title	Document reference
JEN AER RIN Non Financial Information Reporting Procedure	JEN PR 0503
JEN domestic and non domestic customer numbers from 2001 to 2014.xls	
JEN 1 October 2013 outage data.xlsx	
YVE_CENT B.PDF	
Sep 13.xlsx	
cognos.pdf	
30_Sep2013.docx	
YTS06 feeder fault 20130930 SCADA log.txt	
cognos COO11 25_9_2013.pdf	
EP_EAST CP.PDF	
Dec 13.xlsx	
cognos - ep36 28_12_2013.pdf	
28_12_13.docx	
EP36_20131228.txt	
Jan to Dec 2013_Final.xlsx	
OMS 57A	
JEN RIN - RY13 - Appendix C - Non-Financial CR 190214 v3.xlsx	

2.3.2 General

- There has been minimal change in the systems and processes used in the 2013 audit period compared to those used in the 2012 audit period. The significant changes were:
  - The process of calculating the STPIS reliability parameters is predominantly undertaken by one staff member, however, Jemena confirmed that a second staff member has been trained to undertake the task and has been involved in reviewing the task. This is a significant improvement from the 2012 audit where the process was largely reliant on only one staff member and the 2011 audit where the entire process was reliant on only one staff member.
- The auditor tracked the outage events of 1 October 2013 through the outage management systems from OMS and into the CMOS database[1]. The auditor found the data transferred between the systems to be consistent and follow the processes described. The auditor also confirmed that the events of this day exceed the MED threshold as reported by JEN.
- The auditor tracked an outage event through the outage management systems from SCADA records, through the event rectification process, to OMS[2], into the CMOS database[3] and into the

[1] JEN 1 October 2013 outage data.xlsx

[2] cognos.pdf

[3] Sep 13.xlsx

Daily Situation Report[4]. The auditor found the data transferred between the systems to be consistent, with no material inconsistencies and follow the processes described. The outage event sampled was Trouble Order number 79638 and was related to the outage of the feeder YTS06.

- The auditor tracked an outage event through the outage management systems OMS[5] and into the CMOS database[6]. The auditor found the data transferred between the systems to be consistent, with no material inconsistencies and follow the processes described. The outage event sampled was Trouble Order number 79066 and was related to the outage of the feeder COO11.
- The auditor tracked an outage event through the outage management systems from SCADA records[7], through the event rectification process, to OMS[8], into the CMOS database[9] and into the Daily Situation Report[10]. The auditor found the data transferred between the systems to be consistent, with no material inconsistencies and follow the processes described. The outage event sampled was Trouble Order number 86306 and was related to the outage of the feeder EP 36.
- The auditor tracked an outage event through the outage management systems OMS[11] and into the RIN template. The auditor found the data transferred between the systems to be consistent, with no material inconsistencies and follow the processes described. The outage event sampled was related to the outage of the feeder CN 04.

2.3.3 Definition of feeder categories

- The processes, systems and definitions used to identify feeders were well understood by the staff members who consistently applied the same methodology.
- The data requires manual extraction and manipulation once it is in Excel spread sheet format. This introduces the possibility that human/transcription errors could be made. The auditor also noted that subjective decision making was required when allocating feeder types to some feeders, specifically the shared feeders from zone substation SA.
- A data verification process is undertaken, with a particular focus on the shared feeders (Powercor) and feeders close to the boundary of the definitions.

2.3.4 Customer numbers

Table 2.2 shows the information reported by JEN in the RIN.

- Formal procedures[12] have been written for all aspects of gathering, manipulating and verifying data relevant to the customer numbers parameters. These were provided to the auditor and assessed to be appropriate and fit for purpose. The auditor notes that these procedures were the same procedures provided during the 2012 audit, written retrospectively for the 2012 audit period; the procedures were current for the 2013 audit period.

[4] 30_Sep2013.docx

[5] cognos COO11 25_9_2013.pdf

[6] Sep 13.xlsx

[7] EP36_20131228.txt

[8] cognos - ep36 28_12_2013.pdf

[9] Dec 13.xlsx

[10] 28_12_13.docx

[11] OMS 57A

[12] JEN AER Customer Numbers Procedure JEN PR 0017

Table 2.2 Average distribution customer numbers

	CBD	Urban	Rural short	Rural long	Whole network
Customer numbers at the start of period		306,645	12,721		319,366
Customer numbers at the end of period		305,483	12,811		318,294
Average distribution customer numbers	0	306,064	12,766	0	318,830

Source: RIN Template 1a. STPIS Reliability, Table 5: Average distribution customer numbers

- The processes and systems used to identify customers were well understood by the staff member who consistently applied the same methodology.
- The auditor observed that JEN used the correct definitions for customers when calculating STPIS reliability measures.
- The data requires manual extraction and manipulation once it is in Excel spread sheet format. This introduces the possibility that human/transcription errors could be made.
- Verification involves a sanity check of the number of meters by the person extracting the data, with no verification by another party.
- The STPIS states that non-metered supplies can either be included or excluded when calculating SAIDI and SAIFI. In the reported RIN figures, when determining the number of customers affected by an outage, non-metered supplies that are included in the Network Model were included. There is a difference of approximately 2,518 customers (~0.8%) between the customer numbers derived from the billing system when compared to the Network Model. Most of these are thought to be due to non-metered supplies. This is due to:
  - The software in the Network Model not recognising a customer connection point that has been imported from GIS. These are rectified when found, but there is no formal process.
  - Disconnections are removed from the count of customers if enough time has elapsed to allow the updating of the network model from GIS.
  - Not all unmetered supplies are included in the network model.
- An estimation of the number of customers was identified in October 2013. This was estimated as the number of customers in September 2013 and is likely to have resulted in over-reporting in October 2013. However, the error only affected the monthly internal reporting. The customer numbers for December 2012 and December 2013 were unaffected.

