Jemena Gas Networks (NSW) Ltd

Response to the 2020-25 Access Arrangement Regulatory Information Notice

RIN Attachment 2

Basis of Preparation

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Abbreviations

AER	Australian Energy Regulator
Actual Information	As defined in the RIN
Audited Statutory Accounts	As defined in the RIN, JGN's Financial Statements are Audited Statutory Accounts
BO	Business Objects
BW	Business Warehouse
CABS	The name of JGN's billing system.
Capex	Capital expenditure
Capex Category	The RIN categories for reporting capex Mains Augex, Mains Repex, New Connections, Meter Replacement, Non-Network, ICT, Overheads, Other Capex and the sub-categories from the Regulatory Templates.
CSA	Corporate Services Agreement
EBS	Enterprise Business Services Australia Pty Limited
ERP	Enterprise Resource Planning
Estimated Information	As defined in the RIN
Financial Statements	JGN's Audited Statutory Accounts, refer to Overview.
GASS+	JGN's legacy ERP system
GASS+ Archives	This term describes the archived data from JGN's legacy systems, see Overview.
GIS	Geographical Information System
I&C	Industrial and Commercial
ICT	Information & Communications Technology
IT	Information Technology
ITSA	Information Technology Services Agreement
JAM	Jemena Asset Management Pty Ltd
JEM	Jemena Ltd
JGN	Jemena Gas Networks (NSW) Ltd
MAT	Maintenance Activity Type
MOP	Maximum Operating Pressure
NGL	National Gas Law
Opex	Operating expenditure
PM	Planned Maintenance
PMO	Planned Maintenance Orders
Previous Reset RIN	The RIN issued on by the AER for the 2015-20 Access Arrangement Period
Previous Reset RIN Responses	JGN's responses to the Previous Reset RIN submitted to AER (dated 30 June 2014 and 14 November 2014)
RIN	Regulatory Information Notice
RIN Table	This term is used in this document to refer specific tables within the Templates
RY	Regulatory Years (e.g. RY2018 is equivalent to 2017-18 in the Templates)
SAP	JGN's financial system and current ERP system
SGSPAA Group	State Grid-Singapore Power Australia Assets Group of companies
UAG	Unaccounted for Gas
WBS	Work Breakdown Structure
Zinfra	Zinfra Pty Ltd
ZNX(2)	ZNX (2) Pty Ltd

Overview

The Australian Energy Regulator (**AER**) served the '2020-25 Access Arrangement Regulatory Information Notice' (**RIN**) on Jemena Gas Networks (NSW) Ltd (**JGN**) under the National Gas Law (**NGL**) on 12 December 2018. The information required to be submitted includes specific information prescribed in the written notice and also it requires information to be provided in five spreadsheet templates (**Regulatory Templates**):

- Regulatory Template 1: Forecast data 2019-2025 – Reset
- Regulatory Template 2: Historical data 2011-2018 – Historical data
- Regulatory Template 3: Opex incentive mechanism
- Regulatory Template 4: Indicative Bill Impact
- Regulatory Template 5: Annual data (historical information for 2019 and 2020).

The RIN requires JGN to submit three responses to the AER on or before 5 pm Australian Eastern Standard Time on 3 dates:

- 1 July 2019 – Regulatory Templates 1 to 4 for historical data from 2010-11 to 2017-18 and forecast data from 2018-19 to 2023-24
- 31 October 2019 – Regulatory Template 5 for 2018-19 historical data
- 2 November 2020 – Regulatory Template 5 for 2019-20 historical data

The RIN requires JGN to submit the first response to the AER by 1 July 2019. JGN submitted its first response to the RIN on 28 June 2019, which included:

- Written response to the notice (RIN Attachment 1: Written Response to RIN Schedules), including confidentiality claims
- The Basis of Preparation (this report)
- The completed Regulatory Templates
- The Audit opinions associated with Regulatory Template 2 (RIN Attachment 16)
- Supporting documents.

Basis of Preparation

Section 1.2 of Schedule 4 of the RIN requires JGN to prepare a Basis of Preparation in accordance with the requirements specified in Schedules 1, 2 & 3. As required by the RIN, this report is the Basis of Preparation and it explains the source of the information, the assumptions and the methodologies used to provide the historical information in Regulatory Templates. The RIN does not require JGN to prepare a Basis of Preparation for the forecast information.

JGN's Basis of Preparation is structured to reflect the Regulatory Templates that require a Basis of Preparation, with the chapter and section headings reflecting the same headings used in the Regulatory Templates. Under each heading there is a table which explains, for each template variable:

1. Demonstrates how the information provided is consistent with the requirements of the RIN
2. Explains the sources, methodology & assumptions JGN used to provide the information.
3. Explains where actual information could not be provided and why the estimated information provided by JGN is the best estimate.

Financial Information

JGN's financial and regulatory reporting years are currently offset by 6 months[1], with the financial year closing annually on 31 December and the Regulatory Year (**RY**) for RIN reporting closing on 30 June. Therefore, a set of accounts for RY2011 to RY2018 ('the **Financial Statements**) were prepared and independently reviewed/audited.

The Financial Statements established a point of reference for the Regulatory Templates. The historical financial information in the Regulatory Templates is based on the information from the Financial Statements. The capital expenditure (**capex**) and operating expenditure (**opex**) reported in the Regulatory Templates has been reconciled to the Financial Statements in the RIN Supporting Documents[2] and RIN Table F4.1.2 (adjustments) respectively. The Financial Statements meet the RIN definition of '**Audited Statutory Accounts'** and where the RIN refers to 'Audited Statutory Accounts' our RIN response has applied those requirements to JGN's Financial Statements. This approach was agreed by the AER during its consultation with JGN on the draft RIN.

The principles underpinning the financial information presented in the RIN response are in line with JGN's statutory accounting procedures and the Australian Accounting Standards where appropriate. There are no material departures from the recognition and measurement aspects of JGN's statutory accounting procedures.

Capitalisation to JGN's asset base is in accordance with JGN's internal capitalisation procedures, with a copy of them included in the **Supporting Documents** submitted with the RIN Response.[3]

The allocation of shared and other costs to JGN is based on the Jemena Cost Allocation Methodology (**CAM**)[4] and the principles of the JGN CAM to allocate costs to pipeline services.[5]

Historical information reported in the Regulatory Templates

As part of the 2015-2020 Access Arrangement process the AER issued a RIN ('**the Previous Reset RIN'**)[6] and JGN provided two responses on 30 June 2014 and 14 November 2014 ('**the Previous Reset RIN Responses**'). The Previous Reset RIN Responses included some RY2011 to RY2014 information which is required to be reported again in the Regulatory Templates. The Previous Reset RIN did not require the information to be audited, however the RIN requires an audit or review of historical financial information in all years and a review of non-financial information in RY2017 and RY2018.

Since submitting the Previous Reset RIN Responses, JGN has implemented significant changes to its financial and asset systems. A significant amount of the data reported in the Previous Reset RIN Responses was reported from legacy systems and it is not possible to audit the data reported from those systems. This is because it is no longer possible to verify the way the data was captured by those legacy systems. The main legacy system was GASS+. There were also other systems that were replaced such as the billing system, which were mainly decommissioned during RY2015 and RY2016. Some of the data has been migrated into new systems in simplified forms and some has been retained by staff in local archives, which means some limited audit procedures are possible. Throughout this Basis of Preparation, the migrated and other retained data from legacy systems is referred to collectively as '**GASS+ Archives**'.

JGN consulted the AER on how to address the limitations associated with legacy systems and proposed that all information reported from the **GASS+ Archives** would be Estimated Information for RIN purposes. The AER agreed that this was appropriate.

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1 The year ends for JGN's financial reporting over the RIN reporting period were 31 December 2011, 31 March 2012, 31 March 2013, 31 March 2014, 31 March 2015, 31 December 2016, 31 December 2017 and 31 December 2018.

2 E.A-1.1-1 - JGN – Capex reconciliation between regulatory templates and financial statements

3 3-1.2(a)-2 - JGN - Capitalisation Policy: Property, Plant & Equipment (JAA FIN GU 0012) and 3-1.2(a)-3 - JGN - Capitalisation Policy: Intangible Assets (JAA FIN GU 0013)

4 1-1.3-1-JGN-Jemena-Cost Allocation Methodology

5 Included as Attachment 6.5 to JGN's AA proposal

6 AER, Regulatory Information Notice 28 March 2014

For these Regulatory Templates, JGN has taken the following approach to report data that was previously reported (for most of the RY2011 to RY2014 data):

- The Previous Reset RIN Responses were used to complete the Regulatory Templates.
- Where data was not available in the Previous Reset RIN Responses, JGN prepared another form of estimate which was primarily based on the **GASS+ Archives.**
- Undertaken high level checks to ensure the data is a good representation of the metric the RIN requires.
- Reallocated expenditure and volumes to the appropriate category based on the current RIN definitions, where previous RIN categories were different. Refer to *Appendix G: Opex reporting compared to the Previous Reset RIN Responses*.

For the RY2015 to RY2016 data, the methodology used varies for each RIN Table, however, it relies heavily on **GASS+ Archives** and is, for the reasons outlined above, estimated information.

For RY2017 and RY2018, JGN relied on its new financial system, **SAP ERP**, and the data reported in these years is primarily actual information. Further detail is explained throughout this Basis of Preparation.

Common methodology used to populate Regulatory Templates

JGN's cost collection and financial recording methodology processes for the underlying data reported throughout the Regulatory Templates have consistent elements. We have not duplicated the explanation of the common elements of the reporting methodology for each RIN Table. We have provided Appendices A to F to explain it once and provided cross references to the relevant Appendices in each section of this Basis of Preparation, where relevant.

The common methodology for reporting of related party transactions is also reported in the Appendices.

The Appendices are:

- Appendix A: Cost Collection Process – Capex
- Appendix B: Cost Collection Process – Opex
- Appendix C: Table Variables – Capex
- Appendix D: Table Variables – Opex
- Appendix E: Overhead Expenditure
- Appendix F: Related Party Margins
- Appendix G: Opex reporting compared to the Previous Reset RIN Responses.

E1. Expenditure Summary

E1.1 – Capex

E1.1.1 – Reference Services

RIN Table E1.1.1 summarises the values reported in other regulatory templates. JGN completed this RIN Table using formulae linking to values reported in other templates. The following table shows the source template used for each variable, refer to the section of this Basis of Preparation regarding the underlying methodology and other details.

Variable	Source Template
Connections	E5. Connections
Mains Replacement	E2. Mains Repex
Mains Augmentation	E3. Mains Augex
Telemetry	E6. Non-Network
Meter Replacement	E4. Meter Replacement
ICT	E12. ICT
Capitalised Network Overheads	E10. Overheads
Capitalised Corporate Overheads	E10. Overheads
Related Party Expenditure	F6. Related Party Transactions
Customer Contributions	F1.4.1. Revenue

E1.1.2 – Non-Reference Services

JGN had no capex for non-reference services in the reporting period. For this reason, RIN Table E1.1.2 has been completed with values of zero.

E1.2 – Opex

The AER advised that JGN was not required to completed RIN Tables 1.2.1 and 1.2.2. For this reason, RIN Tables E1.2.1 & E1.2.2 remain blank.

E1.3 – Capcons

E1.3.1 – Reference Services

RIN Table E1.3.1 summarises the values reported in the RIN Table F1.4.1. JGN completed this RIN Table using formulae linking to values reported in other RIN Tables. Refer to the section of this Basis of Preparation that relates to F1.4.1 for an explanation of the underlying methodology and other details. The following variables did not have any capital contributions and were completed with values of zero:

- Capitalised network overheads
- Capitalised corporate overheads
- Related party expenditure.

E1.3.2 – Non-Reference Services

JGN had no capital contributions for non-reference services in the reporting period. For this reason, RIN Table E1.3.2 has been completed with values of zero.

E1.4 – Capitalised Overheads

E1.4.1 – Reference Services

RIN Table E1.3.1 summarises the values reported in RIN Table E.10. JGN completed this RIN Table using formulae linking to values reported in other RIN Tables. Refer to the section of this Basis of Preparation that relates to RIN Table E.10 for an explanation of the underlying methodology and other details. The following variables did not have any capitalised overheads and were completed with values of zero:

- Related party expenditure
- Customer contributions included in the above.

E2. Mains Repex

E2.1 – Capex

E2.1.1 – Proactive – By Connection Type – By Project and E2.1.2 – Reactive – By Connection Type

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Direct internal labour expenditure Direct contractor expenditure Other internal direct expenditure	Estimate Public (except for Direct Contractor expenditure, which is Confidential)	**JGN** was required to provide capex information for Mains Replacement projects. JGN used its internal work breakdown structure (**WBS**) codes and descriptions to categorise projects into the proactive and reactive variables and into the connection type variables. In accordance with Appendix E, Part B, Clause 3.1(b) of the RIN, projects with total expenditure less than $500,000 were aggregated in the RIN Tables. JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: • Refer to Appendix A: Cost Collection Process – Capex. • Refer to Appendix C: Table Variables – Capex.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
Total overhead expenditure	Estimate Public	Refer to Appendix E: Overhead Expenditure.	The information reported in these RIN Tables is estimated information because it was allocated to the capex categories based on the proportion of direct expenditure and because it was sourced from the **GASS+ Archives.** The latter included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from GASS+ at the time the Previous Reset RIN Responses were completed. Refer to the Overview for further explanation.
Related party margin expenditure	Estimate Confidential	Refer to Appendix F: Related Party Margins.	The information reported in these RIN Tables is estimated information because: • for the period RY2011 to RY2013, the margins from Jemena Asset Management Pty Ltd **(JAM**) were accrual based and true-ups were processed during the following year

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
			• for the period RY2014 to RY2016, JGN relied on **ZNX(2)** and **Zinfra** to provide margin information.
Customer Contributions	Actual Confidential	No customer contributions were recorded for this **capex category** and therefore this RIN Table variable was completed with values of zero.	Information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.
RY2017 to RY2018			
Direct internal labour expenditure Other internal direct expenditure	Actual Public	**JGN** was required to provide capex information for Mains Replacement projects. JGN used its internal work breakdown structure (**WBS**) codes and descriptions to categorise projects into the proactive and reactive variables and into the connection type variables. In accordance with Appendix E, Clause 3.1(b) of the RIN, projects with total expenditure less than $500,000 were aggregated in the RIN Tables. JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: • Refer to Appendix A: Cost Collection Process – Capex. • Refer to Appendix C: Table Variables – Capex.	Information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Direct contractor expenditure	Estimate Confidential	The same methodology applies for these reporting periods as described above for direct internal labour expenditure and other internal direct expenditure. There was one additional calculation applied for this variable that was not applied in the above. The estimated amount for related party margin expenditure was subtracted to derive the Direct contractor expenditure.	The information reported this RIN Table is estimated information because it is partially based on estimated information, which is the related party margin expenditure reported in the same RIN Table.
Total overhead expenditure	Actual Public	Refer to Appendix E: Overhead Expenditure.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Related party margin expenditure	Estimate Confidential	Refer to Appendix F: Related Party Margins.	The information reported this RIN Table is estimated information because the margin expenditure has been sourced from ZNX(2) and Zinfra records.
Customer Contributions	Actual Public	No customer contributions were recorded for this **capex category** and therefore this RIN Table variable was completed with values of zero.	Information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.

E2.2 – Volumes

E2.2.1 – Proactive – By Connection Type – By Project

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2014			
All variables	Estimate Public	**JGN** was required to provide capex information for Mains Replacement projects. JGN used its internal **WBS** codes and descriptions to categorise projects into the proactive and reactive variables and into the connection type variables. The mains length data was sourced from JGN's Previous Reset RIN Responses. The 44 projects from the previous Reset RIN Responses plus the projects undertaken during RY2015 to 2018 resulted in over 50 projects, which was the limit of the RIN Table. Therefore, JGN grouped the projects into higher level groupings to fit all project data within the RIN Table. In accordance with Appendix E, Part B, Clause 3.1(b) of the RIN, projects with total expenditure less than $500,000 were aggregated in the RIN Tables.	The information reported this RIN Table is estimated information because it was sourced from Previous Reset RIN Responses. Refer to the Overview for further explanation.
RY2015 to RY2018			
All variables	Actual Public	**JGN** was required to provide capex information for Mains Replacement projects. JGN used its internal **WBS** descriptions to categorise projects into the proactive and reactive variables and into the connection type variables. The mains length data was sourced from JGN's Previous Reset RIN Responses. The 44 projects from the previous Reset RIN Responses plus the projects undertaken during RY2015 to 2018 resulted in over 50 projects, which was the limit of the RIN Table. Therefore, JGN grouped the projects into higher level groupings to fit all project data within the RIN Table. JGN used the approved project business cases to classify the list of projects into the 'network pressure' categories, then used the Geographical Information System (**GIS)** to calculate the: • actual length of mains laid for each project, and • date on which the mains were laid. In accordance with the RIN requirements some projects with total expenditure less than $500,000 over the project life have been aggregated for disclosure purposes.	The information reported this RIN Table is actual information because the information was sourced from GIS.

E2.2.2 – Reactive – By Connection Type

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Length of mains replaced	Actual Public	JGN used the same methodology to complete this RIN Table as described in section E2.2.1 – Proactive – By Connection Type – By Project for RY2015 to RY2018.	The information reported this RIN Table is actual information because the information was sourced from GIS.
Number of services replaced	Estimate Public	The number of services replaced was sourced from JGN's **GASS+ Archives** and was based on the count of all renewal service orders. It is possible that a single service order relates to multiple services, but JGN has assumed that one service order relates to one service replacement. Project and work order data was used to determine which of the replaced services were reactive replacements. They were also used to classify the service order into the appropriate network pressure category. The **GASS+ Archives** end in April 2016, so the data for May and June 2016 was sourced from SAP as described in the section for RY2017 to RY2018. The operating pressure for each service reported in the RIN reflects the network pressure in 2018 as changes in pressure overtime are not tracked in JGN's system. Therefore, we have assumed network pressure of the services has not changed over time.	The information reported this RIN Table is estimated information because it was sourced from Previous Reset RIN Responses, which was originally collated using JGN's GASS+ system. Refer to the Overview for further explanation.
RY2017 to RY2018			
Length of mains replaced	Actual Public	JGN used the same methodology to complete this RIN Table as described in section E2.2.1 – Proactive – By Connection Type – By Project for RY2015 to RY2018.	The information reported this RIN Table is actual information because the information was sourced from GIS.
Number of services replaced	Actual Public	The number of services replaced was sourced from SAP and is based on the count of all renewal service orders. It is possible that a single service order relates to multiple services, JGN has assumed that one service order relates to one service replacement. Project and work order data was used to determine which of the replaced services were reactive replacements. They were also used to classify the service order into the appropriate network pressure category. The operating pressure for each service reported in the RIN reflects the network pressure in RY2018 as changes in pressure	The information in this RIN Table is actual information because it was sourced from SAP.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		overtime are not tracked in JGN's system. Therefore, we have assumed network pressure of the services has not changed over time.	

