Jemena Gas Networks (NSW) Ltd

Response to the 2020-25 Access Arrangement Regulatory Information Notice

Written response

RIN Attachment 1

Jemena
bringing energy to life

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Abbreviations

AA	Access Arrangement
AA proposal	JGN's 2020-25 Access Arrangement Proposal
AER	Australian Energy Regulator
AMA	Asset Management Agreement
Capex	Capital expenditure
CESS	Capital Expenditure Sharing Scheme
CWFA	Capital Works Framework Agreement
DAE	Deloitte Access Economics
ECM	Efficiency Carryover Mechanism
FSA	Field Services Agreement
JAM	Jemena Asset Management Pty Ltd
JGN	Jemena Gas Networks (NSW) Ltd
MSA	Metering Services Agreement
NC	Northern Contract
NGL	National Gas Law
Opex	Operating expenditure
PTRM	Post-tax revenue model
RFM	Roll-forward model
RIN	Regulatory Information Notice
RSA	Reference Service Agreement
SGID	State Grid International Development Ltd
SGIDAIC	State Grid International Development Australian Investment Company Ltd
SGSPAA	SGSP (Australia) Assets Pty Ltd
SP Group	Singapore Power Ltd
SPI	Singapore Power International Pte Ltd
UAG	Unaccounted for Gas
Zinfra	Zinfra Pty Ltd
ZNX2	ZNX (2) Pty Ltd

Overview

Jemena Gas Networks (NSW) Ltd (**JGN**) is required to respond to an 2020-25 Access Arrangement (**AA**) Regulatory Information Notice (**RIN**), with information relating to the 2011 to 2025 regulatory years. The Australian Energy Regulator (**AER**) served the RIN on JGN under the National Gas Law (**NGL**) on 12 December 2018.

This document, and its associated attachments, set out JGN's AA RIN response. This document is structured to mirror the structure of the RIN, as follows:

- Schedule 1 – General requirements
- Schedule 2 – Reset information
- Schedule 3 – Historical information
- Schedule 4 – Prepare and maintain information
- Appendix E – Instructions

JGN's AA RIN documents and templates are included as RIN Attachments 1 to 16 (as shown in Table OV–1). RIN Attachment 16 contains a document index which lists all of the additional supporting documents to JGN's AA RIN response.

Table OV–1: AA RIN Attachments

AA RIN document number	Name
RIN Attachments	
Attachment 1	Written response
Attachment 2	Basis of preparation
Attachment 3	Workbook 1 - Reset (forecast) data - Consolidated
Attachment 4	Workbook 1 - Reset (forecast) data - Actual Information
Attachment 5	Workbook 1 - Reset (forecast) data - Estimated Information
Attachment 6	Workbook 2 - Historical data - Consolidated
Attachment 7	Workbook 2 - Historical data - Actual Information
Attachment 8	Workbook 2 - Historical data - Estimated Information
Attachment 9	Workbook 3 - Opex incentive mechanism - Consolidated
Attachment 10	Workbook 3 - Opex incentive mechanism - Actual Information
Attachment 11	Workbook 3 - Opex incentive mechanism - Estimated Information
Attachment 12	Workbook 4 - Indicative bill impact
Attachment 13	Confidentiality claims
Attachment 14	Audit opinions
Attachment 15	Statutory Declaration
Attachment 16	Document index
Supporting documents	Includes policies, strategies, contracts, models, options analyses, and plans, totalling 248 documents. Document names start with the relevant clause under which they are provided.

This AA RIN response should be read in conjunction with JGN's 2020-25 AA proposal (**AA proposal**). JGN's AA proposal consists of the 2020 Plan, and all of its associated attachments. All the documents making up JGN's

AA proposal are set out in *Attachment 1.1 of the AA proposal*, and also in *RIN Attachment 16*, which also provides a file name matrix. Where relevant, the document cross refers to the *2020 Plan*, and/or the AA proposal.

1. Schedule 1 – General requirements

Requirement	Response
1. Provide Information	
1.1 Provide the information required in each *regulatory template* in the Microsoft Excel workbooks attached at Appendix A completed in accordance with: (a) this *notice*; (b) the instructions in the relevant Microsoft Excel workbooks attached at Appendix A; and (c) the instructions provided in Appendix E.	The regulatory templates have been populated in accordance with the requirements of the RIN. Each of the instructions of Appendix E are listed in this response with our demonstration of compliance explained. Refer to Appendix E – Instructions on page 52.
1.2 For all information, other than *forecast information*, provide in accordance with this *notice* and the instructions in *Appendix E*, a *basis of preparation* demonstrating how *JGN* has complied with this *notice* with respect to information provided in each of the *regulatory templates*.	A Basis of Preparation has been written and submitted with this RIN response (*JGN - Attachment 2 - Basis of preparation - 20190630*)
1.3 Where changes to the methodology for allocation of costs have been made within the *current access arrangement period*, explain the changes and the effect of the each change to the information reported in response to this notice.	During the current AA period, JGN has not changed its methodology to allocate costs. • The Jemena cost allocation methodology, which sets out the procedure of cost attribution to the Jemena Group assets (i.e. the attribution of costs to JGN), is included as RIN supporting document *JGN-1-1.3-1-Jemena-Cost Allocation Methododology-20190205*. JGN's cost allocation model, which establishes the method of attributing JGN costs to services is included as Attachment 6.5 of JGN's AA proposal.
1.4 Provide material used for the purposes of preparing the access arrangement proposal including: (a) all consultants' reports commissioned and relied upon in whole or in part; (b) all *material* assumptions relied upon; (c) a table that references each response to a paragraph in Schedule 2 of this *notice* and where it is provided in or as part of the *access arrangement proposal*; (d) a table that references each document provided in or as part of the *access arrangement proposal* and its relationship to other documents provided; and (e) each document identified in paragraph 1.4(d) must be given a meaningful filename in the form: [*JGN*]– [Author] – [title] – [date] – [public/confidential], where:	JGN's AA proposal includes: (a) all consultants' reports relied on to develop JGN's AA proposal are listed in *Attachment 1.1 of JGN's AA proposal*. (b) a description of all material assumptions has been provided in response to clause 1.5. (c) this document includes a table of references between Schedule 2 of the RIN and the Access Arrangement proposal. Refer to Schedule 2 – Reset information from page 8. (d-e) A table of references explaining the relationship between all documents submitted as part of the AA proposal is included in the RIN attachment *JGN - Attachment 16 - Document Index - 20190630*. This table also provides the filenames required by the RIN.

Requirement	Response
(i) **Author** is the author of the file if not *JGN* for example a consultant or other third party; (ii) **Title** provides a meaningful description of the content of document, with limited reliance on acronyms or cross references, for example "Appendix 1A" is not meaningful, but "Appendix 1A – Cost allocation method" is; (iii) **Date** is a relevant date associated with the file, generally the date the document was created; (iv) **Public/confidential** identifies if the file in its entirety can be published (public); or if it contains any information which is the subject of a claim for confidentiality in accordance with paragraph 2 of this Schedule (confidential).	
1.5 Provide for each *material* assumption identified in the response to paragraph 1.4(b): (a) its source or basis; (b) if applicable, its quantum; (c) whether, and how, the assumption has been applied and was taken into account; and (d) the effect or impact of the assumption on the *capital* and *operating expenditure* forecasts in the *next access arrangement period* taking into account: (i) the actual expenditure incurred during the *current access arrangement period*; and (ii) the sensitivity of the forecast expenditure to the assumption.	Material assumptions in relation to operating expenditure (**opex**) and capital expenditure (**capex**) are identified in the response to clause 4.1 of Schedule 1. It is important to note that in preparing our expenditure forecasts a large number of assumptions are made. For opex these are set out in *Attachment 6.1 of our AA proposal*. For capex these are set out across our Proposal (including chapter 5 of the *2020 Plan* and *Attachments 5.1 and 5.2*) as well as through the supporting models and documentation (mapped out in RIN attachment *JGN - Attachment 16 - Document Index - 20190630*, in "Capex document matrix" worksheet). These documents show the basis and application of assumptions made (and the data /evidence that we used to make the assumptions). Other material assumptions relate to: • Our demand forecast prepared by Core Energy & Resources. The assumptions made and how they have been applied are outlined in *Attachment 8.2 of our AA proposal*. Interactions with other elements of our proposal are outlined in section 4 of *Attachment 8.1 of our AA proposal*. • Market risks around the future use of our network given the NSW Government target's for net-zero carbon emissions by 2050 discussed in Chapter 7 of our *2020 Plan* and *Attachment 7.10 of our AA proposal*. This affects the economic life of future investments. We have taken this assumption into account in proposing asset lives (see *Attachment 7.10 of our AA proposal*) and proposed capex (see *Attachment 5.10 of our AA proposal*).

<table>
<tr><th>Requirement</th><th>Response</th></tr>
<tr><td>1.6 For each of the following items, identify each material difference between that reported in Workbook 2 – Historical data and Workbook 5 – Annual data and the amount approved by the AER for the current access arrangement period in JGN's final decision Post Tax Revenue Model:
(a) total actual revenue and total forecast revenue;
(b) total actual opex and total forecast opex;
(c) for each opex category, total actual opex and total forecast opex;
(d) total actual capital expenditure and total forecast capital expenditure;
(e) for each capex category, total actual capital expenditure and total forecast capital expenditure; and
(f) demand forecasts.</td><td>(a) The variance between the revenue information reported in Workbook 2 – Historical data and the amount approved by the AER in JGN's final decision post-tax revenue model (PTRM) is shown below.
<table><tr><th>$M, nominal</th><th>RY16</th><th>RY17</th><th>RY18</th></tr><tr><td>PTRM revenue</td><td>494.17</td><td>448.35</td><td>427.71</td></tr><tr><td>Actual revenue (F3)</td><td>543.83</td><td>553.58</td><td>533.98</td></tr><tr><td>Variance</td><td>49.66</td><td>105.23</td><td>106.27</td></tr></table>
(b-c) the actual and allowed opex material variances are reported in Table F4.3 (JGN - Attachment 6 - Workbook 2 - Historical data - Consolidated – 20190630), and in section 3 of Attachment 6.1 of the AA proposal.

(d-e) the actual and allowed capex material variances are reported in section 3 of Attachment 5.1 of the AA proposal.

(f) There is a material variance between the demand forecast reported in Workbook 2 - Historical data and the amount approved by the AER for the current AA period in JGN's final decision PTRM for demand forecasts in RY16 and RY18 as discussed in Chapter 8 of our 2020 Plan.</td></tr>
<tr><td>1.7 Explain the reasons that caused each material difference identified in the response to paragraph 1.6 including:
(a) whether this is recurrent or a one off variation;
(b) the factors which generally influenced the variation; and
(c) whether the variation is due to factors beyond JGN's control.</td><td><u>Revenue</u>
In 2015-16, the key difference between actual and forecast revenue was that actual demand was greater than forecast demand. For subsequent years, JGN's tariffs were set via enforceable undertakings. The revenue variance was therefore due to the combined impacts of tariffs not following the price path set out in the AER's final decision, as well as differences between forecast and actual demand. The variation resulting from the enforceable undertakings is one-off in nature and JGN's 2020-25 building block revenues will be adjusted to account for this, as determined by the AER in its adjustment determination.[1] The variation in gas demand is due to market factors beyond JGN's control.
Additionally, some of the difference is due to a higher number of ancillary activities being undertaken than forecast in the final decision. This has also resulted in a corresponding increase in opex.

<u>Opex and capex</u>
Explanations of material differences are contained in the documents referred to in the response to clause 1.6 above.</td></tr>
</table>

[1] See: AER, *Jemena Gas Networks (JGN): Adjustment Determination – Final Decision*, 28 February 2019.

Requirement	Response
	Demand The variance in the demand forecast is due to the combination of average consumption per connection for volume market customers being higher than forecast, and a higher number of new connections than forecast in the AER's final decision. More explanation on variances can be found in A*ttachments 8.1 and 8.2 of the AA proposal*. These factors are beyond JGN's control.
1.8 Explain how the differences identified in response to paragraph 1.6 and explanations in response to paragraph 1.7 have been factored into generating expenditure forecasts for the *next access arrangement period*.	Revenue The building block revenues will be re-set for the 2020-25 AA period, and will include an adjustment to hand back revenue as determined by the AER in its adjustment determination.[2] This is explained in Chapter 7 of the *2020 Plan*, and in *Attachment 7.1 of the AA proposal*. Opex The forecast opex uses AER's preferred base-step-trend approach, which uses 2018-19 revealed opex as base and makes adjustments to costs in the base year where the revealed costs are not representative of JGN's recurrent costs in the forecast period. This is further explained in *Attachments 6.1 and 6.2 of JGN's AA proposal*. Capex For capex, we have taken into account what we have learned and achieved over the 2015-20 period. We have ensured that the efficiencies realised flow through to our forecast, where possible, by adopting revealed cost approaches. This has enabled us to prepare a lean capex forecast for the 2020-25 period, below what we expect to spend over the 2015-20 period. Further details on the link between performance over the 2015-20 period and our 2020-25 forecast is provided in section 3 of *Attachment 5.1 of the AA proposal*. Demand JGN's demand forecast for the next AA period is based on a demand forecast model that takes into account actual demand in the current AA period. This is explained in *Attachments 8.1 to 8.3 of the AA proposal*. The demand forecast impacts opex scale growth and the unaccounted for gas (**UAG**) opex forecast. The method to forecast these items is explained in *Attachment 6.1 of JGN's AA proposal*. The demand forecast also

[2] See: AER, *Jemena Gas Networks (JGN): Adjustment Determination – Final Decision*, 28 February 2019.

Requirement	Response
	impacts the connections-related capex forecast which is explained in *Attachment 5.1 of JGN's AA proposal*.
2. Confidential Information	
2.1 This clause applies to any information *JGN* provides: (a) in response to Schedules 1, 2 and 3; (b) in an access arrangement proposal for the next access arrangement period (a proposal); (c) in a revision or amendment to a *proposal*; and (d) in a submission *JGN* makes regarding a *proposal* or a revised or amended p*roposal*; (together, *JGN's* information).	JGN has applied clause 2 as required.
2.2 If *JGN* wishes to make a claim for confidentiality over any of *JGN's* information, provide the details of that claim in accordance with the requirements of the *AER's Confidentiality Guideline*, as if it extended and applied to that claim for confidentiality.	JGN has made claims for confidentiality for information submitted as part of this RIN response and as part of its AA proposal. The claims for confidentiality have been made using the AER's Confidentiality Guideline and are attached to this RIN response (*JGN - Attachment 13 - Confidentiality claims - 20190630*) and the AA proposal (*Attachment 1.4 of the AA proposal*).
2.3 *JGN* must provide any details of a claim for confidentiality in response to paragraph 2.2 at the same time as making the claim for confidentiality.	JGN's claims for confidentiality includes the relevant details at the time of making the claim (i.e. upon submission of the AA proposal).
3. Audit Opinion Reports and Review Conclusion Statements	
3.1 Provide the *audit opinion report* and *review conclusion statements* as applicable, prepared in accordance with the requirements set out in Appendix C.	The audit opinion and the review conclusion statements are contained in *JGN - Attachment 14 - KPMG - Audit opinions - 20190630*
3.2 Provide all reports from the *auditor* to *JGN's* management regarding the review conclusion statements and/or *auditors*' opinions report or assessment.	The audit opinion and the review conclusion statements are provided in response to 3.1, above. No other reports have been received from the auditors.
4. Director Certification	
4.1 Provide, by the directors of *JGN*, a certification of the reasonableness of the key assumptions relating to the methodology used for developing *JGN*'s *opex* and *capex* forecasts.	JGN's directors have certified the reasonableness of the following key assumptions which underlie the methodology JGN used to forecast its capex and opex. Refer to RIN supporting document *JGN-1-4-1-Directors certification of key opex and capex assumptions-20190621* for the JGN Board's certification relating to these assumptions.

Assumptions	Opex	Capex
Inflation forecast The inflation forecast for 2020-25 is based on AER's preferred method which uses RBA monetary policy estimate and target. This estimate will be updated by the AER using the latest RBA monetary policy at the time of making its final decision.	☑	☑
Input price growth JGN has adopted AER's preferred approach of using an average of BIS and DAE forecasts of real cost escalator used to estimate real escalation in labour costs in addition to CPI. In case of capex, real escalation is applied to labour proportion of costs based on JGN's forecast labour portion of costs. In case of opex, real escalation is applied to labour proportion of costs based on results from AER's benchmarking report for electricity businesses. No real escalation is applied to material costs. These are expected to increase in line with CPI. More details on these assumptions are provided in *Attachments 5.5 and 6.1 of the AA proposal.*	☑	☑
Scale or output related growth in opex JGN's opex is forecast to increase with the scale of the network. This network or output growth is forecasted as growth customer number and mains length. The weights for customer number (49.4%) and mains length (50.6%) are based on study by external advisors, Economic Insights, included as *Attachment 6.4 of the AA proposal.*	☑	
Opex Productivity Productivity factor, an estimate of technical change, is forecasted at 0.74% per annum based on study by Economic Insights, included as *Attachment 6.4 of the AA proposal*.	☑	
Expensing of pigging costs The costs associated with intelligent pigging are proposed to be expensed from 1 July 2020 onwards. These costs will no longer be capitalised. Refer to *Attachment 6.1 and Attachment 6.3 of the AA proposal* for more details.	☑	☑
Unaccounted for gas (UAG) UAG is assumed to be based on two market segments – Volume Market and Demand Market. The UAG opex forecast is calculated for each market segment as the product of forecast gas deliveries,	☑	

Requirement	Response		
	proposed target rate of UAG and cost of replacement gas. A more detailed discussion of UAG is included in *Attachments 6.1, 6.7-6.11 of the AA proposal.*		
	Expensing of Corporate overheads JGN is proposing to expense all corporate overheads from 1 Jan 2021 for regulatory and accounting purposes instead of capitalising part of these costs.	☑	☑
	Transformation program costs JGN is implementing a transformation program to reduce operating costs so that business can achieve sustainable cost reductions. These cost reductions are estimated to reduce JGN's opex forecast and the costs of implementing this program are proposed to be recovered through the opex incentive scheme (ECM/EBSS) as one-off costs. Refer to *Attachments 6.1, 7.1 and 7.6 of the AA proposal* for more details.	☑	
	Demand forecast Forecast volumes (that impact opex) and new connections (that influence connections capex and opex output growth) is based an independent forecast. Refer to *Attachments 8.1 to 8.3 of the AA proposal* for more information on the new connections and demand forecast.	☑	☑
	Capex forecast JGN's capex utilises historical costs and unit rates (for connections and meter replacement) and a bottom up build (for other capex categories). For more details see section 3 of *Attachment 5.1 of the AA proposal*.		☑

2. Schedule 2 – Reset information

2.1 General requirements

Requirement	Response
1. Service Provider Details and Business Context	
Local agent of a service provider 1.1 Provide all details of any local agent(s) of *JGN* (s.11 of the *NGL)*.	JGN is not a foreign company (within the meaning of the Corporations Act 2001 (Cth), and as such has not appointed any local agent, within the meaning contemplated by s11 of the National Gas Law.
2. Background to the Pipeline	
Pipeline and pipeline services 2.1 For the *current access arrangement period* for each *pipeline service* provided by way of *JGN's* gas distribution system that is not specified as a *reference service* in *JGN's access arrangement proposal*, provide: (a) the annual volume of demand; and (b) the number of *users*.	JGN provides two pipeline services that are non-reference services—the interconnection of embedded network service and negotiated services. In the current AA period, there were no users of the interconnection of embedded network service, and one negotiated service in place. The negotiated service is for the provision of maintenance work for a single customer. This is not a haulage service, and there is no volume of demand associated with this service (see *Attachment 4.1 of the AA proposal* for more details).