2.3.5 Identifying unplanned outages and calculating reliability measures

- The process of calculating, verifying and correcting outages and times is undertaken as detailed in JEN PR 0502.
- The systems and processes are well understood by the staff members who complete these tasks, and correct definitions were applied to calculate the reliability measures.
- During 2013 JEN used cause codes that were specified internally. JEN undertook a verification process monthly and at the end of the year to map them to the cause codes specified by the AER. The auditor considers that the process undertaken was satisfactory.
- Temporarily disconnected premises and temporary load transfers are included in the count of customers interrupted until the abnormal configuration has been updated into GIS. This may impact the accuracy of reliability figures.

- The difference of 2,518 customers between the network model and the customer information systems, as described in section 2.3.4, results in an understatement of approximately 0.8% of the reliability measures.
- Formal procedures exist governing the recording of outages and times from non-telemetered assets, for staff members in the control room. In the 2011 RIN audit, the auditor sampled some outages from CMOS and traced them back to the control room daily log. JEN confirms that no change has been made to these recording practices. From this sample, the auditor is satisfied that the procedures are followed correctly.
- There is a comprehensive data validation and cleansing process undertaken each month to ensure accurate times have been recorded for non-telemetered devices. Data validation sources include source data from OIW, Control Desk Daily Logs and the Daily Situation Reports. The auditor has viewed the process documented in the procedure, viewed evidence that the verification process had been undertaken during the 2013 period and noted that the changes are tracked.

2.3.5.1 Unplanned SAIDI

Table 2.3 shows the information reported by JEN in the RIN.

Table 2.3 SAIDI (System Average Interruption Duration Index)

Unplanned SAIDI [1] (refer note)	Network categorisation				
	CBD	Urban	Rural short	Rural long	Whole network
Total		64.67	114.42		66.66
Total (after removing excluded events and MED)		57.51	114.39		59.79

Source: RIN Template 1a. STPIS Reliability, Table 1: SAIDI (System Average Interruption Duration Index)

- The auditor was able to repeat the above results with the data supplied.

2.3.5.2 Unplanned SAIFI

Table 2.4 shows the information reported by JEN in the RIN.

Table 2.4 SAIFI (System Average Interruption Frequency Index)

Unplanned SAIFI [2] (refer note)	Network categorisation				
	CBD	Urban	Rural short	Rural long	Whole network
Total		1.12	2.42		1.18
Total (after removing excluded events and MED)		1.06	2.42		1.11

Source: RIN Template 1a. STPIS Reliability, Table 2: SAIFI (System Average Interruption Frequency Index)

- The auditor was able to repeat the above results with the data supplied.

2.3.5.3 Unplanned MAIFI

Table 2.5 shows the information reported by JEN in the RIN.

Table 2.5 MAIFI (Momentary Average Interruption Frequency Index)

Unplanned MAIFI[3] (refer note)	Network categorisation				
	CBD	Urban	Rural short	Rural long	Whole network
Total		0.71	2.39		0.78
Total (after removing excluded events and MED)		0.70	2.39		0.77

Source: RIN Template 1a. STPIS Reliability, Table 3: MAIFI (Momentary Average Interruption Frequency Index)

- The auditor was able to repeat the above results with the data supplied.

2.3.5.4 Planned Outages

Table 2.6 shows the information reported by JEN in the RIN.

Table 2.6 Planned outages

Planned outages	Network categorisation				
	CBD	Urban	Rural short	Rural long	Whole network
SAIDI		21.79	66.87		23.59
SAIFI		0.08	0.27		0.09

Source: RIN Template 1a. STPIS Reliability, Table 4: Planned outages

- The auditor was able to repeat the above results with the data supplied.
- For details of GSL payments relating to planned outages, refer to section 3.2.7.

2.3.5.5 MED threshold

Table 2.7 shows the information reported by JEN in the RIN.

Table 2.7 MED Threshold

MED Threshold (Timed) year ending 31 December	5.05

Source: RIN Template 1d. STPIS MED Threshold, Table 1 MED Threshold

- The Major Event Day (MED) threshold was correctly defined and calculated. There was 1 MED during the 2013 period.
- The "Network SAIDI All events" values for 2008-2011 used to calculate the 2013 MED threshold were consistent with those used to calculate the 2012 MED threshold.

2.3.5.6 Exclusions

- Exclusions were correctly defined. There were no exclusions (Section 3.3(a)) identified during the 2013 period. The auditor notes that the process relating to identification of exclusions and their inclusion in the calculation of reliability measures is included in JEN PR 0502.