E3. Mains Augex

E3.1 – Capex – By Project

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Direct internal labour expenditure Direct contractor expenditure Other internal direct expenditure	Estimate Public (except for Direct Contractor expenditure, which is Confidential)	**JGN** was required to provide capex information for Mains Augmentation projects. JGN used its internal **WBS** descriptions to categorise projects into the connection type variables. JGN notes that major non-routine projects in the previous Access Arrangement RIN were reported in the New Connections template. However, under the newly defined AER templates major non-routine projects are now classified as Augmentation and reported within RIN Tables in sheet 'E3. Mains Augex'. JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: • Refer to Appendix A: Cost Collection Process – Capex. • Refer to Appendix C: Table Variables – Capex. In accordance with Appendix E, Part B, Clause 2.2(b) of the RIN, projects with total expenditure less than $500,000 were aggregated in the RIN Tables.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
Total overhead expenditure	Estimate Public	Refer to Appendix E: Overhead Expenditure.	The information reported in these RIN Tables is estimated information because it was allocated to the capex categories based on the proportion of direct expenditure and because it was sourced from the **GASS+ Archives**. The latter included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from GASS+ at the time the Previous Reset RIN Responses were completed. Refer to the Overview for further explanation.
Related party margin expenditure	Estimate Confidential	Refer to Appendix F: Related Party Margins.	The information reported in these RIN Tables is estimated information because: • for the period RY2011 to RY2013, the margins from **JAM** were accrual based and true-ups were processed during the following year

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
			• for the period RY2014 to RY2016, JGN relied on **ZNX(2)** and **Zinfra** to provide margin information.
Customer Contributions	Estimate Confidential	Customer contributions were sourced from the Previous Reset RIN Responses and the billing system known as **CABS**. Information to support the billing was also sourced from **GASS+ Archives.**	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
RY2017 to RY2018			
Direct internal labour expenditure Other internal direct expenditure	Actual Public	**JGN** was required to provide capex information for Mains Augmentation projects. JGN used its internal **WBS** descriptions to categorise projects into the connection type variables. JGN notes that major non-routine projects in the previous Access Arrangement RIN, were reported in the New Connections template. However, under the newly defined AER templates major non-routine projects are now classified as Augmentation and reported within RIN Tables in sheet 'E3. Mains Augex'. JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: • Refer to Appendix A: Cost Collection Process – Capex. • Refer to Appendix C: Table Variables – Capex. In accordance with Appendix E, Clause 2.2(b) of the RIN, projects with total expenditure less than $500,000 were aggregated in the RIN Tables.	The information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.
Direct contractor expenditure	Estimate Confidential	The same methodology applies for these reporting periods as described above for direct internal labour expenditure and other internal direct expenditure. There was one additional calculation applied for this variable that was not applied in the above. The related party margin expenditure, which is estimated information, was subtracted to derive the direct contractor expenditure.	The information reported this RIN Table is estimated information because it is partially based on estimated information, the related party margin expenditure reported in the same RIN Table.
Total overhead expenditure	Actual Public	Refer to Appendix E: Overhead Expenditure.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
Related party margin expenditure	Estimate Confidential	Refer to Appendix F: Related Party Margins.	The information reported this RIN Table is estimated information because the margin expenditure has been sourced from ZNX(2) and Zinfra records.
Customer Contributions	Actual Confidential	JGN used actual billed invoices issued to Retailers that were obtained from SAP. To identify the customer who made the contribution, JGN used Meter Installation Reference Number (**MIRN**) from billing data. The capital contributions amounts were categorised into Electricity to Gas, New Homes, New Medium Density/High Rise, I&C Tariff and I&C Contract variables using detailed connection information from SAP.	The information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.

E3.2 – Volumes – By Project

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Actual Public	JGN used the same methodology to complete this RIN Table as described in section E2.2.1 – Proactive – By Connection Type – By Project for RY2015 to RY2018.	The information reported this RIN Table is actual information because the information was sourced from GIS.
RY2017 to RY2018			
All variables	Actual Public	JGN used the same methodology to complete this RIN Table as described in section E2.2.1 – Proactive – By Connection Type – By Project for RY2015 to RY2018.	The information reported this RIN Table is actual information because the information was sourced from GIS.

E4. Meter Replacement

The RIN requires metering expenditure and volume data disaggregated into different categories. Throughout the sheet "E4. Meter replacement" we have applied the following assumptions to collate the data.

- **Residential meters** are 'gas' meters having a capacity of 8 sm^3/hr or less.
- **Industrial and commercial (I&C) meters** are 'gas' meters with 10 sm^3/hr capacity and above. It should be noted that due to this definition it is likely that some of the meters reported under this approach are actually very large houses or large residential complexes.
- **Other meters** include water meters as we do not have gas meters for all gas consumption. Instead, for some customers, we use water meters to determine how much water is heated using gas as a proxy for the amount of gas used. These meters consist of hot water meters (residential) and cold water meters being the larger master meter. To avoid doubt, this 'other meters' refers to the meter type and it does not refer to the 'Other' in table 4.1.4 and 4.2.4, which refers to other types of replacement.
- **Meter replacement** includes aged replacement, defective, statistical sampling, **I&C** load change and government testing.

E4.1 – Capex

E4.1.1 – New Meters Acquired, E4.1.2 – Meters Refurbished, E4.1.3 – Meter Installation and E4.1.4 – Other Meter Replacement Capex

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Direct internal labour expenditure Direct contractor expenditure Other internal direct expenditure	Estimate Confidential (except for Direct internal labour expenditure)	**JGN** was required to provide capex information for Meter Replacement. JGN used its internal **WBS** descriptions to categorise projects into the Residential; Industrial and Commercial; and Other variables. JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: • Refer to Appendix A: Cost Collection Process – Capex. • Refer to Appendix C: Table Variables – Capex. • Refer to Appendix F: Related Party Margins. For the Direct contractor expenditure, there was one additional calculation applied that was not applied for the other two variables. The estimated amount for related party margin	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation. Further, the Direct contractor expenditure variable information reported these RIN Tables is estimated information because it is partially based on another source of estimated information, the related party margin expenditure reported in the same RIN Tables.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		expenditure was subtracted to derive the final amount reported in the RIN Tables. In the RIN Tables 4.1.1 and 4.1.2 the 'Other Internal Direct Expenditure' variable captures the cost of the new or refurbished meter installed to replace an existing meter, which is derived from total materials expenditure recorded within the relevant projects. In the RIN Tables 4.1.4, the 'Other Internal Direct Expenditure' variable captures the cost of other internal direct cost (excluding meter cost). Consequently, there are no meter volumes to report in RIN Table 4.2.4.	
Total overhead expenditure	Estimate Public	Refer to Appendix E: Overhead Expenditure. RY2011 to RY2014: This RIN Table captures the total overhead cost relating to meter replacement projects apportioned to the new or refurbished meters installed and other meter replacement capex. RY2015 to RY2016: This RIN Table captures the handling cost as an overhead cost for new meters acquired or refurbished meters and it also captures the overhead cost (excluding the handling cost on new or refurbished meters installed) for meter installation and other meter replacement capex. The overhead cost (net of handling cost) is apportioned based on the percentage of relevant direct cost (net of meter cost) to total direct cost for meter installation and other meter replacement capex for the relevant projects.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
Related party margin expenditure	Estimate Confidential	Refer to Appendix F: Related Party Margins.	The information reported in these RIN Tables is estimated information because: • for the period RY2011 to RY2013, the margins from Jemena Asset Management Pty Ltd **(JAM**) were accrual based and true-ups were processed during the following year • for the period RY2014 to RY2016, JGN relied on **ZNX(2)** and **Zinfra** to provide margin information.
Customer Contributions	Estimate Confidential	No customer contributions were recorded for this **capex category** and therefore this RIN Table variable was completed with values of zero.	Information reported in this RIN Table is estimated information because it was not sourced from JGN's SAP system.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2017 to RY2018			
Direct internal labour expenditure Other internal direct expenditure	Actual Public	**JGN** was required to provide capex information for Meter Replacement. JGN used its internal **WBS** descriptions to categorise projects into the Residential; Industrial and Commercial; and Other variables. JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: • Refer to Appendix A: Cost Collection Process – Capex. • Refer to Appendix C: Table Variables – Capex. • Refer to Appendix F: Related Party Margins. For the Direct contractor expenditure, there was one additional calculation applied that was not applied for the other two variables. The estimated amount for related party margin expenditure was subtracted to derive the final amount reported in the RIN Tables. In the RIN Tables 4.1.1 and 4.1.2 the 'Other Internal Direct Expenditure' variable captures the cost of the new or refurbished meter installed to replace an existing meter, which is derived from total materials expenditure recorded within the relevant projects. In the RIN Tables 4.1.4, the 'Other Internal Direct Expenditure' variable captures the cost of other internal direct cost (excluding meter cost).	The information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.
Direct contractor expenditure	Estimate Confidential	The same methodology applies for these reporting periods as described above for direct internal labour expenditure and other internal direct expenditure. There was one additional calculation applied for this variable that was not applied in the above. The related party margin expenditure, which is estimated information, was subtracted to derive the direct contractor expenditure.	The information reported this RIN Table is estimated information because it is partially based on estimated information, which is the related party margin expenditure reported in the same RIN Table.
Total overhead expenditure	Actual Public	Refer to Appendix E: Overhead Expenditure. For RIN Tables E4.1.1 and E4.1.2, total overhead expenditure captures the apportioned handling cost of the new or refurbished meters installed, to replace existing meters, for operation within the network. The handling cost is apportioned based on the percentage of direct meter cost to total material cost for the relevant projects.	The information reported in the RIN Tables is actual information because it was sourced from JGN's SAP system.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		For RIN Table E4.1.3 and E4.1.4, total overhead expenditure captures the overhead cost (excluding the handling cost on new or refurbished meters installed). The overhead cost (net of handling cost) is apportioned based on the percentage of relevant direct cost (net of meter cost) to total direct cost for meter installation and other meter replacement capex for the relevant projects.	
Related party margin expenditure	Estimate Confidential	Refer to Appendix F: Related Party Margins.	The information reported this RIN Table is estimated information because the margin expenditure has been sourced from **ZNX(2)** and **Zinfra** records.
Customer Contributions	Actual Confidential	No customer contributions were recorded for this **capex category** and therefore this RIN Table variable was completed with values of zero.	Information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.

E4.2 – Volumes

E4.2.1 – Number of New Meters Acquired

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2014			
All variables	Estimate Confidential	The information in this RIN Table was sourced from the Previous Reset RIN Responses.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives Previous Reset RIN Responses**, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
RY2015 to RY2016			
All variables	Estimate Confidential	The number of meters acquired variable in this RIN Table was calculated as the expenditure on new meters divided by the price for new meters in each year, which were sourced from the GASS+ Archive. The GASS+ Archive does not contain this information for May and June 2016, so data for those months sourced from SAP. Expenditure on refurbished meters was removed, which was identified using the meter model. This was done to ensure the number represented 'new meters acquired' only.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		To ensure consistent categorisation over time the expenditure data was mapped to current SAP project codes, which were then mapped to the RIN categories.	
RY2017 to RY2018			
All variables	Actual Confidential	Meter expenditure work order data extracted from SAP, which contained the quantity of meters replaced. The number of meters acquired was calculated as the sum of meters replaced, excluding where the meter replaced was a refurbished meter, which was identified by meter model. This dataset was also used as the basis for RIN Tables E4.2.2-3 as described below. The SAP data was mapped to the RIN categories using SAP project codes, meter models, material description and the associated expenditure types.	The information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.

E4.2.2 – Number of Meters Refurbished

E4.2.2.A – Refurbishable Meters Removed

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2014			
All variables	Estimate Confidential	JGN was required to report the number of refurbishable meters removed from the number of meters refurbished. JGN does not refurbish 'Residential meters' or 'Other meters'. Therefore, those two variables were reported with values of zero. Some Industrial and Commercial meters are refurbished, therefore this variable was sourced from the Previous Reset RIN Responses.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
RY2015 to RY2016			
All variables	Estimate Confidential	The number of meters removed that were previously refurbished was calculated using the same dataset described in section E4.2.1 – Number of New Meters Acquired. The refurbished I&C meters were identified in the dataset by the meter model number and/or unit cost.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		As described for RY2011 to RY2014, the variables for residential and other meters were completed with values of zero.	
RY2017 to RY2018			
All variables	Actual Confidential	The number of meters removed that were previously refurbished was calculated using the same dataset described in section E4.2.1 – Number of New Meters Acquired. The refurbished I&C meters were identified in the dataset by the meter model number and/or unit cost. As described for RY2011 to RY2014, the variables for residential and other meters were completed with values of zero.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

E4.2.2.B – Meters Decommissioned

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2014			
All variables	Estimate Confidential	The information in this RIN Table was sourced from the Previous Reset RIN Responses.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **Previous Reset RIN Responses**, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
RY2015 to RY2016			
All variables	Estimate Confidential	JGN did not collect actual information about the number of meters decommissioned during RY2015 to RY2016 and therefore had to develop an estimate. It was calculated as the number of removed from RIN Table E4.2.3 minus the number of meters refurbished from RIN Table E4.2.2A. See the respective sections of this Basis of Preparation.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
RY2017 to RY2018			
All variables	Actual Confidential	JGN did not collect actual information about the number of meters decommissioned during RY2017 to RY2018 and therefore had to develop an estimate. It was calculated as the number of removed from RIN Table E4.2.3 minus the number of	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		meters refurbished from RIN Table E4.2.2A. See the respective sections of this Basis of Preparation.	

E4.2.3 – Number of Meters Installed

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2014			
All variables	Estimate Confidential	The information in this RIN Table was sourced from the Previous Reset RIN Responses.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **Previous Reset RIN Responses**, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
RY2015 to RY2016			
All variables	Estimate Confidential	The total number of meters installed was calculated as the sum of meters acquired from RIN Table E4.2.1 and meters refurbished from RIN Table E4.2.2A. See the respective sections of this Basis of Preparation for further details.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
RY2017 to RY2018			
All variables	Actual Confidential	The total number of meters installed was calculated as the sum of meters acquired from RIN Table E4.2.1 and meters refurbished from RIN Table E4.2.2A. See the respective sections of this Basis of Preparation for further details.	The information reported in these RIN Tables is actual information because it is the sum of other actual information reported in the RIN Tables.

E4.2.4 – Other Meter Replacement Volumes

RIN Table E4.2.4 has been completed with values of zero as there were no meter replacements that identified that are not already included in the replacement of meters with new meters (RIN Table E4.2.1) or replacement of meters with refurbished meters (RIN Table E4.2.2A).

E5. New Connections

E5.1 – Expenditure

E5.1.1 – Capex – By Connection Type

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Direct internal labour expenditure Direct contractor expenditure Other internal direct expenditure	Estimate Public (except for Direct Contractor expenditure, which is Confidential)	**JGN** was required to provide capex information for New Connections. JGN used its internal **MAT** codes and **WBS** descriptions to categorise projects into the Distribution Mains, Services & Meters. JGN notes that major non-routine projects, in the Previous Reset RIN Responses, were reported in the New Connections template. However, under the Regulatory Templates major non-routine projects are now classified as Augmentation and reported within the RIN Tables in E3. Mains Augex. JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: • Refer to Appendix A: Cost Collection Process – Capex. • Refer to Appendix C: Table Variables – Capex.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
Total overhead expenditure	Estimate Public	Refer to Appendix E: Overhead Expenditure.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
Related party margin expenditure	Estimate Confidential	Refer to Appendix F: Related Party Margins.	The information reported in these RIN Tables is estimated information because: • for the period RY2011 to RY2013, the margins from Jemena Asset Management Pty Ltd **(JAM**) were accrual based and true-ups were processed during the following year

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
			• for the period RY2014 to RY2016, JGN relied on **ZNX(2)** and **Zinfra** to provide margin information.
Customer Contributions	Estimate Confidential	Customer contributions were sourced from the Previous Reset RIN Responses and the billing system known as **CABS**. Information to support the billing was also sourced from **GASS+ Archives.**	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
RY2017 to RY2018			
Direct internal labour expenditure Other internal direct expenditure	Actual Public	**JGN** was required to provide capex information for New Connections. JGN used its internal **MAT** codes and **WBS** descriptions to categorise projects into the Distribution Mains, Services & Meters. JGN notes that major non-routine projects, in the Previous Reset RIN Responses, were reported in the New Connections template. However, under the Regulatory Templates major non-routine projects are now classified as Augmentation and reported within the RIN Tables in E3. Mains Augex. The expenditure and volume data was manually aligned where the system data collected project expenditure and volume data inconsistently. JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: • Refer to Appendix A: Cost Collection Process – Capex. • Refer to Appendix C: Table Variables – Capex.	The information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.
Direct contractor expenditure	Estimate Confidential	The same methodology applies for these reporting periods as described above for direct internal labour expenditure and other internal direct expenditure. There was one additional calculation applied for this variable that was not applied in the above. The related party margin expenditure, which is estimated information, was subtracted to derive the direct contractor expenditure.	The information reported this RIN Table is estimated information because it is partially based on estimated information, the related party margin expenditure reported in the same RIN Table.
Total overhead expenditure	Actual Public	Refer to Appendix E: Overhead Expenditure.	The information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
Related party margin expenditure	Estimate Confidential	Refer to Appendix F: Related Party Margins.	The information reported this RIN Table is estimated information because the margin expenditure has been sourced from **ZNX(2)** and **Zinfra** records.
Customer Contributions	Actual Confidential	JGN used actual billed invoices issued to Retailers that were obtained from SAP. To identify the customer who made the contribution, JGN used the MIRN from billing data. The capital contributions amounts were categorised into Electricity to Gas, New Homes, New Medium Density/High Rise, I&C Tariff and I&C Contract variables using detailed connection information from SAP.	The information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.