2.2 Expenditure requirements

Requirement	Response
3. Capital Expenditure	
3.1 The information required to be provided, prepared, kept or maintained in this part of the *notice* relates to all *pipeline service*s, including both *reference services* and *pipeline service*s other than *reference service*s.	Unless otherwise required by the RIN, JGN's RIN response includes the information about pipeline services, including those pipeline services which are non-reference services.
Capital expenditure in the previous and current access arrangement period 3.2 Provide capital expenditure at a project level and at a *capex* subcategory level in *Workbook 2 – Historical data and Workbook 5 – Annual data, regulatory templates* E2 to E13. Where data is either not available to *JGN* or it is not practical to produce the data: (a) explain why; and (b) provide data at the most disaggregated level available.	JGN has supplied all capex information in *Historical data* and *Workbook 5 – Annual data, regulatory templates* E2 to E13, as required by the notice. Therefore section 3.2 (a) and (b) are not applicable.

Requirement	Response
Capital expenditure in the current access arrangement period 3.3 Explain: (a) in terms of the nature of the work undertaken (scope, scale or other deviation from proposed works), the volume and the cost (deviation in unit rates), any *material difference* for each *capex* category between: (i) the capital expenditure approved by the *AER* and the actual and/or estimated capital expenditure for the *current access arrangement period*; and (ii) the capital expenditure proposed by *JGN* in the *previous access arrangement* and the actual and/or estimated capital expenditure for the *current access arrangement period*; and (b) whether and how *JGN* considers that *conforming capital expenditure* added to the capital base in the *current access arrangement period* meets the requirements of r. 79 of the *NGR*.	*(a)* A comprehensive summary of the deviations between the allowance for the 2015-20 period and actual spend is provide in section 3, *Attachment 5.1 of JGN's AA proposal.* The AER has confirmed, via email (18 February 2019) that a response to 3(a)(ii) is not required (b) All capex (net of contributions and disposals) meets the requirements of Rule 79 of the National Gas Rules. The consumer benefits (and in turn compliance with Rule 79) of each category of capex is set also set out in section 3 of *Attachment 5.1 of the AA proposal* and in RIN Attachment *JGN - Attachment 16 - Document Index - 20190630*, in "Capex document matrix" worksheet.
Speculative capital expenditure account, reused redundant assets, redundant assets and disposals in the *current access arrangement period* 3.4 Provide an explanation for whether and how *JGN* considers the requirements of r. 79 of the *NGR* are met for any amounts added to or deducted from the opening capital base: (a) from the speculative capital expenditure account; (b) for the reuse of redundant assets; (c) for redundant assets; and (d) for disposals.	JGN has not added or deducted amounts from the speculative capex account or in relation to redundant assets. Asset disposals have been adjusted (comprising sales of end of life vehicles) to take into account that these assets no longer contribute to the provision of pipeline services.

Requirement	Response
Forecast conforming capital expenditure in the next access arrangement period 3.5 For each *capex category* identified in the *Workbook 1 – Reset (forecast) data , regulatory templates* E2 to E13, provide an overall description including: (a) a definition and explanation of any materiality threshold test that *JGN* intends to apply to categorise forecast *conforming capital expenditure projects*; (b) the nature of forecast *conforming capital expenditure projects* or *programs* material to each *capex category*, including a brief description of the capital expenditure and, where relevant, the location of the expenditure on the *distribution pipeline*; (c) key drivers of the proposed expenditure; (d) an explanation of how expenditure is distinguished between: (i) *new customer connections* capital expenditure and *augmentation* capital expenditure; (ii) augmentation capital expenditure, driven by demand, and mains replacement capital expenditure, other distribution system capital expenditure, driven by asset condition and other drivers; and (iii) any other *capex category* or *opex category* where *JGN* considers that there is reasonable scope for ambiguity in categorisation. (e) details as to whether the forecast *conforming capital expenditure* is to be funded by parties other than *JGN*; (f) details of contractual agreements with parties where *capital contributions* are made by *users* to new capital expenditure (see r. 82);	(a) JGN has not applied any materiality test to categorise forecast conforming capex projects. (b) Summaries of the nature of JGN's forecast capex are provided in Chapter 5 of our *2020 Plan*, and *Attachment 5.1 of our AA proposal*. Program and project level documentation provides further information – these documents are summarised (and categorised) in RIN Attachment *JGN - Attachment 16 - Document Index - 20190630*, in "Capex document matrix" worksheet. This worksheet also provides an index to the supporting documentation filenames. (c) The key drivers of each categories of expenditure are summarised in *Attachment 5.1 of our AA proposal* and the category level summaries and project/program specific documentation. (d) The capex explanations are explained as follows: (i) Connection expenditure is customer initiated and captures the costs to connect a new customer and includes a mains extension (typically street level reticulation), service and meter. (ii) Augmentation expenditure relates to increasing the capacity or reinforcing the existing network. This could be driven by a need to ensure sufficient capacity exists to service new customers or manage peak demand growth, or integrity issues (for instance to allow an existing mains to be decommissioned or pressure lowered). These costs are captured in other capex. Augmentation also includes new facilities to increase capacity. (iii) Mains replacement includes expenditure to replace existing mains. (iv) Other capex categories relates to: 1. distribution capex for facility upgrades 2. works on pipes (e.g. where we reconfigure existing mains to allow them to be pigged) 3. non-distribution capex such as vehicle replacement, property and plant and equipment, and 4. SCADA related costs. (e) No conforming capex is to be funded by parties other than JGN. JGN's forecast is net of contributions expected to be received from other parties. (f) JGN's non-basic connection services agreement is published on the Jemena website.[3] Negotiated connections are similar but are generally more specific on the expected loads etc. Where a capital contribution is expected it has been accounted for in the forecast in accordance with rule 82.

[3] https://jemena.com.au/documents/gas/non-basic-connection-contract

Requirement	Response
3.6 For forecast *conforming capital expenditure*, in total and in terms of each *capex category*, explain: (a) how it reasonably reflects the new capital expenditure criteria set out in r. 79(1) of the *NGR*, and how *JGN* has interpreted these criteria; (b) how the forecast *conforming capital expenditure* is justified under r. 79(2) of the *NGR* and how *JGN* has interpreted these sub-rules; and (c) how any plans, policies, procedures, regulatory obligations or requirements, consultants' reports, *economic analysis* and assumptions have been used to justify the forecast *conforming capital expenditure*.	See section 4 of Attachment 5.1 to JGN's AA proposal. We have also submitted a suite of documentation which includes project/program specific documentation and models as well as elements of our asset management system. RIN Attachment *JGN - Attachment 16 - Document Index - 20190630*, in "Capex document matrix" worksheet provides an outline of this material and indicates how each program/project is supported by rule 79(1).
3.7 If r. 79(2)(a) is relied on to justify the forecast *conforming capital expenditure*, provide: (a) the calculations of the economic value of the capital expenditure that directly accrues to the *service provider*, gas producers, *users* and end users; and (b) an explanation of the nature and quantification of the economic value that directly accrues to the *service provider*, gas producer, *users* and end users (see r. 79(3)).	Although we rarely solely rely on this Rule, all of our capex is justified under rule 79(2)(a)(as well as commonly, other criteria) as we only invest when the consumer value exceeds the investment cost. We demonstrate the consumer value of each category of our forecast capex in section 3 of *Attachment 5.1 to our AA proposal*. Further detail is also provided in project specific documentation. While we do provide calculations and quantification for several projects (see RIN Attachment *JGN - Attachment 16 - Document Index - 20190630*, in "Capex document matrix" worksheet for a listing of the documentation we have provided) this is not always required to demonstrate that the overall economic value of the expenditure is positive. An example of this is connections expenditure. The revenue from all connections is always equal to or higher than the cost we incur, if this isn't the case we ask the connecting customer for a contribution towards the cost. As a result, every new connection lowers existing customer bills. This is because each new customer contributes towards the cost of our largely fixed costs over and above the cost of their connection. This leaves a smaller amount of fixed costs to be borne by existing customers – leading to bill reductions. Further, the economic value to new connecting customers can be assumed to be positive – by applying for a connection they value the connection above the future expected charges.
3.8 If r. 79(2)(b) is relied on to justify forecast *conforming capital expenditure*, provide: (a) the information *JGN* relied on to determine the expected incremental revenue to be generated as a result of the forecast *conforming capital expenditure*; (b) a description of the incremental service or services (see r. 79(4)(a)); (c) the incremental revenue (see r. 79(4)(b)); (d) the incremental expenditure (see r. 79(4)(b)); and (e) the discount rates that *JGN* used to determine the present value of the incremental revenue.	All connections expenditure is justified under this criterion (and other criteria) as the present value of expected incremental revenue to be generated as a result of the expenditure exceeds the present value of the capex. We only forecast connections capex where the incremental revenue from that connection exceeds the cost of their connection. We did this by using Core Energy & Resources' forecast (*Attachment 8.2 of our AA proposal*) which used our historical capex data comprising only conforming capex (i.e. each connection resulted in revenue greater than the cost of connection). We have also calculated the incremental revenue and expenditure of our forecast connections over the 2020-25 period.

Requirement	Response
	Our connections expenditure will cost $331 million[4] but will deliver $644 million[5] in consumer benefits (bill reductions[6]) from the additional revenue (with opex netted off) over the period to 2050. The net benefit of this investment is about $313 million[7] or $209 per customer by 2050.[8] Several augmentation projects are also justified under this criterion. For these projects we have also prepared a model which demonstrates the calculation (see RIN Attachment *JGN - Attachment 16 - Document Index - 20190630*, in "Capex document matrix" worksheet for a mapping of projects to supporting information including models), which includes all assumptions.
3.9 If r. 79(2)(c)(i), (ii) or (iii) is relied on to justify the forecast *conforming capital expenditure*, provide: (a) an explanation of which item in r. 79(2)(c)(i), (ii) or (iii) is relied on; (b) the relevant *regulatory obligation or requirement* (if any) and the relevant authority or body enforcing it; (c) an explanation of whether and how *JGN* considers that the forecast *conforming capital expenditure* satisfies the item in r. 79(2)(c)(i), (ii) or (iii) being relied on; and (d) any supporting technical or other external or internal reports about whether and how *JGN* considers that the forecast *conforming capital expenditure* addresses the relevant item in r. 79(2)(c)(i), (ii) or (iii).	As the nature of each of our individual projects and programs is different we provide this information at an overarching level in section 3 of *Attachment 5.1 of our AA proposal* as well as in more detail in our project level documentation, as appropriate. Many projects are justified by multiple criteria. For example, a project driven to maintain the safety of our network will likely satisfy Rule 79(c)(i) (maintain the safety of services), Rule 79(c)(ii) (maintain the integrity of services) and Rule 79(c)(iii) (comply with a regulatory obligation of requirement) and even Rule (79)(2)(a) (deliver overall positive economic value).
3.10 If r. 79(2)(c)(iv) is relied on to justify forecast *conforming capital expenditure*, provide: (a) an explanation of the change in demand for existing services necessitating the forecast *conforming capital expenditure*, including a measure of the change in demand; and (b) any reports or other information and documentation that supports whether and how *JGN* considers that the *forecast capital expenditure* will meet the increase in demand for existing services.	A small proportion of augmentation capex is justified under this criterion to address rising peak demand in small pockets of our network. Further details on these projects including the changes in demand and supporting information and documentation is provided in *JGN-2-3.15-2-Capacity Augmentation Development Plan-20190630*.

4 The present value of our volume market connection capex and all augmentation capex for the 2020-25 period. We included augmentation capex (even though not all costs driven by new connections over the 2020-25 period) to be conservative when calculating the net benefit of our connections program.

5 The present value of the expected revenue of 2020-25 volume market connections over the period to 2050 ($698.8 million) with incremental opex netted off ($53.7 million).

6 Connecting new customers allows us to spread our largely fixed costs across more customers resulting in lower prices and bill reductions. We forecast the customer benefits by looking at the at net present value of the expected revenue of 2020-25 volume market connections over the period to 2050.

7 The present value of benefits ($644.3 million) minus the cost of the investment ($331.1 million)

8 $313.2 million divided by 1.5 million customers (the number of customers forecast to be connected in 2025).

Requirement	Response
3.11 For the following *capex categories*: *mains augmentation*, *mains replacement*, *telemetry*, *ICT* and *other capex* provide a project list which details for each project in the *capex category*: (a) an internal identification code, which will enable JGN to report actual capital expenditure against forecast capital expenditure; (b) the *project* name used internally by *JGN*; (c) the cost and timing of the *project capital expenditure*; and (d) a brief description of the project and its scope.	Refer to RIN Attachment *JGN - Attachment 16 - Document Index - 20190630*, in "Capex document matrix" worksheet for this project list.

Requirement	Response
Capital expenditure forecast method 3.12 Describe how the forecast *conforming capital expenditure* was prepared, including: (a) the forecasting methodologies used; (b) how its preparation differed or related to budgetary, planning and governance processes used in the normal running of *JGN*'s business; (c) processes for ensuring amounts are free of error and other steps in quality assurance; and (d) if and how *JGN* considered the resulting amounts, when translated into price impacts, were in the long term interest of consumers.	(a) JGN has forecast capex using the following methods: • Connections and metering capex was forecast using a volume and unit rate forecast. These approaches are detailed in *JGN-2-3.15-2-Connection and metering forecasting methodology-20190630.* • Project based capex were forecast by identifying the required projects (for instance where we have forecast capacity constraints) and the associated cost (using the Jemena Estimation Methodology – see RIN supporting document *JGN-2-3.15-3-Jemena Infrastructure Cost Estimation Methodology-20190630*. • IT capex is based on our IT forecasting methodology, detailed in RIN supporting document *JGN-2-3.15-3-IT Capex Forecasting and Governance Guide-20190612-public*. The forecasts produced are reviewed in three stages. First at a project/program level, secondly at an asset class level and thirdly at a total program level. Further detail is provided in our Asset Management Plan and Technology Plan, see *Attachments 5.3 and 5.4 of our AA proposal*. (b) The 2020 Plan was developed consistently with JGN's normal planning and governance processes, however the forecasts for AA proposal are at a far more granular level and are done on calendar year basis instead of financial year. : (c) JGN's forecast has been subject to extensive internal review and approval processes throughout its development and is submitted under a statutory declaration. In addition, ahead of submitting our *2020 Plan* to the AER, JGN prepared a draft plan and invited stakeholders to a deep-dive. These processes allowed consumers and external organisations to question and challenge the draft plan, which allowed an external review of the *2020 Plan* before being submitted to the AER. (d) Each element of the program has been challenged and tested to determine whether the consumer value exceeds the cost to consumers. Each part of the National Gas Objective (price, quality, safety, reliability and security of supply) was considered and JGN's consumers were engaged on what trade-offs JGN needed to make. Further detail is explained in *Attachment 5.1 of the AA proposal*. Generally, JGN's investments in connections and augmentation expenditure will deliver price reductions as that spend allows fixed costs to be spread over a larger customer base. The metering program ensures consumers are fairly billed for their consumption, while the remainder of the capex is related to keeping the network reliable and safe as it ages by keeping risks as low as reasonably practicable.

Requirement	Response
3.13 In relation to any source material (including models, documentation or any other items containing quantitative data) used by *JGN* to develop its forecast *conforming capital expenditure*, provide: (a) a copy of this source material; and (b) all calculations that demonstrate how data from the source material has been manipulated or transformed to generate data provided in the regulatory templates.	We have provided all source material, models and project documentation used to develop our forecast of conforming capex in the following material: • Several models including: – Capital expenditure forecast model – Connections capex forecast model – Meter replacement capex forecast model – Meter replacement volume forecast model – Various NPV models (for all projects with an options analysis and augmentation projects.) • Asset management system documentation including: – Asset Management Plan (*Attachment 5.3 of our AA proposal*) – Technology Plan (*Attachment 5.4 of our AA proposal*) – Asset Class Strategies • Project level documentation (including options analysis, opportunity briefs, project mandates, investment briefs, project cost estimates as appropriate) • Other supporting information including: – Connections and metering forecast method – Delivery plan – Minor capital budgeting and approval document – Jemena Infrastructure Cost Estimation Methodology – Input cost escalation report (*Attachment 5.2 of our AA proposal*) – Augmentation plan – Property justification paper – SAP mitigation white paper All of the above documentation is mapped out in RIN Attachment *JGN - Attachment 16 - Document Index - 20190630*, in “Capex document matrix” worksheet.

Requirement	Response
3.14 Identify which particular items of *JGN*'s forecast *conforming capital expenditure* have: (a) been derived directly from competitive tender processes; (b) been based upon competitive tender processes for similar *projects*; (c) been based upon estimates obtained from contractors or manufacturers; (d) been based upon independent benchmarks; (e) been based upon actual historical costs for similar *projects*; and (f) reflected any amounts for risk, uncertainty or other unspecified contingency factors, and if so, how these amounts were calculated and deemed reasonable.	Broadly we forecast costs in three ways. 1. For our connections and the bulk of our metering program we rely on historical costs, as described in *Attachment 5.1 of the AA proposal* and *JGN-2-3.15-2-Connections capex forecast model-20190630* and *JGN-2-3.15-2-Meter replacement capex forecast model-20190630*. 2. Our project costs are forecast using our Project Estimation Methodology, described in *JGN-2-3.15-3-Jemena Infrastructure Cost Estimation Methodology-20190630* 3. Our IT capex is forecast using our IT cost forecasting method, detailed in *JGN-2-3.15-3-IT Capex Forecasting and Governance Guide-20190612-public*. In RIN Attachment *JGN - Attachment 16 - Document Index - 20190630*, in "Capex document matrix" worksheet we provide further detail on the cost estimation basis for each line of capex.
3.15 Provide any relevant internal decision making *documents* relating to approval of the forecast *conforming capital expenditure* and any other internal or external documentation or models that justify the forecast *conforming capital expenditure*, including but not limited to: (a) business cases; (b) feasibility studies; (c) forecast demand studies and internal reports; and (d) the date of any relevant internal decision making body/management decisions and board decisions.	Provided in project specific documentation as appropriate. This is listed in RIN Attachment *JGN - Attachment 16 - Document Index - 20190630*, in "Capex document matrix" worksheet.
3.16 Provide all *documents* which were taken into account and relate to the *deliverability* of forecast *conforming capital expenditure* and explain the proposed *deliverability*.	See RIN supporting document *JGN-2-3.16-JGN Delivery plan*.

Requirement	Response
Capital expenditure that is not conforming in the *next access arrangement period*	JGN is proposing to include expenditure on the Western Sydney Green Gas Trial in its speculative capex account. For further details refer to section 3.9 of *Attachment 5.1 of the AA proposal* and RIN supporting document *JGN-2-3.17-1-Western Sydney green gas trial options analysis-20190401*
3.17 Provide: (a) a justification for the different rate of return, if the balance of the *speculative capital expenditure account* increases at a rate different to the rate of return implicit in a *reference tariff* (see r. 84(2)); and (b) details of the mechanism to prevent *JGN* from benefiting, through increased revenue, from the *capital contributions* by a *user* in the *next access arrangement period* (see r. 82(3)).	(a) Not applicable – rule 84(2) has been modified such that the rate of return must be the same as the allowed rate of return for the regulatory years in which the adjustment to the speculative account is made. (b) We net off capital contributions from gross capex before adding net capex to the capital base.
Capital redundancy policy in the *next access arrangement period*	JGN's proposed 2020-25 AA does not include a capital redundancy policy.
3.18 If relevant, provide: (a) an explanation of the proposed mechanism to remove redundant assets from the capital base including: (i) when the mechanism will take effect; and (ii) whether the mechanism includes a *proposal* for cost sharing between the *service provider* and *users* associated with a decline in demand for *pipeline services*; (b) a justification for the mechanism; (c) an explanation of what uncertainty the mechanism may cause; and (d) the effect of this uncertainty on *JGN*.	
4. Operating Expenditure	
Operating expenditure in the current access arrangement period	Related party details are included within the response to clause 20. Refer to section 5 of *Attachment 6.1 of JGN's AA proposal* for details of non-recurring opex.
4.1 For the current access arrangement period provide: (a) *related party* details; and (b) an explanation of any non-recurring expenditures.	

