Jemena Gas Networks (NSW) Ltd

2020-25 Access Arrangement Proposal

Attachment 7.1

Revenue and price path

Jemena
bringing energy to life

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Abbreviations

AA	Access Arrangement
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
CAM	Cost Allocation Methodology
Capex	Capital Expenditure
CESS	Capital Expenditure Sharing Scheme
CPI	Consumer Price Index
ECA	Energy Consumers Australia
ECM	Efficiency Carryover Mechanism
JGN	Jemena Gas Networks (NSW) Ltd
NGR	National Gas Rules
NPV	Net Present Value
Opex	Operating Expenditure
PIAC	Public Interest Advisory Centre
PTRM	Post-Tax Revenue Model
RAB	Regulatory Asset Base
TAB	Tax Asset Base
WACC	Weighted Average Cost of Capital

Overview

Chapter 7 of our 2020 Plan sets out the revenue that we require over the 2020-25 Access Arrangement (**AA**) period to run our business effectively.

To deliver our 2020 Plan, we are seeking to recover $2,360M ($2020) in reference service building block revenue—this will allow us to meet the levels of safety and services valued by our customers over the 2020-25 AA period while prudently balancing our cost and price pressures into future AA periods.[1] Once we adjust for the revenue handback as a result of the Australian Energy Regulator's (**AER**) remade decision for the 2015-20 AA period and its adjustment determination,[2] our total revenue requirement reduces to $2,191M ($2020).

We have determined our total revenue requirement using the building block approach, in accordance with the National Gas Rules (**NGR**). [3]

Our reference service revenue requirement allows us to respond to our customers' concerns about energy affordability by offering a price reduction, and offset some of the cost-of-living pressures that they face, as we:

- realise the benefits of higher than expected customer connections achieved over the 2015-20 AA period through significant new dwelling construction and our targeted marketing efforts
- share with our customers the benefits of continued reductions in funding costs
- handback revenue that we over-recovered during the 2015-20 AA period
- deliver a transformation program that will reduce our ongoing operating costs and help ensure that our services remain cost-effective into the future.

We have engaged with our customers on our price path for the 2020-25 AA period. Our customers want us to mitigate expected increases in wholesale gas prices and minimise the changes in end-retail prices.

Our proposed price path for reference service therefore smooths our required revenue to promote retail price stability over the 2020-25 AA period. This will offset some of the increases in end-retail prices expected from wholesale gas price pressures. More discussion on our engagement with our customers on the price path is included in Chapter 4 of our 2020 Plan and in section 8.2 of this attachment.

Table OV–1 details our unsmoothed and smoothed reference service revenue and X factors for the 2020-25 AA period. We have prepared this forecast using the AER's Post-Tax Revenue Model (**PTRM**).[4]