E5.1.2 – Unit Rates – Per Connection – By Connection Type

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
All variables	Estimate Confidential	The unit rates reported in this template were calculated from other RIN data as shown: Unit rate = (Direct Internal Labour Expenditure from template E5.1.1A + Direct Contractor Expenditure from template E5.1.1B + Other Internal Direct Expenditure from template E5.1.1C) ÷ Number of New Connections from template E5.2.1 x Volume per Connection by Connection Type from template E5.2.2	The RY2011 to RY2018 unit rate information is estimated information because JGN's systems do not capture average unit rate information. Therefore, it was estimated using other RIN data, including Direct Contractor Expenditure which is estimated information.

E5.2 – Volumes

E5.2.1 – Number of New Connections

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
Electricity to gas New homes	Estimate Public	The number of new connections data was sourced directly from the GASS + Archives and SAP Business Warehouse (**BW**). The data included the 'minimum year', which was the year that the customer became a customer and represents a 'new	The information reported in this RIN Table is estimated information because of the 'minimum year' assumption

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
New medium density/high rise Industrial and commercial tariff		connection'. This minimum year was directly mapped to the RY2011 to RY2018 years. The data also contained the connection category codes that were directly mapped the RIN variables (Electricity to gas, New homes, New medium density/high rise, Industrial and commercial tariff). The Previous Reset RIN Responses reported different data in RY2011 to RY2014, which was originally based on reports from the, now legacy, GASS+ system. The change was made to ensure consistent connection numbers over the reporting period.	described in the methodology. It does not account for customers changing tariffs.
RY2011 to RY2014			
Industrial and commercial contract	Estimate Public	The number of newly connected industrial and commercial customers on a contract was directly sourced from the Previous Reset RIN Responses.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **Previous Reset RIN Responses**, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
RY2015 to RY2018			
Industrial and commercial contract	Estimate Public	The number of newly connected industrial and commercial customers on a contract was sourced from JGN's billing system data. The number of new customers on contract were identified for each year and, given the small number of customers, they were manually split into the number of customers who were just transferring from another tariff and those which were actually newly connected. This approach was based on the assumption that the new connection was made in the year when the billing commenced for the new customer.	The information reported in this RIN Table is estimated information because of the assumption that the connection was made in the year in which the billing started.

E5.2.2 – Volumes – Per Connection – By Connection Type

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Distribution mains, all connection types	Estimate Public	The distribution mains per connection was calculated as the total length of new distribution mains for new connections	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		divided by the number of new connections for the corresponding period. The length of new distribution mains data was sourced from JGN's GASS+ Archive and the Previous Reset RIN Responses. It was mapped to the RIN connection type categories using project information from the **GASS+ Archives.** The number of new connections was sourced from RIN Table 5.2.1, for more details see section E5.2.1 – Number of New Connections.	the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
Inlet service pipes, all connection types	Estimate Public	The inlet service pipes per connection was calculated as the number of new inlet service pipes for new connections divided by the number of new connections for the corresponding period. The new inlet service pipe data up to April 2016 was sourced from GASS+ archive. For May 2016 to June 2016, the inlet services data was extracted from SAP as described below for RY2017 to RY2018. Prior to extraction, the new inlet service pipe data was mapped to current SAP project codes, which was used to create a final mapping to the RIN connection type category. The number of connections was sourced from RIN Table E5.2.1, for more details see section E5.2.1 – Number of New Connections.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
Meters, all connections types	Estimate Public	The number of meters per connection for RY2011 to RY2016 was calculated as the number of new meters for new connections divided by the number of new connections. This was based on the assumption that the number of new meters was equal to meter materials expenditure divided by the associated meter unit rate. The data up to April 2016 was sourced from GASS+ archive. For May 2016 to June 2016, the data was extracted from SAP as described below for RY2017 to RY2018. Prior to extraction, the data was mapped to current SAP project codes. The SAP project codes mapped to the material descriptions were used to allocate calculated meter volumes to the RIN connection type categories for consistency over time. The number of new connections was sourced from RIN Table E5.2.1, for more details see section E5.2.1 – Number of New Connections.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2017 to RY2018			
Distribution mains, all connection types	Actual Public	The distribution mains per connection was calculated as the total length of new distribution mains for new connections divided by the number of new connections for the corresponding period. The length of new distribution mains data was sourced from JGN's SAP. The extracted data was limited to mains service orders performed within the regulatory period. The data was mapped to the RIN connection type categories based on SAP's project and expenditure categories codes. Where clear data capture errors were identified, the distribution mains volume data was manually allocated to the appropriate RIN connection type category. The number of new connections was sourced from RIN Table E5.2.1, for more details see section E5.2.1 – Number of New Connections.	The information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.
Inlet service pipes, all connection types	Actual Public	The inlet service pipes per connection was calculated as the number of new inlet services for new connections divided by the number of new connections for the corresponding period. The new inlet service pipe volume for the period May 2016 to June 2018 is sourced from SAP. The data extracted was limited to include JGN inlet service pipes performed within the regulatory period. The new inlet service pipe data was mapped by asset management staff to RIN connection type categories using SAP project and expenditure categories. Where clear data capture errors were identified, inlet service pipe volumes were manually allocated to the appropriate RIN connection type category. The number of new connections was sourced from RIN Table E5.2.1 of the RIN, for more details see section E5.2.1 – Number of New Connections.	The information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.
Meters, all connections types	Actual Public	The number of meters per connection was calculated as the number of new meters for new connections divided by the number of new connections for the corresponding period. JGN meter volume for the period May 2016 to June 2018 was sourced from SAP. The extracted data was mapped to RIN connection type categories using SAP project and expenditure categories. Where clear data capture errors were identified,	The information in this RIN Table is actual information because the number of connections data was sourced from SAP and the number of new connections in section E5.2.1 – Number of New Connections was actual information.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		meters were manually allocated to the appropriate RIN connection type category. The number of new connections was sourced from RIN Table E5.2.1, for more details see section E5.2.1 – Number of New Connections.	

E5.3 – Customer Contributions

E5.3.1 – Value of Customer Contributions – By Connection Type

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Public (Categories with one customer are Confidential)	The information provided in this RIN Table was sourced directly from RIN Table E5.1.1F. Refer to the section E5.1.1 – Capex – By Connection Type.	Refer to the section E5.1.1 – Capex – By Connection Type.
RY2017 to RY2018			
All variables	Actual Public (Categories with one customer are Confidential)	The information provided in this RIN Table was sourced directly from RIN Table E5.1.1F. Refer to the section E5.1.1 – Capex – By Connection Type.	Refer to the section E5.1.1 – Capex – By Connection Type.

E5.3.2 – Number of Customer Contributions – By Connection Type

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2014			
All variables	Estimate Public (Categories with one customer are Confidential)	The number of customer contributions was directly sourced from the Previous Reset RIN Responses.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
			Refer to the Overview for further explanation.
RY2015 to RY2016			
All variables	Estimate Public (Categories with one customer are Confidential)	The number of customer contributions for all categories, except for medium density customers, was the number retailer invoices for customer contributions sourced from **GASS+ Archives.** The number of medium density customer contributions was sourced from the general ledger as those customers or developers invoice JGN directly.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
RY2017 to RY2018			
All variables	Actual Public (Categories with one customer are Confidential)	The number of customer contributions was sourced from SAP using a business objects report. The data from the report was filtered to only include capital contributions, which is provided by customer MIRN. However, the data did not include information on the type of customer. To obtain the break down by type a second business objects report was extracted to map the customers' MIRN to the type of connection.	The information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.

E6. Non–Network

E6.5 – Telemetry

E6.5.1 – Capex by Project

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Direct internal labour expenditure Direct contractor expenditure Other internal direct expenditure	Estimate Public (except for Direct Contractor expenditure, which is Confidential)	JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: • Refer to Appendix A: Cost Collection Process – Capex. • Refer to Appendix C: Table Variables – Capex. In accordance with Appendix E, Part B, Clause 5.1(a) of the RIN requirements projects with total expenditure less than $500,000 over the project life have been aggregated for disclosure purposes.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
Total overhead expenditure	Estimate Public	JGN does not usually apply overheads to its Non-Network capex. However, there were occasions where overheads were applied which are negligible. Refer to Appendix E: Overhead Expenditure.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
Related party margin expenditure	Estimate Confidential	JGN does not usually apply RPM to its Non-Network capex. However, there were occasions where RPM were applied which are negligible. Refer to Appendix F: Related Party Margins.	The information reported in these RIN Tables is estimated information because: • for the period RY2011 to RY2013, the margins from **JAM** were accrual based and true-ups were processed during the following year • for the period RY2014 to RY2016, JGN relied on **ZNX(2)** and **Zinfra** to provide margin information.
Customer Contributions	Estimate Confidential	No customer contributions were recorded for this **capex category** and therefore this RIN Table variable was completed with values of zero.	Information reported in this RIN Table is estimated information because it was not sourced from JGN's SAP system.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2017 to RY2018			
Direct internal labour expenditure Direct contractor expenditure Other internal direct expenditure	Actual Public (except for Direct Contractor expenditure, which is Confidential)	JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: • Refer to Appendix A: Cost Collection Process – Capex. • Refer to Appendix C: Table Variables – Capex. In accordance with Appendix E, Part B, Clause 5.1(a) of the RIN requirements projects with total expenditure less than $500,000 over the project life have been aggregated for disclosure purposes.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Total overhead expenditure	Actual Public	No overheads were recorded for this capex category. This RIN Table was completed with values of zero.	Information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.
Related party margin expenditure	Actual Public	JGN does not incur related party margins on its Non-Network capex. This RIN Table was completed with values of zero.	Information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.
Customer Contributions	Actual Confidential	No customer contributions were recorded for this **capex category** and therefore this RIN Table variable was completed with values of zero.	Information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.

E10. Overheads

E10.1 – Network and 10.2 – Corporate

E10.1.1 – Opex and E10.2.1 – Opex

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Public	Network overheads are types of costs incurred in managing and planning routine maintenance and corrective maintenance. These costs were sourced from project cost data and mapped them into the RIN Table categories including Network Management, Network Planning, Project Governance, Quality and Standard functions, Network Control & Operational and Other Network Overhead in accordance with the definitions provided in the RIN. In addition to these categories Information Technology is also been classified as Network Overhead. Corporate overheads are corporate costs of Finance, Human resources, Legal, Procurement Health and safety and it also includes some IT incurred in **JAM** and allocated to JGN. These costs were sourced from a historical JEM Group cost allocation model that distributed corporate costs to JEM's entities, including JGN. These corporate costs were allocated to JGN manually on the basis of budget allocation. Refer to Appendix E: Overhead Expenditure.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation. Further, it is also an estimated information because the overhead expenditure was allocated to the RIN variables.
RY2017 to RY2018			
Network Overheads Corporate Overheads	Actual Public	Network overheads are types of costs incurred in managing and planning routine maintenance and corrective maintenance. These costs were sourced from project cost data and mapped them into the RIN Table categories such as Network Management, Network Planning, Project Governance, Quality and Standard functions, Network Control and Operational and Other Network Overhead in accordance with the definitions provided in the RIN. In addition to these categories Information Technology is also been classified as Network Overhead. Corporate overheads are corporate type costs (Finance, Human resources, Legal, Procurement Health and safety) including IT from the JAM entity passed onto JGN.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		Refer to Appendix E: Overhead Expenditure.	

E10.1.2 – Capex and E10.1.2 – Capex

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Network Overheads Corporate Overheads	Estimate Public	JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: • Refer to Appendix A: Cost Collection Process – Capex. • Refer to Appendix E: Overhead Expenditure. In addition to the above appendix the only change from RY2015 is Information technology (IT) classified as Network overhead till RY2014. From RY2015 IT capitalisation has been classified as Corporate Overhead.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation. Refer to the Overview for further explanation. Further, it is also an estimated information because the overhead expenditure was allocated to the RIN variables.
RY2017 to RY2018			
Network Overheads Corporate Overheads	Actual Public	JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: • Refer to Appendix A: Cost Collection Process – Capex • Refer to Appendix E: Overhead Expenditure From RY2017 to RY2018, IT capitalisation has been classified as a Corporate Overhead.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

E11. Labour

E11.3 – Labour/Non–Labour Expenditure Split

E11.3.1 – Opex and E11.3.2 – Capex

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Public (except for Labour expenditure outsourced to related parties expenditure, which is Confidential)	**In-house labour expenditure**: JGN applied the substance over form principle for this variable as JGN's internal labour is provided by JAM, a related party. The nature of these costs are generally time writing based, as all employees are required to account for their time. The employee's time and cost are recorded against activity codes e.g. networks or planned maintenance (**PM**) orders. JGN's ERP system captures the labour cost using internal cost collectors (cost elements). **Labour expenditure outsourced to related parties:** JGN also outsources work to Zinfra, who is a related party to JGN. For the period RY2015 to RY2018, JGN has sourced Zinfra's labour cost that is applicable to JGN from Zinfra and disclosed it in this section of the table. However, as such information is not available for RY2011-2014 period, JGN calculated the percentage of RY2015 labour expenditure against controllable non-labour cost. To calculate the historical labour expenditure outsourced to related parties, JGN applied the resultant percentage retrospectively (RY2011 to RY2014) to the historical controllable non-labour costs. JGN deducted the result from the historical controllable non-labour expenditure variable. **Labour expenditure outsourced to unrelated parties**: JGN is unable to provide an estimate for this variable as it does not have a reasonable basis to make an estimate. Therefore this variable remains blank. **Controllable non-labour expenditure:** JGN uses activity codes to collect costs based on the activity that is being performed and is goods receipted from externally issued purchase orders. The activity codes are mapped using respective RIN categories required by the template. **Uncontrollable non-labour expenditure:** JGN uses cost elements to collect costs based on the activity that is being	The information in this RIN Table is estimated information because labour expenditure is a calculated and is not sourced from the system. Additionally, in RY2015 to RY2018, labour expenditure outsourced to related parties' financial information was received from Zinfra.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		performed and is goods receipted from externally issued purchase orders. The activity codes are mapped using respective RIN categories required by the template. JGN applied a principle that such costs will include items where JGN does not have any direct control over these costs. Examples of these costs include, licence fees, costs of statutory type bodies and local and federal government taxes. JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: • Refer to Appendix A: Cost Collection Process – Capex. • Refer to Appendix B: Cost Collection Process – Opex.	

E12. Information and Communications Technology

E12.1 – Capex – By Project

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Direct internal labour expenditure Direct contractor expenditure Other internal direct expenditure	Estimate Public (except for Direct Contractor expenditure, which is Confidential)	**JGN** was required to provide capex information for ICT projects. JGN used its internal **WBS** descriptions to categorise the projects. A group of minor assets, some of which were Information and Communications Technology (**ICT**) assets, were transferred from JAM to JGN in RY2015 and recorded in this template within direct contractor expenditure. The classification of these minor assets is based on a Fixed Asset report In accordance with Appendix E, Part B, Clause 7.1(a) of the RIN projects with total expenditure less than $500,000 over the project life have been aggregated for disclosure purposes. JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: • Refer to Appendix A: Cost Collection Process – Capex. • Refer to Appendix C: Table Variables – Capex.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
Total overhead expenditure	Estimate Public	JGN does not usually apply overheads to its ICT capex. However, there were minor instances where overheads were applied and the amounts were negligible. Refer to Appendix E: Overhead Expenditure.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
Related party margin expenditure	Estimate Confidential	JGN does not usually incur related party margin expenditure on its ICT capex. However, there were minor instances where margins were applied and the amounts were negligible. Refer to Appendix F: Related Party Margins	The information reported in these RIN Tables is estimated information because: • for the period RY2011 to RY2013, the margins from Jemena Asset Management Pty Ltd **(JAM**) were accrual based and true-ups were processed during the following year • for the period RY2014 to RY2016, JGN relied on **ZNX(2)** and **Zinfra** to provide margin information.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
Customer Contributions	Estimate Confidential	No customer contributions were recorded for this **capex category** and therefore this RIN Table variable was completed with values of zero.	Information reported in this RIN Table is estimated information because it was not sourced from JGN's SAP system.
RY2017 to RY2018			
Direct internal labour expenditure Direct contractor expenditure Other internal direct expenditure	Actual Public (except for Direct Contractor expenditure, which is Confidential)	**JGN** was required to provide capex information for ICT projects. JGN used its internal **WBS** descriptions to categorise projects. In accordance with Appendix E, Part B, Clause 7.1(a) of the RIN projects with total expenditure less than $500,000 over the project life have been aggregated for disclosure purposes. JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: • Refer to Appendix A: Cost Collection Process – Capex. • Refer to Appendix C: Table Variables – Capex.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Total overhead expenditure	Actual Public	No overhead expenditure was recorded for this **capex category** and therefore this RIN Table variable was completed with values of zero.	Information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.
Related party margin expenditure	Actual Confidential	No related party margin expenditure was recorded for this **capex category** and therefore this RIN Table variable was completed with values of zero.	Information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.
Customer Contributions	Actual Confidential	No customer contributions were recorded for this **capex category** and therefore this RIN Table variable was completed with values of zero.	Information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.

E13. Other Capex

E13.1 – Other Capex – By Project

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Direct internal labour expenditure Direct contractor expenditure Other internal direct expenditure	Estimate Public (except for Direct Contractor expenditure, which is Confidential)	**JGN** was required to provide capex information for Other Capex projects. JGN used its internal **WBS** descriptions to categorise projects. A group of minor assets were transferred from JAM to JGN in RY2015 and recorded in this template within direct contractor expenditure. The classification of these minor assets was based on a Fixed Asset report. In accordance with Appendix E, Part B, Clause 6.1(a) of the RIN projects with total expenditure less than $500,000 over the project life have been aggregated for disclosure purposes. JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: Refer to Appendix A: Cost Collection Process – Capex. Refer to Appendix C: Table Variables – Capex.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
Total overhead expenditure	Estimate Public	Refer to Appendix E: Overhead Expenditure.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
Related party margin expenditure	Estimate Confidential	Refer to Appendix F: Related Party Margins.	The information reported in these RIN Tables is estimated information because: • for the period RY2011 to RY2013, the margins from JAM were accrual based and true-ups were processed during the following year • for the period RY2014 to RY2016, JGN relied on **ZNX(2)** and **Zinfra** to provide margin information.
Customer Contributions	Actual Confidential	No customer contributions were recorded for this **capex category** and therefore this RIN Table variable was completed with values of zero.	Information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2017 to RY2018			
Direct internal labour expenditure Other internal direct expenditure	Actual Public	**JGN** was required to provide capex information for Other Capex projects. JGN used its internal **WBS** descriptions to categorise projects. In accordance with Appendix E, Part B, Clause 6.1(a) of the RIN projects with total expenditure less than $500,000 over the project life have been aggregated for disclosure purposes. JGN's cost collection and financial recording methodology used for the underlying data reported in the Regulatory Templates are explained in the appendices: Refer to Appendix A: Cost Collection Process – Capex. Refer to Appendix C: Table Variables – Capex.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Direct contractor expenditure	Estimate Confidential	The same methodology applies for these reporting periods as described above for direct internal labour expenditure and other internal direct expenditure. There was one additional calculation applied for this variable that was not applied in the above. The estimated amount for related party margin expenditure was subtracted to derive the Direct contractor expenditure.	The information reported this RIN Table is estimated information because it is partially based on estimated information, which is the related party margin expenditure reported in the same RIN Table.
Total overhead expenditure	Actual Public	Refer to Appendix E: Overhead Expenditure.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Related party margin expenditure	Estimate Confidential	Refer to Appendix F: Related Party Margins.	JGN has assessed the financial information as being an estimate since margins are sourced from ZNX(2) and Zinfra records. This makes the margin data disclosed in this table, an estimate.
Customer Contributions	Actual Confidential	No customer contributions were recorded for this **capex category** and therefore this RIN Table variable was completed with values of zero.	Information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.