Requirement	Response
Forecast operating expenditure in the *next access arrangement period* 4.2 For forecast total *operating expenditure* provide: (a) a description and explanation of the major drivers for the increase/decrease in expenditure by opex categories between the current access arrangement period and the next access arrangement period; (b) information on any changes to the operations of the pipeline from the *current access arrangement period* that have resulted in *material* changes to *opex categories* and total *operating expenditure* in the *next access arrangement period*, including a definition of the materiality threshold used by *JGN* to identify such changes; (c) the models or methodology used to develop the forecast total *operating expenditure*; and (d) a description of how the forecast was prepared, including: (i) how forecast *operating expenditure* reasonably reflects the criteria set out in r. 91(1) of the *NGR*; (ii) if a revealed cost *base year* approach was used to forecast total *operating expenditure*; (1) what the *base year* is; and (2) why that *base year* represents efficient, recurrent costs; (iii) if a revealed cost *base year* approach was not used to forecast total *operating expenditure*; (1) whether there was a year of historical *operating expenditure* available that represents efficient, recurrent costs; and (2) if not, why no year of historical *operating expenditure* represents efficient, recurrent costs; and (iv) any non-recurrent in the *base year* and each year of the *next access arrangement period*.	Refer to *Attachment 6.1 of JGN's AA proposal* for a detailed description of how JGN forecast its proposed opex for the next AA period, including the key drivers, assumptions the methodologies used, including reference to opex categories. JGN's opex forecast is derived in *Attachments 6.1 and 6.2*, after applying these assumptions and methodologies. On the questions specifically: (a) The major drivers of changes in opex in the next AA period are: – cost escalation (refer to BIS Oxford Economics cost escalation report, *Attachment 5.5 of JGN's AA proposal*) – network growth (refer to an overview of the new connections forecast in *Attachment 8.1 of JGN's AA proposal* and Core Energy & Resources' demand forecast report and model, *Attachments 8.2 and 8.3 of JGN's AA proposal*) – mains length growth (refer to *Attachments 6.1-6.2 of JGN's AA proposal* and *JGN - Attachment 3 - Workbook 1 - Reset (forecast) data - Consolidated - 20190630*) – productivity adjustment (refer to Economic Insight's productivity report, *Attachment 6.4 of JGN's AA proposal*) – expensing of previously capitalised corporate overheads, and pigging and integrity digs (refer to *Attachments 6.1-6.3 of JGN's AA proposal*) – reduction in base year opex due to business transformation program (refer to *Attachment 6.1 of JGN's AA proposal*) – category specific forecast such as UAG and government levies (refer to *Attachment 6.1 of JGN's AA proposal*) (b) No changes have been identified. (c) Refer to the opex forecast model (*Attachment 6.2 of JGN's AA proposal*) and opex forecasting methodology (*Attachment 6.1 of JGN's AA proposal*) and summarised in chapter 6 of JGN's *2020 Plan*. (d) We have adopted revealed cost base year approach. Refer to the opex forecasting methodology (*Attachment 6.1 of JGN's AA proposal*) and the opex forecast model (*Attachment 6.2 of JGN's AA proposal*) for more details.

Requirement	Response
Output growth 4.3 Provide: (a) all output growth drivers included in the forecast; (b) any economies of scale factors applied to the growth drivers; (c) evidence that the growth drivers explain cost changes due to output growth; and (d) any weightings applied if multiple output growth drivers have been used.	Refer to section 6.3 of *Attachment 6.1 of JGN's AA proposal* and to the "*Input|Rate of change*" sheet within the opex forecast model (*Attachment 6.2 of JGN's AA proposal*)
4.4 Explain: (a) how the growth drivers have been applied in the *operating expenditure* forecast; and (b) how the forecast method accounts for economies of scale.	Refer to section 6.3 of *Attachment 6.1 of JGN's AA proposal* and to the "*Input|Rate of change*" sheet within the opex forecast model (*Attachment 6.2 of JGN's AA proposal*) and Economic Insights report - Relative Efficiency and Forecast Productivity Growth of Jemena Gas Networks (NSW), April 2019 (*Attachment 6.4 of JGN's AA proposal*).
Real price changes 4.5 Explain: (a) how the real price measures have been applied in the *operating expenditure* forecast; and (b) whether the labour price measure compensates for any form of labour productivity change.	Refer to section 6.2 of *Attachment 6.1 of JGN's AA* proposal and to the "*Input|Rate of change*" sheet within the opex forecast model (*Attachment 6.2 of JGN's AA proposal*) and BIS Oxford Economics report provided *in Attachment 5.5 of JGN's AA proposal*.
Productivity change 4.6 Explain: (a) how the forecast changes in productivity have been applied in the *operating expenditure* forecast; (b) whether the forecast productivity changes capture the historical trend of cost increases due to new *regulatory obligations or requirements* and changes to industry best practice; and (c) whether the productivity measure used to forecast *operating expenditure* includes productivity change compensated for by the labour price measure used to forecast the change in the price of labour.	Refer to section 6.4 of *Attachment 6.1 of JGN's AA proposal* and to the "*Input|Rate of change*" sheet within the opex forecast model (*Attachment 6.2 of JGN's 2020-25 AA proposal*) and Economic Insights report provided in *Attachment 6.4 of JGN's AA proposal.*
5. Step changes	
5.1 For all *step changes* in forecast *operating expenditure* (including due to changes in policies, strategies and obligations) provide: (a) a description of the *step change,* including when the change occurred, what its driver is, and how the driver has changed (e.g. the change in a regulatory obligation); and	(a) Two step changes have been identified for the forecast AA period. Refer to section 7 of *Attachment 6.1 of JGN's AA proposal* for details. The step changes are:

Requirement	Response
(b) a demonstration, including all supporting justifications, for when and how the *step change* affected or is expected to affect expenditures (historical and forecast), with respect to: (i) any of the *opex categories*; and (ii) total operating expenditure.	• We are proposing to expense the costs of pigging and integrity digs from 2020-21 onwards, which to date we have capitalised. While reported as a step change, it does not represent a new obligation or new type of expenditure. • We have also included a negative step change in 2020-21 to account for the corporate overheads in the first half of year 2020-21 when it is still being capitalised. This is to ensure that the cost of expensing corporate overheads for the first year 2020-21 is not overstated. (b) Refer to Attachment 6.1 to 6.3 of JGN's AA proposal. Also refer to RIN Attachment *JGN - Attachment 16 - Document Index - 20190630*, in "Capex document matrix" worksheet for a list of the six separate pigging and integrity dig projects included in our 2020 Plan. This list includes file references to the supporting documentation for each individual project.
5.2 For each step change identified in response to paragraph 5.1, explain: (a) why the efficient costs of the *step change* are not provided by other aspects of the *operating expenditure* forecast including, for example, base *operating expenditure*, output growth, real price growth or forecast productivity change; and (b) why the *step change* is required to contribute to a total forecast *operating expenditure* that reasonably reflects the criteria set out in r. 91(1) of the *NGR*.	The pigging and inspection costs are capitalised for the current AA period. JGN proposes to expense them from the next AA period onwards. JGN's base year revealed opex, which is used to forecast opex in the next period, does not include this cost as it is being capitalised. The negative step change in 2020-21 ensures that the cost of expensing corporate overheads for the first year 2020-21 is not overstated. Refer to section 7 of *Attachment 6.1 of JGN's AA proposal*.
5.3 For all *step changes* in forecast expenditure provide: (a) In Workbook 1 – Reset (forecast) data, regulatory template E20 the step changes expenditure: (i) forecast for each year of the *forthcoming access arrangement period*; and (ii) expected to be incurred in the *current access arrangement period*; and (b) a description of the step change.	(a) We have complied with this requirement. Refer to regulatory template E20 (b) Refer to section 7 of *Attachment 6.1 of JGN's AA proposal.*

Requirement	Response
5.4 For each *step change* listed in response to paragraph 5.3, provide an explanation of: (a) when the change occurred, or is expected to occur; (b) what the driver of the step change is; (c) how the driver has changed or will change (for example, revised legislation may lead to a change in a regulatory obligation or requirement); and (d) whether the step change is recurrent in nature.	(a)-(c) Refer to section 7 of *Attachment 6.1 of JGN's AA proposal.* (d) the pigging and inspection costs step change is recurrent in nature – pigging inspections are undertaken on pipelines on a ten-yearly cycle. The negative step change in 2020-21 is non-recurrent as it accounts for the half year of capitalised overheads before the change in accounting treatment.
5.5 For each *step change* listed in response to paragraph 5.3, provide justification for when, and how, the *step change* affected, or is expected to affect: (a) the relevant *opex category*; (b) the relevant *capex* category; (c) total *opex*; and (d) total *capex*.	(a)-(d) Refer to *Attachment 6.1 to 6.3 of JGN's AA proposal*, and also refer to RIN Attachment *JGN - Attachment 16 - Document Index - 20190630*, in "Capex document matrix" worksheet for a list of the six separate pigging and integrity dig projects included in our *2020 Plan*. This list includes file references to the supporting documentation for each individual project.
5.6 For each *step change* listed in response to paragraph 5.3, provide the process undertaken by *JGN* to identify and quantify the *step change*; and the cost benefit analysis that demonstrates *JGN* proposes to address the *step change* in a prudent and efficient manner, including: (a) the timing of the *step change*; and (b) if *JGN* considered a 'do nothing' option, evidence of how *JGN* assessed the risks of this option compared with other options.	(a)-(b) Refer to *Attachment 6.1 to 6.3 of JGN's AA proposal*, and the pigging and integrity digs documentation identified above (clause 5.5). For the pigging and inspection costs, by reassessing the nature of these activities, JGN considers that these inspections do not necessarily result in extending the lives of our pipelines because once the pigging is undertaken, we still need to undertake validation or integrity digs to confirm any repair works. It is only after this point that we may repair the pipelines if we assess the damage discovered through the pigging to be unacceptable. These costs are therefore more properly classified as opex rather than capex. For the calculation of previously capitalised corporate overheads, refer to *Attachment 5.2 (Capex model) sheet "Calc|OH" of JGN's AA proposal* and *Attachment 6.2 (Opex forecast model)* sheet "*Input|Step changes*" for the calculation steps of the half year negative adjustment.
5.7 If the step change was due to a change in a regulatory obligation or requirement provide: (a) any variations or exemptions granted during the previous access arrangement period or the current access arrangement period; and (b) any compliance audits conducted during the previous access arrangement period or the current access arrangement period.	The step changes are not due to a change in regulatory obligation.

Requirement	Response
5.8 For each *step change* listed in response to paragraph 5.7, provide, with reference to specific clauses of the relevant legislative instrument(s), the: (a) previous regulatory obligation or requirement; and (b) how the changed regulatory obligation or requirement is driving the step change.	The step changes are not due to a change in regulatory obligation.
Category specific opex 5.9 For all *category specific forecasts* in forecast operating expenditure provide: (a) a description of the *category specific forecast*; (b) the process undertaken to identify and quantify the *category specific forecast*, (c) why the efficient costs of the *category specific forecast* is not provided by other aspects of the *operating expenditure* forecast including, for example, base *operating expenditure*, output growth, real price growth or forecast productivity change; and (d) why the category specific forecast is required to contribute to a total forecast *operating expenditure* that reasonably reflects the criteria set out in r. 91(1) of the *NGR*.	Refer to *Attachments 6.1 and 6.2 of JGN's AA proposal* which shows the category specific forecast for 2020-25 AA period (a)-(b) There are three category specific forecasts identified and include: 1. UAG: As part of our contractual arrangements with network users, we procure gas to replenish the difference between the measured quantities of gas entering and leaving the network – this difference is known as UAG. Refer to section 8 of *Attachments 6.1,and 6.7-6.11 of JGN's AA proposal* for further details. 2. Government levies: Government levies comprise annual licence and authorisation fees paid to the NSW Government, IPART & EWON and mains taxes paid each year by JGN to local government councils. Refer to section 8 of *Attachment 6.1 of JGN's AA proposal* for further details 3. Debt raising costs: We incur debt raising costs each time we raise or refinance debt. Refer to section 8 of *Attachment 6.1 and Attachment 6.6 of JGN's AA proposal* for further details c) For these cost categories there is no year of historical opex that represents efficient recurrent costs because these costs change over time. For example, UAG is directly related to the gas consumption, which changes over time. d) Refer to *Attachment 6.1 of JGN's AA proposal*.
6. Forecast Price Changes	
6.1 Identify the labour and material price changes proposed in the estimation of the *forecast capital expenditure proposal* and the *forecast operating expenditure proposal* .	Refer to: • Template E25 – escalators' submitted as part of *JGN - Attachment 3 - Workbook 1 - Reset (forecast) data - Consolidated - 20190630* for 2019-25 • the capex and opex models (refer to *Attachment 5.2 and 6.2 of JGN's AA proposal*), BIS Oxford Economics' cost escalators report (refer to *Attachment 5.5 of JGN's AA proposal)*, and *Attachment 5.1 and 6.1 of JGN's AA proposal*.

Requirement	Response
6.2 Provide: (a) the model(s) used to derive and apply all price changes assumed in the estimation of the *forecast capital expenditure proposal* and the *forecast operating expenditure proposal* , including any proprietary model(s) provided by a *third party*; (b) in relation to labour escalators, a copy of the current *Enterprise Agreement* or equivalent agreement; and (c) evidence that the price measures explain those cost changes which are attributed to price changes, including evidence of any materials price forecast method which explains the historical change in the price of materials purchased by network service providers.	(a) Refer to: • the capex and opex models (refer to *Attachments 5.2 and 6.2 of JGN's AA proposal*) • BIS Oxford Economics' cost escalators report (refer to *Attachment 5.5 of JGN's AA proposal*). (b) The current Enterprise Agreement is the *Jemena Gas and Water Agreement 2018*. (see RIN supporting document *JGN-2-6.2(b)-2-Jemena Gas and Water Enterprise Agreement 2018*). The 2018 agreement has a nominal expiry date of 30 November 2021. (c) Refer to *Attachment 5.5 of JGN's AA proposal* for BIS Oxford Economics' cost escalators report. No material real price change has been applied.
6.3 Explain: (a) the methodology underlying the calculation of each price change, including sources, data conversions, the operation of any models provided under paragraph 6.2(a) and the use of any assumptions, such as lags or productivity gains; (b) whether the same price changes have been used in developing both the forecast capital expenditure proposal and forecast operating expenditure proposal ; and (c) if the response to paragraph 6.3(b) is no, why it is appropriate for different expenditure escalators to apply.	JGN has applied the average of BIS and Deloitte Access Economics (**DAE**) labour escalation forecasts to both opex and capex. Refer to *Attachment 5.5 of JGN's 2020-25 AA proposal* for BIS Oxford's cost escalators report. For the DAE report, we have applied the values in table 3.3 (NSW utilities real wage price aggregates in section 3.2.4) of the report 'Deloitte Access Economics - Labour Price Growth Forecasts prepared for the AER - 28 February 2019' published by the AER with a placeholder value for 2024-25 to be the same as 2023-24.
6.4 If an agreement provided in response to paragraph 6.2(b) is due to expire during the *next access arrangement period*, explain the progress and outcomes of any negotiations to date to review and replace the current agreement.	As noted in response to clause 6.2(b), the current Enterprise Agreement has a nominal expiry date of 30 November 2021. Negotiations for the 2021 (or any successor) agreement have not commenced.
7. Interactions Between Capital and Operating Expenditure	
7.1 Identify any material interactions in JGN's forecast conforming capital expenditure and forecast operating expenditure.	Interactions between capex and opex have been taken into account throughout JGN's AA proposal. These have been factored in at the project-specific level and the aggregate level where appropriate to do so. For instance, at the project level we have identified the additional pigging costs (which fall into opex) as a result of reconfiguring the Sydney primary main to allow it to be pigged. At an aggregate level we have taken into account the ongoing efficiencies that our IT investments will enable by applying a productivity trend to our opex forecast. For further details refer to section 3 of *Attachment 5.1 of JGN's AA proposal*.

Requirement	Response
7.2 Explain how these interactions have been taken into account when developing forecasts of *capital expenditure* and *operating expenditure*, and otherwise in providing responses to items under paragraphs 5 and 6.	Refer to the response to clause 7.1 above.

2.3 Capital base and tax reporting

Requirement	Response
8. Capital Base	
8.1 Provide *JGN*'s RFM and PTRM in support of its access arrangement proposal, including *JGN*'s calculation of the opening and closing capital base for each regulatory year of the current access arrangement period and next access arrangement period.	Refer to *Attachments 7.2, 7.3 and 6.3 of JGN's AA proposal* for the PTRM and roll-forward model (**RFM**).
8.2 If *JGN* proposes to change the underlying methods in its *RFM* and *PTRM* compared with the *RFM* and *PTRM* that were approved for the *previous access arrangement* for the calculation referred to in paragraph 8.1, describe the reasons for the changes.	JGN is using its current RFM which was approved by the AER to maintain consistency to AER's final decision. JGN is adopting the AER's PTRM for electricity businesses. Key changes in calculation are: • Adopting year-on-year tracking economic depreciation approach (as explained in response to paragraph 9.2 below). • Adopting AER's changes to tax depreciation. Tax depreciation on leasehold improvements is proposed to be straight line consistent with JGN's actual tax accounting practice.
8.3 If the opening value of the capital base as at the start of the *next access arrangement period* is proposed to be adjusted because of re-use of redundant assets or exclusion of redundant assets, provide details including relevant supporting information used to calculate that adjustment value.	No adjustments applied for re-use of redundant assets or exclusion of redundant assets
9. Depreciation Schedules	
9.1 Provide *JGN's* calculation of the depreciation amounts for the relevant distribution system for each *regulatory year* of: (a) the current access arrangement period using *JGN*'s RFM; and (b) the next access arrangement period using *JGN*'s PTRM and/or separate depreciation model.	Refer to: • *Attachment 7.3 of JGN's AA proposal* for the RFM, which provides the depreciation calculation for each regulatory year of the current AA period. • *Attachment 7.2 of JGN's AA proposal* for the PTRM, which forecasts the next AA period.