1 All values are in end of year $2020 terms, unless otherwise stated.

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

3 Any reference to a rule through this attachment is a reference to the NGR, unless otherwise stated.

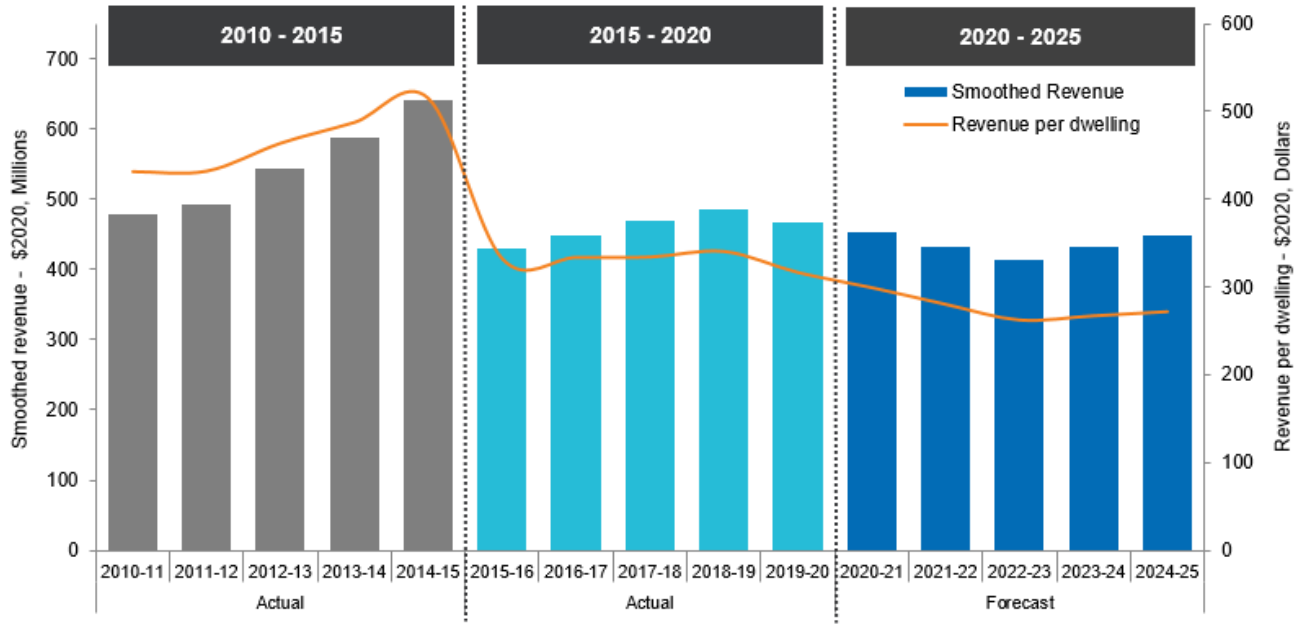
4 JGN's PTRM is included as Attachment 7.2.

Table OV–1: Reference service revenue and price build up from building block elements ($2020, $M)

	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Return on capital	162	165	166	167	166	826
Regulatory depreciation	69	78	85	94	84	410
Operating expenditure (**opex**)	196	207	213	213	217	1,046
Net tax allowance	3	3	4	4	3	16
Incentive scheme adjustment	9	7	20	13	13	62
Building block revenue requirement (excluding revenue handback)	**439**	**460**	**487**	**491**	**483**	**2,360**
Revenue handback (repayment of over-recovered revenue in RY16-20)	(169)					(169)
Total revenue requirement (including revenue handback) – unsmoothed	**270**	**460**	**487**	**491**	**483**	**2,191**
X factors[5]	13.28%	5.00%	5.00%	-3.35%	-3.35%	
Total revenue requirement - smoothed	**452**	**433**	**415**	**431**	**449**	**2,180**

Figure OV–1 provides a view of our smoothed revenues over the three AA periods from 2010 to 2025. As shown in the figure, the revenue required per dwelling has been falling since 2015-16.

Figure OV–1: Our smoothed revenues



This attachment explains how we have estimated the total revenue requirement.

- **Section 1** explains what we have heard from our customers and how we have responded
- **Section 2** outlines the overall approach used to calculate our required revenues
- **Sections 3 to 7** describe key inputs to the unsmoothed required revenue calculation, namely:
  - return on capital (Section 3)

[5] A positive number corresponds to a price decrease and vice versa.

- regulatory depreciation (Section 4)
- opex (Section 5)
- corporate income tax (Section 6)
- revenue adjustments (Section 7)

- **Section 8** concludes by explaining how the unsmoothed required revenue has been used to determine a smoothed revenue requirement and price path for tariffs over the 2020-25 AA period.