E20. Opex

E20.2 – Opex by Category

E20.2.1 – Reference Services

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Public	JGN's cost collection and financial recording methodology processes for the underlying the data reported in the Regulatory Templates, are similar. JGN has explained this in the appendices: • Refer to Appendix B: Cost Collection Process – Opex. • Refer to Appendix D: Table Variables – Opex. • Refer to Appendix G: Opex reporting compared to the Previous Reset RIN Responses.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation. Further, the related party margin information as being an estimate as the margin is sourced from related party entity financial systems.
RY2017 to RY2018			
Operating expenditure Non-Operating expenditure Ancillary Reference Service	Estimate Public	JGN's cost collection and financial recording methodology processes for the underlying the data reported in the templates, are similar. JGN has explained this in the appendices: • Refer to Appendix B: Cost Collection Process – Opex. • Refer to Appendix D: Table Variables – Opex.	The information reported in this **RIN Table** is estimated information because the related party margins are allocated across JGN's opex and it was removed based on the proportion of direct expenditure. The related party information was not sourced from JGN's systems resulting in this information not being actual information.

E20.2.2 – Non–Reference Services

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Public	JGN provided non-reference services to three or fewer customers. The cost is negligible in relation to JGN's total cost stack and although recorded in JGN's financial system, it is not clearly identified. [redacted] Refer to the section F3.4 – Non–Reference Services.	[redacted]

E20.3 – Opex by Category – Related Party Margin Expenditure

E20.3.1 – Reference Services

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Confidential	Refer to Appendix F: Related Party Margins.	The information reported in these RIN Tables is estimated information because: • for the period RY2011 to RY2013, the margins from JAM were accrual based and true-ups were processed during the following year • for the period RY2014 to RY2018, JGN relied on **ZNX(2)** and **Zinfra** to provide margin information.

E20.3.2 – Non–Reference Services

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Confidential	No related party margin expenditure was incurred for Non-Reference Services. This RIN Table was completed with values of zero. Refer to Appendix F: Related Party Margins.	The information reported in these RIN Tables is estimated information because: • for the period RY2011 to RY2013, the margins from JAM were accrual based and true-ups were processed during the following year • for the period RY2014 to RY2018, JGN relied on **ZNX(2)** and **Zinfra** to provide margin information.

E21. Ancillary Reference Services

E21.1 – Volumes

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2014			
All variables	Estimate Public	The Ancillary Reference Services[7] volume data for RY2011 to RY2014 has been sourced from the Previous Reset RINs. To ensure consistency with the forecast categories, the historical amounts have remapped to the forecast categories.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
RY2015			
All variables	Estimate Public	The information in RY2015 was not previously reported in a RIN and was previously captured in JGN's legacy GASS+ system. Further, data for Ancillary Reference Services is not available from the **GASS+ Archives.** The source of the volume of services provided was the 't-2 volumes' prepared for the RY2017 price setting process.	The information reported in this RIN Table is estimated information because it was based on the 't-2 volumes' working files, which were originally collated using JGN's legacy GASS+ Archive. Refer to the Overview for further explanation.
RY2016 to RY2018			
All variables	Actual Public	The information in this RIN Table was calculated based on information from SAP that was mapped to RIN Ancillary Reference Services using general ledger details and Material Codes.	The information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.

[7] Ancillary activities form part of the Haulage Reference Service. Costs and volumes of ancillary activities are reported separately from the Haulage Reference Service in the RIN templates, as this is required by the structure of the templates

E21.2 – Revenue

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2014			
All variables	Estimate Public	The Ancillary Reference Services revenue data for RY2011 to RY2014 has been sourced from the Previous Reset RINs. To ensure consistency with the forecast categories, the historical amounts have remapped to the forecast categories.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
RY2015			
All variables	Estimate Public	The information in RY2015 was not previously reported in a RIN and was previously captured in JGN's legacy GASS+ system. Further, data for Ancillary Reference Services is not available from the **GASS+ Archives.** It was estimated by using the service volumes multiplied by the service prices. The source of the volume of services provided was the 't-2 volumes' prepared for the RY2017 price setting process. The prices were sourced from the RY2015 tariff variation notice.	The information reported in this RIN Table is estimated information because it was based on the 't-2 volumes' working files, which were originally collated using JGN's legacy GASS+ Archive. Refer to the Overview for further explanation.
RY2016 to RY2018			
All variables	Estimate Public	The information in this RIN Table was calculated based on information from SAP that was mapped to RIN Ancillary Reference Services using general ledger details and Material Codes. The internal service order codes cannot be directly map to the RIN categories and the data was mapped using descriptions and best estimates.	The information reported in this RIN Table is estimated information because there was significant judgement in how service order data was mapped to the RIN categories

E21.3 – Expenditure

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Public	JGN estimated the costs as it does not collect costs at the WBS level. The estimate was based on the service request data for each service. To ensure consistency with the forecast	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		categories, the historical amounts have remapped to the forecast categories.	
RY2017 to RY2018			
	Estimate Public	JGN estimated the costs as it does not collect costs at project level. It was estimated using the cost and time booked by external contractors and internal employees in SAP by using work orders. To ensure consistency with the forecast categories, the historical amounts have remapped to the forecast categories.	The information in this RIN Table is estimated information because of the unit rates used were built up using an estimate of the cost of the activities as the actual expenditure was not available in SAP.

N1. Demand

N1.1 – Demand – By Customer Type

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Public	JGN's volume customers' consumption was sourced from **GASS+ Archives** for RY2011 to RY2016. The data included customer details by postcode, by connection type, by tariff, with consumption and billed quantities for each year. These details were used to map the consumption to the relevant year and tariff. Consumption for commercial customers was sourced from historical GASS+ files and SAP where commercial customers had been identified using connection categories. Consumption for residential customers was calculated as the total volume consumption from RIN Table N1.2 minus the consumption of commercial customers shown in the other lines of this template. For industrial and commercial customers RIN Table N1.1 was created as the sum of the relevant tariff level information from RIN Table N1.2.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
RY2017 to RY2018			
All variables	Actual Public	Consumption for commercial customers was sourced from BW where commercial customers had been identified using connection categories. Consumption for residential customers was calculated as the total volume consumption from RIN Table N1.2 minus the consumption of commercial customers shown in the other lines of this template. RIN Table N1.1 was created as the sum of the relevant tariff level information from RIN Table N1.2 for demand customers.	The information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.

N1.2 – Demand – By tariff

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Public (Tariffs with less than 3 customers are Confidential)	JGN's industrial and commercial (demand) customers' daily consumption was sourced from archived data from the legacy billing system, CABS as that system is longer accessible JGN's volume customers' consumption was sourced from **GASS+ Archives** for RY2011 to RY2016. The data included customer details by postcode, by connection type, by tariff, with consumption and billed quantities for each year. These details were used to map the consumption to the relevant year and tariff. Consumption by volume market tariff was sourced from historical GASS+ reports and SAP. Information in the reports was captured by tariff and month and aggregated to the appropriate year.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives,** including the legacy billing system CABS. Refer to the Overview for further explanation.
RY2017 to RY2018			
All variables	Actual Public (Tariffs with less than 3 customers are Confidential)	Information for volume tariffs was sourced from SAP using Business Intelligence (BI) reports by rate category by consumption month. Information for industrial and commercial (i.e. Demand) customers was sourced from a BI report from SAP by rate category by consumption month.	The information reported in this RIN Table is actual information because it was sourced from JGN's SAP system.

N2. Network Characteristics

N2.1 – Network Length – By Pressure and Asset Type

N2.1.1 – Low Pressure, N2.1.2 – Medium Pressure and N2.1.3 – High Pressure

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Actual Public	Data for all network pipes with a maximum operating pressure (**MOP**) pressure of ≤1050 kPa was extracted from GIS. The information for each pipe included, postcode, material, pressure, installation date and length. The GIS data was not complete for all pipes and a number of the attributes were manually added by reference to the location of the pipe and other factors such as the types of pipes installed in the vicinity. Length of mains has been calculated based on filtering date ranges and the following maximum operating pressures: • High pressure (1050 kPa) • Medium pressure (>7 to <1050 kPa) • Low pressure (≤7 kPa) The GIS data did not disaggregate polyethylene pipes into the RIN categories, which have been populated based on installations dates: • PE Other : ≤1980 or unknown • PE (80) : ≥1981 and ≤1990 • PE(100): ≥1991. In some cases, an installation date was not available. It was assumed that these mains were in service prior to RY2011 and have been included in the network length for each regulatory year. It is assumed that all high and medium pressure steel mains are coated steel as detailed in Jemena's Construction and Operational Field Manual's. Medium pressure steel mains with a maximum allowable operating pressure (MAOP) of 1050 kPa that is considered	The information reported in this RIN Table is actual information because it was sourced from JGN's GIS System.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		critical main has been assumed to be protected as it has cathodic protection. All other medium and low pressure steel mains are considered unprotected. We do not capture the decommissioning dates of pipes and we do not have a basis to make an adjustment to our data. Therefore, our network length for each regulatory is slightly understated as decommissioned mains have not been accounted for. This same dataset was used to calculate the network length by postcode for RIN Table 2.5. See section N2.5 – Network Length – By Post Code for more details.	

N2.1.4 – Transmission

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
Transmission	Actual Public	Data for all transmission pipes with a MAOP pressure of ≥ 3050 kPa have been extracted from GIS and the lengths of mains calculated. All transmission pipelines are assumed to be coated steel (in accordance with AS2885 Standards).	The information reported in this RIN Table is actual information because it was sourced from JGN's GIS System.

N2.2 – City Gates/Regulators

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Actual Public	The data is obtained from Jemena's Pipeline Geospatial Information System. JGN's transmission regulator stations (TRS), package offtake stations (POTS) and Primary Regulator Stations (PRS) are defined as City Gates in this report. JGN's district regulator sets (DRS) and secondary regulator sets (SRS) are all reported as district regulators in the RIN Table as they meet the RIN definition. The RIN definition of 'field regulators' overlaps with the definition of 'district regulators'. Therefore, to avoid double counting, where JGN's asset meets the definition of district	The information reported in this RIN Table is actual information because it was sourced from JGN's GIS System.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		regulator it has not been reported as a field regulator as well. Consequently, JGN has reported zero field regulators.	

N2.5 – Network Length – By Post Code

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
Post Code Asset Type	Actual Public	This data was calculated from the same data source used to calculate the network lengths in Table 2.1. See section N2.1.1 – Low Pressure, N2.1.2 – Medium Pressure and N2.1.3 – High Pressure for more details.	The information reported in this RIN Table is actual information because it was sourced from JGN's GIS System.

S1. Customer Numbers

S1.1 – Customer Numbers – By Customer Type and S1.2 – Customer Numbers – By Tariff Type

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2014			
All variables	Estimate Public	JGN's volume customer numbers for RY2011 to RY2014 were reported based on data sourced from the **GASS + Archives**. The methodology applied to the data is the same as the methodology used in RY2017 to RY2018. Refer to that methodology below. JGN's demand customer numbers for RY2011 to RY2014 were reported directly from the Previous Reset RIN Responses. RIN Table S1.1 for demand customers was created as the sum of the relevant tariff level information from RIN Table S1.2.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
RY2015 to RY2016			
All variables	Estimate Public	JGN's volume and demand customer numbers for RY2011 to RY2014 were reported based on data sourced from the **GASS + Archives**. The methodology applied to the data is the same as the methodology used in RY2017 to RY2018. Refer to that methodology below. RIN Table S1.1 for demand customers was created as the sum of the relevant tariff level information from RIN Table S1.2.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
RY2017 to RY2018			
All variables	Actual Public	JGN's volume and demand customer numbers were sourced from SAP billing records, which were extracted as the list of customers who were billed for consumption on 30 June each year, this amount was carried forward as the opening number of customers for the following year. Customers that were connected at the beginning of the year but not at the end of the year were counted as a disconnection and customers that existed at the end of the year but not at the beginning were counted as a new connection. RIN Table S1.1 for demand customers was created as the sum of the relevant tariff level information from RIN Table S1.2.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

S10. Supply Quality

S10.1 – Pressure Faults

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Poor Pressure Events - mains	No information reported	JGN has left this variable empty because it does not measure poor pressure events on mains and has no basis to make an estimate. Reporting zero values would indicate that JGN has no poor pressure events on mains.	No information reported
Poor Pressure events - services Poor Pressure events - meters	Estimate Public	JGN captured poor pressure event data in the GASS+ system before it was replaced by SAP in RY2016. The data reported for this variable was based on work orders from **GASS+ Archives.** The number of faults was based on work orders that could be linked to poor pressure events using work order codes.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
Pressure events impacting 5+ customers	Estimate Public	This variable was calculated using the same data set used to calculate the Poor Pressure Event variables for Services and Meters. The Poor Pressure Event work orders for services and meters were grouped together by date and address. Each planned event that occurred on the same date with more than four adjacent addresses being impacted was recorded as one event for this variable to determine specific outage events that affected 5 or more customers.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
Pressure events with >12 hr resolution	Estimate Public	This variable was calculated using the same data set used to calculate the Poor Pressure Event variables for Services and Meters. The length of each event was based on the time workers spent on the job before closing the work order. Each event with a job time of more than 12 hours was recorded The calculation used to measure pressure events with >12hr duration is “Time Elapsed = Time-Left-Job minus Time-Service Order-Created” “Time left job” and “Time service Order created” are concatenated values including time and date stamp fields	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2017 to RY2018			
Poor Pressure Events - mains	No information reported	JGN has left this variable empty because it does not measure poor pressure events on mains and has no basis to make an estimate. Reporting zero values would indicate that JGN has no poor pressure events on mains.	No information reported
Poor Pressure events - services	Actual Public	When a customer contacts Jemena with a poor supply problem a workorder is raised against two work codes. The data set is filtered to remove duplicate work orders. Work orders closed out with a suffix code that showed no fault found, unable to detect poor supply, or non-relevant asset types were excluded from the data set.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Poor Pressure event - meters	Actual Public	With the change to our SAP enterprise system we are no longer able to separate "poor pressure event – meters" from "poor pressure event – services" All poor pressure events are classified as "Poor Pressure event – services".	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Pressure events impacting 5+ customers	Actual Public	This variable is determined from the same SAP generated data set used for poor Pressure events Poor supply events were grouped together by address and date to determine specific outage events that affected 5 or more customers. Criteria – 5 or more planned outages must have occurred at the same address on the same date. This variable includes events that occur on either a service or a meter.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Pressure events with >12 hr resolution	Actual Public	This variable is determined from the same SAP generated data set used for poor supply - services and poor supply – meters. Completed Work orders include information on the time spent on job by field staff. The calculation used to measure pressure events with >12hr duration is "Time Elapsed = Time-Left-Job minus Time-Service Order-Created" "Time left job" and "Time service Order created" are concatenated values including time and date stamp fields	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

S11. Network Reliability

S11.1 – Network Outages

S11.1.1 – PLANNED

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Count of outage events	Estimate Public	The information reported in this template was based on: • planned outages required to install new meters and number of new meters. Refer to E4.2.1 – Number of New Meters Acquired for details. • planned outages required as part of the network rehabilitation projects. These were measured as a count of service orders raised. The data was sourced from **GASS+ Archives.**	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
Outages affecting 5+ customers	Estimate Public	Outage events, counted in service orders from **GASS+ Archives,** for planned rehabilitation projects were grouped together by address and date to determine whether a specific outage event that affected 5 or more customers.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
Outages with >12 hr supply interruption	No information reported	JGN has left this variable empty because it did not measure outages with greater than 12 hours of lost supply. It has no basis to make an estimate. Reporting zero values would indicate that JGN has no such events.	No information reported
RY2017 to RY2018			
Count of outage events	Actual Public	The count of outage events was taken from work orders, based on certain work codes, generated in SAP that relate to Planned Maintenance activities that require a customer outage in order to carry out work.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Outages affecting 5+ customers	Actual Public	Outage events were grouped together by address and date to determine specific outage events that affected 5 or more customers.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Outages with >12 hr supply interruption	Actual Public	Work orders include information on the time spent on job by field staff. These fields were used to determine which jobs resulted in >12hr duration.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
		This dataset does not include planned network rehab projects, because these work orders are not timestamped and therefore outage duration cannot be measured.	