2.4 Audit Findings

For the 2013 audit period, JEN's reported reliability parameter data have been found to comply with the definitions contained in the STPIS and have been assigned the audit grades outlined in Table 2.8.

These audit findings are supported by the objective evidence in Section 2.3.

Table 2.8 JEN compliance grade for STPIS reliability parameters

Item	Criterion 1 Reliability	Criterion 2 Documentation	Criterion 3 Understanding	Criterion 4 Definitions	Criterion 5 Error Correction	Criterion 6 Repeatability	Result	Comment
Customer numbers	●	●	●	●	●	●	Compliant	Difference between Network model and billing system
Unplanned SAIDI	●	●	●	●	●	●	Compliant	
Unplanned SAIFI	●	●	●	●	●	●	Compliant	
Unplanned MAIFI	●	●	●	●	●	●	Compliant	
Planned Outages								
• SAIDI	●	●	●	●	●	●	Compliant	
• SAIFI	●	●	●	●	●	●	Compliant	
MED Threshold	●	●	●	●	●	●	Compliant	
Exclusions	●	●	●	●	●	●	Compliant	

Source: Parsons Brinckerhoff analysis

2.5 List of personnel met during the audit

Table 2.9 Personnel interviewed

Staff member	Position title	Area
David Speairs	Network Performance Manager	Network Performance
Catherine Lee	Senior Asset Performance Engineer	Network Performance
Utku Ay	Asset Performance Engineer	Network Performance
Pat Brennan	Network Coordination Manager	Network Control Centre

Source: JEN



3. STPIS – customer service parameters

This section outlines the auditor's assessment of the reliability and robustness of systems, processes and procedures used by JEN to report on Customer Service components of the RIN (Template 1b of the RIN).

3.1 Summary of audit requirement

The auditor is to assess whether the processes, procedures and systems were correctly used and applied by the relevant staff, and that the definitions and data exclusions were in accordance with the STPIS. Further, the auditor must assess whether the systems used are able to competently identify and correct errors, and if the RIN templates being audited show any corrections.

The auditable information includes:

- telephone answering data:
  - total number of calls received and
  - number of calls answered within 30 seconds (with exclusions)
- new connections data:
  - number of new connections
  - number of new connections not provided on or before the agreed date.
- street light repair data:
  - number of streetlights
  - number of faults
  - number of streetlights repaired within the relevant
- GSL reporting (relating to the planned interruptions parameter only):
  - Number of appointments arranged and attended on time for AMI and non AMI meters
  - number of connections not made within the agreed date

- reliability of supply payments (excessive duration of frequency)
- number of street lights not repaired within required timeframe
- number of occasions a notice of planned interruption to supply was not given on or before the threshold.

3.2 Overview of data systems

3.2.1 Telephone answering

Template 1c requires the daily number of calls received to be provided.

JEN has outsourced its telephone answering service to an external service provider, AEGIS. AEGIS performs four main functions:

- Identifies incoming calls as JEN customers
- Provides an interactive system to play messages and route calls to operators
- Records call data and provide reports to JEN
- Provides information to JEN regarding faults reported by customers.

AEGIS's system comprises three main components as shown in Figure 3-1 below. AVAYA is the system which accepts the calls. It has a Dialled Number Identification Service (DNIS) which recognises the callers as JEN customers based on the number dialled, and can use the DNIS to provide a location based on the incoming caller ID, and logs the call times. AVAYA has its own database.

AVP provides the user self-serve selection facilities which plays messages relevant to the area of the post code entered by the customer and routes the customers to the relevant operators. AVP has its own database and tracks the phone calls through each step, by assigning a Unique Caller Identification Number (UCID) and a time stamp at each step. The calls can then be individually traced if required.

The calls are then transferred to another system where they are queued for an operator.

The reporting of calls and histories is done through a predefined data base query script with the definitions defined as agreed with JEN in the service level contract. The key definitions are:

- if caller hangs up after the start of a message and ≤ 30 second after the message has finished then it is classed as 'Self-Serve'
- if a caller hangs up prior to being placed in the queue for an operator, excluding the time window of 'Self Serve', the call is classed as abandoned ≤30 seconds
- once in the queue for an operator, the time starts to count from 0 seconds.