List of revenue attachments

Table OV–2: List of revenue attachments

Attachment	Name	Author
7.1	Revenue and price path	Jemena Gas Networks (NSW) Ltd (**JGN**)
7.2	JGN PTRM	JGN
7.3	JGN RAB and TAB Roll Forward Model	JGN
7.4	Depreciation model	JGN
7.5	Rate of return model	JGN
7.6	ECM model	JGN
7.7	Rate of return	JGN
7.8	Averaging period proposal	JGN
7.9	Capital base	JGN
7.10	Asset lives changes	JGN
7.11	JGN's incentive schemes	JGN
7.12	Illustrative CESS model	JGN

1. How customer feedback has informed our plans

1.1 What we heard from our customers

Throughout our engagement program, we have heard that affordability is a key issue for all of our customer groups. Our residential customers told us that they love using gas and they expect us to play a role in keeping prices down. They generally do not distinguish between our contribution to their retail bill–about 40%–when considering the overall affordability of their gas supply.

Our customers want us to contribute to price reductions in order to help reduce the cost of living and increase business competitiveness. Knowing that future gas prices will reduce helps our customers to plan and manage their household and business budgets generally and their energy bills specifically. Our residential customers want us to target a smooth retail bill over the 2020-25 AA period, which requires us to consider the wholesale gas and retail portions of the bill.

At the same time, our customers have told us that they value and expect us to maintain the safety, security and reliability of our pipeline services, and the customer service that they receive. Improved affordability therefore cannot come at the cost of service performance—a balance is needed.

Our customers also want us to consider fairness, not just in the short term, but over the longer term too. This includes taking appropriate actions now to respond to uncertainty around the long-term future of the gas network. Our proposed changes to asset lives and initiatives to reduce the growth in our asset base responds to this feedback.

More detail on our customer engagement program, and the feedback we have received from our customers is further described in Attachments 2.1–2.4. The rest of this attachment explains how our proposal for the 2020-25 AA period supports our customers' preferred outcomes.

1.2 Responses to our Draft 2020 Plan

As outlined in Chapter 2 of our 2020 Plan, in January 2019 we published our Draft 2020 Plan for consultation, following which, in March 2019, we held a fourth deliberative forum with a group of customers from across NSW. This forum followed three previous forums held throughout 2018, where we sought inputs and feedback from our customers to help shape our plans for the 2020-25 period. The purpose of the fourth forum was to provide customers who had been involved in our engagement program with an overview of our Draft 2020 Plan, to ensure that we had accurately captured and reflected their feedback in our Draft 2020 Plan. During the forum, our customers confirmed, with 90% either strongly or moderately agreeing, that our Draft 2020 Plan was in the long term interest of customers. The majority of participants also believed that the Draft 2020 Plan is a good deal for customers (see Attachment 2.1 for details).

As a result of this positive feedback, we have not made significant changes to our plans for the 2020-25 AA period, but we have made refinements to account for new information and up to date data.

During the fourth forum our customers discussed the cross period smoothing revenue adjustment arising from the AER's 2015-20 remade decision and its adjustment determination[6], which will lower our 2020-25 AA period revenues by $169M (see section 7.3 for details). Our Draft 2020 Plan explained the background to this adjustment, and the impacts it has on our price path and the reductions in network bills. Many customers expressed concern that this adjustment would not be passed through by retailers in the form of reductions to retail charges. Some customers also suggested that JGN should use the funds for investment or future proofing the network, stating that this will have the greatest return and improve fairness.[7] In response, we explained that while we are unable to control retail charges, we will actively advocate for retailers to pass on any reductions in our network charges.

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

7 RPS, Jemena Gas Networks Draft 2020 Plan Consultation Report, 10 April 2019, page 21 (included in Attachment 2.2).

In addition to the feedback from our customers on our Draft 2020 Plan, we also received written submissions from the Public Interest Advisory Centre (**PIAC**)[8] and Energy Consumers Australia (**ECA**).[9] The feedback that we received in relation to our revenue requirement, together with our response, is included in the following table.

