Jemena Electricity Networks (Vic) Ltd

Response to the annual Regulatory Information Notice for the 2014 regulatory year

Public

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GLOSSARY

ABS	Australian Bureau of Statistics
ACS	Alternate Control Services
AER	Australian Energy Regulator
AMA	Asset Management Agreement
AMI	Advanced Metering Infrastructure
CAM	Cost Allocation Methodology
capex	Capital expenditure
CPI	Consumer Price Index
CSM	Customer Supply Monitoring
DMIS	Demand Management Incentive Scheme
DR	Demand Response
DRFT	Demand Response Field Trial
ERP	Enterprise Resource Planning
ESMS	Electricity Safety Management Scheme
FY	Financial Year
GFN	Ground Fault Neutraliser
GSL	Guaranteed Service Levels
HBRA	Hazardous Bushfire Risk Area
HV	High Voltage
JEM	Jemena Ltd
JEN	Jemena Electricity Network (Vic) Ltd
LV	Low Voltage
MAIFI	Momentary Average Interruption Frequency Index
MED	Major Event Day
NEL	National Electricity (Victoria) Law
NER	National Electricity Rules
O&M	Operating and Maintenance Costs
opex	Operating expenditure
RAS	Regulatory Accounting Statements
RIN	Regulatory Information Notice
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SAP	System Analysis and Program
SGSPAA	SGSP (Australia) Assets Pty Ltd

SPI	Singapore Power International
ST	Subtransmission
STPIS	Service Target Performance Incentive Scheme
SWER	Single Wire Earth Return
ZNX2	ZNX 2 Pty Ltd

0. INTRODUCTION

0.1 SUBMISSION PURPOSE

1. This submission is the Jemena Electricity Networks (Vic) Ltd (**JEN**) response to the Regulatory Information Notice (**RIN**) that the Australian Energy Regulator (**AER**) issued to JEN on 6 August 2014 under Division 4 of Part 3 of the National Electricity (Victoria) Law (**NEL**). This response covers the 2014 regulatory year ending on 31 December 2014.

2. The RIN requires JEN to provide and prepare certain information for the AER to use for performance or exercise of its functions or powers conferred on it under the NEL or the National Electricity Rules (**NER**), namely for the purposes of:

- monitoring JEN's compliance with the AER's distribution determination that applies to JEN for the 2011–2015 regulatory period (the **2011-2015 Distribution Determination**)
- publishing reports on JEN's financial or operating performance
- preparing for the making of the 2016-20 distribution determination, and
- assisting the AER to determine whether it should exercise its powers to disclose information obtained under this RIN.

3. This RIN response:

- provides the information required in the regulatory accounting statement templates provided by the AER and included as Attachment 1-1
- provides operational performance information required in the non-financial templates provided by the AER and included as Attachment 1-2
- provides a reconciliation that explains adjustments between the Statutory Accounts and the Regulatory Accounting Statements as Attachment 1-3
- provides a basis of preparation demonstrating how JEN has complied with the RIN as Attachment 1-4
- provides the Regulatory Accounting Principles and Policies and the Capitalisation Policy for the 2014 regulatory year as Attachment 1-5 and Attachment 1-6 respectively
- provides a statement of the policy for determining the allocation of overheads in accordance with the AER approved Cost Allocation Methodology (**CAM**) as Attachment 1-7
- provides a confidential copy of the Field Services Agreement between JEN and a related party service provider as Attachment 1-8
- provides a copy of the audit report for financial information and non-financial information as Attachments 1-9 and 1-10 respectively
- sets out qualitative and quantitative explanations required by Schedule 1 to the RIN
- explains reasons for why any specific requested information or an estimate cannot be provided in accordance with Schedule 1 of the RIN, and
- provides a copy of the signed statutory declaration from JEN's Managing Director as Attachment 1-11

0.2 SUBMISSION STRUCTURE

4. JEN has structured this submission in accordance with each of the regulatory RIN templates as well as the information requested in section 1.1 of Schedule 1 of the RIN. The remainder of this Schedule 1 response is structured as follows:

- Section 1 – General
- Section 2 – Compliance procedures
- Section 3 – Cost allocation
- Section 4 – Cost allocation to service segments
- Section 5 –Related party transactions
- Section 6 – Capitalisation policy
- Section 7 – Demand management incentive allowance
- Section 8 – Advanced metering infrastructure
- Section 9 – Safety and bushfire related expenditure
- Section 10 – Sponsorship and marketing
- Section 11 – Charts
- Section 12 – Audit reports
- Section 13 – Statutory declaration
- Attachments

0.3 SUBMISSION VALUES AND TERMINOLOGY

5. This submission employs the following standards:

- Unless otherwise indicated, all numbers are expressed in nominal AUD$2014
- Unless otherwise indicated, JEN has adopted actual inflation using the Australian Bureau of Statistics (**ABS**) Consumer Price Index (**CPI**) group - Weighted Average of Eight Capital Cities[1]
- The Relevant Regulatory Year is the 2014 calendar year (**CY**) ending on 31 December 2014 and the fourth year of the 2011-2015 Distribution Determination
- The Financial Year (**FY**) is the 2013-14 Jemena Group financial year. The Jemena Group has recently transitioned to a calendar year for its final year. This means that the Regulatory Year 2014 spans two Jemena Group FYs:
  - three months of FY2013-14 (Jan 14 to Mar 14); and
  - nine months of FY2014 (Apr 14 to Dec 14) which was a shortened year to accommodate the transition.

[1] JEN uses a one year September on September lag to compute actual inflation.

- Jemena Group means SGSP (Australia) Assets Pty Ltd (**SGSPAA**) and all of its wholly owned subsidiaries, and
- Unless otherwise expressly defined in this response, capitalised terms have the meanings defined in the RIN.

1. GENERAL

6. In this section, JEN responds to section 1 of Schedule 1 to the RIN for Relevant Regulatory Year 2014.

1.1 INFORMATION REQUIREMENTS

1.1.1 INFORMATION TEMPLATES

7. Sections 1.1(a),1.1(b) and 1.1(d) of Schedule 1 to the RIN require JEN to provide the following:

- the Regulatory Accounting Statements, being financial information as specified in the AER's Microsoft Excel workbook (named Appendix B in the RIN)
- non-financial information as specified in the AER's Microsoft Excel workbook (named Appendix C in the RIN), and
- a basis of preparation demonstrating how JEN has complied with the RIN.

8. The AER information templates required are attached to JEN's response as Attachments 1-1, 1-2 and 1-4 respectively.

1.1.2 RECONCILIATIONS

9. Section 1.1(c) of Schedule 1 to the RIN requires JEN to provide a Microsoft Excel workbook that reconciles and explains all movements between Statutory Accounts and the Regulatory Accounting Statements (**RAS**).

10. As JEN advised in its response to the draft RIN[2], JEN is not able to provide a complete set of all such reconciliations. JEN arrives at the RAS numbers by making required adjustments to its Statutory Accounts. Those adjustments are not entered into the System Analysis and Program (**SAP**) development system.

11. JEN has provided reconciliations for profit & loss, capital expenditure (**capex**) and operating expenses (**opex**) tables.

12. The reconciliations are provided as Attachment 1-3 in JEN's response.

1.1.3 ACCOUNTING AND CAPITALISATION POLICIES

13. Section 1.1(e) of Schedule 1 to the RIN requires JEN to provide its Regulatory Accounting Principles and Policies and Capitalisation Policy for the current regulatory year.

14. The Regulatory Accounting Principles and Policies and Capitalisation Policy for 2014 are set out in Attachments 1-5 and 1-6 respectively.

1.1.4 COST ALLOCATION METHOD

15. Section 1.1(f) of Schedule 1 to the RIN requires JEN to provide a statement of the policy for determining how it allocates its overheads in accordance with the Cost Allocation Method (**CAM**)[3].

[2] JEN's response to the Draft RIN, 24 February 2012.

16. A copy of JEN's approved CAM is provided as Attachment 1-7.

17. JEN's policy is to allocate overheads to distribution services in accordance with the AER approved CAM.. JEN updated its CAM during 2014 to reflect updates to the names of some of its asset management (**AM**) and enterprise support functions (**ESF**) following internal organisation restructuring since 2010. Given the approach to allocating shared costs (ESF and residual AM) did not fundamentally change, JEN is not required to back cast data to reflect the updated CAM. The AER approved JEN's revised CAM on 19 December 2015 which will apply from 1 January 2015 onwards.

1.2 CHANGES IN REGULATORY ACCOUNTING POLICIES

18. Section 1.2 of Schedule 1 to the RIN requires JEN to identify all changes between the Regulatory Accounting Principles and Policies provided in the response to paragraph 1.1(e).

19. JEN advises that the substance of JEN's Regulatory Accounting Principles and Policies and Capitalisation Policy has not changed, as stipulated in section 1.1(e) of Schedule 1 to the RIN.

1.3 REASONS AND QUANTUM OF CHANGES

20. Section 1.2(a) and 1.2(b) of Schedule 1 to the RIN requires JEN to explain the nature of and the reason for the change between the Regulatory Accounting Principles and Policies provided in response to section 1.1(e) of the RIN. Section 1.2(b) also requires JEN to quantify the effect of changes identified.

21. JEN advises that there is no change to the substance of JEN's Regulatory Accounting Principles and Policies and Capitalisation Policy. Hence, section 1.3 of Schedule 1 to the RIN is not applicable.

1.4 CHANGES IN THE POLICY TO DETERMINE THE ALLOCATION OF OVERHEADS

22. Section 1.3 of Schedule 1 to the RIN requires JEN to identify all changes in the statements of the policy to determine the allocation of overheads in accordance with the CAM provided in response to section 1.1(f) of the RIN.

23. JEN advises that there is no change to the substance of JEN's approach to determine the allocation of overheads in accordance with the CAM, as stipulated in section 1.1(f) of Schedule 1 to the RIN.

1.5 REASONS AND QUANTUM OF CHANGES

24. Section 1.3(a) and 1.3(b) of Schedule 1 to the RIN requires JEN to explain the nature of and the reason for any changes in the statements of the policy to determine the allocation of overheads in accordance with the CAM provided in response to section 1.1(f) of the RIN. Section 1.3(b) also requires JEN to quantify the effect of changes identified.

25. JEN advises that there is no change to the substance of JEN's approach to determine the allocation of overheads in accordance with the CAM. Hence, section 1.3 of Schedule 1 to the RIN is not applicable.

[3] JEN's CAM – final decision, 26 February 2010

1.6 VARIANCE ANALYSIS

26. Section 1.4(a) to 1.4(d) of Schedule 1 to the RIN requires JEN to identify each material (+/- 10%) difference between amounts reported in the RAS and amounts allowed in the AER's 2011-2015 Distribution Determination for standard control services.

1.6.1 DISTRIBUTION REVENUE

27. Table 1-1 compares forecast distribution revenue (as determined in the AER's 2011-2015 Distribution Determination) and actual distribution revenue.

Table 1-1: Distribution revenue variance

Actual ($000)	Forecast ($000)	Variance ($000)	Variance (%)
245,026	229,095	+15,931	+6.95%

1.6.2 OPERATING EXPENDITURE

28. Table 1-2 compares forecast opex (as determined in the AER's 2011-2015 Distribution Determination) and actual opex (standard control services). Actual costs are inclusive of the related party payments.

Table 1–2: Opex variance

Actual ($000)	Forecast ($000)	Variance ($000)	Variance (%)
72,383	69,094	+3,289	+4.8%

1.6.3 CAPITAL EXPENDITURE

29. Table 1-3 compares forecast capex net of customer contributions (as determined by the AER's 2011-2015 Distribution Determination) and actual net capex. This variance is explained in section 1.7.1.

Table 1-3: Capex variance

Actual ($000)	Forecast ($000)	Variance ($000)	Variance (%)
123,671	102,956	+20,715	+20%

1.6.4 DEMAND ENERGY

30. Table 1-4 compares forecast demand (as determined in the AER's 2011-2015 Distribution Determination) and actual demand.

Table 1-4: Demand energy variance

Actual Demand (GWh)	Forecast (GWh)	Variance (GWh)	Variance (%)
4,136	4,213	-77	-2%

1.7 REASONS FOR VARIANCES

31. Section 1.5 of Schedule 1 to the RIN requires JEN to explain the reasons for any underlying operational activities or drivers that caused each material difference (where the difference is equal to or greater than 10 per cent) identified in the response to paragraph 1.4.

As the variances for distribution revenue (+7%), opex (+4.8%) and energy demand (-2%) are less than plus or minus 10% variance from the allowance, JEN has only provided an explanation for capex variance (+20%).

1.7.1 CAPITAL EXPENDITURE VARIANCE

32. Table 1-5 compares JEN's actual net capex and the forecast amounts as determined in the 2011-15 Distribution Determination.

Table 1-5: Breakdown of capex variance

$M (Nominal)	Forecast	Actual	Variance	%
Reinforcements	36.71	27.95	-8.76	-24%
New customer connections (net of customer contribution)	24.90	36.86	11.97	+48%
Reliability and quality maintained	13.07	18.62	+5.55	+42%
Environmental, safety and legal obligations (ES&L)	17.31	20.13	+2.82	+16%
SCADA and network control	0.34	0.41	+0.07	+22%
Non-network general – IT	6.52	9.57	+3.05	+47%
Non-network general – others	4.12	10.13	+6.01	+146%
Total	**102.96**	**123.67**	**+20.71**	**+20%**

33. JEN's actual capex was $20.71M higher than the allowance in the 2011-15 Distribution Determination. The major variances that contribute to the $20.71M are set out below.

Reinforcement (-$8.8M variance)

34. The lower than forecast reinforcement capex is mainly due to the factors listed below.

- *Distribution System Augmentation (-$9.9M) – During 2014 JEN deferred a number of major projects scheduled for 2014 into the 2015 and 2016 regulatory years due to changing market conditions Notable project deferrals included Stage 5 and 6 of the Preston 6.6kV to 22kV Conversion project and new feeder projects in Essendon, North Heidelberg and Sydenham.*
- *Distribution Substation Augmentation, load related (-$9.2M) – JEN delivered less distribution substation augmentation work (ie. upgrading pole mounted transformers) in 2014 than due to slightly lower spatial peak demand in pockets of the network than was forecast in 2010.;*
- *Zone Substation Augmentation (+$10.8M) – the increase in this sub-category mainly relates to the establishment of two new zone substations, i.e. Tullamarine and Broadmeadows South in 2014. These zone substations were originally scheduled to be completed earlier in the current regulatory period however were deferred till 2014 to align with the timing of the realisation of demand on the network. In addition, the project scope was expanded from the original scope to include an additional transformer and significant high-voltage feeder works in response to changing customer demand.*

New customer connections (+$11.9M variance)

35. In 2014, JEN experienced higher levels of capex in dual and multiple occupancy and medium density housing due to a higher volume of activity and higher unit costs than were forecast in JEN's 2010 regulatory proposal.

36. The drivers of higher customer initiated connection activities include relaxed council planning restrictions on multiple occupancy housing and increasing numbers of sub-division applications in some of JEN's local government areas.

37. Sections 6 and 7 of JEN's Electricity Distribution Licence (ESC October 2008) require JEN to offer connections in response to a request from a retailer, customer or embedded generator. This increase in customer connection capex is therefore beyond JEN's control, as JEN is obliged to incur the associated connection costs.