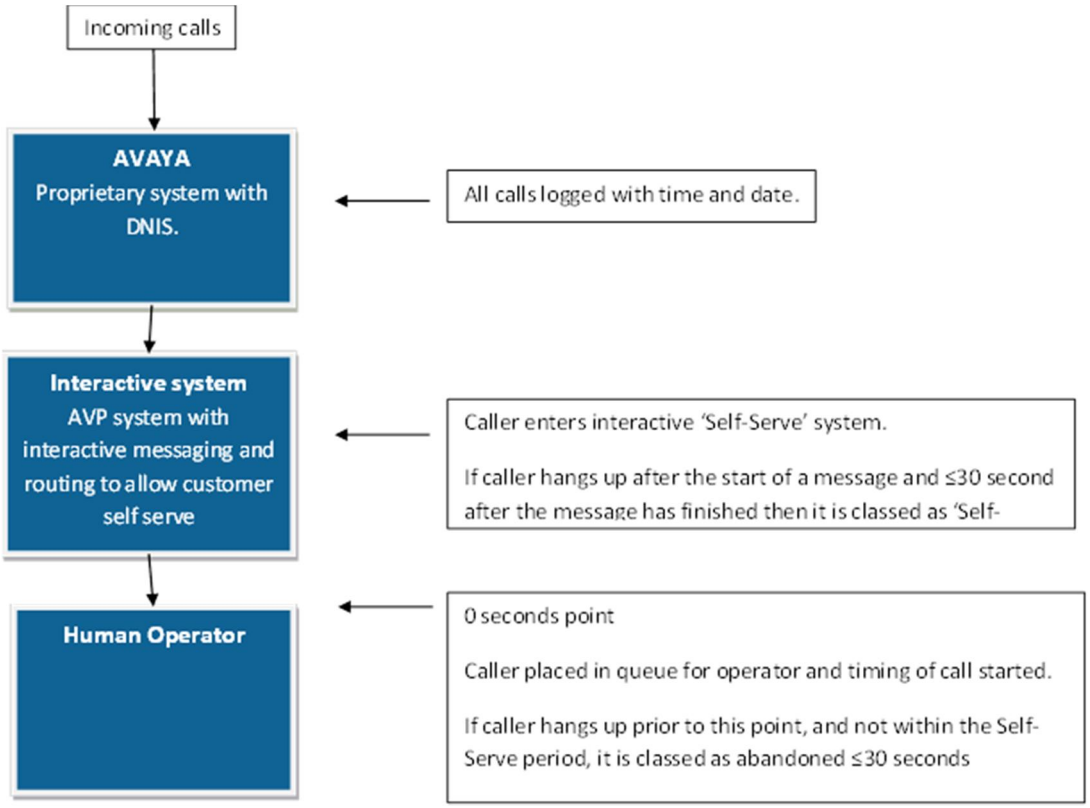


Figure 3-1 Flow diagram of telephone answering system

3.2.2 New connections

New customer connection data is stored in two databases:

- CIS+ – is a system which stores customer data but this data has been transitioning to SAP since 2010 whenever a customer meter is changed into a smart meter as part of the AMI project. Note some customers (predominantly large usage customers) are not within the scope of the AMI project and will remain in the CIS+ system in the foreseeable future.
- SAP – the new system replacing CIS+. Data for customers with smart meters is entered into SAP.

The process to capture the new connections data is initiated by the retailer by sending an electronic service order followed by hard copy paper work to JEN. The paperwork explicitly states the job is a New Connection and includes any permits required. All new connections are processed through SAP. JEN verifies the electronic and hard copy forms against each other and checks in SAP and CIS+ to ensure the connection does not already exist. Once entered into SAP, the new connection order is tracked through SAP and will be shown as outstanding/incomplete service order.

Both the electronic and hard copy must be received for the service order to be progressed in the JEN systems. Once the service order is accepted the 10 day period allowed by the GSLs starts to accrue.

The service order is entered into SAP by JEN and manually issued to field crews who must acknowledge receipt. The target date is set at 2 days as a standard, but can be negotiated with the contractor if required.

The actual completion date is recorded by SAP when the service order is closed.

The number of new connections is reported monthly. The report for new connections is run on the 3rd day of each month. The reporting process is semi-automated; SAP completed service orders are export to a spread sheet and manually filtered to isolate new connection numbers

Complaints regarding new connections are received and registered via the call centre.

3.2.3 Disconnections (Abolishments)

Disconnections can include either electrical disconnection where a switch is opened to stop electricity supply to a customer (de-energisation), or it can include the physical removal of the electrical conductor and associate equipment (abolishment).

JEN has understood the disconnections reporting field in the RIN to be the number of abolishments.

Customer disconnection data is stored in two databases:

- CIS+ – is a system which stores customer data but has been transitioning to SAP since 2010.
- SAP – the new system replacing CIS+. Data for customers with smart meters is entered into SAP.

The process to capture disconnections (abolishments) is initiated by the retailer by sending an electronic service order followed by hard copy paper work to JEN. The paperwork explicitly states the job is a disconnection (abolishment), contains the NMI and permits required for working on the network. JEN verifies the electronic and hard copy forms against each other and checks in SAP and CIS+ to ensure the connection exist. Once entered into SAP, the disconnection (abolishment) order is tracked through CIS+/SAP and will be shown as outstanding/incomplete service order.

Once the meter number is validated and all forms are received, JEN contacts the contractor and organises the target disconnection (abolishment) date, normally set for 2 days unless otherwise negotiated.

If an appointment is scheduled, disconnection (abolishment) is scheduled in Microsoft Outlook, which is used as a reconciliation tool to assess the number of disconnections (abolishments).

3.2.4 Street light repair

Streetlight locations and numbers are recorded in GIS and imported into SAP. A BRIO query is run to extract the streetlight data from SAP into an excel spread sheet which is used to calculate the required volume and fault measures.