Table 1–1: Summary of submissions on our Draft 2020 Plan

Author	Topic	Feedback	How we are responding
ECA	Revenue handback	The ECA requested that JGN indicate how we will provide certainty that the revenue handback (discussed in section 7.3) will result in price reductions for consumers in their retail gas bills during the 2020-25 period.	JGN can provide certainty that it will pass back, via reductions in its network tariffs, the entire $169M over the course of the next AA period. Retailers, when determining retail tariffs, will factor in JGN's network charges with their own wholesale and retail costs. We do not have any ability to control the charges that retailers levy on their customers. However, it is in our interests that gas continues to be a competitive fuel choice for our customers. This means that we will actively advocate for retailers to pass on network price reductions by continuing to publicise, through press releases and government briefings, any changes in our network tariffs, and will encourage customers to contact their retailers if these reductions are not passed on.
ECA	Accelerated depreciation on inline inspection assets	The ECA believes that further work needs to be undertaken to demonstrate that the appropriate balance has been struck that the inclusion of this initiative is in the long-term consumer interests.	Our proposal to accelerate the depreciation on in-line inspections included in our asset base will ensure better alignment between the usage of these assets and the period over which we recover their costs. JGN is required to undertake inspections on a regular and periodic basis and therefore the recovery of these costs should be matched to the period over which they are relevant. We believe that this is directly consistent with customer feedback on the key theme of fairness, specifically as it relates to our existing and future customers.

1.3 Changes since our Draft 2020 Plan

As discussed above, feedback from our customers on our Draft 2020 Plan largely supported our proposals for the 2020-25 AA period. We have, however, continued to refine our plans since our Draft 2020 Plan was published.

The revenue that we require to deliver our 2020 Plan is $6.6M ($2020) higher than the revenue we forecast in our Draft 2020 Plan. There are three key (but offsetting) drivers for the change in our forecast:

- a reduction in the return on capital of $42M, driven by reductions in the rate of return and tax building blocks

[8] PIAC, *Submission to Jemena Gas Networks' Draft 2020 Plan*, 21 March 2019 (available on https://yournetwork.jemena.com.au/draft-2020-plan/documents)

[9] Energy Consumers Australia, *Jemena Gas Networks Draft 2020 Plan Submission*, March 2019 (also available at the above link)

- an additional $40M in our forecast operating costs, which is due to an increase in UAG costs ($32M), updates to base year expenditure (for actual spend to date) and the forecast rate of change (from Economic Insights's analysis)[10]
- an increase in Efficiency Carryover Mechanism (**ECM**) of $8M as a result of updates to operating expenditure.

[10] See Attachment 6.1 for details on our operating expenditure forecast, and Attachment 6.4 for the Economic Insights report.

2. Our approach

2.1 Summary

We must forecast revenue and roll-forward our capital base using financial models developed by AER, if they have been published in accordance with rule 75A. Although the AER has not yet published such models, we have used models that the AER has published for electricity distribution businesses.

Specifically, we have used:[11]

- the revenue model used by the AER to set allowed revenue for the 2015-20 AA period to roll-forward the capital base over that period—this is provided as Attachments 6.3 and 7.3 and discussed in Attachment 7.9.
- the PTRM recently published by the AER for electricity distribution networks to forecast our reference service revenue over the 2020-25 AA period—this is provided as Attachment 7.2.

The inputs to, and approaches used within, these models are discussed throughout this attachment. These have been developed consistent with the requirements in the NGR.

2.2 Reference service revenue requirement

We have used the AER's PTRM to calculate the JGN's total revenue requirement for the reference service comprising the sum of the following forecasts (consistent with rule 76):

- *Return on capital*—also known as the return on assets, this represents the benchmark financing costs of investing in our network
- *Regulatory depreciation*—also known as the return of capital, is the net total of depreciation (which represents the payback of our investment on our network) and the indexation of the regulatory asset base (**RAB**)
- *Opex allowance*— this represents the estimated costs of operating and maintaining our distribution network
- *Corporate income tax allowance*— this represents the estimated benchmark corporate income tax costs for our network
- *Revenue adjustments*—which includes adjustments for incentive scheme revenue outcomes such as the ECM.