S11.1.2 – Unplanned

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Outages affecting 5+ customers	Estimate Public	Data is stored in a spreadsheet which is part of the retained data from legacy systems. The inputs for this data came from JGN's legacy Incident Management systems (FiCS and IMS) which are no longer operational.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives,** including legacy Incident Management systems (FiCS and IMS). Refer to the Overview for further explanation.
Outages with >12 hr supply interruption	Estimate Public	This data is a subset of "Count of outage events" Service orders include information on the time spent on job by field staff. These fields were used to determine which jobs resulted in >12hr duration The calculation used to measure outages with >12hr duration is "Interruption Elapsed = Time-Left-Job minus Time-Service Order-Created"	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
RY2017 to RY2018			
Count of outage events	Actual Public	The count of outage events was taken from work orders in SAP that were: • generated using the work code 201 "No supply" • finalised with 201 suffix 0, 1 or 5. All other work orders that were finalised with a different suffix have been excluded from the data set.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Outages affecting 5+ customers	Actual Public	The information used is sourced from the "Incident Brief" reports that are generated from JGN's ASPIRE Incident Management database and reported monthly for internal purposes.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Outages with >12 hr supply interruption	Actual Public	This data is a subset of "Count of outage events" Work orders include information on the time spent on job by field staff. The calculation used to measure outages with >12hr duration is	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
		"Interruption Elapsed = Time-Left-Job minus Time-Service Order-Created"	

S11.2 – Leaks – By Asset Type and Cause of Leak

S11.2.1 – Low Pressure, S11.2.2 – Medium Pressure and S11.2.3 – High Pressure

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Public	The information in these RIN Tables is sourced from GASS+ Archive for RY2011 to RY2016 and from SAP for RY2017 to RY2018. The data extracted was corrective maintenance work order data that relate to gas leakages. Where the work order was confirmed to be related to a leak the data was disaggregated into the following two variables: • a leak caused by 3rd party activities • a leak caused by other. JGN's systems do not enable data to be further broken down into the other variables listed in the RIN. The GASS+ Archive data did not link the work order directly to the pipe material or pipe pressure so the data was allocated to the pipe materials based on: 1. the postcode of the work order; 2. the percentage of pipe materials and pressures recorded in GIS for the relevant postcode. The pipe material percentage and network pressure percentage were calculated using 2018 data and has been applied retrospectively for the period of the RIN data. JGN's systems cannot distinguish between different classes of polyethylene. All leaks on polyethylene have therefore been reported against 'High density polyethylene (80)'. JGN's systems cannot distinguish between protected and unprotected steel. All leaks attributed to steel mains have therefore been reported against Unprotected Steel. JGN's network does not contain any PVC, so this variable has been completed with values of zero.	The information reported in these RIN Tables is estimated information because of the assumption regarding the proportions of 2018 materials and 2018 pipe pressures being applied in all years. An alternative assumption, which would also be reasonable, could have been to weight the leakage data to materials and pressures based on material type failure rates, which would lead to materially different values being reported

S11.3 – Unaccounted for Gas – Transmission and Distribution

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Public	Unaccounted for Gas (**UAG**) for the period RY2011 to RY2016 was sourced from historical GASS+ information.	For RY2011 to RY2016, the information reported in this RIN Table is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
RY2017 to RY2018			
All variables	Actual Public	Information for the period RY2017 to RY2018 was sourced from SAP using a Business Objects (**BO**) report.	The information reported in this RIN Table is actual information as it was sourced from JGN's SAP system.

S14. Network Integrity

S14.1 – Loss of Containment

S14.1.1 – Mains, S14.1.2 – Services and S14.1.3 – Meters

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2010-2016			
Number of Leaks - publicly reported	Estimate Public	Data was extracted from **GASS+ Archives** migrated into SAP. The base data set included all publicly reported leaks recorded on mains, company mains/services and meter sets and was filtered to remove duplicates and ones where no leak could be detected when they were investigated. The volumes reported in the RIN table for this measure therefore represent the number of "confirmed" leaks.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
Number of Leaks - found through survey	Actual Public	Leakage survey data was sourced from the spreadsheet that was used to manage the leakage survey planning. This spreadsheet contains details and links to every survey sector, along with the number of leaks reported in each sector.	The information reported in this RIN Table is actual information as the data was sourced from JGN's records, i.e. spreadsheet used to manage surveys.
Repaired Leaks	Estimate Public	Total repaired leaks = repaired public reported leaks + repaired leaks found through survey. The information in the RIN Template was sourced from service orders from **GASS+ Archives** for repairs for leaks found through survey were raised against specific work codes.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
Length of network subject to survey Number of Services subject to Survey Number of Meters Subject to Survey.	Actual Public	Leakage survey data was sourced from the spreadsheet that was used to manage the leakage survey planning. Contractors measure length of the network via map tiles and report this length to JGN as part of their contract deliverable. As JGN only surveys mains, there is no data in the spreadsheet for the number of meters or services to survey.	The information reported in this RIN Table is actual information as the data was sourced from JGN's records, i.e. spreadsheet used to manage surveys. This data is a used to pay leakage survey contractors.
RY2017 to RY2018			
Number of Leaks - publicly reported	Actual Public	Data was sourced from SAP as all public reported leaks are assigned to one of the certain work codes.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
Number of Leaks - found through survey	Actual Public	Leakage survey data was sourced from the spreadsheet that was used to manage the leakage survey planning. This spreadsheet contains details and links to every survey sector, along with the number of leaks reported in each sector.	The information reported in this RIN Table is actual information as the data was sourced from JGN's records, i.e. spreadsheet used to manage surveys. This data is a used to pay leakage survey contractors.
Repaired Leaks	Actual Public	Total repaired leaks = repaired public reported leaks + repaired leaks found through survey. The information in the RIN Template was sourced from service orders from **GASS+ Archives** for repairs for leaks found through survey were raised against specific work codes.	Actual data has been used, however a percentage factor has been applied to the "repaired leaks found through survey" in order to split the number of repairs into asset types
Length of network subject to survey Number of Services subject to Survey Number of Meters Subject to Survey.	Actual Public	Leakage survey data was sourced from the spreadsheet that was used to manage the leakage survey planning. Contractors measure length of the network via map tiles and report this length to JGN as part of their contract deliverable. As JGN only surveys mains, there is no data in the spreadsheet for the number of meters or services to survey.	The information reported in this RIN Table is actual information as the data was sourced from JGN's records, i.e. spreadsheet used to manage surveys. This data is a used to pay leakage survey contractors.

S14.2 – Instances of Damage

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Mains per km	Estimate Public	Data is collated using a number of relevant work codes (and their suffixes) that close out corrective maintenance activities relating to asset damage. The data was filtered to remove duplicates. Service orders closed out with a suffix (report in code) that showed no fault found, unable to detect a leak, or relate to non-relevant asset types were excluded from the data set.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
Services	Estimate Public	Data is collated using a number of relevant work codes (and their suffixes) that close out corrective maintenance activities relating to asset damage. The data was filtered to remove duplicates. Service orders closed out with a suffix (report in code) that showed no fault found, unable to detect a leak, or relate to non-relevant asset types were excluded from the data set.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
Meters	Estimate Public	Data is collated using a number of relevant work codes (and their suffixes) that close out corrective maintenance activities relating to asset damage. The data was filtered to remove duplicates. Service orders closed out with a suffix (report in code) that showed no fault found, unable to detect a leak, or relate to non-relevant asset types were excluded from the data set.	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.
RY2017 to RY2018			
Mains	Actual Public	Data is collated using a number of relevant work codes that raise corrective maintenance activities relating to asset damage. The data was filtered to remove duplicates. Work orders closed out with a suffix (report in code) that showed no fault found, unable to detect a leak, or relate to non-relevant asset types were excluded from the data set.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Services	Actual Public	Data is collated using a number of relevant work codes that raise corrective maintenance activities relating to asset damage. The data was filtered to remove duplicates. Work orders closed out with a suffix (report in code) that showed no fault found, unable to detect a leak, or relate to non-relevant asset types were excluded from the data set.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Meters	Actual Public	Data is collated using a number of relevant work codes that raise corrective maintenance activities relating to asset damage. The data was filtered to remove duplicates. Work orders closed out with a suffix (report in code) that showed no fault found, unable to detect a leak, or relate to non-relevant asset types were excluded from the data set.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

F1. Income

F1.1 – Audited Statutory Accounts

F1.1.1 – Revenue

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Public	JGN sourced its revenue from the income statement in the Financial Statements. JGN only populated the 'distribution revenue' line item as its Financial Statements reflects a consolidated view of all its revenue categories e.g. Tariff, Demand, Contract, Capital Contributions, Profit on sale of Fixed Assets, Ancillary and Unregulated revenue.	The information in this RIN Table is estimated information because it was based on estimated information. As explained in the Overview, the Financial Statements for RY2011 to RY2016 were based on **GASS+ Archives** and only limited audit procedures were possible, therefore this financial information in those years is estimated information.
RY2017 to RY2018			
All variables	Actual Public	Refer to the methodology for the RY2011 to RY2016 information in this RIN Table.	The information in this RIN Table is actual information because it was sourced from the Financial Statements, which were audited.

F1.1.2 – Expenditure

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Public	JGN sourced all items for this table from its Financial Statements. **Materials and services expense:** JGN has consolidated and disclosed all of its opex into this line item of this table and has not used the 'maintenance expenditure' line. **Depreciation**: reflects accounting depreciation for JGN's assets. **Net Finance Expenses**: reflects the unwinding of environmental provision. **Loss from sale of Fixed Asset**: reflects the net amount of fixed asset scrapping.	The information in this RIN Table is estimated information because it was based on estimated information. As explained in the Overview, the Financial Statements for RY2011 to RY2016 were based on **GASS+ Archives** and only limited audit procedures were possible, therefore this financial information in those years is estimated information.

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
		Impairment Losses: no impairment losses were recorded. Other Expenses is reported in materials and services expense as noted above.	
RY2017 to RY2018			
All variables	Actual Public	Refer to the methodology for the RY2011 to RY2016 information in this RIN Table.	The information in this RIN Table is actual information because it was sourced from the Financial Statements, which were audited.

F1.1.3 – Profit

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
Income tax expenses (/benefit)	Estimate Public	**Income tax expenses (/benefit):** is from JGN's Financial Statements.	The information in this RIN Table is estimated information because it was based on estimated information. As explained in the Overview, the Financial Statements for RY2011 to RY2016 were based on **GASS+ Archives** and only limited audit procedures were possible, therefore this financial information in those years is estimated information.
RY2011 to RY2018			
Income tax expenses (/benefit)	Actual Public	Refer to the methodology for the RY2011 to RY2016 information in this RIN Table.	The information in this RIN Table is actual information because it was sourced from the Financial Statements, which were audited.

F1.2 – Adjustments

F1.2.1 – Revenue

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Public	Various adjustments are made to the audited financial statements to arrive at JGN's 'distribution business' regulatory amounts which reflects the amounts as per the AER's RIN submission guidelines. The adjustments reflect the differing	The information in this RIN Table is estimated information because it was based on estimated information. As explained in the Overview, the Financial Statements for RY2011 to RY2016 were based on **GASS+ Archives** and only limited audit

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
		recognition or measurement requirements of Australian Accounting Standards. The adjustment table forms part of the reconciliation required by the notice, with the difference (in total) essentially being unregulated revenue.	procedures were possible, therefore this financial information in those years is estimated information.
RY2017 to RY2018			
All variables	Actual Public	Refer to the methodology for the RY2011 to RY2016 information in this RIN Table.	The information in this RIN Table is actual information because it was sourced from the Financial Statements, which were audited.

F1.2.2 – Expenditure

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Public	Various adjustments are made to the audited financial statements to arrive at JGN's 'distribution business' regulatory amounts which reflects the amounts as per the AER's RIN submission guidelines. The adjustments reflect the differing recognition or measurement requirements of Australian Accounting Standards Refer to F4.1.2 – Adjustments for the explanations relating to the adjustments for the opex variables. The remaining adjustments are explained below. **Depreciation:** The depreciation adjustment reflects a calculated depreciation value of unregulated assets. As the unregulated assets cannot be identified from fixed asset register JGN provided its best estimate. The estimate is based on the known capex additions by regulatory year and depreciated using the useful lives of the Mains assets class of 47 years. JGN uses this asset class to record unregulated asset additions. **Net Finance Expenses:** reflects the unwinding of environmental provision, which is not reflected in regulatory statements. **Loss from sale of Fixed Asset:** is treated as unregulated and excluded from distribution services. **Impairment losses:** There is no recording of impairment losses.	The information in this RIN Table is estimated information because it was based on estimated information. As explained in the Overview, the Financial Statements for RY2011 to RY2016 were based on **GASS+ Archives** and only limited audit procedures were possible, therefore this financial information in those years is estimated information.

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
		Other Expenses: The is miscellaneous items.	
RY2017 to RY2018			
All variables except depreciation	Actual Public	Refer to the explanation for the RY2011 to RY2016 methodology for this RIN Table.	The information in this RIN Table is actual information because it was sourced from the trial balance in the Financial Statements.
Depreciation	Estimate Public	Refer to the explanation for the RY2011 to RY2016 methodology for this RIN Table.	The information in this RIN Table is estimated information as the depreciation has been apportioned to unregulated services and there is no amount in JGN's system that could be reported as actual information.

F1.2.3 – Profit

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
Income tax expenses (/benefit)	Estimate Public	Income tax expense has been calculated using a tax rate of 30%.	The adjustments included estimated values e.g. some unregulated items on which the income tax is calculated.

F1.3 – Distribution Business

The F1.3.1 and F1.3.2 RIN Tables are formula driven tables calculated by the Regulatory Template.

F1.3.3 - Profit

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
Income tax expenses (/benefit)	Estimate Public	Income tax expense has been calculated using a tax rate of 30%.	The adjustments included estimated values e.g. some unregulated items on which the income tax is calculated.

F1.4 – Haulage Reference Services

F1.4.1 – Revenue

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Public	The total revenue amount in this table is a result of the revenue from the underlying trial balance underlying the Financial Statements less ancillary, unregulated and non-reference service revenue.	The information in this RIN Table is estimated information because it was based on estimated information. As explained in the Overview, the Financial Statements for RY2011 to RY2016 were based on **GASS+ Archives** and only limited audit procedures were possible, therefore this financial information in those years is estimated information.
RY2017 to RY2018			
All variables	Actual Public	Refer to the explanation for the RY2011 to RY2018 methodology for this RIN Table.	The information in this RIN Table is actual information because it was sourced from the trial balance in the Financial Statements.

F1.4.2 – Expenditure

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Public	The total expenditure amount in this table is the summation of RIN Table E20.2.1 (A +B) from template E20.	The information in this RIN Table is estimated information because it is based on estimated information from RIN Table E20.2.1.

F1.4.3 – Profit

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
Income tax expenses (/benefit)	Estimate Public	Income tax expense has been calculated using a tax rate of 30%.	The adjustments included estimated values e.g. some unregulated items on which the income tax is calculated.

F1.5 – Ancillary Reference Services

F1.5.1 – Revenue

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Public	The information reported in this RIN Table was sourced from RIN Table E21.2. Refer to section E21.2 – Revenue. The revenue is the sum of the revenue from E21.2.	The information reported in this RIN Table is estimated information because the source information in RIN Table E21.2 is also estimated information.

F1.5.2 – Expenditure

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
Operating expenditure	Estimate Public	The total expenditure amount in this table is the summation of table E20.1.3. Refer to E21.3 – Expenditure.	The information reported in this RIN Table is estimated information because the source information in RIN Table E21.2 is also estimated information.

F1.5.3 – Profit

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
Income tax expenses (/benefit)	Estimate Public	Income tax expense has been calculated using a tax rate of 30%.	The adjustments included estimated values e.g. some unregulated items on which the income tax is calculated.

F2. Capex

F2.1 – Capex by Purpose – Reference Services

F2.1.1 – CPI Adjusted Forecast

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Public	The CPI adjusted forecast is the total allowance approved by AER for period relevant period adjusted for CPI.	The information reported in this RIN Table is estimated information because the source of the data is the AER's determination, not a JGN system, or other record.

F2.1.2 – Actual

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
Distribution Business	Estimate Public	Please refer to table E1.1.1 for details.	Please refer to table E1.1.1 for details.

F2.1.3 – Related Party Margin Expenditure

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
Related Party Margin	Estimate Public	Please refer to table E1.1.1 for details.	Please refer to table E1.1.1 for details.

F2.3 – Capex – Other

F2.3.1 – CPI Adjusted Forecast

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Public	The CPI adjusted forecast is the total allowance approved by AER for period relevant period adjusted for CPI.	The information reported in this RIN Table is estimated information because the source of the data is the AER's determination, not a JGN system, or other record.

F2.3.2 – Actual

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
Capex Other	Estimate Public	Please refer to table E1.1.1 for details. In addition to above reference. The Other Capex has been identified by individual major categories by experienced asset management expertise.	Please refer to table E1.1.1 for details.

F2.3.3 – Related Party Margin Expenditure

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
Capex Other	Estimate Confidential	Refer to Appendix F: Related Party Margins.	The information reported in these RIN Tables is estimated information because: • for the period RY2011 to RY2013, the margins from JAM were accrual based and true-ups were processed during the following year • for the period RY2014 to RY2018, JGN relied on **ZNX(2)** and **Zinfra** to provide margin information.

F2.4 – Capex by Asset Class

F2.4.1 – CPI Adjusted Forecast

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Public	The CPI adjusted forecast is the total allowance approved by AER for period relevant period adjusted for CPI.	The information reported in this RIN Table is estimated information because the source of the data is the AER's determination, not a JGN system, or other record.

F2.4.2 – Actual – As Incurred

RY2011 to RY2018			
Capex by Asset Class	Estimate Public	Please refer to table E1.1.1 for details. In addition to above reference. The Regulatory Asset Base has been identified by experienced asset management expertise.	Please refer to table E1.1.1 for details.

F2.5 – Capital Contributions by Asset Class

F2.5.1 – CPI Adjusted Forecast

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Public	The CPI adjusted forecast is the total allowance approved by AER for period relevant period adjusted for CPI.	The information reported in this RIN Table is estimated information because the source of the data is the AER's determination, not a JGN system, or other record.

F2.5.2 – Actual

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
Capital contributions	Estimate Public	Please refer to table E1.3.1 for details. In addition to above reference. The Capital contribution identified by Regulatory Asset Base by experienced asset management expertise.	Please refer to table E1.3.1 for details.

F2.6 – Disposals by Asset Class

F2.6.1 – CPI Adjusted Forecast

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Public	The CPI adjusted forecast is the total allowance approved by AER for period relevant period adjusted for CPI.	The information reported in this RIN Table is estimated information because the source of the data is the AER's determination, not a JGN system, or other record.

F2.6.2 – Actual

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Disposals by Asset Class	Estimate Public	JGN adopted an approach where it calculated the disposal costs based on external workings and was not part of its ERP system. JGN maintained a manual spreadsheet (RAB spreadsheet) that rolled forward historical written down value Regulatory Asset Base (RAB) information. The RAB is similar to an accounting fixed asset register that adjusts in line with the methodology set out in the regulatory framework. It shows the movement (additions, retirements, regulatory depreciation, etc) between the regulatory opening and closing written down balances. These are by asset and maps to an asset class that can used in the table of this template. When a retirement occurs, JGN processes these transactions in its ERP system.	Data is estimated based on the approach taken as per the methodology and assumptions. JGN has disclosed the disposal information as being an estimate as it cannot ascertain or validate the historical RAB information used in the RAB spreadsheet.