Reliability and Quality Maintained (RQM) (+$5.6M variance)

38. The two major areas contributing to the variance are listed below.

- *Distribution Transformer and Switchgear Replacement (+$2.3M) – JEN undertakes distribution transformer and switchgear replacement according to assets' actual condition. In 2014, JEN replaced a larger volume of transformers and gas switches to address an increasing trend in the number of failures associated with these assets.*

- *Supply Quality (+$1.8M) – JEN undertakes distribution and circuit relief works for the purpose of maintaining customers' current quality of supply. In 2014, JEN undertook a larger volume of relief works than was originally proposed in order to maintain our customer's current supply quality, rectify network limitations and respond to customer's needs.*

Environmental, safety and legal obligations (ES&L) (+$2.8M variance)

39. Two main areas, as set out below, contributed to the higher than forecast capex for this category.

- *Service Replacement (+$2.6M) – JEN continued its overhead service replacement program and is on track to deliver the AER approved volume in the regulatory period. The variance in 2014 is due to higher actual unit costs than was allowed in the 2011 final determination.*

- *Pole Reinforcement (+$1.2M) – This overspend is due to a higher volume of poles that were reinforced. Upon being classified as unserviceable, poles may be either replaced or reinforced. In 2014, an increased volume of poles were identified as unserviceable and a large proportion of these were identified as being suitable for reinforcement (rather than replacement).*

Non-network general – IT (+3.05M variance)

40. The key driver of variance above the allowance in non-network IT relates to excess expenditure on a SAP Operations Alignment project. This project is the first phase of a larger project to consolidate and rationalise the number of ERP solutions used by Jemena.

Non-network general – Others (+$6.0M variance)

41. The variance in this category is mainly due to the following three property projects:

- *Broadmeadows and Sunshine Depot Mergers and Relocation (+$6.3M)* – The overspend represents part of the costs associated with the depot merger and relocation to Tullamarine. This project was originally scheduled for 2011 and 2012 with no forecast expenditure in 2014. This variance is due to a difference in project timing.

- *Victorian Property Project ($0.4M)* – JEN is in the process of rationalising the office accommodation for all non-field based staff in Victoria. Currently based at different locations, staff will be relocated into a consolidated office in the last quarter of 2015. This expenditure was not forecast as a part of JEN's proposal to the AER in 2010.

1.8 STPIS VARIANCES

42. Section 1.6 of Schedule 1 to the RIN requires JEN to identify each material difference (where the difference is equal to or greater than +/- 10 per cent) between the target performance measure specified in the *Service Target Performance Incentive Scheme* (**STPIS**) and actual performance reported in the response to paragraph 1.1(b) of Schedule 1 to the RIN.

43. The material variances and explanations are set out below.

1.8.1 STPIS RELIABILITY

44. The performance measures used in assessing STPIS reliability are as follows:

- Urban unplanned average sustained interruptions (System Average Interruption Frequency Index) (**SAIFI**)
- Urban unplanned average minutes off supply (System Average Interruption Duration Index) (**SAIDI**)
- Rural unplanned SAIFI
- Rural unplanned SAIDI; and
- Rural unplanned average momentary interruptions (**MAIFI**).

45. The comparison between actual and target STPIS reliability measures is set out in Table 1–6.

Table 1–6: STPIS reliability

Performance Measure		2014 Actual	2014 Target	Variance
Urban (after removing excluded events and Major Event Day (**MED**))	Unplanned SAIDI	57.00	68.50	-17%
	Unplanned SAIFI	0.97	1.13	-14%
	Unplanned MAIFI	0.76	0.78	-2%
Rural (after removing excluded events and MED)	Unplanned SAIDI	94.27	153.20	-38%
	Unplanned SAIFI	0.67	2.59	-74%
	Unplanned MAIFI	1.54	1.94	-20%

46. Five STPIS performance measures show a variance of greater than 10% as set out in Table 1–6. All of these variances were associated with better than target levels of performance. The two main factors contributing to the favourable performance are:

- JEN's more stringent vegetation management practice and JEN's focus on targeted condition based asset replacement, network augmentation and maintaining network performance; and
- Mild temperatures experienced in the 2013/14 summer, along with infrequent storm events during the historically stormy months of August and September.

1.8.2 STPIS CUSTOMER SERVICE

47. The performance measures used in assessing STPIS customer service are as follows:

- Appointments not met on time (excluding AMI)
- Guaranteed Service Levels (**GSL**) – New connections not made on or before the date agreed
- GSLs – Low reliability payments
- GSLs – Street lights and
- Call centre performance.

48. The comparison between actual and target STPIS customer service measures is set out in Table 1–7.

Table 1–7: STPIS customer service

Performance Measure	2014 Actual	2014 Target	Variance
Appointments not met on time (excluding AMI) (number)	42	6	+600%
GSL – New connections not made on or before the date agreed (number)	7	28	-75%
GSL – Low reliability payments (number)	552	144	+283%
GSL – Street Lights (number)	20	54	-63%

1.8.2.1 Appointments not met on time (excluding AMI)

49. In 2014, 42 appointments were not met on time, compared with a target of six. Two main factors that contributed to this unfavourable result are listed below:

- The target of 6 missed appointments per year was based on historical data in 2005-2009, where missed appointment numbers were at a minimum, and
- The majority of the missed appointments were experienced in August 2014 due to an error in an administrative process. This process has been rectified and improvement in the number of appointments met on time has been achieved.

1.8.2.2 GSL – new connections not met on or before the date agreed

50. With the new service provider commencing in 2010, more stringent timeframes for new connections were applied. A timeframe of two days for single phase sites and four days for multiple and three phase sites was stipulated in the new service contract. These timeframes are well below the required 10 days. As a result, a low number of new connection-related GSLs were evident for 2014.

1.8.2.3 GSL – low reliability payments

51. The low reliability payments were as a result of customers being without supply for greater than 20 hours, greater than 30 hours, or greater than 60 hours. The majority of the low reliability payments were attributable to a major bushfire on 9 February 2014 and a distribution transformer failure on 14 January 2014.

1.8.2.4 GSL – street lights

52. In 2014, 20 JEN customers received a GSL payment for street lights that were not repaired in two working days. This out performance is due to improved business systems and processes that were initially introduced in 2010 and fully implemented in 2011.

2. COMPLIANCE PROCEDURES

2.1 SERVICE CLASSIFICATION

53. Section 2.1 of Schedule 1 of the RIN requires JEN explain the procedures and processes used by JEN to ensure that the distribution services have been classified as determined in the 2011-15 Distribution Determination.

54. Changes in service classification are monitored by JEN's regulatory group as part of its business as usual activities. Leading up to price review determinations—when service classifications are reviewed—JEN's regulatory team consult directly with the AER on its approach to service classification.

55. Following a price review determination, JEN's regulatory and asset management teams review the activity codes for all JEN's services/activities within JEN's internal SAP system to ensure that any changes to service classification are mapped to the activity codes within JEN's internal SAP system. This approach ensures that the services JEN provide are correctly classified throughout the regulatory control period.

2.2 NEGOTIATED SERVICE CRITERIA

56. Section 2,2 of Schedule 1 of the RIN requires JEN explain the procedures and processes used by JEN to ensure that the negotiated service criteria, as set out in the 2011-15 Distribution Determination, have been applied.

57. Similar to the approach described in 2.1 above, compliance with the negotiated service criteria, as set out in the 2011-15 Distribution Determination is monitored by JEN's regulatory and asset management groups as part of their business as usual activities.

58. JEN's regulatory and asset management teams periodically review the activity codes for all JEN's services/activities within our internal SAP system to ensure that our service classifications—including negotiated services—are mapped to the correct activity codes within our internal SAP system. This approach ensures that the negotiated services JEN provide (public lighting services) are correctly classified throughout the regulatory control period and comply with the negotiated service criteria determined in the 2011-15 Distribution Determination.

2.3 NEGATIVE CHANGE EVENTS

59. Section 2.3 of Schedule 1 of the RIN requires JEN describe the process JEN has in place to identify negative change events under clause 6.6.1(f) of the NER and the threshold of materiality applied to these events.

60. Legislative and regulatory changes as well as changes to technical and services standards are monitored by various groups within the Jemena business (including regulatory, legal and asset management teams) as a part of their business as usual responsibilities. Where a positive or negative change event occurs which may have a material cost impact on the business, the support of the regulation and legal teams is enlisted to assess whether a pass through event has occurred and to (if necessary) prepare the required cost pass through notice. To date, JEN has not made an application for a pass through event however both positive and negative pass through notices have been submitted to the AER by Jemena Gas Networks (NSW) Ltd in the context the introduction and subsequent repeal of the carbon emission trading scheme. In those cases the identification of the pass through event and the preparation of the required notices occurred as a part of the business as usual process described above.

3. COST ALLOCATION

61. In this section, JEN responds to section 3 of Schedule 1 to the RIN for the 2014 Relevant Regulatory Year.

62. JEN has applied its AER approved CAM in all relevant circumstances. JEN's applicable CAM was approved by the AER in February 2010. A copy of this CAM is provided in Attachment 1-8.

3.1 DIRECTLY ATTRIBUTED AND ALLOCATED COSTS

63. Section 3.1(a) and (b) of Schedule 1 to the RIN require JEN to identify each item in the RAS that is allocated to JEN:

- not on a directly attributable basis but on a causation basis, or
- not allocated on a directly attributable basis and cannot be allocated on a causation basis.

64. The items allocated to JEN have been identified and are listed in **Table 3–1** below.

3.2 ALLOCATED COST AND ALLOCATORS

65. Section 3.2(a) and (c) of Schedule 1 to the RIN requires JEN to state, for each item identified in response to paragraph 3.1(a), the amount of the item that has been allocated and the numeric amount of the allocators used. Section 3.2(b) required JEN to explain the method of allocation and reasons for choosing that method.

66. **Table 3–1** sets out the amounts of these items and allocators. The causation basis of each cost item is shared, causal and operating in nature, in accordance with section 3.2(a)–(c) and 3.3(a)-(c) of Schedule 1 to the RIN. Section 3.3 (d) is not applicable for the above reasons.

Table 3–1: Shared cost allocation

Cost Item [Section 3.3(a)–(c)]	Quantum ($) [Section 3.3(a)]	Method of allocation and reason for Basis [Section 3.3(c)]	Allocator %
Chief executive officer (CEO) Executive oversight and board liaison on asset and financial management, stakeholder relations, and human resources. CEO costs include directors' travel expenses and fees, CEO compensation, support staff salaries, employee related expenses, procurement of external advice and administration expenses.	[redacted]	Method: time writing and full time equivalent (FTE) survey. Reason: CEO costs support Jemena's corporate governance and asset management, which directly benefit JEN and other Jemena assets and clients. Costs are allocated to assets and clients using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]
Chief financial officer (CFO) Executive oversight of financial reporting, management and fund raising. Costs include CFO compensation, support staff salaries, employee related expenses, travel, procurement of external advice, administration expenses and any significant unbudgeted costs or savings.	[redacted]	Method: time writing and FTE survey, and adjusted fair value. Reason: CFO costs support Jemena's corporate governance and financial management, which, like CEO costs, directly benefit JEN and other Jemena assets and clients. Costs are allocated to assets and clients using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client. Significant unbudgeted costs or savings are assumed to accrue to any asset or client based on its fair value within the Jemena Group. So, the adjusted fair value driver is used to allocate significant unbudgeted costs or savings to JEN (and other assets or clients).	[redacted]
Financial shared services Management of finance systems, financial accounting, accounts payable, accounts receivable and payroll. Costs include salaries, employee related expenses, procurement of external advice, and training.	[redacted]	Method: time writing and FTE survey. Reason: Financial shared services costs support Jemena's financial accounting, systems, accounts payable, accounts receivable and payroll, which directly benefit JEN and other assets or clients. Costs are allocated to assets and clients using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]

Cost Item [Section 3.3(a)–(c)]	Quantum ($) [Section 3.3(a)]	Method of allocation and reason for Basis [Section 3.3(c)]	Allocator %
Financial reporting Management of management reporting, statutory reporting and regulatory reporting. Costs include salaries, employee related expenses, procurement of external advice including audit fees, and training.	[redacted]	Method: time writing and FTE survey. Reason: Financial reporting costs support Jemena's financial reporting processes, which directly benefit JEN and other assets or clients. Costs are allocated to assets and clients using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]
Treasury and financing Management of Jemena's fund raising, debt and equity holder relations, and treasury functions. Costs include salaries, employee related expenses, travel for debt raising road shows, credit rating fees and external advice.	[redacted]	Method: time writing and FTE survey. Reason: Treasury and financing costs support Jemena's raising and management of debt and equity financing, which is essential to the management of JEN and other Jemena assets and clients. Treasury and financing costs are allocated to assets and clients using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]
Financial planning Management of financial planning, including budgeting, forecasting and asset valuation. Costs include salaries, employee related expenses, procurement of external advice and training.	[redacted]	Method: time writing and FTE survey. Reason: Financial planning costs support Jemena's long-term network planning and cost reduction initiatives, including development of JEN's asset management plan. Financial planning costs are allocated to assets and clients using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]

Cost Item [Section 3.3(a)–(c)]	Quantum ($) [Section 3.3(a)]	Method of allocation and reason for Basis [Section 3.3(c)]	Allocator %
Business finance partner - ESF Support for regulatory strategy & submissions and financial support for management of corporate support functions including budgeting, forecasting, and corporate cost allocation. Costs include salaries, employee related expenses, procurement of external advice and training.	[redacted]	Method: time writing and FTE survey. Reason: Business financial partner – ESF costs support Jemena's corporate support functions and support for regulatory strategy & submissions towards long-term network planning and cost reduction initiatives including development of JEN's asset management plan. Financial planning costs are allocated to assets and clients using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]
Legal Management and advice on economic regulation, environmental law, employment law, property law and company law, including the role of company secretary. Costs include salaries, employee related expenses, staff training, court and tribunal costs and engagement of external lawyers.	[redacted]	Method: time writing and FTE survey. Reason: Legal costs support Jemena's compliance with its legal obligations, including those of JEN. Legal costs are allocated using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]
Corporate affairs Management of corporate communications to stakeholders, including customers, employees, neighbours, state and federal governments and regulators. Costs include salaries, employee related expenses, travel, communications print costs and subscriptions.	[redacted]	Method: time writing and FTE survey. Reason: Corporate affairs costs support Jemena's communications with internal and external stakeholders, which are particularly important for JEN's customers and other external stakeholders. Corporate affairs costs are allocated using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]

Cost Item [Section 3.3(a)–(c)]	Quantum ($) [Section 3.3(a)]	Method of allocation and reason for Basis [Section 3.3(c)]	Allocator %
Health safety and environment (HSEQ) Management of employee Health and safety training, performance, quality and adverse impact on the environment. Costs include salaries, employee related expenses, external advice and training services.	[redacted]	Method: time writing and FTE survey. Reason: HSEQ costs support Jemena's standards of health, safety & quality and minimise any adverse impact on the environment. HSEQ costs are allocated using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]
Human resources Management of recruitment and remuneration benefit services. Costs include salaries, employee related expenses, recruitment agent fees, training, procurement of external advice and licence fees.	[redacted]	Method: time writing and FTE survey. Reason: Human resources support Jemena's management of its human resources, including those that work directly on JEN-related projects. Human resources costs are allocated using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]
Financial improvement Management of continuous finance improvements. Costs include salaries, employee related expenses, procurement of external advice, and training.	[redacted]	Method: time writing and FTE survey. Reason: Financial improvement costs support Jemena's finance continuous improvement initiatives, which benefit each asset within the Jemena Group. Financial improvement costs are allocated using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]