Streetlight data is updated during bulk light replacements. The public lighting contractor uses ‘tough books’ to check data against GIS when in the field and update if required

Additional data reliability checks are required by JEN as an annual sample audit under the Metrology process. Further, councils have access to public lighting data through a web application and can therefore complete their own audits and report faults.

Streetlight faults reported by the public are recorded and addressed by the following process:

- Customer contacts the call centre regarding streetlight fault.
- Call centre operator opens GIS web application, locates the public light and starts the editor to create a faulty streetlight notification. The notification includes the location and repair code, and is then transferred electronically to create a SAP notification. There are two types of repair codes:
  - G = GSL applicable, 2 days to repair, outside or adjacent to the complainants residence

- P = no GSL payment applicable, 7 days to repair, all other cases.

- The public lighting contractor monitors the SAP public lighting output and dispatches a field crew to correct problem.
- The contractor updates SAP with close out date/time to remove the notification.

The street light report is run at the start of each month for the previous month and at the start of the year for the previous year. The yearly report is compared with the aggregate of the monthly reports for the purposes of RIN reporting.

3.2.5 Appointments

Appointments are made as required, typically where there are access issues for meter reads, alterations on-site or a new connection. Appointments for AMI are completed using a separate system.

The JEN Service Desk schedules the appointments with the customer and records the date in Outlook and the customer's account in either CIS+ or SAP.

The contractor must email JEN the job details after attending the appointment, including arrival time. The arrival time is stored in the customer's account details and is extracted by running queries through CIS+ and SAP. The outputs from the two systems are added manually in a spread sheet.

AMI appointments are logged through the external vendor Service Stream. Service Stream provides notification to the customer with a letter notifying of their requirement to access the property 10 days prior to the AMI installation. The customer can contact Service Stream to negotiate a different date.

The work order is logged in the Service Stream system and dispatched to work crews electronically on their PDA. The arrival of the work crews is registered on the PDA and the report relating to attendance of appointments is sent to JEN weekly. During the audit period, the reporting method was transferred from emailing Excel spread sheets to a B2B interface.

3.2.6 GSLs for Unplanned interruptions

The process of capturing unplanned outage data is described in Section Unplanned outages2.2.4. The GSLs for unplanned data require a different analysis to assess the total duration and number of interruptions during the reporting period.

Analysis for GSL purposes was completed once at the start of 2014 using all the 2013 data. Queries were run to extract data from OMS and import it into an Excel spread sheet.

The outages can also be viewed using the application called 'Outage Web' which is used for verification and reconciliation purposes.

3.2.7 Notification of Planned outages

Network outages are identified as either planned or unplanned. A planned outage includes all prearranged outages, including those prearranged outages where customers were not provided with the required notification. All other outages are classified as unplanned.

The LV operations group located in Broadmeadows is responsible for notifying customers who will be affected by a planned outage. The number reported in the RIN is the number of customers who did not receive the specified period of notice prior to commencement of the outage.

The following process is undertaken to identify and notify customers that will be affected:

- the field crew inspects the site
- creates outage cards
- assesses GIS for the customers connected to the affected plant
- the LV operations group then hand delivers notifications to residents who are expected to be affected by the planned outage.

Customers who are not notified can either communicate directly to the field crew who immediately pass the information on to an operator at the control room desk, or call the call centre where it is logged and sent to the dispatcher in the control room.

3.3 Objective Evidence

The following evidence supports the findings.

3.3.1 Documents reviewed

Documents reviewed for STPIS – customer service parameters

Document title	Document reference
JEN AER RIN Non Financial Information Reporting Procedure	JEN PR 0503
AER FAULTS ANNUAL GOS & ESC GSL REPORTING WORK INSTRUCTION	JEM-W-2960
B2B New Connection Service Order Procedure	JEM-P-4900-03
NC AMI Service Order Creation	JEM-P-4900-60a
Service Order Abolishment Process	JEM-P-4900-08
GSL Payment Procedure New Connections	JEM-P-4900-34
JEN Monthly Reporting	JEM-P-4900-98
Module 84e MRO Missed Appointments	JEM – P5-S2-563
JEN AER Public Lighting Reporting Procedure	JEN PR 0500
JEN Reliability of Supply GSL Reporting Procedure	JEN PR 0113
Planned Interruption Notification Policy	IME 1057
Planned Interruption Notification Procedure	
CoC Planned Interruption Customer Notification	JEN-PR-9667
2013 Faults & GOS JEN only_cl20130117.xls	
2013 RIN - JEN GSL (final)_cl20140117.xls	
NC GSL Audit.xlsx	
FW RIN A 2013 Audit - New Connection GSL's.msg	
Public lighting data checks 3.docx	
AER Planned interruptions reporting 2011_12_13_JEN.xlsx.	
JEN RIN - RY13 - Appendix C - Non-Financial CR 190214 v3.xlsx	

3.3.2 Telephone answering

The information reported by JEN in the RIN is shown in Table 3.1

Table 3.1 Telephone answering

Telephone answering	Total	Total after removing MED
Number of calls received	76,248	74,599
Number of calls answered within 30 seconds	47,151	46,960
Percentage of calls answered within 30 seconds	61.84%	62.95%