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
		JGN then uses the same financial information to identify a corresponding asset within the RAB spreadsheet and uses the RAB written down value as being the value of the disposal.	
RY2017 to RY2018			
Disposals by Asset Class	Actual Public	JGN bases its disposals on the amount 'cash' it receives for the disposal. The amount is sourced from a relevant general ledger account in SAP.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

F3. Revenue

F3.1 – Reference Services

F3.1.1 – Revenue – By Tariff

This RIN Table requires revenue for haulage reference services to be reported by tariff. As revenue is financial data, Appendix E, clause 1 of the RIN requires this information to be based on the Audited Statutory Accounts and for the purposes of this RIN Response, the Audited Statutory Accounts are the Financial Statements, as discussed in the Overview.

The Financial Statements and underlying records do not contain enough information to report revenue by tariff and therefore, in the absence of actual information, JGN has prepared an estimate of the revenue by tariff based on its annual tariff variation process. This approach necessarily results in differences in the total revenue reported in the F1. Income RIN Tables, which is based on the Financial Statements. These differences include the exclusion of prudent discount and customers where the tariff cannot be determined, accruals and accounting corrections, the last two of which should only be a timing difference.

As this method of estimation avoids the timing issues associated with accounting procedures, it creates view of revenue that is more aligned with the regulatory framework. In other words, the revenue by tariff data reported is closely aligned to the revenue building blocks calculated by the Post Tax Revenue Model (**PTRM**).

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Volume Customer Tariffs	Estimate Public (Tariffs with less than 3 customers are Confidential)	The revenue for volume customers in the RY2011 to RY2014 years were calculated based on consumption per block multiplied by the price.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.
Demand Customer Tariffs	Estimate Public (Tariffs with less than 3 customers are Confidential)	The revenue data for demand customers was not available in the previous RIN, so it was calculated as the product of quantity from historical “T-2 quantities” and historical pricing schedules.	The information reported in these **RIN Tables** is estimated information because it was sourced from the **GASS+ Archives.** This included sourcing information for RY2011 to RY2014 from the working files used to complete the Previous Reset RIN Responses, which were created from **GASS+** at the time the **Previous Reset RIN Responses** were completed. Refer to the Overview for further explanation.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2017 to RY2018			
All variables	Estimate Public (Tariffs with less than 3 customers are Confidential)	Revenue information per tariff was sourced from BO (SAP). Reporting information was extracted by year and by tariff.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

F3.1.2 – Stand Alone Cost Per Unit – By Tariff Class and F3.1.3 – Avoidable Cost Per Unit – By Tariff Class

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Public	JGN does not capture the stand alone or avoidable cost of providing services. This RIN Table was estimated as the amounts reported in JGN's Tariff Structure Statement of 30 June 2014 previously submitted to the AER. The amounts were adjusted for inflation to complete each year of the RIN Table.	The information in this RIN Table is estimated information as there is a significant variation possible with the range of available economic modelling options that could have been applied to derive this data.

F3.2 – Ancillary Reference Services

The information provided in this RIN Table is identical to that in RIN Table E21.2 – Revenue, refer to E21.2 – Revenue.

F3.3 – Rebateable Services

JGN does not have any rebateable services so this RIN Table has been completed with values of zero

F3.4 – Non–Reference Services

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Confidential	JGN has provided non-reference services to a three or fewer customers for the reporting period. The revenue received for	The information reported in this **RIN Table** is estimated information because it was sourced from the **GASS+ Archives.** Refer to the Overview for further explanation.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		non-reference services was sourced directly from general ledger accounts from the GASS+ archive.	
RY2017 to RY2018			
All variables	Actual Confidential	JGN has provided non-reference services to three or fewer customer for the reporting period. The revenue received for non-reference services was sourced directly from general ledger accounts from SAP.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

F4. Opex

F4.1 – Opex – By Purpose

F4.1.1 – Audited Statutory Accounts

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Public	The information reported in this RIN Table was sourced from the Financial Statements	The information in this RIN Table is estimated information because it was based on estimated information. As explained in the Overview, the Financial Statements for RY2011 to RY2016 were based on **GASS+ Archives** and only limited audit procedures were possible, therefore this financial information in those years is estimated information.
RY2017 to RY2018			
All variables	Actual Public	The information reported in this RIN Table was sourced from the Financial Statements	The information in this RIN Table is actual information because it was sourced from the Financial Statements, which were audited.

F4.1.2 – Adjustments

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Public	**Gas Access Arrangement Costs:** As defined in the AER final decision for the period R2011-15 these costs should be capitalised for regulatory purposes whilst expensed for statutory accounting purposes. **Environmental Rehabilitation Provisions:** Environmental Rehabilitation provisions are not recognised as reference service costs for regulatory purposes. Such provisions are deemed unregulated and excluded from the opex templates. **Capex to Opex:** As defined in the AER final decisions for the period RY2011-15, Integrity digs and Pigging should be expensed for regulatory purposes whilst capitalised for statutory accounting purposes.	The information in this RIN Table is estimated information because it was based on estimated information. As explained in the Overview, the Financial Statements for RY2011 to RY2016 were based on **GASS+ Archives** and only limited audit procedures were possible, therefore this financial information in those years is estimated information.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		P&L Disposal of Fixed Assets: Treated as unregulated for regulatory purposes and excluded for reference service. **GST true up:** Historical GST write off for statutory accounting purposes and excluded from the RIN.	
RY2017 to RY2018			
All variables	Actual Public	Refer to the methodology for the RY2011 to RY2016 information in this RIN Table.	The information in this RIN Table is actual information because it was sourced from the Financial Statements, which were audited.

F4.1.3 – Distribution Business

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Public	This data is the sum of the opex reported in RIN Table E20.2.1 and E.20.2.2. Please refer to E20.2 – Opex by Category.	Please refer to RIN Table E20.2 – Opex by Category.

F4.1.4 – CPI Adjusted Forecast

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Public	The CPI adjusted forecast is the total allowance approved by AER for period relevant period adjusted for CPI. The total allowance for each year is split between opex and non-opex is based on JGN budgets. Further manual mapping was required to allocated the opex allowance into lower level categories.	The source of this information was the AER's determination, not JGN's systems, and is therefore estimated information.

F4.1.5 – Actual Reference Services Expenditure

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Public	The information in this RIN Table was sourced from RIN Table E20.2.1. Refer to section E20.2.1 – Reference Services	The information reported in this RIN Table is estimated information for the reasons explained in section E20.2.1 – Reference Services.

F4.1.6 – Non–Reference Services Expenditure

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Confidential	The information in this RIN Table was sourced from RIN Table E20.2.2. Refer to section E20.2.2 – Non–Reference Services.	The information reported in this RIN Table is estimated information for the reasons explained in section E20.2.2 – Non–Reference Services.

F4.2 – Opex – By Purpose – Margins Only

F4.2.1 – Audited Statutory Accounts

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Confidential	The related party margins expenditure is not captured at JGN level in the financial statements as a separate item. This RIN Table was reported as blank cells as JGN did not have a basis to perform an estimate.	No information submitted so it is not actual or estimated information.

F4.2.2 – Adjustments

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Confidential	Refer to Appendix F: Related Party Margins	The information reported in this RIN Table is estimated information because the information was sourced from third parties and it was not sourced from JGN's systems.

F4.2.3 – Distribution Business

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Confidential	Refer to table E20.3 for details.	Refer to table E20.3.

F4.2.4 – CPI Adjusted Forecast

JGN has not completed this RIN Table because the AER determination for 2015-20 (and the previous determination) did not specify an opex allowance for related party margins. Further, JGN does not have a basis to make an estimate of the related party margins provided for in the allowance.

F4.2.5 – Actual Reference Services Expenditure

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Confidential	The information in this RIN Table was sourced from RIN Table E20.3.1. Refer to section E20.3.1 – Reference Services.	Refer to section E20.3.1 – Reference Services.

4.2.6 – Non–Reference Services Expenditure

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2018			
All variables	Estimate Confidential	The information in this RIN Table was sourced from RIN Table E20.3.2. Refer to section E20.3.2 – Non–Reference Services.	Refer to section E20.3.2 – Non–Reference Services.

F6. Related Party Transactions

F6.1 – Expenditure to Related Party Greater Than $1,000,000

JGN has disclosed related party margin information from entities with whom it materially transacted (mainly Zinfra Pty Ltd (**Zinfra**), ZNX (2) Pty Ltd (**ZNX(2)**), Jemena Asset Management (**JAM**) and EBS Pty Ltd (**EBS**)) within the **SGSPAA Group** consistent with the requirements of the RIN, and has not disclosed information about other related parties where it was not required by the RIN (eg. where services were unrelated to pipeline services).

F6.1.1 – Expenditure to Related Party

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Enterprise Business Services (Australia) Pty Limited	Estimate Confidential	**Enterprise Business Services (Australia) Pty Limited (EBS)** was a related party to JGN through Singapore Power International Pte Ltd who held 40% ownership in SGSP (Australia) Pty Ltd. EBS had its own financial recording ERP (**SAP**) system that collected costs and invoiced Jemena Ltd for IT related services. EBS was established during RY2009 to provide IT related services, among other entities, to the Jemena Group of companies [the Jemena Group includes SGSP (Australia) Assets Pty Ltd (**SGSPAA**) and its subsidiaries excluding Zinfra Pty Ltd and its subsidiaries). The IT services were provided under the 'One IT Services Agreement (ITSA)' that was terminated on 30 June 2014 and the 'Corporate Services Agreement (CSA)' that was terminated on 30 September 2014. EBS collected costs into its own cost collectors (WBS & networks). These were opex and capex in nature. EBS invoiced Jemena Ltd for net costs on a monthly basis by WBS (no margins were applicable).The EBS costs are allocated to Jemena's assets and clients, using the Jemena Group cost allocation methodology. JGN disclosed the net costs associated with EBS as reference services. As JGN does not operate a bank account no cash was exchanged between JGN and its related party entities. JGN, with the assistance of an experienced IT engineer, assumed that most of its IT projects were sourced from EBS and included these as part of the payments made to related party.	The information reported in this RIN Table is estimated information because it is unable to reasonably validate the historical transactions given the cessation of the **ITSA** and **CSA** contracts and the cost allocation methodology at the time.

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
Jemena Asset Management Pty Ltd	Estimate Confidential	JAM, a related party to JGN, provides various services to JGN. JAM collects costs in cost collectors and transfers applicable costs to JGN via its ERP (SAP) systems. JGN receives JAM costs inclusive of any related party margins and records them into SAP, with a liability created in its accounting records. JGN has disclosed the related party costs, including margins, from JAM for reference services. The data is obtained from the JAM accounting records, although some of the information is recorded in GASS+ that integrates at a summary level into the JAM SAP system. As JGN does not operate a bank account no cash is exchanged between JGN and its related party entities.	The information reported in this RIN Table is estimated information because data is sourced directly from JAM's SAP system, which is also sourced from GASS+ for period RY2011 to RY2016. As GASS+ has since been decommissioned (during RY2015/16) and can no longer be accessed to validate the underlying data, GASS+ was a significant data source, therefore this is the best estimate.
ZNX(2) Pty Ltd	Estimate Confidential	ZNX(2) Pty Ltd (**ZNX2**), a related party to JGN, has its own financial recording SAP ERP system that collects costs (similar to the process of the Jemena Group of companies) and invoices JAM for costs incurred on behalf of JGN. JGN records JAM costs inclusive of any ZNX(2) related party costs and margins into its SAP system. JGN has disclosed the ZNX(2) related party costs incurred by JAM for reference services.	The information reported in this RIN Table is estimated information because data is sourced directly from JAM's SAP system, which is also sourced from GASS+. As GASS+ has since been decommissioned (during RY2015/16) and can no longer be accessed to validate the underlying data, GASS+ was a significant data source, therefore this is the best estimate.
Zinfra Pty Ltd	Estimate Confidential	Zinfra Pty Ltd (**Zinfra**), a related party to JGN, has its own financial recording SAP ERP system that collects costs (similar process to the Jemena Group of companies) and invoices JAM for costs incurred on behalf of JGN. JGN records JAM costs inclusive of any Zinfra related party costs and margins into its SAP system. JGN has disclosed the Zinfra related party costs incurred by JAM for JGN's reference services.	The information reported in this RIN Table is estimated information because data is sourced directly from JAM's SAP system, which is also sourced from GASS+. As GASS+ has since been decommissioned (during RY2015/16) and can no longer be accessed to validate the underlying data, GASS+ was a significant data source, therefore this is the best estimate.
RY2017 to RY2018			
Jemena Asset Management Pty Ltd	Actual Confidential	JAM, a related party to JGN, provides various services to JGN. JAM collects costs in cost collectors and transfers applicable costs to JGN via its SAP ERP systems. JGN receives JAM costs inclusive of any related party margins and records them into SAP, with a liability created in its accounting records. JGN has disclosed the related party costs, including margins, from JAM for reference services. The data is obtained from the JAM accounting records. As JGN does not operate a bank	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
		account no cash is exchanged between JGN and its related party entities.	
ZNX(2) Pty Ltd	Actual Confidential	ZNX(2), a related party to JGN, has its own financial recording SAP ERP system that collects costs (similar to the process of the Jemena Group of companies) and invoices JAM for costs incurred on behalf of JGN. JGN records JAM costs inclusive of any ZNX(2) related party costs and margins into its SAP system. JGN has disclosed the ZNX(2) related party costs incurred by JAM for reference services.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Zinfra Pty Ltd	Actual Confidential	Zinfra, a related party to JGN, has its own financial recording SAP ERP system that collects costs (similar process to the Jemena Group of companies) and invoices JAM for costs incurred on behalf of JGN. JGN records JAM costs inclusive of any Zinfra related party costs and margins into its SAP system. JGN has disclosed the Zinfra related party costs incurred by JAM for JGN's reference services.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

F6.1.2 – Corresponding Expenses Incurred by Related Party

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Related Party - EBS	Estimate Confidential	No margins are applicable on EBS transactions. Therefore, the corresponding cost incurred by EBS equates the expenditure incurred by JGN, for its reference services. The EBS costs are allocated to Jemena's assets and clients, using the Jemena Group cost allocation methodology	The information reported in this RIN Table is estimated information because it is unable to reasonably validate the historical transactions given the cessation of the ITSA and CSA contracts and the cost allocation methodology at the time.
Related Party - JAM	Estimate Confidential	JAM collects costs in cost collectors and transfers applicable costs to JGN via their SAP ERP systems. Corresponding expenses for JGN's reference services incurred by JAM in RY2011 and RY2012 are reported net of margins. No margins are applicable on JAM transactions on JGN's reference services from RY2013 onwards. Therefore, the corresponding cost incurred by JAM equates the expenditure incurred by JGN from RY2013 onwards.	The information reported in this RIN Table is estimated information because data is sourced directly from JAM's SAP system, which is also sourced from GASS+. As GASS+ has since been decommissioned (during RY2015/16) and can no longer be accessed to validate the underlying data, GASS+ was a significant data source, therefore this is the best estimate

Related Party – ZNX(2)	Estimate Confidential	ZNX(2) has its own SAP ERP system that collects costs. Corresponding expenses incurred by ZNX(2) for JGN's reference services are reported net of margins sourced from ZNX(2) records.	The information reported in this RIN Table is estimated information because expenses incurred by related party are not sourced from JGN's systems, instead they were sourced from ZNX(2) records.
Related Party – Zinfra Pty Ltd	Estimate Confidential	Zinfra has its own financial recording SAP ERP system that collects costs. Corresponding expenses incurred for JGN's reference services by Zinfra are reported net of margins sourced from Zinfra records.	JGN has assessed the financial information as being an estimate since expenses incurred by related party are sourced from Zinfra records, which is cannot reasonable validate
RY2017 to RY2018			
Related Party - JAM	Actual Confidential	JAM collects costs in cost collectors and transfers applicable costs to JGN via their respective SAP ERP systems. No margins are applicable on JAM transactions. Therefore, the corresponding cost incurred by JAM equates the expenditure incurred by JGN.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
Related Party – ZNX(2)	Estimate Confidential	ZNX(2) has its own SAP ERP system that collects costs. Corresponding expenses incurred by ZNX(2) for JGN's reference services are reported net of margins sourced from ZNX(2) records.	The information reported in this RIN Table is estimated information because expenses incurred by related party are not sourced from JGN's systems, instead they were sourced from ZNX(2) records.
Related Party – Zinfra Pty Ltd	Estimate Confidential	Zinfra has its own financial recording SAP ERP system that collects costs. Corresponding expenses incurred for JGN's reference services by Zinfra are reported net of margins sourced from Zinfra records.	The information reported in this RIN Table is estimated information because expenses incurred by related party are not sourced from JGN's systems, instead they were sourced from Zinfra's records.

F6.2 – Revenue from Related Party Greater Than $1,000,000

F6.2.1 – Payments Received from Related Party and 6.2.2 – Corresponding Expenses Incurred by JGN

JGN did not receive any payments greater than $1,000,000 from related parties.

F6.3 – Related Party Margin Expenditure – By Category

F6.3.1 – Capex and F6.3.2 – Opex

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Estimate Confidential	The related party margin amounts for the categories specified were aggregated & entered into the table.	JGN has assessed the financial information as being an estimate as data is sourced directly from JAM's SAP system, which is also sourced from GASS+. As GASS+ has since been decommissioned (during RY2015/16) and can no longer be accessed to validate the underlying data, GASS+ was a significant data source, therefore this is the best estimate. In addition, JGN has assessed the financial information as being an estimate since margins are sourced from ZNX(2) and Zinfra records, which it cannot reasonable validate.
RY2017 to RY2018			
All variables	Estimate Confidential	The related party margin amounts for the categories specified were aggregated & entered into the table.	JGN has assessed the financial information as being an estimate since margins are sourced from ZNX(2) and Zinfra records, which it cannot reasonable validate.