Cost Item [Section 3.3(a)–(c)]	Quantum ($) [Section 3.3(a)]	Method of allocation and reason for Basis [Section 3.3(c)]	Allocator %
Non-Network IT Support Provision and management of IT infrastructure and services (Information Services 'IS'). Costs include salaries, employee related expenses, procurement of software and hardware, maintenance and system support, telecommunication costs and procurement of external advice costs.	[redacted]	Method: information systems (IS) driver. Reason: IS costs support the delivery of Jemena's capital and operating programs, including those of JEN. IS costs are allocated using casual drivers, including ownership and use of applications, number of service requests and number of PCs used as a share of total Jemena PCs. For example outsourced IT operations are allocated using ownership and use of applications, number of service requests and number of PCs used as a share of total Jemena PCs. Internally sourced IT strategy, infrastructure services and operations costs are allocated using the number of PCs used by each as a share of total Jemena PCs.	[redacted]
Regulatory Management of regulatory obligations, price reviews, consultations and relationships with governments, regulators and market operators. Costs include salaries, employee related expenses, training, travel, and procurement of external advice.	[redacted]	Method: time writing and FTE survey. Reason: Regulatory costs support management of Jemena's regulated assets, including JEN. Regulatory costs are attributed to regulatory activities based on time writing. Residual costs are allocated using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]
Risk and insurance Procurement of insurance and management of risk, including, for bushfire and other natural disasters. Costs include salaries, employee related expenses and insurance premiums.	[redacted]	Method: insurance driver, which is based on declared values, exposure to risks and claims history. Reason: Risk and insurance costs support the effective management of Jemena's risks, including those faced by JEN. Risk and insurance costs are allocated to assets using the declared (or insured) values, exposure to risk and claims history as the causal drivers. These values are used to determine the insurance premiums and other related charges paid by Jemena on behalf of all its assets.	[redacted]

Cost Item [Section 3.3(a)–(c)]	Quantum ($) [Section 3.3(a)]	Method of allocation and reason for Basis [Section 3.3(c)]	Allocator %
Internal audit Management of internal audits. Costs include salaries, employee related expenses, and procurement of external advice.	[redacted]	Method: time writing and FTE survey. Reason: Internal audit costs support Jemena's corporate governance, which directly benefit JEN and other Jemena assets and clients. Internal audit costs are allocated using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]
Business planning and improvement Management of business planning and continuous improvements, including business re-organization costs. Costs include salaries, employee related expenses, procurement of external advice, and training.	[redacted]	Method: time writing and FTE survey, and adjusted fair value. Reason: Business planning and improvement costs support Jemena's asset management and continuous improvement initiatives, which benefit each asset within the Jemena Group. Business planning costs are allocated using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client. Benefits from business improvement costs are assumed to accrue to assets and clients based on their fair value within the Jemena Group. Therefore, the adjusted fair value driver is used to allocate these costs to JEN (and the other assets and clients).	[redacted]
Taxation Management of indirect and direct tax compliance and planning. Costs include salaries, employee related expenses and procurement of external advice.	[redacted]	Method: time writing and FTE survey. Reason: Taxation costs support Jemena's obligations under tax law, including those of JEN. Taxation costs are allocated using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]

Cost Item [Section 3.3(a)–(c)]	Quantum ($) [Section 3.3(a)]	Method of allocation and reason for Basis [Section 3.3(c)]	Allocator %
Commercial Management of commercial activities including marketing strategy, regulated tariff, revenue forecasting, market analysis & research, contract management and establishing & maintaining customer relationships. Costs include salaries, employee related expenses and procurement of external advice.	[redacted]	Method: time writing and FTE survey. Reason: Commercial costs support Jemena's commercial obligations, including those of JEN. Commercial costs are attributed to commercial activities based on time writing. Residual costs are allocated using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]
Procurement Management of procurement and supply chain management activities. Costs include salaries, employee related expenses and office consumables.	[redacted]	Method: time writing and FTE survey. Reason: Procurement management costs support Jemena's procurement and supply chain management activities, including those of JEN. Procurement management costs are attributed to capex and operating & maintenance ('O&M') activities based on time writing. Residual costs are allocated using time writing data, supported by feedback from a recent FTE survey. Time writing reflects an accurate measure of the time spent by staff on activities for each asset and client.	[redacted]

3.2.1 SHARED COST ALLOCATION METHOD

67. Section 3.2(b) of Schedule 1 to the RIN requires JEN to explain the allocation method and reasons for choosing that method in relation to items identified in 3.1(b).

68. The allocation methods for each item and reasons for choosing the methods are listed in **Table 3–1**.

69. It is clear that where costs can be allocated using time writing they are allocated on this basis. In the case where costs cannot be allocated using this driver, costs are allocated to JEN on a specific driver or adjusted fair value driver. For example, Risk and Insurance cost centre costs are allocated based on an insurance driver (declared value).

4. COST ALLOCATION TO SERVICE SEGMENTS

70. In this section, JEN responds to section 4 of Schedule 1 to the RIN for the 2014 Relevant Regulatory Year.

71. JEN has applied its applicable AER approved CAM in all relevant circumstances. JEN's applicable CAM was approved by the AER in February 2010. A copy of this CAM is provided in Attachment 1-8.Section 4.1 parts (a) and (b) of Schedule 1 to the RIN requires JEN to identify each item in the RAS that is allocated to JEN's cost categories that is:

- not allocated on a directly attributable basis but is allocated on a causation basis to a service segment and;
- not allocated on a directly attributable basis and cannot be allocated on a causation basis to a service segment.

72. Section 4.2(a) and (c) of Schedule 1 to the RIN requires JEN to state, for each item identified in response to paragraph 4.1(a), the quantum of the item that has been allocated and the numeric quantum of the allocators used.

73. Section 4.2(b) of Schedule 1 to the RIN requires JEN to explain the allocation method and reasons for choosing that method in relation to items identified in 4.1(a).

74. The items allocated to JEN on causation basis and JEN's responses to 4.2 are listed in Table 4–1 below.

75. Section 4.3 of Schedule 1 to the RIN requires JEN to state that each item in response to section 4.1(b) has not been allocated on a directly attributable basis and cannot be allocated on a causation basis from the distribution business to a service segment.

76. This requirement is not applicable as there are no instances in JEN's response where operating, maintenance and fixed asset costs were not allocated to an activity area in part on a directly attributable basis or on a causation basis (or both) to a service segment. All costs were allocated in a way that is consistent with JEN's approved CAM.

Table 4–1: Cost allocation to service segments

Cost Item Section 4.1(a)	Total Amount ($) [Section 4.2(a)]	Direct Amount ($) [Section 4.2(a)	Causation Amount ($) [Section 4.2(a)	Method of allocation and reason for Basis [Section 4.2(b)]	Allocator % [Section 4.2(C)]
Maintenance – SCS Routine	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]
Maintenance – SCS Condition Based	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]
Maintenance – SCS	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based	[redacted]

Cost Item Section 4.1(a)	Total Amount ($) [Section 4.2(a)]	Direct Amount ($) [Section 4.2(a)	Causation Amount ($) [Section 4.2(a)	Method of allocation and reason for Basis [Section 4.2(b)]	Allocator % [Section 4.2(C)]
Emergency	[redacted]			on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	
Maintenance – SCS SCADA/Network Control	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]
Maintenance – SCS Others	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads:	[redacted]

Cost Item Section 4.1(a)	Total Amount ($) [Section 4.2(a)]	Direct Amount ($) [Section 4.2(a)	Causation Amount ($) [Section 4.2(a)	Method of allocation and reason for Basis [Section 4.2(b)]	Allocator % [Section 4.2(C)]
				Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	
AMI	[[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]]
Public Lighting Costs	[[redacted]	[redacted]	[redacted]]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to	[[redacted]]

Cost Item Section 4.1(a)	Total Amount ($) [Section 4.2(a)]	Direct Amount ($) [Section 4.2(a)	Causation Amount ($) [Section 4.2(a)	Method of allocation and reason for Basis [Section 4.2(b)]	Allocator % [Section 4.2(C)]
				allocate the costs to the appropriate regulatory category.	
Alternative Control Costs- Other	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]
Network Operating Costs	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]
Billing & Revenue Collection Costs	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER	[redacted]

Cost Item Section 4.1(a)	Total Amount ($) [Section 4.2(a)]	Direct Amount ($) [Section 4.2(a)	Causation Amount ($) [Section 4.2(a)	Method of allocation and reason for Basis [Section 4.2(b)]	Allocator % [Section 4.2(C)]
				approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	
Advertising & Marketing Costs	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]
Customer Service Costs	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost	[redacted]

Cost Item Section 4.1(a)	Total Amount ($) [Section 4.2(a)]	Direct Amount ($) [Section 4.2(a)	Causation Amount ($) [Section 4.2(a)	Method of allocation and reason for Basis [Section 4.2(b)]	Allocator % [Section 4.2(C)]
				centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	
Regulatory Costs	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]
Regulatory Reset Costs	[redacted]	[redacted]	[redacted]	Directly charged.	[redacted]
Information Technology Costs	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost	[redacted]

Cost Item Section 4.1(a)	Total Amount ($) [Section 4.2(a)]	Direct Amount ($) [Section 4.2(a)	Causation Amount ($) [Section 4.2(a)	Method of allocation and reason for Basis [Section 4.2(b)]	Allocator % [Section 4.2(C)]
				centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	
License Fees	[redacted]	[redacted]	[redacted]	Directly charged.	[redacted]
GSL Payments	[redacted]	[redacted]	[redacted]	Directly charged.	[redacted]
Other Standard Control Services	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]
AMI	[redacted]	[redacted]	[redacted]	Directly charged.	[redacted]
Public Lighting	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate	[redacted]

Cost Item Section 4.1(a)	Total Amount ($) [Section 4.2(a)]	Direct Amount ($) [Section 4.2(a)	Causation Amount ($) [Section 4.2(a)	Method of allocation and reason for Basis [Section 4.2(b)]	Allocator % [Section 4.2(C)]
				overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	
Alternative Control – Other	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]
Unregulated Services	[redacted]	[redacted]	[redacted]	Directly charged.	[redacted]
CAPEX – Reinforcement	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to	[redacted]

Cost Item Section 4.1(a)	Total Amount ($) [Section 4.2(a)]	Direct Amount ($) [Section 4.2(a)	Causation Amount ($) [Section 4.2(a)	Method of allocation and reason for Basis [Section 4.2(b)]	Allocator % [Section 4.2(C)]
				allocate the costs to the appropriate regulatory category.	
CAPEX – New Customer Connections	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]
CAPEX – Reliability & Quality Maintained	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]
CAPEX – Environment Safety & Legal	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM).	[redacted]

Cost Item Section 4.1(a)	Total Amount ($) [Section 4.2(a)]	Direct Amount ($) [Section 4.2(a)	Causation Amount ($) [Section 4.2(a)	Method of allocation and reason for Basis [Section 4.2(b)]	Allocator % [Section 4.2(C)]
				The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	
CAPEX SCADA/Network Control	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]
CAPEX – Non Network General – IT	[redacted]	[redacted]	[redacted]	Directly charged.	[redacted]
CAPEX – Non Network General – Other	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads:	[redacted]

Cost Item Section 4.1(a)	Total Amount ($) [Section 4.2(a)]	Direct Amount ($) [Section 4.2(a)	Causation Amount ($) [Section 4.2(a)	Method of allocation and reason for Basis [Section 4.2(b)]	Allocator % [Section 4.2(C)]
				Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	
CAPEX - AMI	[redacted]	[redacted]		Directly charged.	[redacted]
CAPEX - Public Lighting	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]
CAPEX Alternative Control Other	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the	[redacted]

Cost Item Section 4.1(a)	Total Amount ($) [Section 4.2(a)]	Direct Amount ($) [Section 4.2(a)	Causation Amount ($) [Section 4.2(a)	Method of allocation and reason for Basis [Section 4.2(b)]	Allocator % [Section 4.2(C)]
				corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	
CAPEX Negotiated Services	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]
CAPEX Underground Services	[redacted]	[redacted]	[redacted]	JEN allocates overheads to these expense activities based on its internal policies and in accordance with the AER approved Cost Allocation Method (CAM). The overheads include an allocation of residual asset management costs and corporate overheads: Corporate Overheads charged to JEN are recorded in cost centres at the source of origination (Jemena Ltd). Corporate overheads from Jemena are recorded in designated cost centres within JEN. Jemena provides a breakdown of the corporate overheads by cost centre which is then used to allocate the costs to the appropriate regulatory category.	[redacted]

5. RELATED PARTY TRANSACTIONS

77. In this section, JEN responds to section 5 of Schedule 1 to the RIN for the 2014 Relevant Regulatory Year.

5.1 RELATED PARTIES

78. Section 5.1 of Schedule 1 to the RIN requires JEN to identify each of JEN's Related Parties with which a transaction has been conducted. The Related Party entities JEN has a transaction with are:

- Jemena Asset Management Pty Ltd (**JAM**)
- ZNX 2 Pty Ltd (**ZNX2**)
- Jemena Ltd (**JEM**)
- AusNet Services (Distribution) Ltd (**AusNet Distribution**), and
- AusNet Transmission Group Pty Ltd (**AusNet Transmission**).

79. Since 2009, JEN has procured core network operations and maintenance services by way of its Asset Management Agreement (**AMA**) with JAM. Since 1 April 2012, JAM has only been entitled to receive its actual costs in performing the AMA services with no related party margin payable under the AMA. The amendments to the AMA to remove the margin were described in the 2012 JEN annual RIN submission.

80. [redacted]

[redacted]

[redacted]

[redacted]

[redacted][4]

5.2 RELATED PARTY TRANSACTIONS

83. [redacted]

[4] The detail relating to JEN's related party outsourcing arrangements are commercially confidential to JEN and could harm JEN's legitimate business interests if published. Public disclosure of this information may prejudice future tender processes between JEN and its service providers.

[redacted]]

84. The transactions JEN has with Related Parties are listed in Table 5–1

Table 5–1: Related Party transactions

Name of Related Party	Services Provided	Capex $000	Opex $000
Jemena Ltd	Management Services	[[redacted]	[redacted]
ZNX(2) Pty Ltd (formerly known as Jemena Asset Management 6 Pty Ltd)	Management Services	[[redacted]	[redacted]
Jemena Asset Management Pty Ltd	Management Services	[[redacted]	[redacted][5]]

85. JEN has not included its transactions with AusNet Distribution and AusNet Transmission as the prices of these transactions are regulated (e.g. cross boundary charges and transmission charges).

5.3 INFORMATION ON RELATED PARTY TRANSACTIONS

5.3.1 NAME OF RELATED PARTY

86. Section 5.3(a) of Schedule 1 to the RIN requires JEN to state the name of the Related Party for each transaction identified in the response to Section 5.2 of Schedule 1 to the RIN. The names of the Related Parties are listed in Table 5–1

87.