<table>
<tr><th>Requirement</th><th>Response</th></tr>
<tr><td></td><td>• Attachment 7.4 of JGN's AA proposal for the depreciation based on a year-on-year tracking approach.
• Attachment 6.3 of JGN's AA proposal for the pigging costs RFM, which provides the depreciation calculation for each regulatory year of the current AA period.</td></tr>
<tr><td>9.2 If JGN proposes to change the underlying depreciation methods in its RFM and PTRM and/or separate depreciation model compared with the RFM and PTRM which were approved for the previous access arrangement for the calculations referred to in paragraph 9.1, describe the reasons for the changes.</td><td>We propose adopting year-on-year tracking approach to calculate depreciation on existing and new assets. This is consistent with the approach adopted for Jemena Electricity Network and is a more accurate reflection of how assets would depreciate over time. See Attachment 7.9 of JGN's AA proposal for more detail.</td></tr>
<tr><td>9.3 Identify any changes to standard asset lives for existing asset classes approved for the previous access arrangement. Explain the reason/s for the change and provide relevant supporting information.</td><td>The table below shows the changes to standard asset lives, in years, for new assets for each existing asset classes.
<table>
<tr><th>Asset Class</th><th>Current lives</th><th>Proposed lives for new</th></tr>
<tr><td>Trunks</td><td>80</td><td>50</td></tr>
<tr><td>High Pressure Mains</td><td>80</td><td>50</td></tr>
<tr><td>Meters/Meter reading devices</td><td>20</td><td>15</td></tr>
<tr><td>Medium pressure mains</td><td>50</td><td>30</td></tr>
<tr><td>Medium pressure services</td><td>50</td><td>30</td></tr>
</table>
Reasons for the change are explained in Attachment 7.9 Capital base, and Attachment 7.10 Changes to asset lives for new investments, of JGN's AA proposal</td></tr>
<tr><td>9.4 For any proposed new asset classes, explain the reason/s for using these new asset classes and provide relevant supporting information on their proposed standard asset lives.</td><td>JGN is proposing to add asset class "Existing pigging and inspection cost" in the PTRM for the 2020-25 period. Further details are provided in Chapter 7 of JGN's 2020 Plan, and Attachment 7.9.</td></tr>
<tr><td>9.5 If existing asset classes approved for the previous access arrangement are proposed to be removed and their residual values to be reallocated to other asset classes, explain the reason/s for the change and provide relevant supporting information. This should include a demonstration of the materiality of the change on the forecast depreciation allowance.</td><td>Asset class "Stock" has been removed because there is no residual values in the asset base or forecast capex in this asset class.</td></tr>
<tr><td>9.6 Describe the method used to depreciate existing asset classes as at 1 July 2020 and provide supporting calculations. This may include calculations to estimate remaining asset lives.</td><td>Refer to:
• Attachment 7.2 of JGN's AA proposal for the PTRM, which supports the next AA period.
• Attachment 7.4 of JGN's AA proposal for the depreciation model, which tracks the depreciation based on year-on-year tracking approach.</td></tr>
</table>

Requirement	Response
	• Section 2 of *Attachment 7.9 of JGN's AA proposal* which describes the year-on-year tracking method used to depreciate existing asset classes.
10. Corporate Income Tax	
10.1 Provide *JGN's* calculation of the estimated cost of corporate income tax for the *next access arrangement period* using *JGN's PTRM* and/or separate tax depreciation model.	Refer to: • *Attachment 7.1 of JGN's AA proposal* for an explanation of JGN's cost of corporate income tax • *Attachment 7.2 of JGN's AA proposal* for the PTRM, which supports the next AA period.
10.2 Provide a demonstration that the calculation referred to in paragraph 10.1 complies with r. 87A of the *NGR*.	JGN has applied the AER's Rate of Return Instrument 2018, which satisfies Rule 87A of the NGR. This is demonstrated in Section 8 Corporate income tax, of *Attachment 7.1 of JGN's AA proposal.*
10.3 If *JGN* proposes to change the underlying methods in its *PTRM* compared with the approved *PTRM* for the *previous access arrangement* for the calculations referred to in paragraph 10.1, describe the reasons for the changes.	JGN has adopted the AER's electricity PTRM and adopted the changes to tax depreciation as determined by the AER. We expect this will help the AER in assessing our AA proposal, by using a familiar model rather than reviewing JGN's model as has been the practice in the past.
10.4 Identify any changes to tax depreciation rates for existing *asset* classes approved for the *previous access arrangement*. Explain the reason/s for the change and provide relevant supporting information, including identifying tax laws governing depreciation for tax purposes.	There is no change to tax depreciation rates for existing asset classes.
10.5 Describe the method used to calculate the tax depreciation rates as at 1 July 2020 and provide supporting calculations, if the approach differs from that in the approved *RFM* for the *previous access arrangement*.	JGN adopts tax depreciation rates consistent with the AER 2018 regulatory tax review decision and straight-line depreciation to apply to buildings, inhouse software and equity raising costs. JGN has also proposed use of straight-line depreciation for leasehold improvements asset class consistent with JGN's actual tax accounting practice. For the new asset class "Existing pigging and inspection costs", JGN proposes to depreciate it under straight-line depreciation approach over 5 years so that it is fully depreciated at the end of the 2020-25 AA period. Refer to the PTRM, which is *Attachment 7.2 of JGN's AA proposal* for more information.

Requirement	Response
10.6 Provide *JGN's* calculation of the tax *asset* base for each *regulatory year* of the *current access arrangement period* and *next access arrangement period* using *JGN's RFM, PTRM* and/or separate tax depreciation model.	Refer to: • *Attachment 7.3 of JGN's AA proposal* for RFM which supports the current AA period • *Attachment 7.2 of JGN's AA proposal* for PTRM which supports the next AA period
10.7 If *JGN* proposes to change the underlying methods in its *RFM*, *PTRM* and/or separate tax depreciation model compared with the approved *RFM* and *PTRM* for the *previous access arrangement* for the calculations referred to in paragraph 10.6 describe the reasons for the changes.	JGN already uses diminishing value method for depreciating capex and tax asset base. Therefore, it required minimal change to be consistent with the AER 2018 regulatory tax review decision. The only changes required were to cap tax standard asset lives for a number of asset classes, and the application of straight line depreciation on asset classes specified by the AER. JGN does not expense any refurbishment costs.
10.8 Identify any differences in the *capitalisation* of expenditure for regulatory accounting purposes and tax accounting purposes. Provide reasons and supporting calculations to reconcile any differences between the two forms of accounts.	JGN uses a consistent approach to capitalise for accounting and tax purpose. All expenditure that is capitalised for accounting purposes is also capitalised for tax purposes.

2.4 Network information reporting

Requirement	Response
11. Demand	
11.1 Provide: (a) an explanation of any trends in demand and volumes over the *current access arrangement period* and the *next access arrangement period*; (b) details of the key drivers behind the demand forecasts provided in response to *Workbook 1 – Reset (forecast) data, regulatory template* N1. Demand; (c) any methodology and models that have been used to develop the demand forecasts; (d) any data sets used as inputs into the models; (e) any key inputs and assumptions that have been used in the models (including in relation to economic growth, *customer* numbers and policy changes) and provide any associated models or data relevant to justifying these inputs and assumptions and how demand for *pipeline services* is differentiated; (f) an explanation of any weather normalisation models, how weather data has been used, and how *JGN's* approach to weather normalisation has changed over time; (g) an explanation of any appliance models, where used, or assumptions relating to *average customer* energy usage (by *customer* type); (h) how the forecasting methodology used is consistent with, and takes into account, historical observations (where appropriate), including any calibration processes undertaken within the model (specifically whether the load forecast is matched against actual historical load); and (i) an explanation of how the demand forecasts have been used to develop *JGN's capital expenditure* and *operating expenditure* forecasts.	All the information relating to JGN's demand forecast can be found in the following documents within JGN's AA proposal: • Chapter 8 of our *2020 Plan* • *Attachment 8.1 Overview of JGN's Demand Forecast* • *Attachment 8.2 Demand Forecast Report* • *Attachment 8.3 Demand Forecasting Model.*
11.2 Provide: (a) evidence that any independent verifier engaged has examined the reasonableness of the method, processes and assumptions in determining the forecasts and has the requisite expertise to undertake a verification of forecasts; and (b) all documentation, analysis and models evidencing the results of the independent verification.	(a) JGN engaged Core Energy & Resources to develop the demand forecast. *Attachment 8.2 from JGN's AA proposal* explains the forecasting approach and provides Core Energy & Resources' credentials. JGN has not engaged a separate expert to independently verify the demand forecast. (b) All documents have been submitted as part of the *2020 Plan*, refer to the response to clause 11.1 above.

2.5 Incentive schemes and other reporting

Requirement	Response
12. Proposed Incentive Mechanism	
12.1 Provide, for each incentive mechanism (including existing incentive mechanisms), details of the forecast revenue referable to increments for efficiency gains or decrements for efficiency losses for the *next access arrangement period*.	Refer to *Attachment 7.6 of JGN's AA proposal* for ECM model.
12.2 Provide, for each proposed incentive mechanism: (a) an explanation of the operation of the proposed incentive mechanism; (b) an explanation of the rationale for the proposed incentive mechanism; (c) reference to the source *documents* used to derive exclusions and inclusions to calculate efficiency gains and losses for the *next access arrangement period; and* (d) any relevant analyses or reports that support the proposed incentive mechanism.	JGN is subject to an efficiency carryover mechanism (**ECM**) for 2015-20 period. The latest version of the ECM was approved by the AER as an amendment to the 2015-20 AA in May 2019. JGN proposes that the ECM and a Capital Expenditure Sharing Scheme (**CESS**) to be applied in the next AA period. These incentive schemes aim to provide a continuous incentive to pursue efficiency improvements in opex (ECM) and capex (CESS) and to share efficiency gains with network users. Costs to be excluded for ECM purpose are categories of opex not forecast using a single year revealed cost approach in the next AA period. For JGN, this includes licence fees, carbon costs, tax changes and debt raising costs. Costs excluded from the ECM are identified in Clause 12 of the AA. Costs to be excluded for CESS purpose are costs recovered from other sources such as capital contributions and proceeds from disposals. JGN also proposes to exclude connection capex from CESS due to the uncontrollable nature of these costs. Costs excluded from the CESS are identified in Clause 13 of the AA. For further details refer to *Attachment 7.6 (ECM Model), Attachment 7.12 (Illustrative CESS Model)* and *Attachment 7.11 (Incentive schemes) of JGN's AA proposal*. Also refer to *Attachment 9.1 (Explanation of proposed revisions to 2015 AA)* and *Attachment 9.3 (Mark-up on the 2015 AA) of JGN's AA proposal*.
13. Rate of Return	
13.1 The Rate of Return Guideline sets out how the rate of return will be calculated.	JGN has not proposed any departures from the AER's Rate of Return Guidelines.
14. Provisions	
14.1 For all provisions specified in Workbook 2 – Historical data and Workbook 5 – Annual data, regulatory template F7. Provisions, provide: (a) a detailed definition of the provision; and	(a) JGN included three provisions in its historical RIN templates: (1) **Doubtful debts**—which reflects our assumed write-off (or un-recovery) of amounts owed to JGN by its debtors that we are unlikely to recover and in accordance with JGN's internal Accounts Receivable procedure. This may

Requirement	Response
(b) the reasons for movement in the provision, including: (i) any consultant's advice, including actuarial reports; or (ii) if there is no consultant's advice, identify and provide the process *JGN* undertook in determining the movement in the provisions.	be due to dispute over supply, delivery, or the condition of our supply services or financial distress faced by a customer. We estimate the value using the current level and age of debtors in JGN's debtors ledger and our past experience with recovering these types of debts depending on their age. Our calculation is purely based on debtors aging. (2) **Other (Current)**—which reflects JGN's estimated claims liability. JGN assesses any claim submitted to it e.g. poor meter data provision, claims submitted by customers caused by outages to the JGN network and where there is a likelihood of a liability, JGN provides for it. (3) **Carbon Credit Purchases**—which reflects JGN's estimated carbon costs (i.e. purchase of carbon permits) each month, and combines JGN's expected fugitive emissions for the month and expected carbon price. The requirement to purchase carbon permits was governed by the *Clean Energy Act 2011* (Cth), 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. The cost was not fully known at the time JGN's accounts were closed each month, meaning that JGN had to estimate it and true up for actual costs later. (b) The value of each provision changes from year to year as the underlying drivers update: (1) **Doubtful debts**—changes in the outstanding balance of debtors lead to changes in the provision. JGN uses actual or expected changes in these drivers to update its provisions as well as in accordance with its internal Account Receivable procedure. JGN's doubtful debt provision shows a decline in the current access arrangement period. (2) **Other (Current)**—JGN makes a provision where a liability is a present obligation of JGN arising from past events, the settlement of which is expected to result in an outflow from JGN's resources embodying economic benefits (Australian Accounting Standard AASB137). Based on this approach JGN will assess the customer claims based on the facts submitted to it. Should the outcome of the assessment be that a liability exists, JGN will increase this provision to allow for the liability and decrease it when amounts are settled (paid). JGN assesses its claim provisions on a monthly basis and will increase or decrease them, based on the outcome of these assessments. (3) **Carbon Credit Purchases**— changes in assumed fugitive emissions and the price of carbon permits lead to changes in the provision. JGN used actual or expected changes in these drivers to update its provisions. The provision dropped to zero following the repeal of the Clean Energy Act 2011 (Cth)

2.6 Revenue and pricing

Requirement	Response
15. Revenue and Prices for Reference Services	
15.1 Provide *JGN's* calculation of the unsmoothed and smoothed revenues, and prices for the purposes of the *reference tariff variation mechanism* proposed by *JGN* using *JGN's PTRM*.	Refer to *Attachment 7.2 of JGN's 2020-25 AA proposal* for PTRM which supports the next AA period.
15.2 If *JGN* proposes to change the underlying methods in its *PTRM* compared with the approved *PTRM* for the *previous access arrangement* for the calculations referred to paragraph 15.1 describe the reasons for the changes.	JGN has adopted the PTRM issued by AER in April 2019.
16. Tariffs	
Total revenue allocation 16.1 Provide: (a) an explanation, including any relevant calculations, of the methods or principles used to allocate relevant cost pools; and (b) for rebateable services, a description of the mechanism that *JGN* will use to apply an appropriate portion of the revenue generated from the sale of rebateable services to price rebates (or refunds) to *users* of *reference services* (see r. 93 of the *NGR*).	(a) JGN sets out its approach to allocating revenue to services in section 5 of *Attachment 4.1 of JGN's AA proposal*. (b) JGN does not have any rebateable services.
Tariffs – distribution pipelines (see r. 94 of the NGR) 16.2 For each *tariff*, and if it consists of two or more charging parameters, each charging parameter for a tariff class, provide: (a) a description of how *JGN* has taken into account the long run marginal cost for the *reference service* or, in the case of a charging parameter, for the element of the service to which the charging parameter relates; (b) details of the transaction costs associated with the *tariff* or each charging parameter; (c) whether *customers* belonging to the relevant *tariff class* are able or likely to respond to price signals; and (d) an explanation of the methodology used to allocate costs.	JGN provides detail and description in sections 5 and 6 of *Attachment 4.1 of the AA proposal*.
Prudent discounts (see r. 96 of the NGR) 16.3 Identify all prudent discounts that *JGN* proposes for the *next access arrangement period* and the *users* to whom they will apply and explain: (a) how each prudent discount is necessary to respond to competition or maintain efficient use of the *pipeline*; and	JGN provides detail and an explanation in section 6 of *Attachment 4.1 of the AA proposal.*

Requirement	Response
(b) whether, including relevant calculations, *reference tariffs* would be higher without the prudent discount than they would be with the prudent discount.	
17. Reference Tariff Variations	
Reference tariff variation mechanism 17.1 Provide an explanation of: (a) the proposed *reference tariff variation mechanism* and the basis for any parameters used in the mechanism; and (b) the administrative arrangements for periodic reviews of tariffs including the timing of notifications to the *AER*.	JGN provides an explanation of our proposed tariff variation mechanism and the periodic review of tariffs in section 7 of *Attachment 4.1 of the AA proposal*.
17.2 Identify: (a) the possible effects of the proposed *reference tariff variation mechanism* on *JGN's* administrative costs and, if known, the administrative costs of *users* or potential *users*; and (b) all relevant regulatory arrangements *JGN* considers applicable to the relevant *reference services* before the commencement of the proposed *reference tariff variation mechanism*.	(a) JGN considers that the formulaic nature of our tariff variation mechanism, including the automatic adjustment factor, minimises administrative costs to JGN and our stakeholders. This is set out in section 7 of *Attachment 4.1 of the AA proposal*. (b) JGN provides the relevant regulatory arrangements in section 2 of *Attachment 1.2 of the AA proposal*.
Cost pass through mechanism 17.3 For each cost pass through event *JGN* proposes to include in its access arrangement, provide: (a) a definition and description of the cost pass through event; (b) an explanation of how the cost pass through event is uncontrollable; (c) an explanation of whether the costs of the cost pass through event are already provided for through the *operating expenditure* or *capital expenditure* forecasts, the WACC (events which affect the market generally and not just the provider are systemic risk and already compensated through the WACC), or any other mechanism or allowance; and (d) an explanation of the administrative arrangements for the cost pass through event and their relationship to other periodic reviews for other *tariff* variation mechanisms including the timing of notifications to the *AER*.	(a)–(c) refer to *Attachment 4.2 of JGN's AA proposal*. (d) JGN proposes to retain the current process for application and AER approval of a cost pass through event. The administrative arrangements are included in clause 3 and schedule 3 of the AA which aligns, where practicable, the processes for AER review and decision-making on annual tariff variations and cost pass through applications, with a prescribed maximum period of 90 business days for both.
17.4 Identify: (a) the materiality threshold *JGN* proposes for cost pass through events; (b) the possible effects of the proposed cost pass through mechanism on *JGN's* administrative costs and, if known, the administrative costs of *users* or potential *users*; and	(a) Refer to *Attachment 4.2 of the AA proposal*. JGN proposes to retain the current materiality threshold for cost pass through events. (b) The proposed pass through mechanism will minimise administrative costs because the adjustment is incorporated within the tariff variation mechanisms under the AA. (c) JGN understands that for this item, the AER is seeking information about the legislative and other regulatory obligations on JGN that might be relevant to cost pass through in the next AA. JGN considers the following regulatory arrangements

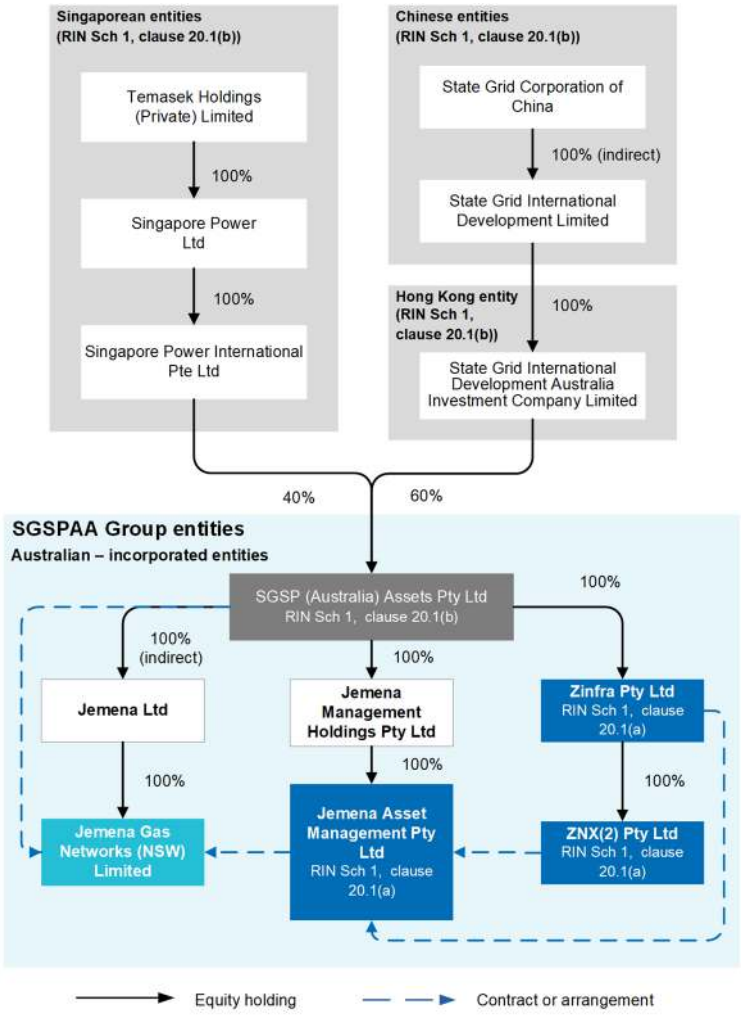
Requirement	Response
(c) all relevant regulatory arrangements *JGN* considers applicable to the relevant *reference services* prior to the commencement of the proposed cost pass through mechanism.	to be relevant (whilst noting that a cost pass through mechanism is intended to capture circumstances over which JGN has limited or no control or manage – and this would generally include changes in law – as a significant sized utility, JGN is subject to a broad range of laws at local, State and Federal levels – and may become subject to new laws during the next access arrangement, which cannot be predicted at the current point in time). **Service standard event** Potentially, the regulatory arrangements described in section 2.2 of *Attachment 1.2 of JGN's AA proposal* would be relevant. In addition, JGN notes that like all significant business undertakings, it is regulated under, and is subject to, a broad range of legislation, including (without limitation) Acts, regulations and other instruments relating to technical and safety, environmental matters, land access, native title claims, competition and consumer protection, and corporations. **Regulatory change event** As for Service Standard Event.
18. Non-Tariff Components	
Non-tariff terms and conditions 18.1 Provide: (a) details of any amendments to the non-tariff terms and conditions of the *access arrangement* that *JGN* proposes for the *next access arrangement period*; and (b) for each amendment identified in paragraph 18.1(a), explain the reasons for the proposed amendment.	JGN's amendments to the non-tariff terms and conditions and the reasons for the amendments are explained in *Attachment 9.1 Explanation of proposed revisions to the 2015AA*, and *Attachment 9.2 Explanation of proposed revisions to the 2015 Reference Service Agreement* (**RSA**).
Queuing requirements 18.2 Provide details of the process or mechanism for determining the order of priority for spare or developable capacity, (for example, whether it is to be as a first-come-first-served basis or by auction).	The queuing policy in the 2015 AA reflects drafting that was approved by IPART in 2005 (under the Gas Code), and since that time, there has not been cause for a queuing process to be required. On this basis, we have deleted the policy, and included words in the our proposed 2020-25 AA to refer to rule 103 of the National Gas Rules. If, during this AA period, the AER has cause to require JGN to include queuing requirements, JGN will respond accordingly. Refer to *Attachment 9.1 of JGN's AA proposal*.
Capacity trading requirements 18.3 Identify the rules or procedures *JGN* must accord with under r. 105 of the *NGR*.	The rules or procedures are outlined under clause 28 of the RSA. These are consistent with NGR Rule 105.
Extension and expansion requirements (see r. 104 of the NGR) 18.4 Provide: (a) details of any *extension and expansion requirements* where that *extension and expansion requirement* states that the *access arrangement* will apply to	(a) Refer to section 8 of the 2020-25 AA which deals with extension and expansion requirements.