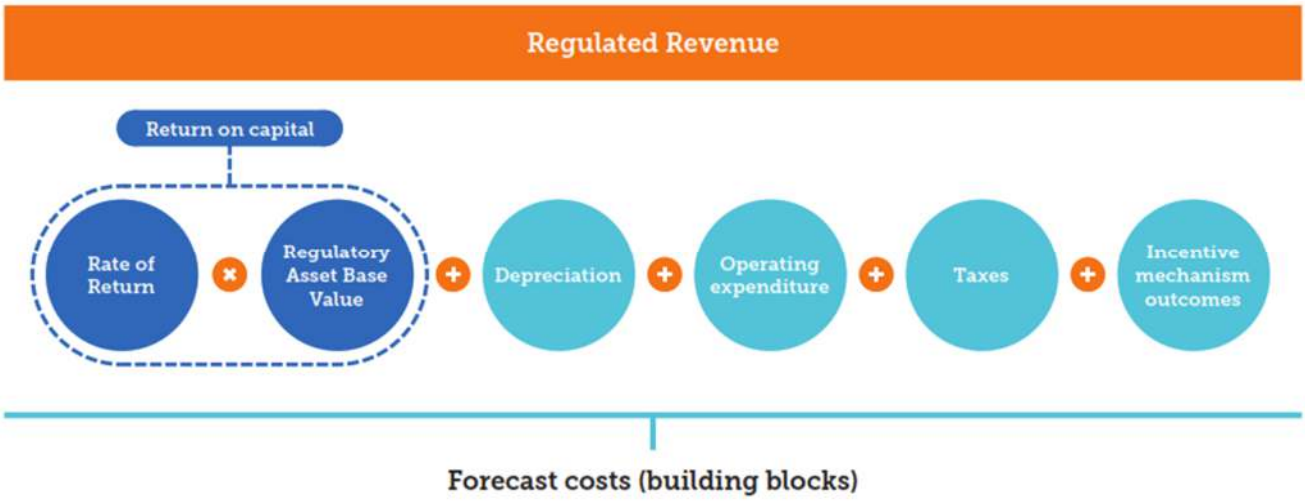
Together these are referred to as **building block costs** and are summarised in Figure 2–1. These costs form the basis of the revenue that is approved by the AER and earned from our customers through reference tariffs.

In addition, we have applied the revenue adjustment for the prior period over-recovered revenue that will be paid pack to customers over the 2020-25 period. This handback was confirmed in the AER's recently remade determination for the 2015-20 AA period and adjustment determination[12] (see section 7.3).

[11] Although the AER can prepare and publish financial models under rule 75A that we must use, it has not yet done so. We have therefore used equivalent models developed for or used by the AER in past electricity and gas decisions.

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

Figure 2–1: Building block costs



Once we calculate our unsmoothed revenue requirement for each regulatory year, we calculate our 'smoothed' revenue requirement to reduce any significant variation in our revenues, and therefore our network charges, between regulatory years.

We do this using X-factors, so that the net present value of our building block costs or total unsmoothed revenue and smoothed revenue over the 2020-25 AA period are equal—ensuring that we recover no more than our efficient costs. The X-factors represent the implied average price changes between regulatory years.

2.3 Allocating revenue and costs to services

Rule 93 requires JGN to allocate our total revenues and costs to reference and non-reference services. Attachment 4.1 sets out the method used to meet this requirement.

3. Return on capital

3.1 Forecast requirement

Receiving a fair rate of return is essential for us to continue to invest in our network in a manner that best supports our customers' long-term interests.

The return on capital, or the cost of financing investment in the network, seeks to compensate our debt and equity holders for the opportunity cost of lending or investing their funds in our network—and these funds are essential to deliver safe and reliable gas and service outcomes to our customers.