Source: RIN Template 1b. STPIS Customer Service, Table 1: Telephone answering

- Two procedures were supplied during this audit that were sighted during the previous audit:
  - The procedure JEN PR 0503 provides the definitions of the calculations undertaken for the reported data.
  - The procedure JEM-W-2960.3 covers the process to extract, manipulate and distribute the telephone call system data.
- The auditor confirmed that no change had been made to the process of extracting data from the telephone systems since the last audit. Hence, the auditor relied on the 2012 RIN audit that found the data definitions of extracted data were in accordance with the RIN requirements.
- The auditor followed the data through from daily reporting, to monthly values and the yearly reported statistics. The auditor found the data transferred between the systems to be consistent, with no material inconsistencies and follow the processes described. The data sampled was related to the telephone answering of January 2013 and Dec 2013.
- The processes and systems used to create the reported data were well understood by staff who consistently applied the same methodology.

3.3.3 New connections

The information reported by JEN in the RIN is shown in Table 3.2

Table 3.2 New connections

New connections	Total
Number of new connections	7,409
Number of new connections not provided on or before the agreed date	5
Percentage of new connections not provided on or before the agreed date	0.07%

Source: RIN Template 1b. STPIS Customer Service, Table 2: New connections

- Three procedures regarding new connections were provided to the auditor. The procedure JEM-P-4900-03 describes the procedure for creating new connections related to non-AMI meters in CIS+. The procedure JEM-P-4900-60a covered the creation of new connections related to the AMI meters in SAP. The procedure JEM-P-4900-98 describes the procedure for monthly reporting on new connections.
- The processes and systems used to identify customers were well understood by staff who consistently applied the same methodology.
- The process uses minimal automation and is heavily paper based increasing the possibility for human errors to be introduced.
- The monthly report cannot be re-run to audit data from that month. This limits the ability of staff to assess data for errors retrospectively.

- No evidence was provided to the auditor to prove the system captures retrospective changes to completion dates.
- Monthly reports are aggregated to provide the yearly reporting data. No validation is undertaken from the original information source.
- The auditor reviewed SAP data for all new connections not made within 10 days. In 2013, 3 new connections in SAP were paid GSLs for missed connections. A further 448 new connections exceeded the 10 day threshold, with acceptable reasons for connections outside of the 10 working days.
- The auditor reviewed an extract of CIS+ data for all new connections not made within 10 days. In 2013, 2 new connections in CIS+ were paid GSLs for missed connections

3.3.4 Disconnections (Abolishments)

- The auditor confirmed that the systems and processes used for recording and reporting disconnections have not changed since the previous audit.
- The procedure JEM-P-4900-08 covers creating an abolishment service order to initiate a service abolishment.
- The processes and systems used to identify customers were well understood by staff who consistently applied the same methodology.
- Disconnections were correctly identified from the data extracted from the information systems.
- The process uses minimal automation and is heavily paper based increasing the possibility for human errors to be introduced. The auditor does not consider this a robust process.

3.3.5 Street light repair

The information reported by JEN in the RIN is shown in Table 3.3

Table 3.3 Streetlight repair

Streetlight repair	Total
Total number of streetlights	69,058
Total number of streetlight faults	3,054
Total number of streetlight faults reported by person who is the occupier of an immediately neighbouring residence or is the proprietor of an immediately neighbouring business	952
Faulty streetlights not repaired within 2 business days of fault report or agreed date	2
Percentage of faulty streetlights not repaired within 2 business days of fault report or agreed date	0.07%

Source: RIN Template 1b. STPIS Customer Service, Table 3: Streetlight repair

- The procedure, JEN PR 0500, relating to the reporting of all street light data relevant to Tables 3 and 4 in Template 1b of the RIN has been provided and the auditor considers it adequate. This procedure has been updated since the 2012 audit period to include an additional section on year end data checks. This is an improvement on the 2012 audit year.
- The processes and systems used to identify customers were well understood by staff who consistently applied the same methodology.
- The data needs to be manually inserted into the street lights spread sheet, but minimal analysis and manipulation is required.
- The definitions applied are consistent with the STPIS as required by the RIN.
- The auditor followed to notifications through from the yearly reported data, through the GIS system and into a SAP notification. The auditor found the data transferred between the systems to be

consistent, with no material inconsistencies and follow the processes described. The data sampled was related to notifications 10198970 and 10206753.

3.3.6 Appointments

- The process of making and tracking appointments and applying GSLs was confirmed to not have changed since the previous audit.
- Two formal procedures apply to the recording of appointments and the application of GSLs for missed appointments
  - Module 84e MRO Missed Appointments JEM-P5-S2-563 which focuses on AMI meters(this procedure has been updated but has been confirmed to contain no material changes since the 2012 audit)
  - GSL Payments Procedure New Connections JEM-P-4900-34 which focusses on appointments for new connections.
- The processes and systems used to identify customers were well understood by staff who consistently applied the same methodology.
- The correct definitions were used relating to late arrival to appointments.
- The process currently in place for non-AMI appointments relies heavily on paper work and manual entry of information. It also relies on the honesty and accuracy of the contractors reporting their arrival time. The auditor does not consider this a robust process.
- Verification of arrival times is only assessed through customer complaints and a monthly reconciliation undertaken by the Service Desk to compare the appointments in Outlook to the appointments that have been attended by the service providers.
- Select Solutions also undertakes periodic audits of appointments.