Requirement	Response
incremental services to be provided as a result of the extension or expansion; and (b) details of the effect of those *extension or expansion requirements* identified in paragraph 18.4(a) on *tariffs*.	(b) In accordance with section 8 of the 2020-25 AA, JGN will offer the Reference Service in respect of any extensions or expansions at the Reference Tariffs. The inclusion of economic network extensions and expansions in JGN's regulatory asset base will tend to reduce reference tariffs over time on the basis that it will facilitate additional customers over which total network costs can be shared.
Change of receipt or delivery point by user 18.5 Explain: (a) how *users* may obtain consent, including identifying any relevant conditions, to change receipt or delivery points as contemplated under r. 106 of the *NGR*; and (b) where relevant, the technical or commercial considerations and other relevant conditions in the event *JGN* intends to withhold consent to a change in a *receipt or delivery point*.	(a) Clause 13 of the RSA explains how JGN's *users* may obtain consent, including identifying any relevant conditions, to change receipt or delivery points as contemplated under r. 106.
19. Indicative Impact on Residential and Business Customer Gas Bills	
19.1 If *JGN* proposes an alternative method to estimate the impact of its *proposal* on typical *customer* bills (other than that set out in *Workbook 4 – Indicative bill impact*), provide the alternative calculations, and describe the method and underlying assumptions used.	JGN has completed Workbook 4 – Indicative bill impact using the fixed percentages as required. A separate calculation of customer impacts for each customer 'archetype' has been calculated based on our proposed network tariffs for 2020-21 (included as RIN supporting document *JGN-2-19.1-1-Customer Price Impact Model-20190630*. JGN considers these calculations better reflect the customer impacts for each customer 'archetype' given: 1. it captures the effect of our proposed tariff strategies for 2020-21; 2. it uses movements in proposed tariff components (rather than movements in $/MJ) 3. it does not rely on a fixed network percentage of a customer bill.

2.7 Miscellaneous reporting

Requirement	Response
20. Related Party Transactions	
20.1 Identify and describe all entities which: (a) are a *related party* to *JGN* and contribute to the provision of *pipeline services*; or	The following are related parties who contribute to the provision of JGN's pipeline services: • Zinfra Pty Ltd (**Zinfra**)

Requirement	Response
(b) have the capacity to determine the outcome of decisions about *JGN's* financial and operating policies. The minimum threshold for these entities are for transactions greater than $1,000,000 in a *regulatory year*.	• ZNX (2) Pty Ltd (**ZNX(2)**); and • Jemena Asset Management Pty Ltd (**JAM**). The following entities have the capacity to determine the outcome of decisions about JGN's financial and operating policies: • SGSP (Australia) Assets Pty Ltd (**SGSPAA**), as the ultimate Australian holding company of the SGSPAA Group, including JGN; • Singapore Power International Pte Ltd (**SPI**), a Singaporean-incorporated entity, who holds a 40% shareholding in SGSPAA. SPI is a wholly owned subsidiary (and the investment holding company of) Singapore Power Ltd (**SP Group**), which is a wholly-owned subsidiary of Temasek Holdings (Private) Ltd; and • State Grid International Development Australian Investment Company Ltd (**SGIDAIC**), a Hong Kong-incorporated entity, who holds a 60% shareholding in SGSPAA. SGIDAIC is a wholly owned subsidiary of State Grid International Development Ltd (**SGID**), which is the investment vehicle to undertake overseas investments and operations of State Grid Corporation of China
20.2 Provide a diagram of the organisational structure depicting the relationships between all the entities identified in the response to paragraph 20.1.	A diagram of the organisational structure depicting the relationships between all the entities identified in the response to paragraph 20.1 is shown below.

Requirement	Response
	
20.3 Identify: (a) all arrangements or *contracts* between *JGN* and any of the other entities identified in the response to paragraph 20.1 currently in place or expected to	The following are arrangements or contracts between JGN and related entities identified in response to paragraph 20.1:

Requirement	Response
be in place during the period 2018-19 to 2024-25 which relate directly or indirectly to the provision of *pipeline services*; and (b) the service or services that are the subject of each arrangement or contract.	Asset Management Agreement (**AMA**) between JGN and JAM dated 24 August 2009 (as amended), is an umbrella arrangement, whereby JAM procures a range of services for JGN such as: • routine and non-routine capital works • network operations and maintenance • network performance monitoring • incident investigation and management and emergency response • lands/property management • technical services; and • stakeholder relations. JAM delivers the services to JGN via internal labour or procuring outsourced arrangements, including (as detailed below) with Zinfra and ZNX(2). Field Services Agreement (**FSA**) between JAM and ZNX(2), which commenced 1 July 2013. JGN is not a party to the FSA, but the services are procured by JAM for the benefit of JGN. ZNX(2) provides the following services in the southern regions of JGN's network: • capital construction work on JGN's low to medium pressure network • capital construction works on the secondary network (1050 kPa) • repair and maintenance work, including emergency response; and • management services associated with the above service categories. Capital Works Framework Agreement (**CWFA**) between JAM and Zinfra, which commenced 4 February 2015. JGN is not a party to the CWFA, but the services are procured for the benefit of JGN, as well as other entities within the SGSPAA Group. Under the CWFA, Zinfra provides design, engineering, estimation, planning, procurement and project management services, as well as construction services, for ad-hoc major projects. Northern Contract (**NC**) between JAM and ZNX(2), which commenced 1 August 2017. JGN is not a party to the NC, but the services are procured by JAM for the benefit of JGN. ZNX(2) provides the following services in northern regions of JGN's network: • routine construction work including mains extension, and new connections and meter sets

Requirement	Response
	• repair and maintenance work, including emergency response services; and • routine project work. Metering Services Agreement (**MSA**) between JGN, JAM and Zinfra, which commenced 8 September 2017. Zinfra provides to JAM, on behalf of JGN, gas and hot water meter services and other support services throughout the JGN Network. Arrangement to provide enterprise support functions. JAM is the cost collecting entity on behalf of the SGSPAA Group entities, including JGN, for enterprise support functions, including IT support, finance, human resources, health and safety, corporate affairs, legal services and property and procurement functions, and in accordance with the JGN Cost Allocation Method, these costs are allocated to JGN, as well as other entities within the SGSPAA Group. Financing arrangements between SGSPAA and JGN. SGSPAA procures third party funding which is made available (via the group budget) for members of the SGSPAA Group, including JGN.
20.4 For each service identified in the response to paragraph 20.3(b): (a) provide: (i) a description of the process used to procure the service; and (ii) supporting documentation including, but not limited to, requests for tender, tender submissions, internal committee papers evaluating the tenders, *contracts* between *JGN* and the relevant provider. (b) explain: (i) why that service is the subject of an arrangement or *contract* (i.e. why it is outsourced) instead of being undertaken by *JGN* itself; (ii) whether the services procured were provided under a standalone *contract* or provided as part of a broader operational agreement (or similar); (iii) whether the services were procured on a genuinely competitive basis and if not, why; and (iv) whether the service (or any component thereof) was further outsourced to another provider.	Refer to RIN supporting document *JGN-2-20.4-1-Related party outsourcing-20190630* for details of each related party contract, including the information required in response to cl20.4 and cl20.5. Also refer to RIN supporting documentation, with filenames commencing *JGN-2-20.4-2 to JGN-2-20.4-22*, for copies of contracts, award documentation and procurement information. A list of these supporting documents is included in RIN Attachment *JGN - Attachment 16 - Document Index - 20190630*, in the “RIN supporting documents” worksheet.

Requirement	Response
20.5 For each arrangement or contract identified in the response to paragraph 20.3 provide: (a) a copy of the arrangement or contract which sets out the obligations of both the other entity and *JGN*; (b) a breakdown of all services provided as part of that arrangement or contract; (c) a breakdown of costs for each service provided as part of the arrangement or contract, including separately identifying overheads, any profit margin or management fee and incentive payments; (d) a breakdown of all costs included in the contract price; and (e) any methodologies, including consultant's reports, or assumptions used to determine components of those costs included in the contract price.	Refer to the documentation provided in relation to cl 20.4 above.

2.8 Other information

Requirement	Response
21. Compliance with Section 269A of the NGL	
21.1 *JGN* must provide a statement attesting that: (a) where any expenditure or cost has been incurred or is forecast to be incurred by *JGN*, as a result of or incidental to a review under Part 5 – Merits review and other non-judicial review – of the NGL, that; (i) *JGN* has not included any of that expenditure or cost, or any part of that expenditure or cost, in its capital or operating expenditures for a access arrangement decision; and (ii) *JGN* has not recovered any of that expenditure or cost, or any part of that expenditure or cost, from end users; and (iii) *JGN* has not sought to pass through any of that expenditure or cost, or any part of that expenditure or cost, to end users; or (b) where no expenditure or cost has been incurred or is forecast to be incurred by *JGN*, as a result of or incidental to a review under Part 5 – Merits review and other non-judicial review – of the NGL, that; (i) no such expenditure or cost has been incurred or is forecast to be incurred.	JGN has not included any of that expenditure or cost related to merits review and other non-judicial review, or any part of that expenditure or cost, in its capex or opex of the 2020 Plan or the RIN templates. Further, it has not recovered such costs from end users and it has not sought to pass through such costs to end users.

Requirement	Response
22. Identification of Certain Costs in Actual Capex and Opex	
22.1 For any actual *capex* or *opex* reported in response to this *notice*, identify any part of that expenditure which can be attributed to any expenditure or cost that *JGN* has incurred as a result of, or incidental to, a review under Part 5 – *Merits review and other non-judicial review* – of the *NGL*.	JGN did incur costs in relation to *Merits review and other non-judicial review* during RY16 to RY18. JGN separately recorded and captured these costs from other pipeline expenditure. These costs are included as an adjustment to JGN's statutory accounts. This means that such costs are excluded from the pipeline costs in templates.

3. Schedule 3 – Historical information

Requirement	Response
1. Provide Historical Financial Information	
1.1 For each adjustment made to audited statutory accounts in *Workbook 2 – Historical data* and *Workbook 5 – Annual data*, *regulatory template* F1. Income and F4. Opex, *JGN* must in the *basis of preparation*: (a) specify the amount of the adjustment; and (b) describe the nature and basis of each adjustment.	All amounts and descriptions of the adjustments to the audited statutory accounts are listed in table F4.1.2 and F4.2.2 and F1.2. The nature and basis for each adjustment is contained in the Basis of Preparation, *JGN - Attachment 2 - Basis of preparation – 20190630*.
1.2 Provide: (a) the regulatory accounting principles and policies and the capitalisation policy for the relevant regulatory year; (b) a statement of policy for determining: (i) the allocation of costs for the relevant *regulatory year;* and (ii) the allocation of overheads for the relevant *regulatory year.*	JGN has included as part of this submission: (a) its regulatory accounting principles and policies (see RIN supporting document *JGN-3-1.2(a)-1-Regulatory Accounting Principles & Policies-20190630*) and two capitalisation policies (see RIN supporting documents *JGN-3-1.2(a)-2-Capitalisation Policy: Property, Plant & Equipment (JAA FIN GU 0012)-20181123* and *JGN-3-1.2(a)-3-Capitalisation Policy: Intangible Assets (JAA FIN GU 0013)-20181123* for the current AA period. (b) The Jemena cost allocation methodology, which sets out the procedure of cost attribution to the Jemena Group assets (ie. the attribution of costs to JGN), is included as RIN supporting document *JGN-1-1.3-1-Jemena-Cost Allocation Methododology-20190205* and JGN's cost allocation model, which establishes the method of attributing JGN costs to services, is included as Attachment 6.5 of JGN's AA proposal. (i) All costs that are allocated to JGN and to its pipeline services are performed in accordance with the Jemena Group and JGN cost allocation methodologies. All allocated costs are relevant to each regulatory year, with appropriate external audit procedures performed over these costs and in accordance with the RIN requirements. (ii) JGN allocates overheads directly to its pipeline services and where it cannot, a causal driver is used to allocate these costs.
1.3 Identify all *material* changes in the policies provided in the response to paragraph 1.2(b) compared to the previous *regulatory year*. For each change identified: (a) explain the nature of and the reasons for the change; and (b) quantify the effect of the change on the *regulatory templates* for the relevant *regulatory year*.	There have been no material changes to the policies and procedures used to allocate costs and overheads.

Requirement	Response
1.4 Identify each difference (where the difference is equal to or greater than ±10 per cent) between expenditure reported in the *regulatory templates* and expenditure provided for in the *current access arrangement*, where a forecast exists in the *current access arrangement*, for the following: (a) total actual augmentation capex and forecast augmentation capex; (b) total actual non-system capex and forecast non-system capex; and (c) total actual opex and total forecast opex.	(a)-(b) For capex these differences and the reasons for each difference is set out in section 3 of *Attachment 5.1 of JGN's AA proposal.* (c) For opex, the differences and the reasons for the differences are set out in section 3 of *Attachment 6.1 of JGN's AA proposal.*
1.5 Explain the reasons for each difference identified in response to paragraph 1.4.	See response for 1.4, above.
2. Compliance with Current Access Arrangement	
Cost pass through 2.1 Describe the processes and procedures JGN has in place to: (a) identify negative cost pass through events under the *current access arrangement*, and (b) determine the materiality (as defined in clause 3.4 (c) of the *current access arrangement)* of cost decreases.	These are described in *Attachment 4.2 of JGN's AA proposal.*
Tariff class assignment 2.2 Identify each refusal *JGN* has made during the relevant *regulatory year* to the tariff class nominated by a *user* or prospective *user* in its *request for service* under clause 4.1(c) of the *current access arrangement* including: (a) the name of the *user* or prospective *user*; (b) the date upon which the request was made; and (c) the date upon which *JGN* responded to the request.	There were none.

Requirement	Response
Tariff class re-assignment 2.3 Describe the processes and procedures *JGN* has in place to determine if the re-assignment of a *delivery point* to a different *tariff class* under clause 4.2(a)(i) of the *current access arrangement* is necessary.	JGN automatically assigns volume customers to the VI tariff with VB sites being manually updated to VB as part of the meter activation process. Demand customers are assigned as part of the request for service process.
2.4 Identify each *delivery point* re-assignment *JGN* has made during the *relevant regulatory year* under clause 4.2 (a)(i) of the *current access arrangement* including: (a) the name of the *delivery point*; (b) the date upon which the re-assignment occurred; and (c) how many *users* were affected by the re-assignment.	21 delivery points were reassigned to the correct tariffs class affecting three users. The delivery points were:

Delivery point	Reassignment date
[redacted]	

<table>
<tr><th>Requirement</th><th>Response</th></tr>
<tr><td>2.5 Describe the processes and procedures JGN has in place to determine if the re-assignment of a delivery point to a different tariff class under clause 4.2(a)(ii) of the current access arrangement is necessary.</td><td>On an ad hoc basis JGN reviews customer consumption to identify if a customer should be assigned to a demand tariff rather than a volume tariff and vice versa.</td></tr>
<tr><td>2.6 Identify each delivery point re-assignment JGN has made during the relevant regulatory year under clause 4.2 (a)(ii) of the current access arrangement including:
(a) the name of the delivery point;
(b) the date upon which the re-assignment occurred; and
(c) how many users were affected by the re-assignment.</td><td>The following delivery points have been reassigned as they no longer qualify for the assigned tariff:<table><tr><th>Name of Delivery Point</th><th>Date Reassigned</th><th>User</th></tr><tr><td colspan="3">[redacted]</td></tr></table></td></tr>
<tr><td>2.7 Describe the processes and procedures JGN has in place to determine if the re-assignment of a delivery point to a different tariff class under clause 4.2(a)(iii) of the current access arrangement is necessary.</td><td>The processes and procedures to reassign delivery points to a different tariff class following the withdrawal of a tariff class will depend on the tariff class being withdrawn and will be determined at that time.</td></tr>
<tr><td>2.8 Identify each tariff re-assignment JGN has made during the relevant regulatory year under clause 4.2(a)(iii) of the current access arrangement including:
(a) the tariff class which has been withdrawn;
(b) the date upon which the tariff class was withdrawn; and
(c) how many users were affected by the tariff class being withdrawn.</td><td>No tariffs have been withdrawn during the current AA period.</td></tr>
<tr><td>2.9 Describe the processes and procedures JGN has in place to determine if the re-assignment of a tariff class to a delivery point under clause 4.2(c) of the current access arrangement is necessary.</td><td>On receipt of a user request for re-assignment to a different tariff class, JGN reviews the request to determine if the delivery point satisfies the criteria for the requested tariff class as set out in Schedule 2 of JGN’s AA. Where the delivery point does satisfy the criteria, it will be re-assigned to the requested tariff class.
The user is notified of the outcome of their re-assignment request.</td></tr>
<tr><td>2.10 Identify each tariff re-assignment JGN has made during the relevant regulatory year under clause 4.2(c) of the current access arrangement including:
(a) the name of the user who made the request;
(b) the date upon which the request was made; and
(c) whether JGN agreed to the request.</td><td>The following users requested tariff re-assignment:<table><tr><th>User</th><th>Date Requested</th><th>Result</th></tr><tr><td colspan="3">[redacted]</td></tr></table></td></tr>
</table>