5.3.2 COUNTER PARTY

88. Section 5.3(b) of Schedule 1 to the RIN also requires JEN to identify other counter parties involved in the transactions identified. JEN advises that there are no other counter parties involved in the transactions identified.

5.3.3 NATURE AND PURPOSE OF RELATED PARTY TRANSACTIONS

89. Section 5.3(c) of Schedule 1 to the RIN requires JEN to explain the nature and purpose of the transaction, including the good(s) or service(s) provided by the Related Party.

[[redacted]

[redacted]

[5] The detail relating to JEN's related party outsourcing arrangements are commercially confidential to JEN and could harm JEN's legitimate business interests if published. Public disclosure of this information may prejudice future tender processes between JEN and its service providers.

[6] The structure and activity scope of JEN’s related party outsourcing arrangements are commercially confidential to JEN and could harm JEN’s legitimate business interests if published.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

5.3.4 ACTUAL COSTS

94. Section 5.3(d) of Schedule 1 to the RIN requires JEN to state the actual costs incurred by the Related Parties in providing good(s) or services, not including any profit margin or management fee incurred by JEN.

95. The amounts of actual costs incurred have been provided in Excel template 20 (Related Party Transactions) in Appendix B (Attachment 1-1 of JEN's response).

5.3.5 DETERMINING ACTUAL COSTS

96. Section 5.3(e) of Schedule 1 to the RIN requires JEN to explain how the actual costs of the good(s) or service(s) incurred was determined.

Capex

97. In delivering JEN's capex program, JEN's related parties incurred costs in relation to materials, labour (internal and external) and other resources. These costs are captured in the SAP Enterprise Resource Planning (**ERP**) system of the related parties involved, including overheads and margin (where a margin is applicable).

98. No margins were charged in the 2014 Relevant Regulatory Year and so JEN's costs are equal to the related party's costs.

Operating and Maintenance (**O&M**) Costs

99. The O&M costs incurred by JEN's related parties while delivering management services to JEN are captured in the ERP system of the related parties involved. Non-capital costs (direct costs and overheads) are recorded in the ERP system. No margins were charged in the 2014 Relevant Regulatory Year and so JEN's costs are equal to the related party's costs. For more details on the cost capturing process, refer to JEN's AER-approved CAM in Attachment 1-7.

100. The actual O&M costs are determined as shown in Table 5-2.

Table 5-2: Actual Cost Determination

Related Party	Basis
[redacted]	[redacted]
[redacted]	

5.3.6 REGULATORY REPORTING

101. Section 5.3(f) of Schedule 1 to the RIN requires JEN to explain how the actual costs of the good(s) or service(s) incurred is (are) reflected in the Regulatory Accounting Statements (**RAS**).

102. Actual costs (not including any Related Party margin) have been reported in the RAS as set out in **Table** 5-3.

Table 5-3: Related party cost reporting in RAS

Templates in Appendix B (Attachment 1-1 of JEN's response)	Table	Categories
6a (maintenance costs total,)	1 and 3	All
8a (operating activities total,)	1	Operating Costs
3a (capex total)	1, 3, 4 , 5 & 6	All
5 (addition by Tax)	1 - 3	Additions
20 (Related Party transactions)	1	All

5.3.7 ALLOCATING RELATED PARTY TRANSACTION COSTS

103. Section 5.3(g) of Schedule 1 to the RIN requires JEN to identify the Asset category, Maintenance Cost category or Operating Cost category to which the actual cost(s) is allocated.

104. Lists of Asset Cost categories, Maintenance Cost categories and Operating Cost categories are set out in **Table** 5-4.

Table 5-4: Cost categories vs. actual cost allocations

Operating Costs	Maintenance Costs	Addition to fixed assets
Network operating	Routine	Reinforcement
Billing & revenue collection	Condition based	New customer connections
Advertising/marketing	Emergency	RQM
Customer service	SCADA/network control	Environmental, safety & legal
Regulatory	Other	Non network – IT
AMI	AMI	Non network - other
Public lighting	Public lighting	AMI

7 The basis of cost determination for JEN's related party transactions is commercially confidential to JEN and could harm JEN's legitimate business interests if published.

Operating Costs	Maintenance Costs	Addition to fixed assets
ACS	ACS	Public lighting
Unregulated services		ACS
		Negotiated services
		Unregulated services

5.3.8 ALLOCATORS AND ALLOCATION BASIS

105. Section 5.3(h) of Schedule 1 to the RIN requires JEN to explain the basis upon which the actual costs of the good(s) or service(s) was or were allocated, as identified in the response to paragraph (g), and state the quantum of any allocator applied.

106. In accordance with the RIN, JEN reports the actual costs attributable to JEN for each Related Party transaction.

107. Where costs that can be directly attributable to an Asset Cost, Operating Cost or Maintenance Cost category (e.g. via general ledger account code or activity code), they are allocated in that category.

108. Where costs cannot be directly attributable, they are allocated to various categories in accordance with the shared cost allocation method, as set out in the CAM.

109. JEN is not able to provide the allocator by which related party transaction charges have been allocated, as JEN's allocators do not apply specifically to related party costs—rather related party costs are just one component of JEN's wider cost base, which is allocated using a range of allocators. However, JEN is able to provide an estimate of the proportion of related party transaction charges allocated to the Fixed Asset, Maintenance and Operating cost categories. Table 5-5 lists the proportion and the respective basis.

Table 5-5 Allocating Related Party Costs

Related Party	Cost categories	**Allocator**	**Basis**
Jemena Asset Management Pty Ltd	**Operating Costs**	[redacted]	
	Network operating		[redacted]
	Billing & Revenue Collection		
	Advertising & Marketing		
	Customer Service		
	Other SCS/ACS		
	Underground		
	Maintenance Costs Routine Condition based Emergency SCADA/Network Control Other - Standard Control Services		

8 The allocator basis and value of allocated related party costs are commercially confidential to JEN and could harm JEN's legitimate business interests if published.

Related Party	Cost categories	Allocator	Basis
	Public Lighting Alternative control –other		
	Addition to Fixed Assets		
	Reinforcement	[redacted]	[redacted]
	New Customer Connections	[redacted]	[redacted]
	RQM	[redacted]	[redacted]
	Environmental/Safety/Legal	[redacted]	[redacted]
	Public Lighting	[redacted]	[redacted]
	Alternate Control Services Negotiated	[redacted]	[redacted]
ZNX(2) Pty Ltd (formerly known as Jemena Asset Management 6 Pty Ltd)	**Operating Costs**	[redacted]	[redacted]
	AMI	[redacted]	[redacted]
	Maintenance Costs AMI	[redacted]	[redacted]
	Addition to Fixed Assets	[redacted]	[redacted]
	AMI ACS	[redacted]	[redacted]
Jemena Ltd	**Operating Costs**	[redacted]	[redacted]
	Regulatory	[redacted]	[redacted]
	IT	[redacted]	[redacted]
	Others ACS and others **Maintenance Costs**	[redacted]	[redacted]
	Addition to Fixed Assets	[redacted]	[redacted]
	SCADA/Network Control	[redacted]	[redacted]
	Non Network General – IT	[redacted]	[redacted]

6. CAPITALISATION POLICY

6.1 CHANGES IN CAPITALISATION POLICY STATEMENT

110. Section 6.1 of Schedule 1 to the RIN requires JEN to identify all changes between the capitalisation policy statements provided in response to Section 1.1(e) of Schedule 1 to the RIN.

111. JEN advises that there was no change to its capitalisation policy for the Relevant Regulatory Year ending 31 December 2014. JEN has attached its current capitalisation policy at Attachment 1-6 of JEN's response.

6.2 IMPACT OF CHANGE

112. As stated in section 6.1 of JEN's response, there was no change to its capitalisation policy for 2014. Therefore, Section 6.2 of Schedule 1 to the RIN is not applicable.

7. DEMAND MANAGEMENT INNOVATION ALLOWANCE (DMIA)

113. In this section, JEN responds to section 4 of Schedule 1 to the RIN for the 2014 Relevant Regulatory Year.

7.1 IDENTIFICATION OF DEMAND MANAGEMENT PROJECTS OR PROGRAMS

114. Section 7.1 of Schedule 1 to the RIN requires JEN to identify each demand management project or program which JEN seeks approval of.

115. JEN seeks approval for two projects for the 2014 Regulatory Year;

1. Demand Response Field Trial – Phase 1

JEN has initiated a Demand Response Field Trial (**DRFT**) project to develop our understanding of the benefits, costs, pricing / commercial arrangements and operational structures of customer controlled demand response (**DR**) programs. Phase 1 of the trial includes model development and desktop analysis and was completed in January 2015.

2. Impact of the Energy Portal[9] on Customers' Consumption Habits

Following on from the release of the Energy Portal to Jemena customers in June 2012, Jemena undertook an initiative in 2013 and 2014 to understand the impact of the Energy Portal on customers' electricity consumption. JEN seeks approval for costs associated with the continued engagement of a contract analyst in the 2014 Regulatory Year to assess the capabilities of the Energy Portal as a demand management tool and to promote the portal to JEN's customers.

7.2 DETAILED INFORMATION – DEMAND RESPONSE FIELD TRIAL, PHASE 1

116. Section 7.2 of Schedule 1 to the RIN requires JEN to provide detailed information for each demand management project or program identified in response to section 7.1 of Schedule 1 to the RIN.

7.2.1 COMPLIANCE

117. Section 7.2(a)(i) of Schedule 1 to the RIN requires JEN to explain how JEN's initiative complies with the DMIA criteria set out in section 3.1.3 of the Demand Management Incentive Scheme (**DMIS**).

118. Customer controlled demand response is a demand management solution that may be used for substituting or deferring network augmentation works required for mitigating capacity constraints. Such demand response programs require aggregation of suitable customers and contracting; technology deployment; performance testing; dispatch and operations; and financial settlements. The DNSP would have control over operations and dispatch and have the ability to call a demand response event when the network conditions require a reduction in load – either during times of high network load or during outage conditions.

119. Jemena has initiated a DRFT project in 2014 to develop our understanding of the benefits, costs, pricing / commercial arrangements and operational structures of targeted demand response programmes. Phase 1 of the trial which includes model development and desktop analysis was finalised in January 2015.

[9] or 'JEN Electricity Outlook' as it is branded

120. JEN considers that the activities associated with the Demand Response Field Trial – Phase 1 in the 2014 Regulatory Year complies with DMIA criteria, set out in section 3.1.3 of the DMIS, in the following ways:

- Section 3.1.3-1 – The project is aimed at developing Jemena's capabilities to reduce peak demand through customer controlled demand response projects, rather than increasing supply capacity through network augmentation.
- Section 3.1.3-2 – The project is a peak demand management initiative which aims to address specific network constraints by reducing demand on the network at the location and time of the constraint.
- Section 3.1.3-3 – The project deliverables are to prepare Jemena for various elements of customer controlled demand response programs as an effective and efficient demand management solution.
- Section 3.1.3-4 – The project is a non-tariff based project and the costs are not recovered under any other incentive scheme.
- Section 3.1.3-5 – The project cost has not been recovered under other schemes. See 7.2.8 of JEN's response for more details.
- Section 3.1.3-6 – The nature of expenditure is operating expenditure.

7.2.2 NATURE AND SCOPE

121. Section 7.2(a)(ii) of Schedule 1 to the RIN requires JEN to explain the nature and scope of JEN's initiative.

122. The scope of work for the Demand Response Field Trial – Phase 1 includes the following key deliverables:

- **DR Benefits Model**

  The model has the necessary parameters and structures to evaluate the benefits of applying a DR solution to better manage risk across the network; specifically the ability of DR to mitigate and transfer risk (unserved energy) in two key scenarios of Network asset deferrals and Outage risk transfer. The pricing model described below estimates the costs of building up and operating a DR program for these two scenarios and together with the benefits the model will determine the economic viability of the solution.

- **DR Pricing Model**

  The pricing model for a demand response solution includes the relevant pricing points for different classes of customers. The pricing model is developed in a form that Jemena can iterate and use to determine pricing for different customer classifications in future pricing assessment of demand response solutions. The pricing model will be built around each MVA of the load mitigated on a sub transmission line, associated zone substations and / or HV feeder circuits.

- **DR Operating Structures**

  The end-to-end operating structures for a typical DR solution includes options for pre- and post-contingency response, notice period, sales, contracting of load, site monitoring installations, dispatch operations, verification and settlements and implementation timeline.

123. JEN has engaged a Demand Response technology provider as a consultant to provide the deliverables in the Phase 1 project scope.

7.2.3 AIMS AND EXPECTATIONS

124. Section 7.2(a)(iii) of Schedule 1 to the RIN requires JEN to explain the aims and expectations of JEN's initiative.

125. The aims and expectations of the Demand Response Field Trial - Phase 1 project are to:

- Understand the benefits, costs and operating structures of DR as a viable demand management solution;
- Investigate DR for possible future implementation within the Jemena electricity network with the objective of deferring network augmentation works or mitigating network outage risk;
- Develop Jemena's capabilities in the area so as to facilitate the evaluation and implementation of DR solutions from various market providers, especially in response to Jemena's regulatory investment test (RIT-D) process for large capital projects; and
- Lay the foundation for the Demand Response Field Trial - Phase 2 project, which is aimed at field trialling the learnings and validating the models developed in Phase 1.

7.2.4 SELECTION PROCESS

126. Section 7.2(a)(iv) of Schedule 1 to the RIN requires JEN to explain the process by which JEN's project was selected, including its business case and consideration of any alternatives.

127. Advances in demand management technologies and approaches represent an opportunity for Jemena to manage and transfer risk in ways that have not previously been possible. By undertaking this project, Jemena intends to develop and refine its approach and strategy on demand management to provide safe, reliable and cost effective solutions to its customers.

128. DR allows Jemena to better manage risk across its network. The economics of doing so and specifically the ability of DR to mitigate and transfer risk (unserved energy) in two key scenarios are investigated; namely network asset deferrals and improving network reliability.

129. Jemena can leverage DR to transfer network risk to customers both before and during outages reducing the overall costs of network operation. Regardless of the asset used to undertake DR (customer side generation, curtailment or storage) effective risk transfer can be achieved through DR. The cost effectiveness of risk transfer is driven by the ability of the available customer base, DR technologies, and business processes with a fast enough reaction time to mitigate the impact of network outages.

130. Any operating and contractual model implemented by Jemena must be structured in such a way as to allow effective management of DR programs that support asset deferral and network reliability. The effective use of DR as a tool to support network reliability is clearly aligned to business as usual activities for network controllers as it requires a high degree of visibility and control. Likewise, utilizing DR for asset deferral can help Jemena achieve the best possible economic outcome for its customers, while maintaining the same level of network reliability. Both scenarios that were investigated conform to the AER's DMIS criteria and are in line with the recommendations from the AEMC's Power of Choice review.

7.2.5 IMPLEMENTATION

131. Section 7.2(a)(v) of Schedule 1 to the RIN requires JEN to explain how JEN's initiative was implemented.

132. The works associated with the Demand Response Field Trial - Phase 1 project that were completed in 2014 have been delivered as follows:

1. Project Planning: Identify the aspects of customer controlled demand response that are most relevant for Jemena; seek potential project partners with industry expertise; and develop detailed scope of work, deliverables and timeline with consultant.