F6.4 – Percentage of Capex Outsourced to Related Party

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
All variables	Actual Confidential	All (i.e. 100%) capex works for JGN's reference services (excluding land and motor vehicle acquisitions) are carried out through JAM and JEM.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.
RY2017 to RY2018			
All variables	Actual Confidential	All (i.e. 100%) capex works for JGN's reference services (excluding land and motor vehicle acquisitions) are carried out through JAM.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

F7. Provisions

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
RY2011 to RY2016			
Other current provisions	Estimate Public	The data is extracted from the relevant General Ledger accounts. Other Provision—previously used for Unaccounted for gas (UAG) which reflects JGN's estimated UAG costs each month, combining the expected UAG for the month and expected wholesale price of gas to replace that UAG. Because these are not fully known at the time JGN closes the accounts each month, it estimates its UAG liability which was trued up or down with the actual cost when it becomes known. Timing differences will occur between the increase/decrease in provisions and what is charged to opex. There are no provisions that are charged to capex, as they are opex in nature.	The information reported in these RIN Tables is estimated information as the UAG provision contains a component of estimated information.
Carbon credit provisions	Estimate Public	The data is extracted from the relevant General Ledger accounts. Carbon tax—ceased in 2014. Previously this reflected JGN's estimated carbon costs (i.e. purchase of carbon permits) each month, and combined expected fugitive emissions for the month and also expected carbon price. The requirement to purchase carbon permits was governed by Clean Energy Act 2011, which applied from July 2012 to July 2014. As the carbon price was fixed, the key unknown was the amount of fugitive emissions, which was calculated with a lag. This cost was not fully known at the time JGN closed the accounts each month, so it estimated its liability which was trued up or down for the actual costs when it became known. The steady drop in gas consumption over recent years pushed down the carbon tax provision until it was stopped. Timing difference will occur between the increase/decrease in provisions and what is charged to opex. There are no provisions that are charged to capex, as they are opex in nature.	The information reported in these RIN Tables is estimated information as the Carbon credit provision contains a component of estimated information.
Doubtful debt provision	Estimate Public	The data is extracted from the relevant General Ledger accounts.	The information reported in these RIN Tables is estimated information as the doubtful debt provision contains a component of estimated assessment.

Variable	Information	Source, Methodology & Assumptions	Actual & Estimated Information
		Doubtful debts — which reflect JGN's assumed write-off (or un-recovery) of amounts owed to JGN by its debtors. This may be due to dispute over supply, delivery, or the condition of JGN's supply services or financial distress faced by a customer. JGN estimates the liability using the current level and ageing of debtors and in accordance with its internal policy. When debts are recovered the provision is adjusted to reflect the appropriate level of provision. There are no provisions that are charged to capex, as they are opex in nature.	
RY2017 to RY2018			
Other current provisions	Actual Public	This provision reflects customer claims e.g. poor meter data provision, from customer and actual payments made to customers. A provision is initially raised based on JGN's assessment of the claim. JGN's will raise the provision based on various criteria and the likelihood of the claim being settled. Once settled the provision reduces. Timing differences will occur between the increase/decrease in provisions and what is charged to opex. There are no provisions that are charged to capex, as they are opex in nature.	The information reported in these RIN Tables is actual information as the current provision reflect s a claim from one customer and support by active communication between JGN and this customer.
Doubtful debt provision	Actual Public	The data is extracted from the relevant General Ledger accounts. Doubtful debts — which reflect JGN's assumed write-off (or un-recovery) of amounts owed to JGN by its debtors. This may be due to dispute over supply, delivery, or the condition of JGN's supply services or financial distress faced by a customer. JGN has improved its debt collection process, with the outcome showing a reduction in the provision. When debts are recovered the provision is adjusted to reflect the appropriate level of provision. There are no provisions that are charged to capex, as they are opex in nature.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

F9. Pass Throughs

F9.1 – Pass Through Event Expenditure

JGN had no pass-through expenditure to report, therefore this RIN Table remains blank.

Opex Incentive Mechanism

1 – The Carryover Amounts That Arise from Applying the Incentive Mechanism During the 2020–21 to 2024–25 Regulatory Control Period

1.1 – Opex Allowance Applicable to Incentive Mechanism (Incentive Mechanism Target)

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
All variables	Estimate Public	The opex allowance values were sourced from the AER's final decision model for the access arrangement period. The source model is the model developed to implement the remittal determination.	The information was not sourced from JGN's records and it is therefore estimated information.

1.2 – Actual and Estimated Opex Applicable to Incentive Mechanism

Variable	Information	Methodology & Assumptions	Actual & Estimated Information
RY2016			
	Estimate Public	Data is obtained from the **GASS+ Archives,** consistent with RIN table E20.1, refer to the related section in this Basis of Preparation for more details.	The opex reported for RY2016 is estimated information for the reasons outlined in the Overview of this Basis of Preparation
RY2017 to RY2018			
	Actual Public	Data is obtained from the SAP, consistent with RIN Table E20.1, refer to the related section in this Basis of Preparation for more details. Note: As actual opex (including non-recurrent efficiency gain) is not available for RY2019, the RY2019 opex was estimated based year-to-date actual information at the time of writing.	The information reported in these RIN Tables is actual information because it was sourced from JGN's SAP system.

Appendix A: Cost Collection Process – Capex

A.1: Cost Collection Process – Capex (RY2011 to RY2015)

Financial data was sourced from the ERP system that JGN and its related entities use to capture its Financial and most Non-Financial information. JGN outsourced the delivery of its distribution network capex to JAM, a related entity. JAM is an entity that acts as an intermediary which mainly acts as the entity that collects costs and transfers them on behalf of other related entities within the Jemena Group[8]. JAM uses SAP functionality to capture costs at the micro and macro levels. Network Activities (NWA) capture costs at the micro level which then cascade up to Work Breakdown Structures (WBS). The WBS structures used by entities within the Jemena Group have unique prefix identifiers that identify the specific entity within the Jemena Group e.g. JGN is 'BAB'. The WBS structures in both JGN & JAM contain master data coding that enables the categorisation of capex costs into the AER defined templates e.g. New Connections, Mains Repex, Mains Augex.

The WBS structure also contains further master data coding to enable JAM and JGN to further subcategorise capex costs into the tables contained in each of the templates e.g. Electricity to Gas, New Homes, New Medium Density in the New Connections template. Standard SAP reports and business intelligent (BI) tools are used to extract raw capex data that contains information to enable the reporting into the regulatory categories defined in the templates.

At times where the master data in the WBS element is unclear, experienced engineers review the data extracts and advise the correct regulatory reporting category. During this reporting period JGN also used another ERP system known as GASS+ that captured financial and non-financial information about the capex works that are performed. Information was captured in cost collectors, namely work orders, that includes the capex project detail, job location, sub-contractor details. GASS+ work order activities interfaced with NWA in JAM. These NWA's cascade up to WBS. It is at this level that JGN identified costs are transferred from JAM to JGN using SAP functionality.

For Non-Network capex (Motor Vehicles and Land capex) JGN can procure these items directly with costs captured in a WBS. The WBS has master data coding that categorises the information into the appropriate categories as defined in the templates. During these reporting periods JGN procured its Non Network IT capex items through Jemena Ltd (JEM), a related entity within the Jemena Group. Similar to that as described above, JEM uses the WBS structure in its cost capture process. For IT assets that are specific to JGN a specific WBS was setup to capture these costs in JEM and transfer to JGN using SAP functionality. However, for IT and Other Shared Assets, JEM uses its Jemena Cost Allocation Methodology process to allocate software to entities within the Jemena Group. An experienced IT person allocates a Shared IT hardware item as a 'whole' to a nominated entity within the Jemena Group.

A.2: Cost Collection Process – Capex (RY2016 to RY2018)

For these reporting periods the financial data was extracted from SAP with the process similar to that described above. However, during this reporting period JGN decommissioned its GASS+ system and enhanced its SAP capabilities that broadly mirrored the GASS+ system. As part of the change the Jemena Group entities used alternate SAP functionality to capture costs at a micro level. Essentially it ceased the use of the NWA and replaced it with a SAP module known as Planned Maintenance Orders (**PMO**). The PMO functionality allows the capture of information into activities at a level below a PMO. Costs within these activities cascade up to a PMO, which in turn cascades up to a WBS.

During these reporting periods the Jemena Group changed its Non Network IT capex procurement process, essentially following the distribution capex process as described above. Non Network IT capex was procured through JAM and no longer **JEM**. Similar to that as described above JAM uses the WBS structure in its cost capture process. For IT assets that are specific to JGN a specific WBS was setup to capture these costs in JAM and transferred to JGN using SAP functionality. However for IT and Other Shared Assets, JAM used its Jemena

[8] The Jemena Group includes SGSP (Australia) Assets Pty Ltd (SGSPAA) and its subsidiaries excluding Zinfra Pty Ltd and its subsidiaries. Jemena Group costs may include charges from Zinfra Pty Ltd and its subsidiaries where they relate to JGN.

Cost Allocation Methodology process to allocate software to entities within the Jemena Group. Shared IT hardware item was allocated as a ‘whole’ to a nominated entity within the Jemena Group

Appendix B: Cost Collection Process – Opex

B.1: Cost Collection Process – Opex (RY2011 to RY2014)

Financial data was sourced from SAP, the **ERP** system that JGN and its related entities use to capture its Financial and most Non-Financial information. JGN outsourced the delivery of its distribution network opex to **JAM,** a related entity. JAM is an entity that acts as an intermediary which mainly acts as the entity that collects costs and transfers them on behalf of other related entities within the Jemena Group[9].

JAM uses SAP functionality to capture expenditure at the micro and macro levels. Network activities **(NWA)** capture expenditure at the micro level and which then cascade up to Work Breakdown Structures (**WBS)** and ultimately to a **Project** (highest level of project cost collector)**.** The WBS structures used by entities within the Jemena Grou, have unique prefix identifiers that identifies the specific entity within the Jemena Group e.g. JGN is 'BAB'.

The WBS structures in both JGN & JAM contain master data coding that enables the categorisation of opex into the AER defined templates e.g. Maintenance, Emergency Response, Network Planning, Quality Standard and Functions, standard SAP reports and the use of business intelligent **(BI)** tools are used to extract raw opex data that contains information to enable the reporting into the regulatory categories defined by the templates.

At times where the master data in the Reporting Codes and WBS element is unclear, experienced Project Managers review the data extracts and advise the correct regulatory reporting category. During this reporting period JGN also used another ERP system known as GASS+ that captured financial and non-financial information about the opex works that were performed. Information was captured in cost collectors, namely work orders, that includes the opex project detail, job location, sub-contractor details. GASS+ work order activities enable JAM and JGN to categorise opex into Ancillary Reference Services[10] which then interfaced with Network Activities **(NWA)** in JAM. These NWA's cascade up to WBS. It is at this level that JGN identified expenditure is transferred from JAM to JGN using SAP functionality.

B.2: Cost Collection Process – Opex (RY2015 to RY2016)

For these reporting periods the financial data was extracted from SAP with the process similar to that described above. However, during this reporting period JGN decommissioned its GASS+ system and enhanced its SAP capabilities that broadly mirrored the GASS+ system. As part of the change the Jemena Group entities used alternate SAP functionality to capture expenditure at a micro level. Essentially it ceased the use of the NWA and replaced it with a SAP module known as Planned Maintenance Orders **(PMO)**. The PMO functionality allows the capture of information into activities at a level below a PMO. Expenditure within these activities cascade up to a PMO, which in turn cascades up to a WBS.

B.3: Cost Collection Process – Opex (RY2017 to RY2018)

For this reporting period, the financial data was extracted from SAP with a similar process to that described above in Appendix A.2. Following the decommission of GASS+, the use of the NWA was replaced with a SAP module known as PMO. The PMO functionality allows the capture of information into activities at a level below a PMO. Expenditure within these activities cascade up to a PMO, which in turn cascades up to a WBS.

[9] The Jemena Group includes SGSP (Australia) Assets Pty Ltd (SGSPAA) and its subsidiaries excluding Zinfra Pty Ltd and its subsidiaries. Jemena Group expenditure may include charges from Zinfra Pty Ltd and its subsidiaries where they relate to JGN.

[10] Ancillary activities form part of the Haulage Reference Service. Costs relating to ancillary activities are reported separately from the Haulage Reference Service in the RIN templates, as this is required by the structure of the templates.

Appendix C: Table Variables – Capex

C.1: Table Variables – Capex (RY2011)

Jemena Group costs are direct or indirect in nature. Direct costs, such as service delivery, program management, engineering support are directly allocated to specific assets within the Jemena Group. The Jemena Group's shared or indirect costs such as IT, finance, legal, people, safety and environment are allocated to specific entities within the Jemena Group in accordance with the principles of the Jemena Group Cost Allocation Methodology.

General Ledger accounts **(cost elements)** are attached to the WBS which facilitate the recording of financial data into various account groups. These are mapped to enable the population of the information in accordance with the AER defined tables, such as direct internal labour expenditure, sub-contractor expenditure, other internal direct expenditure and overheads.

Direct Internal labour expenditure: All JGN related Operational and Asset Management staff time write to JGN capex work order activity codes in GASS+. The hours recorded in GASS+ interface into SAP which calculates the labour costs by multiplying the hours by a unit labour rate. The internal labour unit rate for this reporting period included an embedded overhead component. JGN estimated the overhead component and excluded it from the labour unit rate.

Sub-Contractor expenditure: Work orders are issued from GASS+ to sub-contractors to carry out work on behalf of JGN. Upon the completion of the parcels of work, the sub-contractor enters information about the work performed and completed directly into GASS+, which then creates necessary accounting transactions that interfaces in SAP at an aggregate level.

Other Direct Expenditure: These are items such as consultancy, travel, materials issued from stores or externally purchased. External purchases are goods receipted against purchase orders issued to vendors. These activities occurred in GASS+ and then interfaced with SAP at an aggregate level.

C.2: Table Variables – Capex (RY2012 to RY2014)

General Ledger accounts **(cost elements)** are attached to the WBS which facilitate the recording of financial data into various account groups. These are mapped to the various variables to enable the population of the information in accordance with the AER defined tables, such as direct internal labour expenditure, sub-contractor expenditure, other internal direct expenditure and overheads.

Direct Internal labour expenditure: All JGN related Operational and Asset Management staff time write to JGN capex work order activity codes in GASS+. The hours recorded in GASS+ interfaces into SAP which calculates the labour costs by multiplying the hours by a unit labour rate. The internal labour unit rate for this reporting period included an embedded overhead component. JGN estimated the overhead component and excluded it from the labour unit rate.

Sub-Contractor expenditure: Work orders are issued from GASS+ to sub-contractors to carry out work on behalf of JGN. Upon the completion of the parcels of work, the sub-contractor enters information about the work performed and completed directly into GASS+, which then creates necessary accounting transactions that interfaces in SAP at an aggregate level.

Other Direct Expenditure: These are items such as consultancy, travel, materials issued from stores or externally purchased. External purchases are goods receipted against purchase orders issued to vendors. These activities occurred in GASS+ and then interfaced with SAP at an aggregate level.

C.3: Table Variables – Capex (RY2015 to RY2018)

For these reporting periods the financial data was extracted from SAP with the process similar to that described above. However, during this reporting period JGN decommissioned its GASS+ system and enhanced its SAP capabilities that broadly mirrored the GASS+ system.

Direct Internal labour expenditure: Staff within the Jemena Group time write to the activities on which they work. Internal labour hours are captured via a BI interface tool into SAP. Labour rates are setup in SAP and used to calculate the cost of internal labour for each project. The labour rate represents employee's total cost of remuneration and based on employee skillsets. The resulting labour costs are posted to PMO's for a project, which facilitates the reporting of these costs into the appropriate tables within the templates.

Sub-Contractor expenditure: Work orders and purchase orders are issued from SAP to subcontractors to carryout work on behalf of JGN. Upon the completion of parcels of work, the subcontractors enter information about the job on which they worked and paid via and 'Autopay' process from SAP. The resulting subcontractor costs are directly assigned to the relevant PMO which facilitates the reporting of these costs into the appropriate tables within the templates.

Other Direct Expenditure: These are items such as consultancy, travel, materials issued from stores and externally purchased. External purchases are goods receipted against purchase orders issued to vendors. These costs are collected against a PMO within the project which facilitates the reporting of these costs into the appropriate tables within the templates.

Appendix D: Table Variables – Opex

D.1: Table Variables – Opex (RY2011 to RY2014)

Jemena Group expenditure is Operating, Non-Operating, Ancillary reference services[11] or Non-Reference services in nature. Opex, such as service delivery, programme management, engineering support is directly allocated to specific assets within the Jemena Group. The Jemena Group's shared or indirect expenditure such as IT, finance, legal, people, safety and environment are allocated to specific entities within the group in accordance with the principles of the Jemena Group Cost Allocation Methodology.

SAP uses another type of cost collector that is similar to general ledger accounts that are known as cost elements. Cost elements are attached to the WBS which facilitate the recording of financial data into various account groups. These are mapped to the various variables to enable the population of the information in accordance with the AER defined tables, such as direct internal labour expenditure, sub-contractor expenditure, other internal direct expenditure and overheads.

Operating expenditure - consists of direct costs related to JGN activities such as Repairs and Maintenance of network and emergency response to repair network due to any natural disaster and ad-hoc repairs to network if necessary:

Direct internal labour expenditure: JAM uses activity codes that collect costs based on the activity that is being performed. The nature of the costs are generally time writing based (all employees are required to account for their time) and good receipts from externally issued purchase orders. These activity codes are mapped to the respective RIN categories required by the template e.g. Repairs & Maintenance, Emergency response, Billing, Network overheads and Corporate overheads.

Direct Contractor expenditure: As above, **JAM** uses activity codes that collect costs based on the activity that is being performed and is goods receipted from externally issued purchase orders. The activity codes are mapped using respective RIN categories required by the template e.g. Repairs & Maintenance, Emergency response, Billing, Network overheads and Corporate overheads.

Total overhead expenditure: Network overheads are types of costs incurred in managing and planning routine maintenance and corrective maintenance. Corporate overheads are corporate type costs (Finance, Human resources, Legal, Procurement Health and safety) including IT from the JAM entity passed onto JGN. These costs were sourced from a historical JEM Group cost allocation model that distributed corporate costs to JEM's entities and clients overhead.

Other Directs Expenditure: These expenditure items relate to Meter Data Service such as maintaining customer accounts and Transportation Billing Management.

Other: This includes costs that cannot be directly identified with a specific operational activity. Costs include administration, property, maintenance and emergency response overhead expenditure as well as other network overheads that are not defined under another category within the notice.

Non-Operating expenditure – This consists of commercial groups and JGN Assessments cycles which includes admin and overheads. JGN Assessment cycles is the residual cost from the cost centre based on the recovery rates settling into JGN.

Other Internal Direct expenditure: These are items such as consultancy, travel and externally incurred costs that relate directly to the project. The expenditure is captured in JGN through cost elements as explained above. External purchases are goods receipted against purchase orders issued to vendors. This expenditure is collected against a PMO within the project which facilitates the reporting of this expenditure into the appropriate categories within the templates.