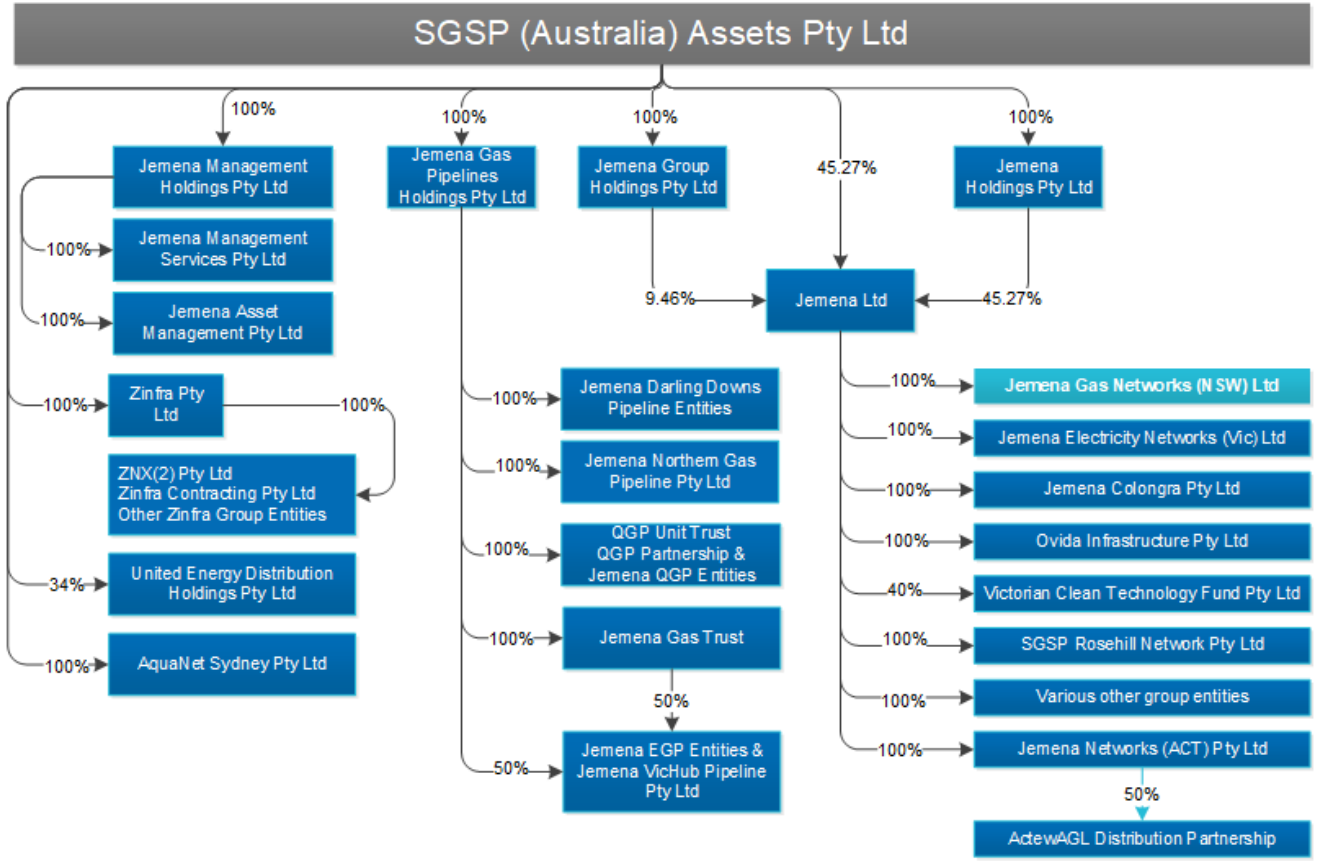
Requirement	Response
	[redacted]
3. Cost Allocation to JGN	
3.1 Identify each item in the *regulatory templates* that is: (a) not allocated on a *directly attributable* basis but is allocated on a causation basis to *JGN*; or (b) not allocated on a *directly attributable* basis and cannot be allocated on a causation basis to *JGN*.	(a) the following items, mainly shared service type activities, are not allocated on a directly attributable basis but are allocated on a causation basis to JGN: • Customer and Markets - support costs for the delivery of JGN's customer pricing and services • Office of Managing Director - support management and business planning obligations • Property costs – allocation of corporate property costs to JGN • Other Enterprise Support (Corporate) Functions - support functions costs support JGN's corporate management and related services, e.g. IT, Legal, Finance, People Safety and Environment (c) JGN does not have costs that are allocated on a directly attributable basis and cannot be allocated on a causation basis.
3.2 For each item identified in the response to paragraph 3.1(a): (a) state the amount of the item that has been allocated; (b) explain the method of allocation and reasons for choosing that method; and (c) state the amount of the allocator(s) used.	

Opex				
Customer & Markets (C&M) -Provision and management of pricing, customer service and new product innovation services. Costs include residual labour costs and non-labour costs.	Method: time writing data based driver. Reason: C&M costs support the delivery of Jemena's customer pricing & services, including those of JGN. Costs are attributed to C&M activities based on time writing and goods receipting. Residual C&M costs are allocated using time writing data. The time writing data reflects the time recorded by staff to JGN.	2,620,835 70%	789,092 36%	344,018 12%
Office of Managing Director (MD)-Management of MD activities, include	Method: time writing data based driver. Reason: MD costs support management and business planning obligations, including those of	1,564,776 58%	1,172,948 46%	990,591 59%

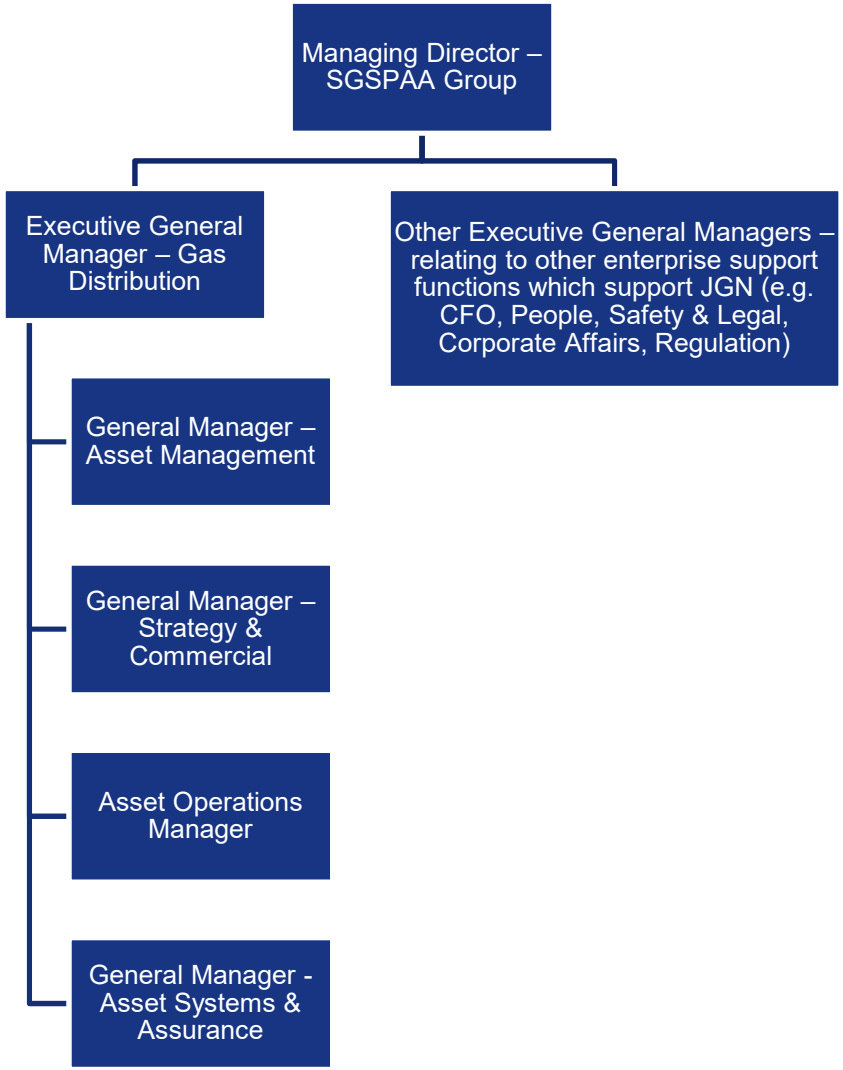
Requirement	Response				
	residual labour costs and non-labour costs.	JGN. Costs are attributed to MD activities based on time writing and goods receipting. Residual MD costs are allocated using time writing data. The time writing data reflects the time recorded by staff to JGN.			
	Other Enterprise Support (Corporate) Functions - Provision of various services to JGN by Corporate functions. These include Corporate governance, Information Technology, Legal, People, safety and environment management. Costs include residual labour costs and non-labour costs	Method: time writing data based driver. Reason: Other enterprise support functions costs support Jemena's corporate management and related services, including those of JGN. Costs are attributed to corporate activities based on time writing and goods receipting. Residual other enterprise support functions costs are allocated using time writing data. The time writing data reflects the time recorded by staff to JGN.	433,103 4%	1,412,906 17%	2,477,130 66%
	Property costs - Property cost includes corporate offices cost at Collins St and Walker St	Method: Walker St and Collins St allocated cost to JGN as per estimated seats allocated to JGN. Costs are attributed to corporate activities based on time writing and goods receipting. Reason: These buildings support the JGN business.	9,021,580 56%	9,160,175 54%	9,204,168 54%
	Capex				
	IT Projects Cost includes update in the systems, GIS implementation, Learning Management, Lifecycle upgrade	Method: time writing data based driver. Reason: The timewriting data allows accurate work effort to be determined for these JGN projects.	4,752,101 47%	16,246,640 53%	11,383,753 48%
3.3 For each item identified in the response to paragraph 3.1(b): (a) state its amount; (b) state whether it was material; (c) explain the method of allocation and reasons for choosing that method; and (d) explain the reason(s) why it cannot be allocated on a causation basis.	JGN does not have costs that are not allocated on a directly attributable basis and cannot be allocated on a causation basis.				

<table>
<tr><th>Requirement</th><th>Response</th></tr>
<tr><td>4. Related Party Transactions</td><td></td></tr>
<tr><td>4.1. Identify each transaction for an amount greater than $1,000,000 relating to the provision of reference services between JGN and a related party and for each transaction provide the following:
(a) state the name of the related party;
(b) explain the nature and purpose of the transaction, including the good(s) or service(s) provided by the related party;
(c) state the actual costs incurred in providing the good(s) or services(s), not including any profit margin or management fee;
(d) state the actual payment received for providing the good(s) or services(s), including any profit margin or management fee;
(e) explain how the payment for the good(s) or service(s) was determined;
(f) for transactions where JGN receives payment, explain how the payment for the good(s) or service(s) is reflected in the Workbook 2 – Historical data and Workbook 5 – Annual data regulatory templates; and
(g) for transactions where JGN makes payment, identify the regulatory asset class, capex driver or opex category to which the cost(s) is allocated.</td><td>(a)-(c),(e), Refer to Historic RIN template F, Table F6.1.1 for details. RIN supporting document JGN-2-20.4-1-Related party outsourcing-20190630 also provides further details about the services and costs for the related party transactions.
(d),(f) JGN did not receive any payments greater than $1,000,000 from related parties.
(g) Regulatory asset class/capex driver, and opex categories to which the costs are allocated are:
<table>
<tr><th>Capex drivers</th><th>Opex categories</th></tr>
<tr><td colspan="2">Jemena Asset Management Pty Ltd</td></tr>
<tr><td>• Connections
• Mains augex
• Mains repex
• Meter replacement
• Non Network
• ICT
• Other capex</td><td>• Maintenance
• Emergency Response
• Management
• Network planning
• Network control and operational switching
• Project governance and related functions
• Quality and standard functions
• Other network overheads
• Information technology
• Corporate
• Pigging/integrity digs, ad-hoc, mains renewal
• Management administration and overheads
• Other direct expenditure
• Government levies
• Marketing
• Unaccounted for gas expenditure
• Ancillary reference services
• Non reference services</td></tr>
<tr><td colspan="2">ZNX(2) Pty Ltd</td></tr>
<tr><td>• Connections
• Mains augex
• Mains repex
• Meter replacement
• Other capex</td><td>• Operating - Maintenance
• Operating - Emergency response
• Operating - Network planning
• Other network overheads
• Non-operating - Other direct expenditure
• Operating - Quality and standard functions</td></tr>
<tr><td colspan="2">Zinfra Pty Ltd</td></tr>
<tr><td>• Connections
• Mains augex
• Mains repex</td><td>• Operating - Maintenance</td></tr>
</table></td></tr>
</table>

Requirement	Response
	• Other capex
5. Charts	
5.1 Provide charts that set out: (a) the group corporate structure of which *JGN* is a part; and (b) the organisational structure of *JGN*.	The group corporate structure and organisational structure relevant to JGN are shown below. We have shown the organisational structure relevant to the day to day operation of JGN to the General Manager level. JGN is also supported by corporate services functions, also summarised.



Requirement	Response



4. Schedule 4 – Prepare and maintain information

Requirement	Response
1. Prepare Information	
1.1 Prepare the Microsoft Excel Workbooks attached at Appendix A in the manner and form specified in the worksheets therein and in accordance with this *notice.*	JGN has completed all workbooks as required. Refer to RIN Attachments 3 to 12, listed in Table OV–1on page iv.
1.2 For information other than *forecast information*, prepare a *basis of preparation* in accordance with the requirements specified in Schedules 1, 2 and 3. The *basis of preparation* must: (a) demonstrate how the information provided is consistent with the requirements of this *notice*; (b) explain the source from which *JGN* obtained the information provided; (c) explain the methodology *JGN* applied to provide the required information, including any assumptions *JGN* made; and (d) explain, in circumstances where *JGN* cannot provide input for a variable using *actual information* and therefore must provide input using *estimated information*: (i) why an estimate was required, including why it was not possible for *JGN* to use *actual information*; and (ii) the basis for the estimate, including the approach used, assumptions made and reasons why the estimate is *JGN's* best estimate.	JGN has prepared a standalone report explaining the basis of preparation of the historical information submitted in the templates. Refer to the Basis of Preparation (included as *JGN - Attachment 2 - Basis of preparation - 20190630*). The Basis of Preparation explains the source of the information, assumptions and methodology used to populate the historical data templates. It also explains whether the data reported in the template is 'actual information' provided from JGN's records/systems or whether it is 'estimated information' using JGN's best estimate.
1.3 Prepare all information required under this *notice* in a manner and form: (a) that is in accordance with the requirements at Schedules 1, 2 and 3 which: (i) is in an electronic format; (ii) includes any underlying calculations and formulae; (iii) is not password protected; (iv) where relevant, allows for precedents and dependants to be traced; and (v) is fully searchable, in text readable format and is capable of text selection and a 'copy and paste' function being applied to it (we prefer that all files be provided in Microsoft Word or PDF; templates must be in Microsoft Excel) and (b) that is readily available for inspection by, or submission to, the *AER*.	JGN has prepared all information required by the notice as explained through this document. JGN has kept appropriate and complete records of all workings and calculations used to derive the data submitted in its response to the RIN.
1.4 Prepare, using a person(s) who satisfies the requirements of paragraph 2 of Appendix C, an a*udit opinion report* and *review conclusion statement*(s) (as applicable) in accordance with the requirements of this *notice*.	JGN engaged an appropriate auditor to review its RIN response as required. Refer to the audit conclusion statements and opinion reports (*JGN - Attachment 14 - KPMG - Audit opinions - 20190630*)

Requirement	Response
2. Maintain Information	
2.1 Maintain, from the date of this *notice* until 30 June 2027, all information prepared under this Schedule 4.	JGN has kept complete records of all information prepared in this RIN response.

5. Appendix E – Instructions

5.1 Part A: General

Requirement	Response
1. General	
1.1 The financial data must: (a) be derived from the *audited statutory accounts*; (b) be verifiable by reference to the *audited statutory accounts*; (c) be prepared using the accrual basis of accounting; (d) report the substance, over the form, of a transaction, taking into account all aspects, implications and expectations of and motivations for the transaction and that a group or series of transactions that achieves, or is designed to achieve, an overall commercial effect shall be viewed in aggregate; (e) only include costs that are incurred in or relate to the provision of *pipeline services*; (f) be presented on a fair and consistent basis, from the *accounting records* that underlie the costs, revenue, assets employed and liabilities that may be reasonably attributed to *JGN*; (g) in so far as is reasonably practicable, be prepared in accordance with the general rules and format, and use the accounting principles and policies applicable to the *audited statutory accounts* except as otherwise required by this *notice*; (h) be presented in an understandable manner, without sacrificing relevance or reliability; (i) state fairly the financial position of *JGN*; and (j) unless otherwise specified, not be adjusted for inflation.	The financial information reported in JGN's RIN templates (*RIN Attachments 3 to 12*) has been prepared using the data underlying the financial statements, which meet the definition of Audited Statutory Accounts in the RIN. Costs and revenues reported in the financial statements and the RIN templates have been reported on an accrual accounting basis and comply with these requirements. A reconciliation between the expenditure reported in JGN's regulatory templates and financial statements has been provided as part of the RIN response. Refer to RIN supporting document *JGN-E.A-1.1-1-Capex reconciliation between regulatory templates and financial statements-20190630* and the 'adjustments' Table 4.1.2 of template F4, in RIN Attachment 6 (JGN - Attachment 6 - Workbook 2 - Historical data - Consolidated – 20190630) for the opex reconciliation. The reconciliation shows the costs that relate to the provision of pipeline services as reported in the templates.
1.2 Provide all *financial information* on a *regulatory year* basis and set out: (a) whether the information provided is *actual information*, *estimated information* or *forecast information*. For information which is forecast or estimated provide the basis of the forecast or estimate information in the basis of preparation; (b) the units of measurement for parameters or values used to derive or infer values; and (c) whether the information is expressed in nominal, real or another basis and include the base year of information where relevant.	JGN has complied with these requirements.