2. DR Benefits Model development with identification of key parameters and structures. Case studies undertaken to validate the models.
3. DR Pricing Model development, including a formulation of pricing strategies generally employed by DR aggregators and related sensitivity studies.
4. DR Operational Structures and a documentations of all sub-processes including customer survey, contracting of load, technology deployment, site monitoring installations, dispatch operations, verification and settlements.
5. Reporting and Recommendations: Prepare a technical report documenting the models developed and key parameters / structures relevant for successful implementation of a DR program. Also, develop recommendations for Phase 2 of the project.
   This activity is ongoing and scheduled for completion in January 2015.

7.2.6 IMPLEMENTATION COSTS

133. Section 7.2(a)(vi) of Schedule 1 to the RIN requires JEN to explain the implementation costs of JEN's project.

134. The actual expenditure for the Demand Response Field Trial - Phase 1 project incurred in the 2014 Regulatory Year was $26,325, as set out in Appendix B - Template 23 (DMIS – DMIA) (Attachment 1-1 of JEN's response). This represents part payment (50%) of the contract engagement, with the remaining payment expected to be made in early 2015.

7.2.7 BENEFITS

135. Section 7.2(a)(vii) of Schedule 1 to the RIN requires JEN to explain any identifiable benefits that have arisen from JEN's project, including any off peak or peak demand reduction.

136. As the Demand Response Field Trial – Phase 1 project is limited to desktop analysis and modelling, there have been no quantifiable benefits in terms of reduction in peak demand. However, the learnings from Phase 1 will be directly applicable to Phase 2 of the project where a field trial will be conducted with large commercial / industrial customers in the Jemena network. It is expected that there will be identifiable benefits in terms of peak demand reduction during the operation of Phase 2.

7.2.8 ASSOCIATED COSTS

137. Section 7.2(b) of Schedule 1 to the RIN requires JEN to state whether the costs associated with JEN's initiative have been recovered under other schemes.

138. The associated costs for the development of the Demand Response Field Trial – Phase 1 have not been:

- recovered under any other jurisdictional incentive scheme,
- recovered under any other Commonwealth or State Government scheme, and
- included in the forecast capital or operating expenditure approved in the 2011-15 Distribution Determination or recovered under any other incentive scheme in that determination.

7.2.9 FORGONE REVENUE ASSUMPTIONS AND / OR ESTIMATES

139. Section 7.2(c) of Schedule 1 to the RIN requires JEN to explain any assumptions and/or estimates used in the calculation of forgone revenue, demonstrating the reasonableness of those assumptions and/or estimates in calculating forgone revenue, including the reasons for JEN's decision to adjust or not to adjust for other factors and the basis for any such adjustments.

140. Phase 1 of the Demand Response Field Trial project is limited to a desktop analysis of DR as a viable DM solution and the development of appropriate models. JEN will field trial DR in Phase 2 of this project and therefore, JEN does not seek to recover forgone revenue resulting from the Demand Response Field Trial - Phase 1 project for the 2014 Regulatory Year.

141. As such, section 7.2(c) of Schedule 1 to the RIN is not applicable.

7.3 DETAILED INFORMATION - IMPACT OF THE ENERGY PORTAL ON CUSTOMERS' CONSUMPTION HABITS

142. Section 7.2 of Schedule 1 to the RIN requires JEN to provide detailed information for each demand management project or program identified in response to section 7.1 of Schedule 1 to the RIN.

7.3.1 OBLIGATIONS OR REQUIREMENTS

143. Section 7.2(a)(i) of Schedule 1 to the RIN requires JEN to explain how JEN's initiative complies with the DMIA criteria set out in section 3.1.3 of the Demand Management Incentive Scheme (**DMIS**).

144. Expenditure associated with JEN's Energy Portal over three Regulatory Years 2011, 2012 and 2013, was approved by the AER on the basis that the Energy Portal meets the DMIA criteria as set out in section 3.1.3 of the DMIS. An assessment of the capabilities of the Portal as a Demand Management initiative was initiated in 2013 and this effort was concluded in 2014.

145. JEN considers that the continued engagement of a contract analyst in the 2014 Regulatory Year complies with DMIA criteria, set out in section 3.1.3 of the DMIS, in the following ways:

- Section 3.1.3-1 – The project has the potential to provide Demand Management capabilities through promoting portal use among JEN's customers and giving them the tools to manage their demand.
- Section 3.1.3-2 – The project is a broad based Demand Management initiative targeted at consumers with smart meters, and is not aimed at a specific location on the network.
- Section 3.1.3-3 – The project is an initiative designed to explore customers' response to smart metering information and price signals.
- Section 3.1.3-4 – The project is a non-tariff based project and the costs are not recovered under any other incentive scheme.
- Section 3.1.3-5 – The project cost has not been recovered under other schemes. See 7.3.8 of JEN's response for more details.
- Section 3.1.3-6 – The nature of expenditure is operating expenditure.

7.3.2 NATURE AND SCOPE

146. Section 7.2(a)(ii) of Schedule 1 to the RIN requires JEN to explain the nature and scope of JEN's initiative.

147. The nature of the project is to develop a Demand Management initiative based on the already approved Energy Portal and AMI projects.

148. The scope of the project includes the development of questionnaires and strategies as the basis for carrying out surveys in order to understand what impact the Energy Portal has had on our customers. The project deliverables also included collating and providing detailed AMI customer usage data (of customers who had a

smart meter for at least 12 months) and conducting community information sessions regarding electricity usage options such as flexible pricing and load shifting.

7.3.3 AIMS AND EXPECTATIONS

149. Section 7.2(a)(iii) of Schedule 1 to the RIN requires JEN to explain the aims and expectations of JEN's initiative.

150. The aims and expectations of the project are to:

- better understand the behaviour of customers when presented with near real time information about their electricity usage via the Energy Portal
- demonstrate real benefits of the Energy Portal and the AMI technology to consumers, government, regulators and retailers, and
- develop a demand management initiative based on the Energy Portal and the AMI technology.

7.3.4 SELECTION PROCESS

151. Section 7.2(a)(iv) of Schedule 1 to the RIN requires JEN to explain the process by which JEN's project was selected, including its business case and consideration of any alternatives.

152. In 2007, the Victorian Government mandated that AMI meters be rolled out for consumers who have an annual consumption of 160MWh or less. These AMI meters have the potential to support in-home displays (IHDs). However, funding was not provided as part of the Victorian Government's program to develop the support for IHDs, which would allow consumers to obtain information about their consumption.

153. In the absence of funding for binding home area networks (HANs) and IHDs, the Energy Portal project was scoped and developed to provide as much consumption information to consumers as possible. The Energy Portal was delivered in the 2012 Regulatory Year; however, its capability as a demand management initiative was not explored. This was commenced in the Regulatory Year 2013 and the work was continued and finalized in the Regulatory Year 2014.

154. JEN continued to engage a contract analyst (Community Online Communications Advisor) in the 2014 Regulatory Year for the following functions:

- Increase community connectivity by managing and enhancing JEN's digital reach, developing and managing marketing materials and promoting the benefits of the Energy Portal and the AMI technology, and
- Support Demand Management objectives of the business by developing questionnaires, carrying out surveys and analysing customers' behaviour subsequent to portal uptake.

7.3.5 IMPLEMENTATION

155. Section 7.2(a)(v) of Schedule 1 to the RIN requires JEN to explain how JEN's initiative was implemented.

156. The project is being delivered through four phases as follows:

- Develop relevant questionnaires and strategies and carry out surveys to gauge customers' behaviour change after the uptake of the Energy Portal
- Select a control customer group among the Energy Portal customers
- Extract energy consumption usage of customers before their sign-up and after their sign-up to the Energy Portal, and

- Assess the impact of the Energy Portal on customers' consumption pattern and usage.

157. The project was commenced in January 2013. Extraction of data and analysis of impact was continued in 2014.

7.3.6 IMPLEMENTATION COSTS

158. Section 7.2(a)(vi) of Schedule 1 to the RIN requires JEN to explain the implementation costs of JEN's project.

159. The actual expenditure for the Energy Portal project incurred in the 2014 Regulatory Year was $37,539, as set out in Appendix B - Template 23 (DMIS – DMIA) (Attachment 1-1 of JEN's response).

7.3.7 BENEFITS

160. Section 7.2(a)(vii) of Schedule 1 to the RIN requires JEN to explain any identifiable benefits that have arisen from JEN's project, including any off peak or peak demand reduction.

161. An assessment of the surveys carried out so far indicates that the project is beneficial, as consumers have already taken steps in reducing their electricity bill. An assessment of energy consumption change as a result of the Energy Portal take-up has been progressed as well.

7.3.8 ASSOCIATED COSTS

162. Section 7.2(b) of Schedule 1 to the RIN requires JEN to state whether the costs associated with JEN's initiative have been recovered under other schemes.

163. The associated costs for the development of JEN's Energy Portal have not been:

- recovered under any other jurisdictional incentive scheme,
- recovered under any other Commonwealth or State Government scheme, and
- included in the forecast capital or operating expenditure approved in the 2011-15 Distribution Determination or recovered under any other incentive scheme in that determination.

7.3.9 FORGONE REVENUE ASSUMPTIONS AND / OR ESTIMATES

164. Section 7.2(c) of Schedule 1 to the RIN requires JEN to explain any assumptions and/or estimates used in the calculation of forgone revenue, demonstrating the reasonableness of those assumptions and/or estimates in calculating forgone revenue, including the reasons for JEN's decision to adjust or not to adjust for other factors and the basis for any such adjustments.

165. Due to the limited availability of the Energy Portal project to JEN consumers in the 2014 Regulatory Year, JEN does not consider that its revenue has been impacted. Therefore, JEN does not seek to recover forgone revenue resulting from the Energy Portal project for the 2014 Regulatory Year.

166. As such, section 7.2(c) of Schedule 1 to the RIN is not applicable.

7.4 DEMAND MANAGEMENT INNOVATION ALLOWANCE

167. Section 7.3 of Schedule 1 to the RIN requires JEN to state the total amount of the DMIA spent in the Relevant Regulatory Year and explain how it was calculated.

168. The actual costs incurred in the 2014 Regulatory Year for both projects were $63,864 as set out in Excel template 23 (DMIS – DMIA) Appendix B (Attachment 1-1 of JEN's response to the RIN).

169. The project cost (materials, internal labour and external labour) is tracked in JEN's accounting systems.

8. ADVANCED METERING INFRASTRUCTURE

170. In this section, JEN responds to section 8 of Schedule 1 to the RIN for the 2014 Relevant Regulatory Year.

8.1 EFFICIENCY IMPROVEMENTS

171. Section 8.1 of Schedule 1 to the RIN requires JEN to provide a description and estimate of all efficiency improvements on JEN's operations directly or indirectly arising from or associated with the roll out of AMI.

172. As at the end of the 2014 Relevant Regulatory Year, no quantifiable efficiency improvements arose in JEN's operations due to the roll out of AMI. However, JEN estimates that approximately $2.18M in customer benefits have been achieved arising from or associated with the roll out of AMI. These benefits accrue to customers and not to JEN.

Customer benefits realised through remote AMI services in 2014

173. Table 8-1 reveals the benefits achieved by JEN's AMI customers in 2014 through the provision of remote AMI services – first by lower charges and second by faster delivery of those services.

Table 8–1: Customer benefits from remote AMI services performed in 2014

Service	Remote AMI Services	Remote AMI Service Charge	Manual Service Charge	Customer benefit ($'000)
Re-energisation	24,730	$6.01	$14.60	$212.43
De-energisation	33,341	$6.01	$24.95	$631.48
Meter re-configuration	3,920	$37.96	$378.92	$1,336.56
Special meter read	0	$1.78	$10.79	$0.00
Total	61,991			$2,180.47

174. Remote service benefits accrue to JEN's customers through lower direct provision costs (avoided site visit) and customer charge. Relevant Alternate Control Services (**ACS**) and excluded services charges are shown in Table 8–1 and demonstrate the differential of remote AMI services when compared to manual services. This differential is the benefit being delivered to the customers. The indicated benefits relate to charges by the distributor and hence customer benefit may be greater, once retailer charges are included.

175. JEN notes that number of remote special meter reads has reduced to zero, as retailer businesses are now using daily reads in lieu of special meter reads for AMI metered sites. The customer / retailer saving associated with avoided manual special meter reads has not been quantified as Jemena cannot reasonably quantify the avoided volume of special meter reads. Consequently, the customer benefit is understated in Table 8–1.

176. JEN anticipates further growth in direct customer benefits pertaining to AMI in the coming years. AMI is still a new system to most customers that introduces new features and services which cannot be directly compared with previous operational baselines. The inefficiencies associated with concurrently operating AMI and legacy metering systems will reduce when the AMI program is fully completed. The primary reasons for this are:

- Up to and including June 2014, the AMI roll out on JEN's network was ongoing, as of the end of year 2014 JEN had successfully exchanged 98% of prescribed AMI customers meters with a residual 2% remaining as non-AMI meters, consequently JEN is still needing to simultaneously support both AMI and non-AMI meters; and
- The majority of operational activities associated with metering (such as meter reading, connection/disconnection of customer supplies) are outsourced. The costs of these outsourced activities have reduced in 2014 on account of the volume of activities but increased on a unit rate basis due to the distances between work orders for remaining manual meter sites. This is due to the need to simultaneously maintain both AMI and non-AMI meters, and the gradual take up of remote AMI services by retailers.

8.2 EFFICIENCY IMPROVEMENT (EXPLANATION AND QUANTUM)

177. Section 8.2 of Schedule 1 to the RIN requires JEN to explain, for efficiency improvements in response to paragraph 8.1, how the efficiency improvements arise from the roll out of AMI and to state the quantum of the efficiency improvements (if quantifiable).

178. While no efficiency improvements accrued directly to JEN, at least $2.18M in customer improvements can be directly quantified in section 8.1 as a result of the AMI rollout. Many consumers with AMI meters are realising broader benefits and/or improved services derived from the JEN AMI rollout in the period including:

- Remote AMI Meter Reading
- Remote AMI Connection and Disconnection
- Remote AMI Meter Re-configuration, and
- Demand Management through Informed AMI Customers.

8.2.1 REMOTE AMI METER READING

179. As of 31 December 2014, a total of 317,954 JEN AMI meters are registered as Type 5 in the market and remotely read with better than 99.8% 'quality and quantity' delivery of data to market daily. Therefore, most of JEN's AMI customers' metering data:

- is available to the market operator by 6AM next business day
- is available to the retailer overnight before the opening of the business day;
- is available to the customer via the web portal "Electricity Outlook" for analysis and information (customer registration required); and
- has improved billing accuracy with straight through processing and less human intervention.

180. Notably, retailer disputes relating to contested consumption in the majority of instances involved a non-AMI meter. Therefore, automated remote AMI meter reading has reduced the number of disputes, realising a benefit for the consumer and energy market.