3.3.7 Unplanned interruptions

- The procedure JEN PR 0113 was provided. It was confirmed that there were no material changes to this procedure since the 2012 audit.
- The processes and systems used to extract data and identify customers eligible for GSL payments due to reliability were well understood by staff and they consistently applied the same methodology.
- The times of the outages and any inconsistencies in CMOS are verified against ‘Outage Web’. The auditor observed the process and is satisfied it is robust.
- Correct definitions for the durations, interruptions and payments were shown to be applied in the informal procedure.
- Although the overall process used is considered robust, the auditor notes that it could be improved by leaving a better audit trail of any changes made.

3.3.8 Planned outages

- The procedures Planned Interruption Notification Policy IME 1057 was confirmed to have no material changes since the 2012 audit.
- The new procedure Planned Interruption Notification Procedure, which was current during the 2013 audit period, was provided to the auditor. The auditor reviewed the procedure and found that it did not outline the obligation to provide notice for planned outages. The auditor notes that the policy and procedure principles have been incorporated into a new document, CoC Planned Interruption

Customer Notification JEN-PR-9667, which will be utilised for the 2014 audit period. The auditor reviewed this document and assessed it to be appropriate and fit for purpose.

- The processes and systems used to notify customers of planned outages are well understood by staff and are consistently applied.
- The procedure correctly identifies the notification period to be 4 days prior to the planned outage. The auditor noted this was identified in the Planned Interruption Notification Policy.
- The only verification available that all customers were notified is through complaints received by JEN either through the field crews or through the call centre, where it is noted as a fault. Given the robustness of the complaints recording process, the auditor is satisfied that this is a satisfactory system.
- The predominant reason for failing to notify customers of outages is if the customer is shown in GIS to be located on the wrong side of an LV open point. The auditor understands that sometimes it is necessary to relocate a customer's attachment point for load balancing/supply quality purposes. The auditor considers that, in order to improve the notification of planned outages, a stronger focus should be placed on recording these changes in GIS.
- The auditor noted that planned interruptions that were not notified are also included in the unplanned outages, but considers this duplication to be insignificant.
- The auditor sited the planned interruptions 4 days' notice not given for 2013.

3.3.9 GSLs (jurisdictional scheme)

The information reported by JEN in the RIN is shown in Table 3.4.

Table 3.4 Guaranteed service levels - jurisdictional GSL scheme

Appointments (excluding AMI)	
Customer arranged appointments Central - number	3,629
Appointments not met within 15 minutes of agreed time - number	22
Appointments - GSL payments - number	22
Appointments - GSL payments - ($)	$ 440.00
Appointments (AMI only)	
Customer arranged appointments Central - number	32,588
Appointments not met within 15 minutes of agreed time - number	1,180
Appointments - GSL payments - number	1,180
Appointments - GSL payments - ($)	$ 23,600.00
Connections	
Connections made	7,409
Connections not made on agreed date	5
Connections - GSL payments - 1-4 day delay - number	3
Connections - GSL payments - 1-4 day delay - ($)	$ 250.00
Connections - GSL payments - 5+ day delay - number	2
Connections - GSL payments - 5+ day delay - ($)	$ 500.00
Reliability of supply	
Low reliability payments - 20 hours - number	340
Low reliability payments - 20 hours - ($)	$ 34,000.00
Low reliability payments - 30 hours - number	28
Low reliability payments - 30 hours - ($)	$ 4,200.00
Low reliability payments - 60 hours - number	0
Low reliability payments - 60 hours - ($)	$ -
Low reliability payments - 10 events - number	0
Low reliability payments - 10 events - ($)	$ -

Low reliability payments - 15 events - number	0
Low reliability payments - 15 events - ($)	$ -
Low reliability payments - 30 events - number	0
Low reliability payments - 30 events - ($)	$ -
Low reliability payments - 24 momentary events - number	0
Low reliability payments - 24 momentary events - ($)	$ -
Low reliability payments - 36 momentary events - number	0
Low reliability payments - 36 momentary events - ($)	$ -
Street lights	
Street lights	69,058
Street lights "out" during period	3,054
Street lights not repaired by "fix by" date	4
Street lights not repaired in 2 business days	1,568
Street lights – number of business days to repair	3.3
Street lights - GSL payments - number	2
Street lights - GSL payments - ($)	$ 20.00
Planned interruptions	
Planned interruptions - 4 business days notice not given	61
Total GSL payments made ($)	**$ 63,010.00**

Source: RIN Template 1b. STPIS Customer Service, Table 4 Guaranteed service levels - jurisdictional GSL scheme

3.4 Audit Findings

For the 2013 audit period, JEN's reported customer service parameter data have generally been found to comply with the definitions contained in the STPIS and have been assigned the audit grades outlined in Table 3.5.