Requirement	Response
1.3 All financial information provided in the regulatory templates must be: (a) on a *regulatory year* basis, unless otherwise specified; (b) actual or estimated *financial information* for the first three years of the *current access arrangement period,* with estimated *financial information* only included in the *regulatory templates* where *JGN* certifies that it is not possible to provide actual *historical information*; (c) forecast *financial information* for year four of the *current access arrangement period*, to be updated with *actual information* when that becomes available during the review; (d) forecast information as appropriate for year five of the current access arrangement period; (e) forecast financial information for the next access arrangement period; and (f) where required, actual *financial information* for the five years of the *previous access arrangement period*.	JGN has complied with these requirements.
1.4 All expenditure forecasts for the last two regulatory years of the *current access arrangement period* provided to the AER in response to this *notice* must be in real June 2020 dollars, unless specified otherwise.	JGN has complied with these requirements. Refer to RIN supporting document *JGN-E.B-1.4-1-RIN Reconciliation model- Part B-20190630.* Expenditure forecasts for the RY19 and RY20 years have been reported in real 2020 dollars.
1.5 All expenditure forecasts for the *next access arrangement period* provided to the *AER* in response to this *notice* must be in real June 2020 dollars and on a *regulatory year* basis, unless specified otherwise.	JGN has complied with these requirements. Refer to RIN supporting document *JGN-E.B-1.4-1-RIN Reconciliation model- Part B-20190630.* Expenditure forecasts for the RY21 and RY25 years have been reported in real 2020 dollars.
1.6 All historical financial information provided to the AER in response to this notice must be in nominal dollars, unless specified otherwise.	Historical information reported in the templates has been reported in nominal dollars unless otherwise required by the Notice.
1.7 Provide any calculations used to convert real to nominal dollars or nominal to real dollars for the purposes of providing the information required under paragraphs 1.2 and 1.3 above.	Refer to RIN supporting document *JGN-E.B-1.4-1-RIN Reconciliation model- Part B-20190630*
1.8 *JGN* must: (a) complete and submit the workbooks at Appendix A and ensure they contain all information required by the *notice.* The file name for each of these workbooks is to contain the words *'*Consolidated Information'; (b) highlight all information that is subject to a confidentiality claim in each workbook using the confidentiality macro in the workbook. The file name for each of these workbooks is to contain the word 'Confidential'; (c) copy all actual historical information into new workbook/s. The file name for this workbook is to contain the words *'*Actual Information;	JGN has prepared all the workbooks required by the Notice, marked confidential information appropriately and complied with the naming conventions. Refer to *RIN Attachments 3 to 12* for the workbooks.

Requirement	Response
(d) copy all estimated historical information into new workbook/s. The file name for this workbook is to contain the words 'Estimated Information; and (e) prepare a public version of the consolidated version of each workbook.	
2. Reconciliation	
2.1 Where *historical information* provided in the *regulatory templates* has previously been reported to the *AER*: (a) this information must reconcile with the previously provided information; or (b) explain why the information does not reconcile with the previously provided information.	Refer to Appendix G of *JGN - Attachment 2 - Basis of preparation - 20190630*
2.2 *Capital expenditure* and *operating expenditure* forecasts provided in the *regulatory templates* must be reconciled to the ex-ante capital and operating allowances in *PTRM* for the *next access arrangement period*.	JGN has complied with these requirements. Refer to RIN supporting document *JGN-E.B-1.4-1-RIN Reconciliation model- Part B-20190630*
2.3 Actual *capital* and *operating expenditure* must be reconciled to the *JGN's audited statutory accounts*. Where *JGN* is part of a corporate group that reports this information at the corporate group level, *JGN* must reconcile to the information reported at the corporate group level. Where reconciliation is at the corporate group level *JGN* must: (a) allocate statutory reported expenditures to *JGN* and indicate the method of allocation; (b) show calculations for any allocation; and (c) indicate where any changes in allocation method or calculations have occurred in relation to the historical data and how these changes have been adjusted for in the use of the data.	JGN is not part of a corporate group and is a stand-alone legal entity within the Jemena Ltd Group. The reconciliation occurs at the JGN entity level (ie. no allocation is required). The reconciliation of the actual opex to the JGN's financial statements is reflected in the 'adjustments' Table 4.1.2 of template F4, in RIN Attachment 6 *(JGN - Attachment 6 - Workbook 2 - Historical data - Consolidated – 20190630)*. The reconciliation of the actual capex to the JGN's financial statements is reflected in RIN supporting document *JGN-E.A-1.1-1-Capex reconciliation between regulatory templates and financial statements-20190630*.
2.4 Expenditure should only be reported once across the *regulatory templates*. Expenditure that may be allocated across multiple *regulatory templates*, including between *capex categories*, between *opex categories* or between *capex* and *opex categories*, should be allocated to the regulatory template that it most closely relates to in *JGN's audited statutory accounts.* For example expenditure which could be allocated between the *'Overheads'* and *'Other non-distribution system' capex regulatory templates* should be allocated to the *'Overheads'* template.	JGN has complied with these requirements.
2.5 Where expenditure is recovered under another building block component allowances (e.g. cost of capital transaction costs) that could be classified as either *operating expenditure* or *capital expenditure* in regulatory or *audited statutory accounts*, demonstrate that this expenditure is only recovered once in the forecast total regulatory expenditure.	JGN has complied with these requirements by including expenditure only once under opex or capex. It has taken steps to ensure that the costs are not replicated even in forecasts – for example a negative step change has been proposed in the opex model to account for capitalised corporate overheads in first half of 2020-21. The proposed debt

Requirement	Response
	raising costs for 2020-25 period are only included under opex based on AER's PTRM and not included as part of capex.
3. Basis of Preparation	
3.1 *JGN* must explain the basis upon which *JGN* prepared information to populate the input cells (*basis of preparation*) for all information (other than *forecast information*) in the *regulatory templates*.	JGN has prepared a standalone report explaining the basis of preparation of the historical information submitted in the templates. Refer to *JGN - Attachment 2 - Basis of preparation - 20190630*
3.2 The *basis of preparation* must be a separate document (or documents) that *JGN* submits with its completed *regulatory templates*.	JGN has prepared a standalone report explaining the basis of preparation of the historical information submitted in the templates. Refer to RIN Attachment *JGN - Attachment 2 - Basis of preparation - 20190630*
3.3 The *basis of preparation* must follow a logical structure that enables auditors, assurance practitioners and the *AER* to clearly understand how *JGN* has complied with the requirements of this *notice*.	JGN's Basis of Preparation is structured using the same logical structure as the RIN templates issued by the AER (see RIN Attachment *JGN - Attachment 2 - Basis of preparation – 20190630)*
3.4 At a minimum, the *basis of preparation* must meet the requirements of Schedule 4, paragraph 1.2.	JGN's Basis of Preparation meets these requirements RIN Attachment *JGN - Attachment 2 - Basis of preparation – 20190630)*. Refer to JGN's response to Schedule 4, paragraph 1.2.
3.5 *JGN* may provide additional detail beyond the minimum requirements if *JGN* considers it may assist a user to gain an understanding of the information presented in the *regulatory templates*.	JGN has provided further explanation in the Basis of Preparation where it was needed. Refer to RIN Attachment *JGN - Attachment 2 - Basis of preparation - 20190630*
3.6 When reporting an audit opinion report, review conclusion statement or making an attestation report on the *regulatory templates* presented by *JGN*, an *auditor* or assurance practitioner shall opine or attest by reference to *JGN's basis of preparation*.	The auditor engaged by JGN has attested reference to the Basis of Preparation (RIN Attachment *JGN - Attachment 2 - Basis of preparation - 20190630*) in its conclusion statements and opinion reports (RIN Attachment *JGN - Attachment 14 - KPMG - Audit opinions - 20190630*).
4. Completing the Workbooks	
Entry of variables **Variables in yellow cells** 4.1 Only yellow cells are to be used for inputs by *JGN*. If *JGN* does not provide a response to data requested in the *regulatory templates*, it must explain why it is not able to provide a response.	JGN has completed all yellow cells in the templates using as many rows as necessary to complete the information required. Where JGN was not able to complete templates that were not relevant or not applicable, the reasons for not populating the yellow cells has been explained in the Basis of Preparation (RIN Attachment *JGN - Attachment 2 - Basis of preparation – 20190630)*
Variables in grey cells 4.2 Cells coloured grey do not require input and must not be amended by *JGN*. These cells either are not relevant to *JGN* or contain formulae	JGN has not populated the grey cells.

Requirement	Response
Numerical inputs 4.3 All amounts are to be unrounded and reported on a one for one basis: that is 1000 is to be entered as '1000', not '1' or '0.001'.	JGN has reported the data on a one for one basis in the units required.
Identification of confidential information 4.4 In respect of the *regulatory templates*, *JGN* must: (a) complete the applicable Microsoft Excel Workbooks attached at Appendix A; (b) highlight all information that is subject to a confidentiality claim using the confidentiality macro in the workbooks; (c) prepare a public version of the workbooks that may be published by the *AER*; (d) prepare a consolidated versions of the workbooks containing all confidential and public information; and (e) submit all Microsoft Excel Worksheets to us.	JGN has completed the workbooks as required and marked confidential information appropriately. Refer to *RIN Attachments 3 to 12* for all workbooks.
4.5 In respect of all other information provided in response to this *notice*, *JGN* must: (a) highlight all information that is subject to a confidentiality claim so that it can be clearly identified in print and electronic versions of the document; and (b) prepare a public version of the workbooks or documents that may be published by the *AER*.	JGN has, for all other information provided in response to this notice, marked confidential information appropriately and prepared public versions. Refer to *JGN - Attachment 13 - Confidentiality claims - 20190630* for details of each claim.

5.2 Part B: Workbook 1 – Reset data

Requirement	Response
1. Connections – Capital Expenditure	
1.1 *Workbook 1 – Reset (forecast) data* and *Workbook 2 – Historical data*, regulatory template E5. New Connections - Table E5.1 instructions: (a) Provide supporting information for the data input into the table E5.1.2 Unit rates. For example, if the forecast is based on: (i) Contracts – provide *documents* which show that the contract outcomes are the result of a competitive tender and the contracts which specify the amounts relied upon; or (ii) Cost build up – provide the excel sheet model with sufficient information that the cost assumptions may be tested.	In the historical template, JGN has complied with these requirements. Refer to the Basis of Preparation for further details (RIN Attachment *JGN - Attachment 2 - Basis of preparation – 20190630)* To forecast connections expenditure JGN has developed its connections forecasting model (*JGN-2-3.15-2-Connections capex forecast model-20190630*) which produces a forecast on a direct un-escalated basis. JGN's capex forecast model (*Attachment 5.2 to JGN's AA proposal*) then applies escalation and overheads to the outputs of the connections forecasting model. The output of the capex forecast model, converted to real $2020 in the RIN reconciliation model - Part A (*JGN-E.B-1.1(a)-1-RIN Reconciliation model- Part A-20190630*), is then used to complete the forecast RIN sheets. A detailed explanation of the connections forecasting (including how the forecast takes into account latest market prices) is provided in *JGN-2-3.15-2-Connection and metering forecasting methodology-20190630*.
2. Mains Augmentation – Capital Expenditure	
2.1 General: (a) Do not include *mains augmentation* information relating to connections in this worksheet. *Mains augmentation* in relation to connections are to be reported in *regulatory template* E5. New Connections (tables E5.1 and E5.2).	In the historical template, JGN has complied with these requirements. Refer to the Basis of Preparation for further details (RIN Attachment *JGN - Attachment 2 - Basis of preparation – 20190630*). In the forecast template, JGN has complied with this requirement.
2.2 *Workbook 1 – Reset (forecast) data* and *Workbook 2 – Historical data,* regulatory template E3. Mains Augex - Table E3.1 instructions: (a) For each *project* for which expenditure was incurred during the *previous* or *current access arrangement period* or for which expenditure is forecast to be incurred over the *next access arrangement period*, and the total cumulative expenditure over the life of the *project* is greater than or equal to $500,000 (real $June 2020), specify: (i) an *internal identification code*, in order to report actual expenditure against forecast expenditure; (ii) *asset categories* to which the *project* belongs and the percentage allocations across the *asset categories*, in order to allocate	In the historical template, JGN has complied with these requirements. Refer to the Basis of Preparation for further details (RIN Attachment *JGN - Attachment 2 - Basis of preparation – 20190630*). With reference to item 2.2 (a) (ii), JGN does use percentage allocation across the asset categories. JGN's asset categories are based on the cost it incurs at the project level. JGN's capex forecast model provides a list of all forecast mains augmentation projects. Each project has been assigned with a project number, project name, asset category and the total gross expenditure to be incurred in the next AA period. The outputs of the capex forecast model, converted to real $2020 and aggregated up for projects with total gross

Requirement	Response
modifications to *capex category* expenditure to the appropriate *asset categories*; and (iii) the *project* name used internally. (b) Provide the total expenditure for all *projects* in aggregate, for which expenditure was incurred during the *previous* or *current access arrangement period* or for which expenditure is forecast to be incurred over the *next access arrangement period*, and the total cumulative expenditure over the life of each *project* is less than $500,000 (real $June 2020). (c) The expenditure included in tables 3.1(A to E) are to be gross of customer contributions, with customer contributions separately reported in Table E3.1(F). Forecast expenditure must exclude escalation.	expenditure of less than $500,000 in the RIN reconciliation model - Part A (*JGN-E.B-1.1(a)-1-RIN Reconciliation model- Part A-20190630*), is then used to complete the forecast RIN sheets. The gross forecast expenditure excludes inflation. Any forecast customer contributions have been reported in accordance with the specified requirements.
3. Mains Replacement Capital Expenditure	
3.1 *Workbook 1 – Reset (forecast) data* and *Workbook 2 – Historical data*, regulatory template E2. Mains Repex - Table E2.1.1 and Table E2.2.1 instructions: (a) For each *proactive mains replacement project* for which expenditure was incurred during the *previous* or *current access arrangement period* or for which expenditure is forecast to be incurred over the *next access arrangement period*, and the total cumulative expenditure over the life of the *project* is greater than or equal to $500,000 (real $June 2020), specify: (i) an *internal identification code*, which will enable *JGN* to report actual expenditure against forecast expenditure; (ii) the *asset categories* to which the *project* belongs and the percentage allocations across the *asset categories*, in order to be able to allocate modifications to *capex category* expenditure to the appropriate *asset categories;* and (iii) the *project* name used internally. (b) Provide the total expenditure and volume in metres for all *proactive mains replacement* projects in aggregate, for which expenditure was incurred during the previous or current access arrangement period or for which expenditure is forecast to be incurred over the next access arrangement, and the total cumulative expenditure over the life of each project is less than $500,000 (real $June 2020). (c) The expenditure included in Table E2.1.1(A to E) for *proactive mains replacements* are to be gross of customer contributions, with customer contributions separately reported in Table E2.1.1(F). Forecast expenditures must exclude escalation.	In the historical template, JGN has complied with these requirements. Refer to the Basis of Preparation for further details (RIN Attachment *JGN - Attachment 2 - Basis of preparation – 20190630*). With reference to item 3.1 (a) (ii), JGN does use percentage allocation across the asset categories. JGN's asset categories are based on the cost it incurs at the project level. JGN's capex forecast model provides a list of all forecast proactive mains replacement projects. Each project has been assigned with a project number, project name, asset category and the total gross expenditure to be incurred in the next AA period. The outputs of the capex forecast model, converted to real $2020 and aggregated up for projects with total expenditure of less than $500,000 in the RIN reconciliation model - Part A (*JGN-E.B-1.1(a)-1-RIN Reconciliation model- Part A-20190630*), is then used to complete the forecast RIN sheets. The volume in metres for these mains replacement projects specified in the project options analysis in Clause 3.15 of the RIN documents (*JGN-2-3.15-2-10022499-Haberfield / Strathfield / Campsie 7kPa-OA-20190329, JGN-2-3.15-2-10022510-Matraville 2kPa and 7kPa-OA-20190322, JGN-2-3.15-2-10022511-Newcastle MP1 (30kPa) Rehabilitation-OA-20190325, JGN-2-3.15-2-10022731-Kurri Kurri Rehabilitation (100kPa)-OA-20190326, JGN-2-3.15-2-10022734-Bankstown / Chullora / Greenacre 7kPa-OA-20190327, JGN-2-3.15-2-10022504-Mittagong Rehab-Gate 1-20180904*), are consolidated in the forecast RIN population model. These volumes are also aggregated up for projects with total gross expenditure of less than $500,000. The gross forecast expenditure excludes inflation. Any forecast customer contributions have been reported in accordance with the specified requirements.

Requirement	Response
3.2 *Workbook 1 – Reset (forecast) data* and *Workbook 2 – Historical data*, regulatory template E2. Mains Repex - Table E2.1.2 instructions: (a) The expenditure included in Table E2.1.2(A to E) for *reactive mains replacements* are to be gross of customer contributions, with customer contributions separately reported in Table E2.1.2(F). Forecast expenditures must exclude escalation.	JGN has complied with these requirements.
4. Meter Replacement	
4.1 Workbook 1 – Reset (forecast) data and Workbook 2 – Historical data, regulatory template E4. Meter replacement - Table E4.1.3 instructions: (a) The expenditures incurred for new meter installations are inclusive of the expenditures to remove existing meters. If the existing meters are removed and not replaced, the removal expenditures incurred are to be treated as operating expenditure, and not reported in tables E4.1.1 to E4.1.4.	In the historic template, JGN has complied with these requirements. Refer to the Basis of Preparation for further details (RIN Attachment *JGN - Attachment 2 - Basis of preparation – 20190630*). In the forecast RIN template, JGN has complied with these requirements.
4.2 Workbook 1 – Reset (forecast) data and Workbook 2 – Historical data, regulatory template E4. Meter replacement – Table E4.1.1 to E4.1.4 instructions: (a) The expenditure included in tables E4.1.1 to E4.1.4(A to E) are to be gross of customer contributions, with customer contributions separately reported in Table E4.1.1 to E4.1.4(F). Forecast expenditure must exclude escalation.	In the historical template, JGN has complied with these requirements. Refer to the Basis of Preparation for further details (RIN Attachment *JGN - Attachment 2 - Basis of preparation – 20190630*). JGN's capex forecast model provides a list of all forecast meter replacement projects. Each project has been assigned with a project number, project name, asset category and the total gross expenditure to be incurred in the next AA period. The outputs of the capex forecast model, converted to real $2020 and aggregated up for projects with total gross expenditure of less than $500,000 in the RIN reconciliation model - Part A (*JGN-E.B-1.1(a)-1-RIN Reconciliation model- Part A-20190630*), is then used to complete the forecast RIN sheets. The gross forecast expenditure excludes inflation. Any forecast customer contributions have been reported in accordance with the specified requirements.
5. Non-network Capital Expenditure	
5.1 Workbook 1 – Reset (forecast) data and Workbook 2 – Historical data, regulatory template E6. Non Network - Table E6.5.1 instructions: (a) For each *project*, for each subcategory of *telemetry capital expenditure*, for which expenditure was incurred during the previous or *current access arrangement period* or for which expenditure is forecast to be incurred over the *next access arrangement*, and the total cumulative expenditure over the	In the historical template, JGN has complied with these requirements. Refer to the Basis of Preparation for further details (RIN Attachment *JGN - Attachment 2 - Basis of preparation – 20190630*). With reference to item 5.1 (a) (ii), JGN does use percentage allocation across the asset categories. JGN's asset categories are based on the cost it incurs at the project level.