8.2.2 REMOTE AMI CONNECTION AND DISCONNECTION

181. In 2014, 32,911 connections and 36,344 disconnections were performed, of which 58,071 (or 83.8%) were performed remotely using AMI enabled systems. Remote connection/disconnection eliminates the need for a site visit and so JEN customers benefit directly via lower charges and improved service delivery (refer Table 8–1). Of the total connection and disconnections, 11,184 were performed manually because an AMI meter was

either not yet installed, the respective retailer was not registered for remote services or the customer required a manual service for a safety constraint. With 98% of AMI meters deployed at the end of 2014, the requirement for manual fuse pulls has dramatically dropped in conjunction with the increased take up rate of remote AMI services. It is important to note that fuse removals and service removals are still required for AMI-enabled network connections when, for instance, electrical works require that the supply be isolated at the fuse or connection point.

8.2.3 REMOTE AMI METER RE-CONFIGURATION

182. When a customer installs co-generation (e.g. solar system), the metering installation is required to be altered to measure energy exported to the grid. When an AMI meter has previously been installed, this operation is performed by remote re-configuration, improving service delivery efficiency through the avoidance of a site visit. JEN customers also benefit via lower charges (refer Table 8–1). In 2014, JEN performed 3,920 remote re-configurations (customer initiated).

183. In addition to customer initiated remote AMI meter re-configuration Jemena routinely manage and maintain meter firmware and configurations through remote configuration. In total an estimated 27,348 remote re-configurations were performed in 2014. For example a recently installed meter will be upgraded to the most recent approved version of firmware and configuration as a routine maintenance process early in the meter service life.

8.2.4 DEMAND MANAGEMENT THROUGH INFORMED AMI CUSTOMERS

184. Customers gained benefit from receiving prompt feedback of their energy use. By the end of 2014, 6,261 customers registered for the Jemena Electricity Outlook web portal to gain access to 30-minute energy consumption data and comparison with other consumers. Customers registered for the Electricity Outlook portal have immediate access to consumption data file downloads which can then be used by the My Power Planner electricity price comparator using the SwitchOn website (http://switchon.vic.gov.au/).

9. SAFETY AND BUSHFIRE RELATED EXPENDITURE

1. In this section, JEN responds to section 9 of Schedule 1 to the RIN for the 2014 Regulatory Year.

9.1 ASSET CATEGORIES

2. Section 9.1 of Schedule 1 of the RIN requires JEN to specify and define the relevant Asset Category to which each safety and bushfire related expenditure item relates.

3. The list of each safety and bushfire related expenditure and the relevant Asset Category to which it relates is set out in Table 9–1.

Table 9–1: Safety and bushfire expenditure and Asset Category

Safety & bushfire related expenditure	Asset Categories
Planned non-preferred services replacements	Conductor – LV Services *Low voltage insulated conductor typically runs from a pole to a point of attachment at the customer's premise for the purpose of supplying electricity.*
Planned replacement of non-preferred services due to height	Conductor – LV Services *Low voltage insulated conductor typically runs from a pole to a point of attachment at the customer's premise for the purpose of supplying electricity.*
Removal of public lighting switch wire (spans)	No applicable asset category *Public lighting switch wire is no longer utilised on the network as the mechanism to turn on street lighting. Today, public lighting is PE cell controlled.*
Replacing existing Single Wire Earth Return (**SWER**) lines with 22kV overhead bare conductor (km)	Conductor - HV Bare Conductor *High voltage uninsulated conductor, which is used as mains conductor on a feeder for the purpose of supplying electricity.*
Installing Ground Fault Neutraliser (**GFN**) and associated equipment at zone substations	Zone Substation – Others *A GFN, also known as a Rapid Earth Fault Current Limiter (REFCL), is installed inside a zone substation and has the purpose of limiting earth fault current.*
Replacing crossarms/insulator sets – pole top fire mitigation	Pole top structures – wooden crossarm HV and Pole top structures - wooden crossarm ST *A structure mounted on the top of a pole and, in this case typically consisting of a wooden crossarm and porcelain insulators. The purpose is to support overhead conductors.*
Replacing crossarms – based on age and condition	Pole top structures – wooden crossarm ST, Pole top structures – wooden crossarm HV and Pole top structures – wooden crossarm LV *A structure mounted on the top of a pole and, in this case typically consists of a wooden crossarm and porcelain insulators. The purpose is to support overhead conductors.*

Safety & bushfire related expenditure	Asset Categories
Replacing poles – based on age and condition	Poles *A pole may be made of wood, steel or concrete, the purpose of which is to support the pole top structure, public lights and overhead conductors.*
Stake poles – based on age and condition	Poles - Staked Poles *A pole may be made of wood, steel or concrete. The purpose is to support the pole top structure, public lights and overhead conductors. In this case the pole has been reinforced with steel stakes.*
Replacing undersized poles	Poles *A pole may be made of wood, steel or concrete, the purpose of which is to support the pole top structure, public lights and overhead conductors.*
Staking undersized poles	Poles – Staked Poles *A pole may be made of wood, steel or concrete. The purpose is to support the pole top structure, public lights and overhead conductors. In this case the pole has been reinforced with steel stakes.*
Replacing overhead conductor – mainly steel	Conductor - HV Bare Conductor *High voltage uninsulated conductor which is used as mains conductor on a feeder for the purpose of transporting electricity.*
Service line clearance – overhead services requiring relocation or undergrounding	Conductor – LV Services *Low voltage insulated conductor typically runs from a pole to a point of attachment at the customers premise for the purpose of supplying electricity.*
Distribution Transformer Height Rectification	Distribution - Others *Distribution transformers may be installed in kiosks, in ground mounted enclosures, inside buildings or mounted on poles. The purpose of the transformer is to step down the voltage. The distribution transformer height rectification refers to work required to raise the height of pole-mounted transformer.*
Vibration Dampers and Armour Rods	Conductor - HV Bare Conductor *High voltage uninsulated conductor which is used as mains conductor on a feeder for the purpose of supplying electricity.*
Zone Substation Earth Grid replacements	Zone Substation – Others *Earth grids at zone substations are designed to reduce the step and touch potential. Step Potential is the difference in voltage between two points on the ground that a person could touch in one step, and Touch Potential is the difference in voltage between a point on the ground and that of a conductive material within arms reach.*
Trial of Neutral Condition Monitor	Others *The purpose of the neutral condition monitor is to improve public health and safety through continuous monitoring of the integrity of the supply neutral.*

9.2 VARIANCE ANALYSIS

4. Section 9.2 of Schedule 1 to the RIN requires JEN to identify each material difference (where the difference is equal to or greater than 10 per cent), in relation to the asset categories specified in response to paragraph 9.1.

5. While section 9.2 of Schedule 1 to the RIN requires a variance analysis in relation to asset categories, the forecast volume and expenditure information included in the AER's 2011-15 Distribution Determination has not always been presented by asset category. As such, JEN has only provided variance analysis by asset category where possible. Otherwise, JEN has provided variance analysis by program in this section.

9.2.1 VARIANCE ANALYSIS - VOLUME

6. Section 9.2(a) of Schedule 1 to the RIN requires JEN to identify each material difference between actual and forecast volumes. The variance analysis for each material difference is set out in Table 9–2.

Table 9–2: Actual volume vs forecast volume

Asset Categories	Units	Actual	Allowance	Variance %
Conductor - LV Services	services	7,450	6,412	16%
Removal of Public Lighting Switch Wire	spans removed	2,330	1,700	37%
Conductor - HV Bare Conductor	kms	40	25	28%
Zone Substation - Others	zone substation	-	1	(100%)
Pole top structures	poles	1,979	3,390	(46%)
Poles	poles	694	536	30%
Pole - Staked Poles	poles	1,415	443	220%

(1) where annual volume data has not been included in the AER's final determination, JEN divided the five year cumulative amount to derive the forecast for 2014 to facilitate the required variance analysis.

9.2.2 VARIANCE ANALYSIS - EXPENDITURE

7. Section 9.2(b) of Schedule 1 to the RIN requires JEN to identify each material difference between actual and forecast expenditure. The variance analysis for each material difference is set out in Table 9–3 . When considering the variances it should be noted that the actual expenditure has been expressed in nominal dollars and the forecast expenditure has been expressed in both 2010 dollars and converted to nominal dollars to facilitate variance analysis.

Table 9–3: Actual expenditure vs forecast expenditure

Asset Category	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Conductor - LV Services	[redacted]	2.18	2.41	[redacted]
Removal of Public Lighting Switch Wire		0.33	0.37	
Zone Substation - Others		0.95	1.05	
Pole top structures		7.20	7.98	
Poles		2.76	3.06	
Pole - Staked Poles		0.35	0.39	

9.2.3 VARIANCE ANALYSIS - UNIT COSTS

8. Section 9.3(c) requires JEN to identify each material difference between actual and forecast unit costs. The variance analysis for each material difference (by program) is set out in Table 9–4 . When considering the variances it should be noted that the actual unit rate has been expressed in nominal dollars and the forecast unit rate has been expressed in both 2010 dollars, as per the AER's RIN template, as well as nominal dollars to facilitate variance analysis.

Table 9–4: Actual unit costs vs forecast unit costs

Program	Actual $Nominal	Allowance $Real2010	Allowance $Nominal	Variance %Nominal
Planned non-preferred services replacements	[redacted]	304	337]	[redacted]
Planned replacement of non-preferred services due to height		304	337]	
Removal of public lighting switch wire		180	200]	
Replacement of existing SWER lines with 22kV overhead bare conductor		177,207	196,494]	
Installation of GFN and associated equipment at zone substations		1,458	1,617]	
Replacement of crossarms/insulator sets – pole top fire mitigation		2,419	2,682]	
Replacement of crossarms – based on age and condition		1,874	2,078]	
Replacement of poles – based on age and condition		4,977	5,519]	
Stake poles – based on age and condition		737	817]	
Replacement of undersized poles		4,567	5,064]	
Stake undersized poles		731	811]	
Replacement of overhead conductor – mainly steel		55,694	61,755]	
Service line clearance – overhead services requiring relocation		304	337]	
Service line clearance – overhead services requiring undergrounding		5,063	5,614]	
Distribution Transformer Height Rectification		-	0]	
Zone Substation Earth Grid replacements		-	0]	
Trial of Neutral Condition Monitor		-	0]	
Vibration Dampers and Armour Rods		-	0]	

9.3 REASONS FOR VARIANCES BY PROGRAM

9. Section 9.3 of Schedule 1 to the RIN requires JEN to provide reasons for each material difference identified in the response to paragraph 9.2.

10. As stated in section 9.2 Variance analysis of JEN's response, the forecast information included in the 2011-15 Distribution Determination has not always been presented by asset category. Further, the data required and the analysis carried out in Template 22 of Appendix B (Attachment 1-1 of JEN's response) has been presented by program. Hence, JEN provides reasons for material differences by program in this section. In section 9.4 of JEN's response, JEN provides analysis by asset category, where possible, cross referencing to section 1.

9.3.1 PLANNED NON-PREFERRED SERVICE REPLACEMENTS

11. The material variances in relation to planned non-preferred service replacements are set out in Table 8–5.

Table 9–5: Planned non-preferred service replacements

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume (units)	6,201	6,000	6,000	3%
Expenditure ($M)	[redacted]	[redacted]	[redacted]	146%
Unit Cost ($)	[redacted]	[redacted]	[redacted]	219%

Volume variance

12. 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. Particular attention is paid to the types of open wire, red lead and neutral screened services which exhibit historical trends of deterioration.

13. In 2014 JEN has exceeded target volumes for this program. JEN is well advanced with the detailed scoping of the specific services that will be targeted for replacement and is aiming to achieve the forecast volume of planned non-preferred service replacements in 2015.

Unit cost variance

14. The unit rate of [redacted] is the actual unit rate cost to replace non-preferred services and non-compliant services due to height. JEN is unable to report the unit rates for each type of replacement, as the data is not collected separately. Examining the project cost and number of services replaced as part of JEN's Service Rectification Program, the 2014 replacement cost was determined.

15. JEN's proposed unit rate of [redacted] was based on assuming that economies of scale were achieved through replacing services on consecutive premises. This would be achieved through reducing travel time between jobs both at the time of construction and auditing. There would also be a reduction in traffic management costs. These economies of scale have not been realised, because in 2014, JEN has continued to address the services with the lowest ground clearance in order to minimise the risk associated with low services. These services are located across the network rather than in concentrated locations.

16. Note that the unit cost is not equal to expenditure divided by volume. The volume of services replaced is inclusive of those occurring as part of other works, for instance a pole replacement, whereas the expenditure is only for the cost of the non-preferred service replacement project. To derive a more accurate unit cost, JEN has only included the volume of service replacements from the specific project

Expenditure variance

17. The expenditure variance is due to both increased volumes and including expenditure for the planned replacement of non-preferred services due to height, which has a higher unit rate. JEN is unable to report the expenditure for each type of replacement, as the cost for the two programs is not collected separately. The higher unit cost has contributed to a materially higher than forecast expenditure in 2014.

9.3.2 PLANNED REPLACEMENT OF NON-PREFERRED SERVICES DUE TO HEIGHT

18. The material variances in relation to planned replacement of non-preferred service due to height are set out in **Table** 8-6.

Table 9–6: Planned replacement of non-preferred service due to height

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %
Volume (units)	1,230	341	341	261%
Expenditure ($M)	-	0.11	0.12	(100%)
Unit Cost ($)	[redacted]			219%

Volume variance

19. The materially higher than forecast volume of work completed in 2014 was due to priority being given to a similar, but distinct type of replacement—'Planned replacement of non-preferred services due to height'.

Unit cost variance

20. As stated in paragraph 163, the unit rate of [redacted] is the actual unit rate cost to replace non-preferred services and non-compliant services due to height. JEN is unable to report on the unit rate costs separately in 2014, as the data is not collected separately. JEN's proposed unit rate of [redacted] was based on assuming economies of scale were achieved by replacing services on consecutive premises. As described above in paragraph 163, JEN has not achieved these economies of scale.

Expenditure variance

21. The expenditure variance is due to the relevant costs having been reported under planned non-preferred service replacements. JEN is unable to report the expenditure for each type of replacement as the cost is not collected separately.

9.3.3 PUBLIC LIGHTING SWITCH WIRE REMOVAL

22. The material variances in relation to public lighting switch wire removal are set out in Table 9–7.

Table 9–7: Public lighting switch wire removal

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume (units)	2,330	1,700	1,700	37%
Expenditure ($M)	[redacted]			82%
Unit Cost ($)	[redacted]			32%

Volume variance

23. JEN has again delivered a high volume in 2014 and has now achieved the target for the regulatory period.

24. Public lighting switch wires are removed primarily as part of a proactive program, as well as in conjunction with other work, such as network augmentation, pole replacement, re-conductoring and asset relocation.

Unit cost variance

25. The unit rate cost is dependent on variation in complexity of work sites, particularly with regard to requirements for traffic management. A more meaningful comparison of unit rates will be to compare the average unit rate over the 5 year program of work.

Expenditure variance

26. The higher unit cost and high volume of work has contributed to the expenditure variance.

9.3.4 REPLACING EXISTING SWER LINES WITH 22KV OVERHEAD BARE CONDUCTOR

27. The material variances in relation to replacing existing SWER lines with 22kV overhead bare conductor are set out in Table 9–8.