Table 3.5 JEN compliance grade for STPIS customer service parameters

Item	Criterion 1 Reliability	Criterion 2 Documentation	Criterion 3 Understanding	Criterion 4 Definitions	Criterion 5 Error Correction	Criterion 5 Repeatability	Result	Comments
Telephone answering	●	●	●	●	●	●	Compliant	
New connections	●	●	●	●	●	●	Compliant	Heavily paper based process Weak verification process
Street light repair	●	●	●	●	●	●	Compliant	
GSLs (jurisdictional scheme)								
■ Appointments (ex AMI)	●	●	●	●	●	●	Compliant	Heavily paper based process and recording of appointment arrival times not robust Weak verification process
■ Appointments (AMI only)	●	●	●	●	●	●	Compliant	Weak verification process
■ Duration	●	●	●	●	●	●	Compliant	
■ Sustained interruptions	●	●	●	●	●	●	Compliant	
■ Momentary interruptions	●	●	●	●	●	●	Compliant	
■ Street lights	●	●	●	●	●	●	Compliant	
■ Planned interruptions	●	●	●	●	●	●	Compliant	Notification step absent from notification procedure

Source: Parsons Brinckerhoff analysis

3.5 List of personnel met during the audit

Table 3.6 Personnel interviewed

Staff member	Position title	Area
David Speairs	Network Performance Manager	Network Performance
Catherine Lee	Senior Asset Performance Engineer	Network Performance
Utku Ay	Asset Performance Engineer	Network Performance
Pat Brennan	Network Coordination Manager	Network Control Centre
David Rooney	Business Service Improvement Manager	Stakeholder Relations
Steven Taig	Connection Point Compliance Manager	Connection Point Compliance
Slavica Nikolovski	New Connections Team Leader	New Connections

Source: JEN

Jemena Electricity Networks (Vic) Ltd

Response to the annual Regulatory Information Notice for the 2013 regulatory year

Appendix 1-9

JEN board resolution

Public

30 April 2014

Extract of Minutes of Meeting of the Jemena Electricity Networks (Vic) Limited (ACN 064 651 083) Board held at 11:04 am (AEST) on 16 April 2014 at the Company's offices at 321 Ferntree Gully Road, Mt Waverley, Victoria.

*I, Tina Ooi, Company Secretary of Jemena Electricity Networks (Vic) Limited (**Company**) certify:*

(i) that this is a true and correct extract of the resolutions approved by the Company's Board, at a duly convened and constituted meeting, held at the Company's offices on 16 April 2014; and

(ii) the resolutions have not been amended or revoked.

Tina Ooi
22 April 2014

Board Resolution approving – "Regulatory Accounting Statements and Non-Financial Templates for CY 2013"

The Company's Board resolved to:

"…(iii) confirm that to the best of the Board's information knowledge and belief, and subject to the information not provided as described in the KPMG audit report, the CY2013 Regulatory Accounting Statements are true and fair;

(iv) confirm that to the best of the Board's information, knowledge and belief, the Non-financial Templates are true and fair;…".

Jemena Electricity Networks (Vic) Ltd

Response to the annual Regulatory Information Notice for the 2013 regulatory year

Appendix 1-10

Statutory declaration - RIN Appendix D

Public

30 April 2014

Jemena
Vital Service. Vital Planet.

STATUTORY DECLARATION

Evidence (Miscellaneous Provisions) Act 1958, VIC,

I, Paul John Adams of 321 Ferntree Gully Road, Mt Waverley 3149 in the State of Victoria, do solemnly and sincerely declare that:

1 I am an officer, for the purposes of the *National Electricity (Victoria) Law* (**NEL**), of Jemena Electricity Networks (Vic) Limited ABN 82 064 651 083 (**JEN**), a regulated network service provider for the purposes of section 28D of the NEL.

2. The response of JEN regarding the information required to be provided and to be prepared and maintained as specified in the Australian Energy Regulator's (**AER**) Regulatory Information Notice (**Notice**) dated 1 June 2012, with the exception of the information to be audited under paragraph 1.1 of Appendix E to this Notice, is to the best of my information, knowledge and belief:

   a) except where expressly stated otherwise in the response submitted by JEN, in accordance with the requirements of the Notice; and

   b) is true and an accurate reflection of JEN's internal records used in the normal course of business, and in all material respects can be relied upon by the AER to:

      i. monitor the compliance of JEN with the distribution determination that applies to it for the regulatory control period that commenced on 1 January 2011;

      ii. publish reports relating to the financial or operational performance of JEN; and

      iii. prepare for the making of the distribution determination that will apply to JEN for the regulatory control period commencing 1 January 2016,

   in respect of the distribution services provided by way of the electricity distribution network JEN operates in Victoria.

I acknowledge that this declaration is true and correct, and make it with the understanding and belief that a person who makes a false declaration is liable to the penalties of perjury.

Declared at MELBOURNE in the State of Victoria

this 28TH day of APRIL 2014

_____

(*Signature of person making declaration*)

Before me: _____

(*Signature of authorised witness*)

ALEXANDER JOHN MARRIOT-SMITH
of 321 Ferntree Gully Road, Mt. Waverley, VIC 3149
An Australian Legal Practitioner
(within the meaning of the Legal Profession Act 2004)