Requirement	Response
life of the *project* is greater than or equal to $500,000 (real $June 2020), specify: (i) an *internal identification code*, which will enable *JGN* to report actual expenditure against forecast expenditure; (ii) the *asset categories* to which the *project* belongs and the percentage allocations across the *asset categories*, in order to be able to allocate modifications to *capex category* expenditure to the appropriate *asset categories*; and (iii) the *project* name used internally. (b) Provide the total expenditure for all *projects* in aggregate, for which expenditure was incurred during the previous or *current access arrangement period* or for which expenditure is forecast to be incurred over the *next access arrangement*, and the total cumulative expenditure over the life of each *project* is less than $500,000 (real $June 2020). (c) The expenditure included in Table E6.5.1 (A to E) are to be gross of customer contributions, with customer contributions separately reported in Table E6.5.1(F). Forecast expenditure must exclude escalation.	JGN's capex forecast model provides a list of all forecast 'non network telemetry' projects. Each project has been assigned with a project number, project name, asset category and the total gross expenditure to be incurred in the next AA period. The outputs of the capex forecast model, converted to real $2020 and aggregated up for projects with total gross expenditure of less than $500,000 in the RIN reconciliation model - Part A (*JGN-E.B-1.1(a)-1-RIN Reconciliation model- Part A-20190630*), is then used to complete the forecast RIN sheets. The gross forecast expenditure excludes inflation. Any forecast customer contributions have been reported in accordance with the specified requirements.
6. Other Capital Expenditure	
6.1 Workbook 1 – Reset (forecast) data and Workbook 2 – Historical data, regulatory template E13. Other Capex - Table E13.1 instructions: (a) For each *project*, for each subcategory of other *capital expenditure*, for which expenditure was incurred during the previous or *current access arrangement period* or for which expenditure is forecast to be incurred over the *next access arrangement*, and the total cumulative expenditure over the life of the *project* is greater than or equal to $500,000 (real $June 2020), specify: (i) an *internal identification code*, which will enable *JGN* to report actual expenditure against forecast expenditure; (ii) the *asset categories* to which the *project* belongs and the percentage allocations across the *asset categories*, in order to be able to allocate modifications to *capex category* expenditure to the appropriate asset categories; and (iii) the *project* name used internally. (b) Provide the total expenditure for all *projects* in aggregate, for which expenditure was incurred during the previous or *current access arrangement period* or for which expenditure is forecast to be incurred over the next *access arrangement*, and the total cumulative expenditure over the life of each *project* is less than $500,000 (real $June 2020).	In the historical template, JGN has complied with these requirements. Refer to the Basis of Preparation for further details (*RIN Attachment JGN - Attachment 2 - Basis of preparation – 20190630*). With reference to item 6.1 (a) (ii), JGN does use percentage allocation across the asset categories. JGN's asset categories are based on the cost it incurs at the project level. JGN's capex forecast model provides a list of all forecast 'other' projects. Each project has been assigned with a project number, project name, asset category and the total gross expenditure to be incurred in the next AA period. The outputs of the capex forecast model, converted to real $2020 and aggregated up for projects with total gross expenditure of less than $500,000 in the RIN reconciliation model - Part B (*JGN-E.B-1.4-1-RIN Reconciliation model- Part B-20190630*), is then used to complete the forecast RIN sheets. The gross forecast expenditure excludes inflation. Any forecast customer contributions have been reported in accordance with the specified requirements.

Requirement	Response
(c) The expenditure included in Table E13.1 (A to E) are to be gross of customer contributions, with customer contributions separately reported in Table E13.1(F). Forecast expenditure must exclude escalation.	
7. Information and Communications Technology	
7.1 Workbook 1 – Reset (forecast) data and Workbook 2 – Historical data, regulatory template E12. ICT - Table E12.1 instructions: (a) For each *project* for which expenditure was incurred during the *previous* or *current access arrangement period* or for which expenditure is forecast to be incurred over the *next access arrangement period*, and the total cumulative expenditure over the life of the *project* is greater than or equal to $500,000 (real $June 2020), specify: (i) an *internal identification code*, which will enable *JGN* to report actual expenditure against forecast expenditure; (ii) the *asset categories* to which the *project* belongs and the percentage allocations across the *asset categories*, in order to be able to allocate modifications to *capex category* expenditure to the appropriate *asset categories*; and (iii) the *project* name used internally. (b) Provide the total expenditure for all *projects* in aggregate, for which expenditure was incurred during the *previous* or *current access arrangement period* or for which expenditure is forecast to be incurred over the *next access arrangement period*, and the total cumulative expenditure over the life of each *project* is less than $500,000 (real $June 2020). (c) The expenditure included in Table E12.1 (A to E) are to be gross of customer contributions, with customer contributions separately reported in Table E12.1(F). Forecast expenditure must exclude escalation.	In the historical template, JGN has complied with the requirements (a)(i)-(iii). Refer to the Basis of Preparation for further details (RIN Attachment *JGN - Attachment 2 - Basis of preparation – 20190630*). With reference to item 7.1 (a) (ii), JGN does use percentage allocation across the asset categories. JGN's asset categories are based on the cost it incurs at the project level. JGN's capex forecast model provides a list of all forecast ICT projects. Each project has been assigned with a project number, project name, asset category and the total gross expenditure to be incurred in the next AA period. The outputs of the capex forecast model, converted to real $2020 and aggregated up for projects with total gross expenditure of less than $500,000 in the RIN reconciliation model - Part B (*JGN-E.B-1.4-1-RIN Reconciliation model- Part B-20190630*), is then used to complete the forecast RIN sheets. The gross forecast expenditure excludes inflation. Any forecast customer contributions have been reported in accordance with the specified requirements.
8. Capitalised Overheads Expenditure	
8.1 General: (a) Ensure expenditure: (i) is consistent with *JGN*'s cost allocation method and *capitalisation policy*; and (ii) reconciles to JGN's audited statutory accounts. (b) Set out any additional working calculations used to derive data that are allocated into particular columns in supporting worksheets.	In relation to historical expenditure, JGN has allocated costs consistently with its allocation method and capitalisation policy as outlined in the Basis of Preparation RIN Attachment *JGN - Attachment 2 - Basis of preparation – 20190630).* In relation to forecast expenditure, refer to sheet "calc|OH" of *Attachment 5.2 (capex model) of JGN's AA proposal.*

Requirement	Response
9. Related Party Transactions	
9.1 *Workbook 2 – Historical data, regulatory template* F6. Related party transactions - Table F6.1 instructions: (a) Specify *material* transactions with *related parties*: (i) the name of each *related party* to which *JGN* has made payment; (ii) the nature of the relationship (for example, the percentage ownership by *JGN*); (iii) a description of the goods and/or services provided by the *related party*; (iv) a description of how the transaction amount was determined; (v) a description of how the transaction amount is reflected in the *regulatory templates*, including the *asset* class or *capex/opex cost categories*; (vi) a description of the basis for allocating the *related party* costs, where they have been allocated to different *asset* classes or *capex/opex cost categories*; (vii) the amount paid to the *related party* by *JGN*; and (viii) the actual cost incurred by the related party.	JGN has submitted this information in the template as required. Further details of these transactions is provided in the response to Section 4 of Schedule 3 of the RIN. Refer to the relevant section in this document.
9.2 *Workbook 2 – Historical data, regulatory template* F6. Related party transactions - Table F6.2 instructions: (a) Specify for *material* transactions with *related parties*: (i) the name of each *related party* from which *JGN* has received payment; (ii) the nature of the relationship (for example, the percentage ownership by *JGN*); (iii) a description of the goods and/or services which *JGN* has provided to the *related party*; (iv) a description of how the transaction amount was determined; (v) a description of how the transaction amount is reflected in the *regulatory templates*, including the *asset* class or *capex/opex cost categories*; (vi) a description of the basis for allocating the *related party* costs, where they have been allocated to different *asset* classes or *capex/opex cost categories*; (vii) the amount paid by the *related party* to *JGN;* and (viii) the actual cost incurred by JGN.	JGN did not provide any related party services for payments greater than $1M, therefore the historic RIN template F6.2 remains blank in JGN's response.

Requirement	Response
10. Indicative Impact on Annual Gas Bills	
10.1 General: (a) For the purposes of calculating the impact of *JGN's access arrangement proposal* on the annual gas bill of typical residential and business *customers* in NSW, provide the data/information required in *Workbook 4- Indicative Bill Impact, regulatory template* 7.6 Indicative Bill Impact.	JGN has completed the workbook in accordance with the RIN requirements but notes that there is an error in the formula in protected cells and the calculated outcomes are potentially misleading. JGN has also provided a separate calculation of customer impacts for each customer 'archetype' based on our proposed network tariffs for 2020-21 (included as RIN supporting document *JGN-2-19.1-1-Customer Price Impact Model-20190630)*. JGN considers these calculations better reflect the customer impacts for each customer 'archetype.'
10.2 Workbook 4 – Indicative Bill Impact, regulatory template 7.6 Indicative bill impact - Table 7.6.1 instructions: (a) complete the yellow cells in Table 1 Parameters by Tariff Type and Table 2 Indicative Annual Average Distribution Price Impact; (b) provide the data source for each input used for the calculation; and (c) outline the assumptions underlying the calculations.	(a) JGN has populated the Table 1 and Table 2 in accordance with the RIN requirements. (b) The information for the retail bills was downloaded from the Energy Made Easy website in June 2018. The network bill is based on the approved 2019-20 network tariffs. The smoothed revenue is from the PTRM and the forecast energy delivered forecast is as per Core Energy & Resources' demand forecast developed for JGN. (c) An average of an AGL Offer (AGL Savers), an Origin Offer (Origin BillSaver) and an EnergyAustralia offer (EA Flexisaver) after application of the applicable discount were used as the typical annual gas bill for a residential customer and a small business customer. The "Distribution Costs as a proportion of a typical customer's gas bill" was determined using the relationship between the network bill for 2019-20 and the typical average annual gas bill for that size customer.
11. RAB Allocation	
11.1 General: (a) If *JGN* changes the *asset* classes or *capex categories, JGN* must amend and backcast the data for all categories.	JGN has proposed a new asset class "*Existing pigging and inspection costs*" in the forecast AA period. The asset base for this new asset class is derived in *Attachment 6.3 (RFM-Pigging cost) of JGN's AA proposal* using actual capex information for RY15-18. It contains the backcast cost information required.
11.2 *Workbook 2 – Historical data, regulatory template* F2. Capex - Table F2.4, Table F2.5 and Table F2.6 instructions: (a) If *JGN* uses *PTRM* to determine the total revenue, in *Workbook 2 – Historical data, regulatory templates* F2. Capex allocate capital expenditure by providing the percentage of capital expenditure for each *capex category* provided for each year, which is attributable to the relevant *PTRM* regulatory *asset* base and tax *asset* base class respectively. (b) For each *asset* class check the accuracy of the *capex category* allocation. This includes checking the totals and the input links. Where the amount is incorrect, highlight and amend. Provide a comment in the cell which explains why it considers the data to be incorrect and provide a link to the source from which the replacement data is derived.	Template F2 in the historic workbook has been completed and the methodology has been explained in the Basis of Preparation (RIN Attachment *JGN - Attachment 2 - Basis of preparation – 20190630*).

Requirement	Response
12. Changes in Provisions	
12.1 Workbook 2 – Historical data, regulatory template F7. Provisions instructions: (a) Provide in relation to the *reference services* and non-reference services of *JGN*: (i) the name of each provision; (ii) the carrying amount at the beginning of the period; (iii) increases in the provision charged to *operating expenditure*; (iv) increases in the provision charged to *capital expenditur*e; (v) amounts used (that is, incurred and charged against the provision) during the period charged to *operating expenditure*; (vi) amounts used (that is, incurred and charged against the provision) during the period charged to *capital expenditure*; (vii) unused amounts reversed during the period; (viii) the increase during the period in the discounted amount arising from the passage of time and the effect of any change in the discount rate or any other adjustments; and (ix) the carrying amount at the end of the period. (b) Provisions included in *Workbook 2 – Historical data, regulatory template* F7 in relation to the non–reference services of *JGN*, must be expressly noted as being in relation to non–reference services.	Template F7 in the historic workbook has been completed.
13. Weighted Average Cost of Capital and CAPM Parameters	
13.1 JGN must complete the cells shaded pink in Workbook 1 – Reset (forecast) data regulatory template F8. WACC and CAPM Parameters tables F8.1 and F8.2.	Template F8 in the forecast template has been completed.
13.2 If the binding rate of return legislation is not passed before *JGN* returns the completed RIN to the AER: (a) *JGN* must complete the cells shaded yellow in *Workbook 1 – Reset (forecast) data* regulatory template F8. WACC and CAPM Parameters tables F8.1 and F8.2. (b) If *JGN* proposes an alternative method to calculate the weighted average cost of capital (to the method set out in the Rate of return Guideline), it is to describe its proposed method as per paragraph 13.2 of Schedule 1 of this notice.	This clause is not applicable as the rate of return legislation has passed.

Requirement	Response
14. Operating Expenditure	
14.1 General: (a) if *JGN* changes the *opex categories*, *JGN* must amend and backcast the data for all categories; and (b) provide reconciliation of the *opex* forecasts provided in the *regulatory templates* to the operating allowances in the *PTRM* for the *next access arrangement period*.	JGN has not changed its opex categories, however the RIN definitions for some categories appears to be different to the categories JGN was required to report for the 2015-20 AA proposal. JGN has therefore, as required by the RIN, reported opex for each year of the reporting period (RY11 to RY18) under the current RIN definitions. Further, the variations in the reporting have been reported in Appendix G of the Basis of Preparation (RIN Attachment *JGN - Attachment 2 - Basis of preparation – 20190630*).
14.2 Workbook 1 – Reset (forecast) data, regulatory template E20. Opex - Table E20.1 instructions: (a) for each year specify the forecast of the: (i) efficient operating expenditure at the end of the current access arrangement period in dollars; (ii) effect of real price growth on *operating expenditure* in dollars; (iii) effect of output growth on *operating expenditure* in dollars; (iv) effect of productivity growth on *operating expenditure* in dollars; (v) value of *category specific forecasts* that year in dollars; and (vi) value of *step changes* to occur that year in dollars. (b) Reference the supporting information for the data input into the table. The required supporting information is set out in paragraphs 4 and 5 of Schedule 2 of this *notice*.	JGN's forecast opex in RIN template E20.1 is based on the forecast opex model submitted as *Attachment 6.2 of the AA proposal*, which contains the relevant information. The disaggregation of the opex forecast into the RIN template has been provided in RIN supporting document *JGN-E.B-1.4-1-RIN Reconciliation model- Part B-20190630*.
14.3 Workbook 1 – Reset (forecast) data and Workbook 2 – Historical data, regulatory template E20. Opex - Table E20.2 instructions: (a) for each year specify the costs, inclusive of *related party* margins, approved, incurred or forecast to be incurred; (b) for each year where the item relates to a deductible or an excess on a commercial insurance policy, specify the amount, of deductible risk to which *JGN* was or is forecast to be exposed; (c) reference the supporting information for the data input into the table. The required supporting information is set out in paragraph 4 and 5 of Schedule 2 of this *notice*.	JGN has populated the template E20.2 in the historical and forecast workbooks in accordance with the RIN requirements. For the historical information refer to the related section in the Basis of Preparation (*RIN Attachment JGN - Attachment 2 - Basis of preparation – 20190630*). The opex information in E20.2 of the forecast template reported consistently with the opex forecast model, which is Attachment 6.2 of the AA proposal. The costs approved by the AER in the previous AA are reported in RIN template F4. Opex, in the historic template (*JGN - Attachment 6 - Workbook 2 - Historical data - Consolidated – 20190630*)
14.4 Workbook 1 – Reset (forecast) data and Workbook 2 – Historical data, regulatory template E20. Opex - Tables E20.3 instructions: (a) for each year specify the related party margin expenditure on the costs approved, incurred or forecast to be incurred; and	JGN has populated the template E20.3 in the historical and forecast workbooks in accordance with the RIN requirements. For the historical information refer to the related section in the Basis of Preparation (*RIN Attachment JGN - Attachment 2 - Basis of preparation – 20190630*). The related party margin information in E20.3 of the forecast

Requirement	Response
(b) *JGN* is to reference the supporting information for the data input into the table. The required supporting information is set out in paragraph 4 and 5 of Schedule 2 of this *notice*.	template was left blank as we do not have a basis to determine a reliable forecast of the related party margin that is likely to be part of the forecast opex.
15. Ancillary Reference Services	
15.1 General: (a) if *JGN* changes the *reference service* categories, *JGN* must amend and backcast the data for all categories.	JGN has not changed its reference service categories, but has: • amended the name of some ancillary activities as described in *Attachment 4.1 of the AA proposal* • combined its previous two disconnection services into 1, the backcast is included in the templates, and • added new services as described in *Attachment 4.1*– as these are new services, JGN has no historical data to backcast.
15.2 Workbook 1 – Reset (forecast) data and Workbook 2 – Historical data, regulatory template E21. ARS - Table E21.1 instructions: (a) ensure that the data provided reconciles to any applicable internal planning models.	JGN has populated the template E21.1 in the historical and forecast workbooks in accordance with the RIN requirements.
15.3 Workbook 1 – Reset (forecast) data and Workbook 2 – Historical data, regulatory template E21. ARS - Table E21.2 instructions: (a) for each year and for each *reference service* category specify the gross revenue received by *JGN* for services provided; (b) ensure that the data provided reconciles to any applicable internal planning models used in generating *JGN*'s proposed revenue requirements and (c) report revenue data as a gross figure. Do not net for *customer contributions*.	JGN has populated the template E21.2 in the historical and forecast workbooks in accordance with the RIN requirements.
15.4 Workbook 1 – Reset (forecast) data and Workbook 2 – Historical data, regulatory template E21. ARS - Table E21.3 instructions: (a) for each year and for each *reference service* category specify the operating expenditure incurred by *JGN* for services provided; and (b) ensure that the data provided reconciles to internal planning models used in generating *JGN*'s proposed revenue requirements.	JGN has populated the template E21.3 in the historical and forecast workbooks in accordance with the RIN requirements.
16. Allocation of Revenue	
16.1 General: (a) if *JGN* changes the tariff or *customer* type, *JGN* must amend and backcast the data for all categories, and duplicate the relevant table to provide historical data based on the tariff or *customer* type that applied at that time.	JGN has not changed tariffs or customer types.

Requirement	Response
17. Customer Numbers	
17.1 General: (a) if *JGN* changes the tariff or *customer* type, *JGN* must amend and backcast the data for all categories.	JGN has not changed tariffs or customer type.
17.2 *Workbook 1 – Reset (forecast) data* and *Workbook 2 – Historical data*, regulatory template S1. Customer numbers - Table S1.1 and Table S1.2 instructions: (a) for each regulatory year and for each tariff and *customer* type specify: (i) the gross number of connections and the gross number of disconnections. Check that the difference between the total gross number of connections across all categories and the total gross number of disconnections across all categories equals the total number of new connections across all categories (on *Workbook 1 – Reset (forecast) data* and *Workbook 2 – Historical data, regulatory template* E5 - Connections). If it does not, explain the difference.	JGN has populated the new connections in template E5 using gross connection numbers by connection type. This is different from the net connection numbers calculated using the difference between the gross number of connections and the gross number of disconnections.
17.3 Workbook 1- Reset (forecast) data and Workbook 2 - Historical data, regulatory template S1. Customer numbers - Table S1.2 instructions: (a) for each regulatory year *JGN* is to provide all applicable tariff type categories. These tariff type categories used for each year are to be mutually exclusive and collectively exhaustive.	JGN has populated the template S1.2 in the historical and forecast workbooks in accordance with the RIN requirements.
18. Consumption and Demand	
18.1 Workbook 1 – Reset (forecast) data, regulatory template N1. Demand - Table N1.1 instructions: (a) if *JGN* changes the tariff or customer type for the *next access arrangement period*, *JGN* must amend and backcast the data for all categories, and duplicate the relevant table to provide historical data based on the tariff or *customer* type that applied at that time.	JGN has not changed tariff or customer type therefore no back casting is required.
18.2 Workbook 1 – Reset (forecast) data and Workbook 2 – Historical data, regulatory template N1.2 Demand - Table N1.2 instructions: (a) for each regulatory year *JGN* is to provide all applicable tariff categories. These tariff categories used for each year are to be mutually exclusive and collectively exhaustive.	JGN has populated the template N1.2 in the historical and forecast workbooks in accordance with the RIN requirements.
19. Opex Incentive Mechanism	
19.1 To determine the incentive impact of JGN's operating expenditures in the current access arrangement period, JGN must provide the required opex data in *Workbook 3 – Opex incentive mechanism*.	Refer *to Attachment 7.6 of the AA proposal* for the ECM model

5.3 Part C: Workbook 2 – Annual data 2019 and 2020

Workbook 2 is not required to be reported until 31 October 2019 and 2 November 2020.