Table 9–8: Replacing existing SWER lines with 22kV overhead bare conductor

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume (units)	-	3	3	(100%)
Expenditure ($M)	-	0.50	0.55	(100%)
Unit Cost ($)	[redacted]	[redacted]	[redacted]	(100%)

Volume and expenditure variance

28. JEN has completed the replacement of all SWER lines and as such no expenditure was recorded in 2014.

9.3.5 REPLACEMENT OF CROSSARMS/INSULATOR SETS – POLE TOP FORE MITIGATION

29. The material variances for replacing crossarms – based on age and condition are set out in Table 9–9.

Table 9–9: Replacement of crossarms – pole top fire mitigation

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume (units)	823	567	567	45%
Expenditure ($M)	[redacted]	[redacted]	[redacted]	87%
Unit Cost ($)	[redacted]	[redacted]	[redacted]	23%

Volume variance

30. JEN identified and replaced 823 crossarms/insulator sets in the targeted pole fire mitigation area in 2014. JEN is on target to achieve the 5 year target.

Unit cost variance

31. In its EDPR submission, the AER determined a single unit rate for pole top replacement based on a weighted average calculation. The actual unit rate varies depending on the proportion of complex pole top structures that were completed in 2014.

Expenditure variance

32. The higher unit cost and high volume of work has contributed to the expenditure variance.

9.3.6 REPLACEMENT OF CROSSARMS - BASED ON AGE AND CONDITION

33. The material variances for replacing crossarms – based on age and condition are set out in Table 9–10.

Table 9–10: Replacement of crossarms – based on age and condition

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume (units)	1,010	2,823	2,823	(64%)
Expenditure ($M)	[redacted]			(43%)
Unit Cost ($)	[redacted]			71%

Volume variance

34. JEN's asset inspection program assesses the serviceability of crossarms based on condition. Crossarms are replaced when they reach the end of their service life. This means the actual volume of crossarms replaced may show variation from year to year, depending on the asset inspection program and the areas covered in each year's program.

35. However, the forecast included in the 2011-15 Distribution Determination is determined by dividing the cumulative amount by five – to accord with the five year regulatory control period.

Unit cost variance

36. In its EDPR submission, JEN proposed separate unit replacement rates and volumes for low voltage (**LV**), high voltage (**HV**) and subtransmission (**ST**) crossarms. The AER determined a single unit rate for crossarm replacement based on a weighted average calculation. The result was a unit rate weighted in favour of LV crossarms which has the lowest unit rate and the highest proposed volume in JEN's 5-year proposal (the split between LV, HV, ST crossarm volumes was 80, 16 and 4% respectively). Moreover, in the final determination the AER reduced JEN's proposed unit cost by 15%.

37. For the reason stated below in expenditure variance, JEN cannot determine the unit cost by simply dividing the total expenditure with the volume of crossarm replacement. JEN has examined a large number of work orders for crossarm replacements undertaken in 2014 in detail to determine the replacement cost for 2014. In 2014 the ratio of LV, HV & ST crossarms replaced was 57 and 43% respectively. As the unit replacement cost for HV and ST crossarms is higher than that of an LV crossarm due to the complexity of the pole structure, the weighted average unit rate for 2014 is higher than the AER's unit rate.

Expenditure variance

38. Crossarms are also replaced as a result of network augmentation programs in addition to asset replacement programs. Replacing crossarms as part of a network augmentation project results in the cost of the crossarm

replacement being captured as a part of the network augmentation project, with these costs not being separately identified.

39. With the costs captured under network augmentation projects, the cost for replacing crossarms – based on age and condition has been understated. This understatement has contributed to the material variance in total expenditure.

9.3.7 REPLACEMENT OF POLES - BASED ON AGE AND CONDITION

40. The material variances for replacing poles – based on age and condition are set out in Table 9–11

Table 9–11: Replacement of poles – based on age and condition

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume (units)	447	259	259	73%
Expenditure ($M)	[[redacted]			156%
Unit Cost ($)	[[redacted]			137%

Volume variance

41. JEN's asset inspection program comprises a technical measurement procedure to determine the serviceability of wood and steel poles. Poles are replaced after reaching the end of their service life and are unsuitable for staking. As poles are replaced based on condition, pole replacement volume is expected to vary from year to year.

42. The volume and complexity of the poles that require replacement each year will be influenced by the characteristics of the particular pole inspection zone (geographical area) that is inspected in that year. Some inspection zones will result in higher volumes and more complex poles to be replaced when compared with other zones.

Unit cost variance

43. The higher than forecast unit cost is the result of the variation in the ratio of subtransmission, high voltage, low voltage and public lighting poles that require replacement. In other words, if there is a high proportion of complex poles, particularly high voltage, the unit cost will be higher than forecast.

44. Further, the forecast unit cost was calculated using a total replacement volume and cost over a number of years, rather than just one year.

45. JEN believes this different calculation basis contributed to the variance.

Expenditure variance

46. The higher than forecast unit cost and volume have contributed to the higher actual expenditure.

9.3.8 STAKE POLES - BASED ON AGE AND CONDITION

47. The material variances for stake poles – based on age and condition are set out in Table 9–12.

Table 9–12: Stake poles – based on age and condition

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume (units)	662	223	223	197%
Expenditure ($M)	[redacted]			501%
Unit Cost ($)	[redacted]			95%

Volume variance

48. JEN's asset inspection program comprises a technical measurement procedure to determine the serviceability of wood and steel poles. Poles that are assessed as being suitable are staked after reaching the end of their service life. As poles are staked based on condition, pole staking volume is expected to vary from year to year.

49. Similar to the pole replacement activity (paragraph 191), the volume and complexity of the poles that require staking each year will be influenced by the characteristics of the particular pole inspection zone (geographical area) that is inspected in that year. Some inspection zones will result in higher volumes and more complex poles to be staked when compared with other zones.

Unit cost variance

50. The forecast unit cost was calculated using a total staking volume and cost over a number of years rather than just one year.

51. JEN believes this different calculation basis contributed to the variance.

Expenditure variance

52. The higher than forecast unit costs and volumes have contributed to the higher than forecast expenditure.

9.3.9 REPLACEMENT OF UNDERSIZED POLES

53. The material variances for replacing undersized poles are set out in Table 9–13.

Table 9–13: Replacement of undersized poles

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume (units)	247	277	277	(11%)
Expenditure ($M)	[redacted]			(80%)
Unit Cost ($)	[redacted]			328%

Volume variance

54. Assessing undersized poles identified that a higher than forecast percentage of the poles are suitable for staking. This means that a lower than forecast volume will be replaced. JEN expects to treat the total forecast

number of undersized poles by the end of the 2011-15 Distribution Determination period, although the proportion that will be staked will be higher than forecast.

Unit cost variance

55. The higher than forecast unit cost is the result of the variation in the ratio of subtransmission, high voltage, low voltage and public lighting poles that require replacement. Similar to pole replacement, which was explained in section 9.3.7 if there is a high proportion of complex poles, particularly high voltage, the unit cost will be higher than forecast..

56. Further, the forecast unit cost was calculated using a total replacement volume and cost over a number of years rather than just one year.

57. JEN believes this different calculation basis contributed to the variance.

58. Note that the unit cost is not equal to expenditure divided by volume. The volume of undersized poles replaced is inclusive of those occurring as part of other works, for instance a pole transformer upgrade, whereas the expenditure is only for the cost of the undersized pole replacement project. To derive a more accurate unit cost, JEN has only included the volume of undersized pole replacements from the specific project

Expenditure variance

59. The lower than forecast volume has contributed to the lower than forecast expenditure.

9.3.10 STAKE UNDERSIZED POLES

60. The material variances for stake undersized poles are set out in Table 9–14:

Table 9–14: Stake undersized poles

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume (units)	753	220	220	242%
Expenditure ($M)	[redacted]			210%
Unit Cost ($)	[redacted]			(13%)

Volume variance

61. An assessment of undersized poles has identified that a higher than forecast percentage of the poles are suitable for staking. This means that a higher than forecast volume will be staked. JEN expects to treat the total forecast number of undersized poles by the end of the 2011-15 Distribution Determination period, although the proportion that will be staked will be higher than forecast.

Unit cost variance

62. The lower than forecast unit cost is the result of the variation in the ratio of LV, HV and ST poles that required staking. In order to minimise network risk, JEN has addressed the ST and HV poles in the earlier years of the period. Further, the forecast unit cost was calculated using a total staking volume and cost over a number of years rather than just one year.

63. JEN believes this different calculation basis contributed to the variance.

Expenditure variance

64. The higher than forecast unit cost and higher than forecast completed volume has contributed to the higher than forecast expenditure.

9.3.11 REPLACEMENT OF OVERHEAD CONDUCTOR - MAINLY STEEL

185. The material variances for replacing overhead conductor – mainly steel are set out in Table 9–15**.**

Table 9–15: Replacing overhead conductor – mainly steel

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume (units)	40	22	22	77%
Expenditure ($M)	[redacted]			26%
Unit Cost ($)	[redacted]			(30%)

Volume variance

65. The volume was higher than forecast for 2014 and the overhead conductor replacement program is ahead of target in the Hazardous Bushfire Risk Area (**HBRA**) for the 2011-15 Distribution Determination period.

Unit cost variance

66. The unit rate cost will vary depending on the complexity of the specific project. The complexity is impacted by the ability to obtain access to the assets when the work needs to be undertaken and the length of the conductor replacement. JEN experienced a higher proportion of longer length projects in 2014, resulting in more efficient project delivery.

Expenditure variance

67. The volume variance has contributed to the higher than forecast expenditure.

9.3.12 SERVICE LINE CLEARANCE - OVERHEAD SERVICES REQUIRING RELOCATION

186. The material variances for service line clearance – overhead services requiring relocation are set out in Table 9–16.

Table 9–16: Service line clearance – overhead services requiring relocation

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume (units)	19	57	57	(67%)
Expenditure ($M)	[redacted]			2,101%
Unit Cost ($)	[redacted]			248%

Volume variance

68. Overhead services requiring relocation is driven by the *Electricity Safety (Electric Line Clearance) Regulations 2010* (**Clearance Regulations**). The Clearance Regulations require an increase in clearance requirements for overhead power lines that JEN must comply with under the *Electricity Safety Act 1998*.

69. The options available to ensure compliance are the vegetation management program, overhead services relocation or undergrounding. Overhead services relocation or undergrounding could take place when the vegetation management program is not able to meet the clearance requirements (as stipulated in the Clearance Regulations) without permanently damaging the tree or adversely affecting the aesthetics of the vegetation.

70. In 2014 JEN continued identifying the overhead services in need of relocation via its vegetation inspection cycle. Upon completing the fourth year of the Service Line Clearance program, it has become evident that the volume of service lines that require relocation in order to achieve compliance is lower than the original forecast. This forecast was based on the best information available at the time of the EDPR submission.

71. JEN did, however, underestimate the volume of other assets that would require relocation or replacement. In order to ensure compliance, it has been necessary for JEN, in 2014, to not only relocate 19 services, but to replace 28 spans of LV open wire conductor with LV ABC, replace 5 distribution poles, install 8 service poles and offset crossarms on 3 bays.

Unit cost variance

72. JEN's proposed unit rate was based on assuming that economies of scale were achieved through relocating services on premises in close proximity. This would be achieved through reducing travel time between jobs both at the time of construction and auditing. There would also be a reduction in traffic management costs. These economies of scale have not been realised, because in 2014 JEN has not identified a significant volume of service lines that require relocation in order to achieve compliance. The services requiring relocation in 2014 were located across the network rather than in concentrated locations.

73. Unlike 2013, the unit cost is not impacted by the installation and/or replacement of other assets, as only the service relocation costs have been considered for the development of the unit cost.

Expenditure variance

74. The cost associated with relocating 19 services, replacing 28 spans of LV open wire conductor with LV ABC, replacing 5 distribution poles, installing 8 service poles and offsetting crossarms on 3 bays are included in the expenditure. Therefore, although there is a lesser volume of overhead services relocated, the expenditure is much larger on the basis that is not only related to overhead services.

9.3.13 SERVICE LINE CLEARANCE - OVERHEAD SERVICES REQUIRING UNDERGROUNDING

75. The material variances for Service line clearance – overhead services requiring undergrounding are set out in Table 9–17:

Table 9–17: Service line clearance – overhead services requiring undergrounding

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume (units)	-	14	14	(100%)
Expenditure ($M)	-	0.077	0.085	(100%)
Unit Cost ($)	-	5,063	5,614	(100%)

76. As stated in 9.3.12, the undergrounding of overhead services is one of the options to ensure compliance with the Clearance Regulations.

Volume and expenditure variance

77. JEN did not identify opportunities for any undergrounding work in 2014. JEN has continued to utilise its vegetation inspection cycle to identify any potential services that require an underground solution. As described in section 8.3.11, JEN has relocated and replaced a range of overhead assets in order to achieve compliance.

9.3.14 VIBRATION DAMPERS AND ARMOUR RODS

78. The material variances for vibration dampers and armour rods are set out in Table 9–18.

Table 9–18: Vibration dampers and armour rods

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume (sets) – Vibration Dampers	76	-	-	+100%
Volume (spans) - Armour Rods	2,068	-	-	+100%
Expenditure ($M)	[redacted]	-	-	+100%
Unit Cost ($)	[redacted]	-	-	+100%

79. In response to the Victorian Bushfires Royal Commission, Energy Safe Victoria (**ESV**) issued a directive to JEN under the *Electricity Safety Act (1998)* which requires, in part, that vibration dampers and armour rods be installed on all conductors on the network as per network standards.

80. JEN prepared a plan to retrofit vibration dampers and armour rods in accordance with construction standards by 2015.

81. The ESV directive was issued after JEN submitted its revised proposal (in July 2010) to the AER. As such, the AER has not allowed expenditure for this safety program of work in its 2011-15 Distribution Determination.

9.3.15 DISTRIBUTION TRANSFORMER HEIGHT RECTIFICATION

82. The material variances for distribution transformer height rectification are set out in Table 9–19

Table 9–19: Distribution transformer height rectification

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume (units)	25	-	-	+100%
Expenditure ($M)	[redacted]	-	-	+100%
Unit Cost ($)	[redacted]	-	-	+100%

83. The Electricity Safety (Network Assets) Regulations 1999 (**Safety Regulations**) require the supporting platform and equipment for a pole-mounted substation to be a certain minimum distance above ground level.

84. To comply with the Safety Regulations, JEN initiated a program to rectify the distribution transformer height under its Electricity Safety Management Scheme (**ESMS**). The program aims to rectify pole substation platform height non-conformances that have been identified by inspection programs.

85. JEN included the costs for the program in its revised proposal (July 2010). However, the 2011-15 Distribution Determination does not allow for the cost to comply with the Safety Regulations on transformer heights. Notwithstanding the zero allowance, JEN proceeded to carry out works in compliance with the Safety Regulations.

9.3.16 ZONE SUBSTATION EARTH GRID REPLACEMENTS

86. The material variances for zone substation earth grid replacements are set out in Table 9–20.

Table 9–20: Zone substation earth grid replacements

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume (units)	4	-	-	+100%
Expenditure ($M)	[redacted]	-	-	+100%
Unit Cost ($)	[redacted]	-	-	+100%

87. The Safety Regulations require distribution businesses to manage earthing systems to ensure safety compliance. The safety compliance relates principally to ensure the step and touch voltages in high risk or well-frequented areas are kept within industry standards. This is to ensure that the earthing and electrical protection systems safely manage abnormal supply network conditions to avoid risk to people or damage to property.