[11] Ancillary activities form part of the Haulage Reference Service. Costs relating to ancillary activities are reported separately from the Haulage Reference Service in the RIN templates, as this is required by the structure of the templates.

Unaccounted for gas (UAG) expenditure: This reflects estimated UAG costs each month, combining JGN expected UAG for the month and expected wholesale price of gas to replace that UAG. As this information is not fully known at the time of JGN month end close, JGN makes an estimation and a true-up is completed for actual costs later.

Carbon costs: This is treated similar to UAG, it reflects JGN estimated carbon costs (i.e. price). The requirement to purchase carbon permits is governed by lean Energy Act 2011 which applied from July 2012. As the carbon price is currently fixed, the key unknown is the amount of fugitive emissions, which we calculate with a lag. As with UAG, this cost is not fully known at the time we close our accounts each month, so we must estimate it and do a true-up on actual costs later.

Government levies and Marketing costs: This is sourced directly from JGN's general ledger by cost elements as explained above.

Administration and Overheads: JGN Assessment cycles are set up to run at the end of each monthly cycle. The cycle is run based on the recovery rate in that cost centre which then settles into JGN projects. For reporting periods RY2011-14, commercial cost was part of administration and overheads.

Property cost: For reporting periods property Depot cost is part of "Other" and Corporate property cost is reported under "Management O&M".

Management A&O: The cost includes the development and maintenance of commercial framework for provision of transportation services such as price structures, terms and conditions of access, contracts and gas billing.

Scrapping costs: Profit or loss on scrapping of assets is removed from opex for reporting purposes as it has been accounted for in the RAB. To avoid doubt, JGN has reduced its RAB by the proceeds (net of scrapping costs) received in the sale of scrapped assets to the extent those assets provided regulated services.

Ancillary Reference Service:[12] The data is an estimate based on assumption from the experienced JGN Commercial team. JGN estimated the costs as it does not collect costs at this micro level. The estimate was based on the number of requests for this service**.** Ancillary activities mainly consist of temporary disconnection and permanent disconnection, decommissioning and meter removal, special meter reads and request for service.

Temporary disconnection and permanent disconnection – The volume was retrieved using GASS+ (excluding no access) using work codes. Costs were derived using the volume multiplied by average time per job multiplied by internal labour rate.

Decommissioning and meter removal: This is based on volume from GASS+ (excluding no access). Costs were derived from volume multiplied by (*weighted average contractor unit rate from GASS+ auto payment + internal labour [internal labour rate for GTS x average time per job] + average restoration costs per job + Zinfra management fee).* Note the Zinfra Management fee is only applicable from Apr 13 and for the JGN's Southern Region only.

Temp/Perm Disconnection and Decommissioning and Meter removal costs: Costs were derived from hours spent per day from each area for each activities multiplied by the average internal labour rate for each team. Time spent by Retail Support Group (RSG), Customer Service Team (CST) and scheduling is also added here.

Special meter read: This is an estimate, as costs posted to the ledger do not have a one to one relationship with a work code in SAP e.g. the WBS cost is linked to various work codes (Special Meter Reading, MDL Meter reading and all other various work codes). Actual volumes are sourced from GASS+ (a legacy ERP system that interfaces data into SAP), based on internal work codes.

[12] Ancillary activities form part of the Haulage Reference Service. Costs relating to ancillary activities are reported separately from the Haulage Reference Service in the RIN templates, as this is required by the structure of the templates.

D.2: Table Variables – Opex (RY2015 to RY2018)

For these reporting periods the financial data was extracted from SAP with a process similar to that described above. However, during this reporting period JGN decommissioned its GASS+ system and enhanced its SAP capabilities that broadly mirrored the GASS+ system.

Operating expenditure - These are direct costs related to JGN activities such as repairs and maintenance of network and emergency response to repair network due to any natural disaster and ad-hoc repairs to network if necessary. The operating expenditure mainly consists of the following categories:

Direct Internal labour expenditure: All staff within the Jemena Group time write to the activities on which they work. Internal labour hours are captured via a BI interface tool into SAP. Labour rates are setup in SAP and used to calculate the cost of internal labour for each project. The labour rate represents an employee's total cost of remuneration based on the employee's skillsets. The resulting labour expenditure is posted to PMO's for a project, which facilitates the reporting of this expenditure into the appropriate categories within the templates.

Direct Contractor expenditure: Work orders and purchase orders are issued from SAP to subcontractors to carryout work on behalf of JGN. Upon the completion of parcels of work, the subcontractors enter information about the job on which they worked and are paid via and 'Autopay' process from SAP. The resulting subcontractor expenditure is directly assigned to the relevant PMO which facilitates the reporting of this expenditure into the appropriate categories within the templates.

Total Overhead Expenditure: Network overheads and Corporate overheads. Network overheads are types of costs incurred in managing and planning the routine maintenance and corrective maintenance. Corporate overheads are corporate type costs (Finance, Human Resources, Legal, Procurement Health and Safety) including IT from the JAM entity passed onto JGN. These costs are sourced from assigned projects were employees time write against and based on recovery rates from a historical JEM Group cost allocation model that distributed corporate costs to JEM's entities and clients overhead. Part of these corporate costs (cost elements 412,413,414) were categorised under Administration and Overheads in RY2015. For RY2016 – 2018, these costs were categorised under O&M. IT costs are described above but are net of capitalised overheads.

Other Directs Expenditure: These expenditure items relate to Meter Data Service such as maintaining customer accounts and Transportation Billing Management.

Other: This includes costs that cannot be directly identified with a specific operational activity. Costs include administration, property, maintenance and emergency response overhead expenditure as well as other network overheads that are not defined under another category within the notice.

Non-Operating expenditure – This consists of commercial groups and JGN Assessments cycles which includes admin and overheads. The following are the key items which are explained and categorised accordingly:

Other Internal Direct Expenditure: These are items such as consultancy, travel and externally incurred costs that relate directly to the project. External purchases are goods receipted against purchase orders issued to vendors. This expenditure is collected against a PMO within the project which facilitates the reporting of this expenditure into the appropriate categories within the templates.

Unaccounted for Gas expenditure: Unaccounted for gas costs are estimated as they are unknown at the time JGN closes accounts each month, a true-up is done for actual costs later. This cost is posted by using specific projects.

Carbon costs: Carbon costs (i.e. price). The requirement to purchase carbon permits was governed by the Clean Energy Act 2011 which applied from July 2012 to July 2014. The carbon price was fixed during this period. The key unknown was the amount of fugitive emissions, which JGN calculated with a lag. As with UAG, this cost was not fully known at the time JGN's accounts were closed each month, meaning that JGN has estimate it and true up for actual costs later.

Government levies and Marketing costs: Government levies and marketing costs are sourced directly from JGN's general ledger by cost elements and specific projects as explained above

Administration and Overheads: JGN Assessment cycles are set up to run at the end of each monthly cycle. The cycle is run based on the recovery rate in that cost centre which then settles into JGN projects. Commercial cost was part of Administration and Overheads in RY2015 but it as categorised within O&M for RY2016 – 2018.

Other costs: Loss on scrapping, Contaminated Sites, Merits review, and the activities such as third-party hits (identified), Pipeline Patrol and Permits review and all other revenue-based activities are removed for RIN reporting purposes as they are not intended to be recovered from customers in JGN's opex.

Ancillary Reference Service[13] **-** The data is an estimate based on assumption from the experienced JGN service delivery project managers. JGN estimated the costs as it does not collect costs at project level. The cost and hours are booked by external contractors and internal employees in SAP by using work orders. These work orders do not have a one to one relationship within JGN projects. The work order represents the nature of the work and costs related to work carried out by gas service technicians. To facilitate and comply with RIN requirements, these are separately categorised into RIN categories. Ancillary services mainly consist of temporary disconnection and permanent disconnection, decommissioning and meter removal, special meter reads and request for service.

Temporary Disconnection and Permanent Disconnection: Using Work Codes from SAP and reconciling within the specific project by contractor cost using a purchase order, and internal labour cost are calculated by using weighted average of total internal labour cost and distributed by using volume multiplied by total hours of each activity.

Decommissioning and meter removal: Same process as described above.

Temp/Perm Disconnection and Decommissioning and Meter removal costs: Same process as described above.

Special Meter reads: Same process as described above.

Third-party hits: The identified third-party hits are treated as unregulated and this is offset by revenue. The third-party hits cost cannot be extracted from the system therefore the costs were estimated on the basis of revenue actuals.

[13] Ancillary activities form part of the Haulage Reference Service. Costs relating to ancillary activities are reported separately from the Haulage Reference Service in the RIN templates, as this is required by the structure of the templates.

Appendix E: Overhead Expenditure

E.1: Overheads (RY2011 to RY2012)

JGN capitalises a portion of its overheads, sourced from the network type activities (generally Operational and Asset Management in nature). During these reporting periods JGN used a “bundled” labour rate, which included an overhead component. JGN estimated the overhead component that formed part of the labour rate. JGN applied the resulting overhead rate to the hours that were sourced from GASS+ to estimate the total overheads that were included in the capex spend. The overheads were allocated across all capex projects to satisfy the RIN requirements, and was done outside of JGN's financial systems.

E.2: Overheads (RY2012 to RY2015)

JGN capitalises a portion of its overheads, sourced from the network type activities (Capital Program Management, Stores, Property, Non-Labour) and corporate type activities (generally IT, Procurement and Health & Safety activities). Operational allocations are usually driven by the uses of direct time writing to an activity and can take the shape of allocation e.g. capital program management. JGN’s SAP system uses SAP functionality (costing sheets) to apply the overhead rates to the WBS cost collectors. The use of the WBS structure ensures that overheads are allocated to the appropriated category in the templates.

Capital Program Management (CPM) – Staff time write to ‘catch-all’ cost collectors, which is then distributed over the specific cost collectors usually based on the underlying direct costs of the respective cost collectors. JGN’s ERP system is designed to apply a level of overheads to its capex activities. JGN applies this by calculating a % overhead to be applied over the capex spend for the year. The calculation used is:

Direct Budget Overheads ÷ Total Budget Capex Program = Applied Overhead %

Stores: It is allocated based on a fixed percentage of store recovery on a unique cost element to reflect the cost of running a warehouse; costs include storemen and forklifts.

Property: The total cost of running each non-corporate property is calculated. Total cost includes rental, rates and security. A portion based on square metre usage is allocated towards logistics to be recovered via store recoveries above. The remaining non-corporate site/property running costs are assigned using a full time equivalent (‘FTE’) based rate and applied via SAP ‘costing sheet’ functionality against all direct costs on a project.

Non-Labour recoveries: The remaining direct costs not included in the above cost types are subject to a determination of capitalisation under accounting standards and are applied to all projects using costing sheets. The recovery rate is based on time writing results to that entity.

Corporate Overheads: Capitalised corporate overheads are based on various drivers that support JGN’s capex program. The recovery percentage is calculated and loaded into the ‘costing’ sheet functionality of SAP. For these reporting periods overheads were applied in the JGN entity and not JAM. The overheads were applied on the basis of total direct capex costs.

E.3: Overheads (RY2016 to RY2018)

JGN capitalises a portion of its overheads, sourced from the network type activities (Capital Program Management, Stores, Property, Non-Labour) and corporate type activities (generally IT, Procurement and Health & Safety activities). Operational allocations are usually driven by the uses of direct time writing to an activity and can take the shape of allocation e.g. capital program management. JGN’s SAP system uses SAP functionality (costing sheets) to apply the overhead rates to the WBS cost collectors. The use of the WBS structure ensures that overheads are allocated to the appropriated category in the templates.

Capital Program Management (CPM) – It is not practical for, Program Managers and Snr Management to record time against a multitude of specific cost collectors. They time write to catch all cost collectors, which is then distributed over the specific cost collectors usually based on the underlying direct costs of the respective

cost collectors. JGN's ERP system is designed to apply a level of overheads to its capex activities JGN applies this by calculating a % overhead to be applied over the capex spend for the year. The calculation used is:

Direct Budget Overheads ÷ Total Budget Capex Program = Applied Overhead %

Stores: It is allocated based on a fixed percentage of store recovery on a unique cost element to reflect the cost of running a warehouse; costs include storemen and forklifts.

Property: The total cost of running each non-corporate property is calculated. Total cost includes rental, rates and security. A portion based on square metre usage is allocated towards logistics to be recovered via store recoveries above. The remaining non-corporate site/property running costs are assigned using an full time equivalent ('FTE') based rate and applied via SAP 'costing sheet' functionality against all direct costs on a project.

Non-Labour recoveries: The remaining direct costs not included in the above cost types are subject to a determination of capitalisation under accounting standards are applied to all projects using costing sheets. The recovery rate is based on time writing results to that entity.

Corporate Overheads: Capitalised corporate overheads are based on various drivers that support JGN's capex program. The recovery percentage is calculated and loaded into the 'costing' sheet functionality of SAP. For these reporting periods overheads were applied at the JAM entity. The overheads were applied on the basis of total direct capex costs.

Appendix F: Related Party Margins

F.1: Related Party Margins (RY2011 to RY2013)

Related party margin - Related party margin information is sourced from Enterprise Business Services (Australia) Pty Ltd (**EBS)** Jemena Asset Management Pty Ltd (**JAM**), and ZNX(2) Pty Ltd (**ZNX2**). ZNX2 was established during RY2012 to provide capex and opex field services to Jemena Group of companies. EBS was established during RY2009 to provide IT related services to the Jemena Group of companies but the business ended 30 September 2014. No margins were applicable on EBS transactions with JGN.

For the period RY2011 to RY2013, the margins from JAM were accrual based and extracted from JAM ledger and true-ups/downs were processed during the following regulatory year. ZNX2 did not directly transact with JGN as ZNX2 transacted with JAM who passed on the inherent margins to JGN. JGN has included these inherent margins in the related party margin sections of the templates.

Related party margins are essentially calculated by JGN's related entities as being their revenue less the total associated costs that is applicable to JGN. The related party margins are collected in JAM cost collectors (WBS & Networks) and then settled to JGN on the basis of individually assigned JAM projects. JGN has assessed the related party financial information as being an estimate as the margins are sourced from related party entity financial systems, over which JGN does not have direct control.

F.2: Related Party Margins (RY2014)

Related party margin: JGN's ERP systems are not set up to record related party margin information. JGN relies on its related party entities to provide such information. Related party margin information is sourced from EBS and ZNX2. No margins are applicable on EBS and JAM transactions with JGN.

Related party margins are essentially calculated by JGN's related entities as being their revenue less the total associated costs that is applicable to JGN.

All the related party entities within the Jemena, EBS and ZNX2 follow similar cost recording processes to JGN i.e. in cost collectors (WBS & networks). The related party margins were allocated across JGN's distribution Opex on the basis of the individual projects direct costs. JGN removed the allocated RPM component from direct contractor cost.

JGN has assessed the related party financial information as being an estimate as the margins are sourced from related party entity financial systems, over which JGN does not have direct control and that it allocated the margins on the basis of project direct costs.

F.3: Related Party Margins (RY2015 to RY2018)

Related party margin: JGN's ERP systems are not set up to record related party margin information. JGN relies on its related party entities to provide such information. Related party margin information is sourced from EBS, ZNX2 and Zinfra Pty Ltd (**Zinfra**). EBS business ended 30 September 2014. No margins are applicable on EBS and JAM transactions with JGN.

Related party margins are calculated by JGN's related entities as being their revenue less the total associated costs that is applicable to JGN.

All the related party entities within Jemena, EBS and Zinfra Groups (Zinfra and ZNX2) follow similar costs recording processes to JGN i.e. in cost collectors (WBS PMO) The related party margins were allocated across JGN's distribution opex on the basis of the individual projects direct related party contractor costs. JGN removed the allocated RPM component from direct contractor cost.

JGN has assessed the related party financial information as being an estimate as the margins are sourced from related party entity financial systems, over which JGN does not have direct control and that it allocated the margins on the basis of project direct related party contractor costs.

Appendix G: Opex reporting compared to the Previous Reset RIN Responses

JGN has reported its opex to be consistent for all years, such that the opex categories reported contain the same types of costs year on year for the whole reporting period. As JGN reported similar RIN data in 2015, the current RIN data was compared with the previous RIN submission for RY2011 to RY2014 to identify and explain any differences in reporting. This appendix highlights those differences.

G.1 RY2011 to RY2014

Through its year on year category analysis for the periods RY2011 to 2018, JGN noticed inconsistencies in some areas of expenditure mapping as it compared the RY2011 to RY2014 versus RY2015 to RY2018 periods. This inconsistency is an outcome from the various Jemena Group organisational and ERP restructures. In order to provide better categorisation consistency, JGN back-cast its historical data sets and based it on its current ERP system master data mapping to the AER defined regulatory categories. An explanation and assumptions of JGN's back casting principles are outlined below.

Operating expenditure: -

Corporate Overhead O&M: Corporate staff time write to an activity for the period RY2015 to RY2018 and through the period RY2011 – 2014 many corporate staff did not use a time writing functionality. In accordance with the Corporate overhead definition as per the notice, JGN has decided to disclose 'Corporate Overheads A&O' as 'Corporate Overheads O&M'**.**

Other: This includes costs that cannot be directly identified with a specific operational activity. Costs include administration, property, maintenance and emergency response overhead expenditure as well as other network overheads that are not defined under another category within the notice. JGN categorised it's Property costs within 'Management O&M' From RY2011 to RY2014 therefore JGN has decided to back cast the project data and disclose these costs as 'other'.

Project Governance and Related Functions: From RY2011 to RY2014 Accounting Support is reported under 'Project Governance and related functions'. The function of Accounting support does not exist in the current structure to report under this category. The financial support team became part of 'Corporate Overhead O&M' therefore the cost reported in a previous RIN's were re-mapped to 'Corporate Overhead O&M'.

From RY2011 to RY2014 Asset Investment function was also reported under 'Project Governance and Related Functions'. The function of Asset Investment helps in developing, communicating and processing approval of Asset Management Plans. Therefore, this cost has been retrospectively moved to 'Network planning'.

Non-Operating expenditure:

Corporate Overhead A&O: From RY2011 to RY2014 the property taxes and utilities were reported under 'Other Network Overhead' but as per the RIN the property taxes and utilities should be categorised under 'Corporate Overhead A&O' therefore we re-categorised these costs from 'Other Network Overhead' and reported under 'Corporate Overhead A&O'.

Management – O&M: From RY2011 to RY2014 works delivery charges had been categorised within 'Maintenance' but as the costs relate to 'Management O&M' JGN remapped these costs for RY2011-14. The costs relate to managing maintenance projects and administrative cost of Maintenance.