88. Earth grids at zone substations are designed to reduce the step and touch potential. Step potential is the difference in voltage between two points on the ground that a person could touch in one step, and touch potential is the difference in voltage between a point on the ground and that of a conductive material within arm's reach.

89. JEN included the costs for the earth grid replacement in its revised proposal (July 2010). However, the 2011-15 Distribution Determination does not provide for the cost to comply with the Safety Regulations on earthing system safety. Notwithstanding the zero allowance, JEN proceeded to carry out works in compliance to the Safety Regulations. However, although 4 earth grids were tested, none were identified for replacement in 2014.

9.3.17 TRIAL OF NEUTRAL CONDITION MONITOR

90. The material variances for trial of neutral condition monitor are set out in Table 9–21.

Table 9–21: Trial of neutral condition monitor

	Actual $Nominal	Allowance $Real 2010	Allowance $Nominal	Variance %Nominal
Volume	-	-	-	-
Expenditure	-	-	-	-

91. JEN included a proposal for the trial of a neutral condition monitors in its 2010 regulatory proposal. The trial aims to improve public health and safety through continuous monitoring of the integrity of the supply neutral.

92. In 2010 and 2011, JEN developed an algorithm called Customer Supply Monitoring (**CSM**) that can be deployed into existing generation of smart meters installed on JEN's network to achieve the neutral condition monitor function.

93. JEN then began the process of seeking a partner to commercialise the algorithm. Unfortunately, no commercial partner has been found.

94. As a result, JEN did not incur expenditure in 2014 on the neutral condition monitor trial.

9.4 REASONS FOR MATERIAL DIFFERENCES BY ASSET CATEGORY

95. Section 9.3 of Schedule 1 to the RIN requires JEN to provide reasons for each material difference identified in the response to paragraph 9.2.

96. Due to the limitations stated in section 9.3 of JEN's response, JEN provides reasons for each material difference by program in that section. In this section 9.4, JEN provides variance analysis by asset category where possible, cross referencing to section 9.3.

9.4.1 VOLUME VARIANCE

97. The volume variances by asset category are set out Table 9–22.

Table 9–22: Volume variance by Asset Category

Asset Category	Variance	Reasons for Variance
Conductor - LV Services	Actual volume materially higher than forecast	Refer to sections 9.3.1, 9.3.2, 9.3.12 and 9.3.13 of JEN's response
Removal of Public Lighting Switch Wire	Actual volume materially higher than forecast	Refer to section 9.3.3 of JEN's response
Conductor - HV Bare Conductor	Actual volume materially higher than forecast	Refer to sections 9.3.4, 9.3.11 and 9.3.14 of JEN's response
Zone Substation - Others	Actual volume materially lower than forecast	Refer to section 9.3.16 of JEN's response
Pole top structures	Actual volume materially lower than forecast	Refer to section 9.3.5 and 9.3.6 of JEN's response
Poles	Actual volume materially higher than forecast	Refer to sections 9.3.7 and 9.3.9 of JEN's response
Pole - Staked Poles	Actual volume materially higher than forecast	Refer to sections 9.3.8 and 9.3.10 of JEN's response

9.4.2 EXPENDITURE VARIANCE

98. The expenditure variances by asset category are set out in Table 9–23.

Table 9–23: Expenditure variances by Asset Category

Asset Category	Variance	Reasons for Variance
Conductor - LV Services	Actual expenditure materially higher than forecast	Refer to sections 9.3.1, 9.3.2, 9.3.12 and 9.3.13 of JEN's response
Removal of Public Lighting Switch Wire	Actual expenditure materially higher than forecast	Refer to section 9.3.3 of JEN's response

Zone Substation - Others	Actual expenditure materially lower than forecast	Refer to section 9.3.16 of JEN's response
Pole top structures	Actual expenditure materially lower than forecast	Refer to section 9.3.5 and 9.3.6 of JEN's response
Poles	Actual expenditure materially higher than forecast	Refer to sections 9.3.7 and 9.3.9 of JEN's response
Pole - Staked Poles	Actual expenditure materially higher than forecast	Refer to sections 9.3.8 and 9.3.10 of JEN's response

9.5 REASONS FOR DIFFERENCES BETWEEN THE ACTUAL VOLUMES SUBMITTED AS PART OF THE ESMS AND RAS

99. Section 9.4 of Schedule 1 to the RIN requires JEN to provide reasons for any difference between the actual volumes submitted as part of the ESMS to Energy Safe Victoria and that in the RAS.

100. This requirement is not applicable as there is no difference between the actual volumes submitted as part of the ESMS and that in the RAS.

10. SPONSORSHIP AND MARKETING

187. In this section, JEN responds to Section 10 of Schedule 1 of the RIN for the 2014 Relevant Regulatory Year. Section 10.1 of Schedule 1 to the RIN requires JEN to provide information for all advertising/marketing expenditure allocated to the distribution business.

188. Section 10(a) requires JEN to list the expenditure greater than five percent of the advertising/marketing allocated to the distribution business:

189. JEN's sponsorship and marketing costs are managed at the Jemena Ltd (**JEM**) corporate level. JEM governs the decisions relating to who the beneficiaries are and the amount to be contributed. In the instances below, JEN was able to isolate the specific advertising and marketing costs to the JEN business. The source of these costs are supplier invoices, with the exception of Landcare Australia (a Jemena portfolio sponsorship) where JEN's portion was based on the budget received from this beneficiary.

Table 10–1: JEN's advertising and marketing expenditure

Beneficiary	Amount ($'000)	Purpose	Description of activities undertaken by the beneficiary	Proportion of the total advertising / marketing expenditure allocated to JEN
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	

Beneficiary	Amount ($'000)	Purpose	Description of activities undertaken by the beneficiary	Proportion of the total advertising / marketing expenditure allocated to JEN
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	

Beneficiary	Amount ($'000)	Purpose	Description of activities undertaken by the beneficiary	Proportion of the total advertising / marketing expenditure allocated to JEN
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]			

190. Section 10(b) requires JEN to list all advertising/marketing expenditure allocated to the distribution business that is not reported under 10.1(a)

Table 10–2: JEN advertising and marketing expenditure not reported in 10.1(a)

Beneficiary	Amount ($'000)	Purpose	Description of activities undertaken by the beneficiary	Proportion of the total advertising / marketing expenditure allocated to JEN
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]			

191. Section 10.2 of Schedule 1 to the RIN requires JEN to identify the expenditure item in the statutory accounts from which each of the items in paragraph 10.1(a) was derived.

192. JEN advises that these costs cannot be identified as a line item in JEN's statutory accounts as they are sourced from the JEM corporate portfolio accounts. The expenditure reported above is sourced from Jemena's Policy and External Affairs cost centre.

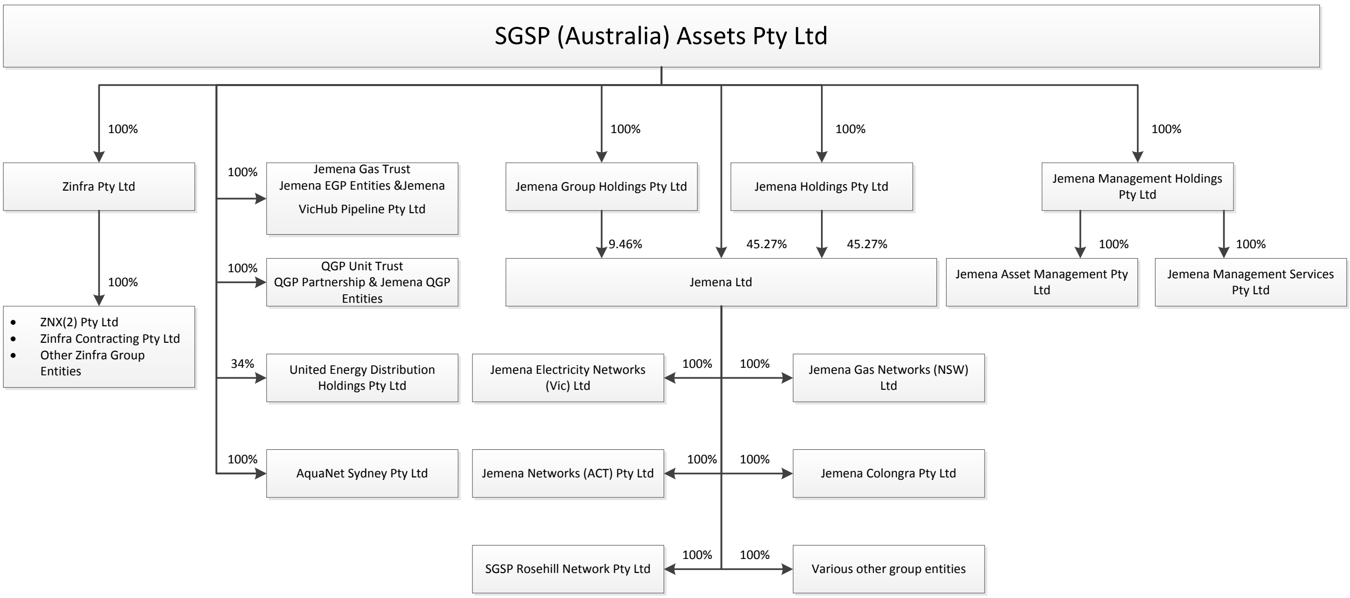
11. CHARTS

193. In this section, JEN responds to section 11 of Schedule 1 to the RIN for the 2014 Relevant Regulatory Year.

11.1.1 GROUP CORPORATE STRUCTURE

194. Section 11 of Schedule 1 to the RIN requires JEN to provide a chart showing the group corporate structure which JEN is a part of. The group structure is set out in **Figure** 1.

Figure 1: Jemena Group structure as at December 2014



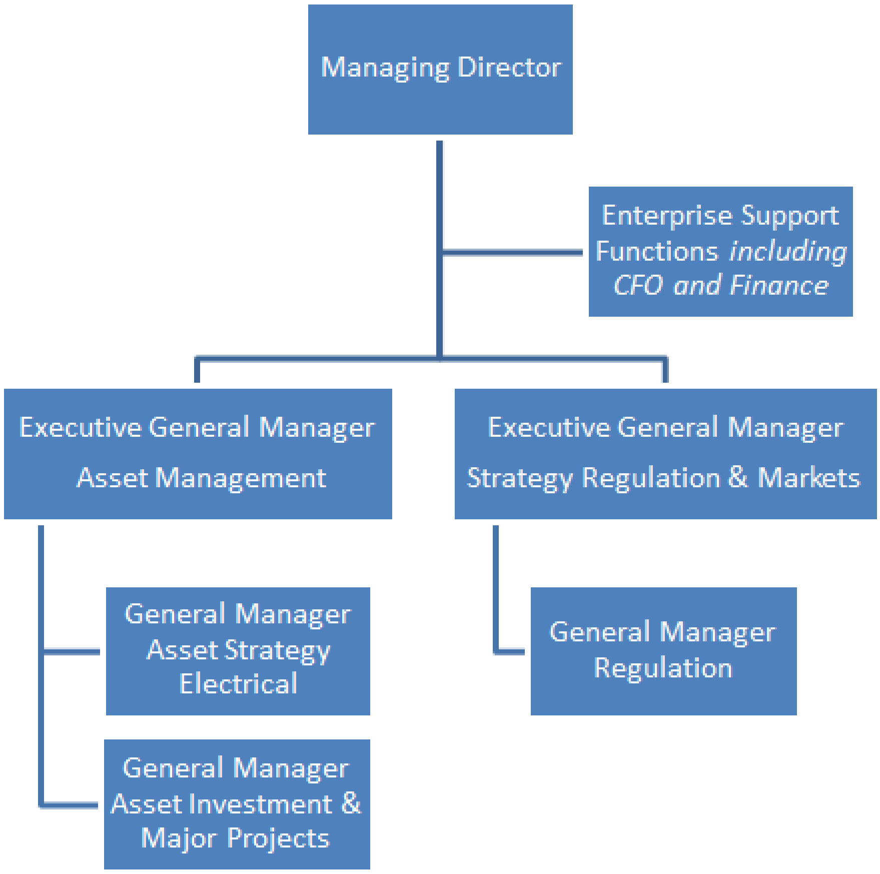
195. As shown in **Figure** 1 in CY2014 JEN was a 100 per cent owned subsidiary of JEM. JEM was a wholly owned subsidiary of SGSPAA, which is in turn 60 per cent owned by China State Grid Corporation and 40 per cent owned by Singapore Power International (**SPI**).

11.1.2 JEN ORGANISATIONAL STRUCTURE

196. Section 11 of Schedule 1 to the RIN requires JEN to provide a chart showing the organisational structure of JEN.

197. While JEN owns the electricity network assets, enterprise support services such as legal, finance and human resources are provided to JEN by JEM. JEM's operational structure in relation to JEN is set out in **Figure** 2.

Figure 2: Jemena Operational Structure as it relates to JEN as at December 2014



198. For 2014 the asset management functions were performed at the JEN/JEM level, with JAM focusing on maintenance and other operational network services.

12. AUDIT REPORTS

199. In this section, JEN responds to section 12 of Schedule 1 to the RIN for the 2014 Relevant Regulatory Year.

12.1 REGULATORY AUDIT REPORTS

200. Section 12.1 of Schedule 1 to the RIN requires JEN to provide a Regulatory Audit Report in the form of:

- a Special Purpose Financial Report in accordance with the requirements set out at Appendix E; and
- an Audit Report (for non-financial information) in accordance with the requirements set out in Appendix E of the RIN.
- the Regulatory Audit Reports requested are provided in Attachment 1-9 and Attachment 1-10 of JEN's response respectively.

Provision of Regulatory Audit Reports to JEN's management

201. Section 12.2 of Schedule 1 of the RIN requires JEN to provide all reports from the Auditors to JEN's management regarding the audit review and/or auditors' opinions or assessments.

202. All reports from the Auditor to JEN's management regarding the audit review and/or auditor's opinions or assessment are provided in Attachment 1-9 and Attachment 1-10 of JEN's response respectively.

13. STATUTORY DECLARATION

204. In this section, JEN responds to page one, paragraph three, point (c) of the RIN for the 2014 Relevant Regulatory Year.

205. Page one, paragraph three, point (c) of the RIN requires JEN to verify, by way of a statutory declaration, the information specified in the RIN submission in accordance with Appendix D of the RIN.

206. JEN has provided the statutory declaration in Attachment 1-11 of JEN's response.

14. ATTACHMENTS

No.	Attachment titles
1-1	RIN template Appendix B – regulatory accounting statement templates
1-2	RIN template Appendix C – non-financial information templates
1-3	Reconciliation between special purpose financial statements and regulatory accounting statements
1-4	Basis of preparation document
1-5	JEN regulatory accounting principles and policies (2014)
1-6	JEN capitalisation policy (2014)
1-7	Cost allocation methodology (2010)
1-8	Field Services Agreement
1-9	KPMG audit opinion of financial information
1-10	Audit report (for non-financial information) by PB
1-11	RIN template Appendix D – statutory declaration