We use a placeholder rate of return (specified as a nominal vanilla weighted average cost of capital (**WACC**)) of 4.96% in the 2020-25 AA period. This rate is calculated using the methods and assumptions set out in the AER's Rate of Return Binding Instrument.[13]

This rate of return is multiplied by the opening RAB each year to determine the return on capital for that year, as summarised in Table 3–1 and as required by rule 87 of the NGR. The RAB roll-forward model is included as Attachment 7.3.

Table 3–1: Return on capital building block for 2020-25 AA period ($nominal, $M)

	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Opening RAB ($M)	3,353	3,484	3,601	3,697	3,782	N/A
Rate of return (%)[1]	4.96%	4.96%	4.96%	4.96%	4.96%	N/A
Return on capital building block ($M)	**166**	**173**	**179**	**183**	**188**	**889**

(1) Rate of return will be updated for the actual averaging periods proposed in confidential Attachment 7.8.

3.2 Rate of return

This rate of return of 4.96% is a significant reduction from that applying over the 2015-20 AA period, and contributes to the reduction in network tariffs .

The rate of return must be calculated consistent with the AER's Rate of Return Instrument which adopts the use of a weighted average of return on debt and return on equity. The AER expects an efficient business to fund investments at a benchmark ratio of 60% debt to 40% equity.

We set out how we calculated the rate of return in our rate of return model (Attachment 7.5) and explain it in Attachment 7.7. Table 3–2 summarises the key components used.

[13] AER, *Rate of return instrument*, 17 December 2018.

Table 3–2: Rate of Return for 2020-25

Parameters	Value (%)
Return on equity	5.62%
Return on debt	4.52%
Inflation	2.42%
Leverage	60.0%
Gamma	58.5%
Corporate tax rate	30.0%
Nominal vanilla WACC / Rate of return	**4.96%**

(1) Return on Equity is estimated using placeholder averaging period 4-29 March 2019. This will updated for JGN's actual averaging period.

Return on debt is the same as that for 2019-20. This will be updated for JGN's actual debt averaging periods for each year in 2021-25. The return on debt, return on equity and nominal WACC estimates will be updated to reflect the actual averaging periods set out in Attachment 7.8, consistent with the AER's Rate of Return Binding Instrument. These periods are proposed in advance so that we get an opportunity to align our actual funding costs with the rate of return.

4. Regulatory depreciation

4.1 Forecast requirement

Depreciation represents the decline in the value of an asset over time.

Including forecast regulatory depreciation in our revenue requirement enables us to recover our investment in our network over time in accordance with the economic lives of our assets. It enables us to fund the purchase of new replacement assets so that we can continue to provide our services in the future.

We propose to apply real straight-line depreciation method to the opening regulatory value of each asset class for each financial year, although we are proposing to change how this is applied. We have established a depreciation schedule that reflects the economic lives of our assets and the risks that businesses face today that are not compensated through the rate of return allowance.

Table 4–1 summaries our forecast deprecation over the 2020-25 AA period, determined by applying the real straight-line depreciation method on existing and forecast new assets and then deducting indexation of the capital base. Attachments 7.2 and 7.4 provide the underlying calculations.

Table 4–1: Forecast regulatory depreciation over 2020-25 AA period ($2020, $M)

	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Straight line depreciation	149	159	166	175	165	814
Less indexation	(79)	(81)	(81)	(81)	(81)	(404)
Regulatory depreciation	**69**	**78**	**85**	**94**	**84**	**410**

4.2 Real straight-line depreciation

We have forecast depreciation over the 2020-25 AA period by applying the real straight-line depreciation method to both new capital expenditure (**capex**) incurred over that period and assets existing at the start of it, which is consistent with the method in the AER's PTRM.

This methodology involves summing depreciation on:

- existing assets in our RAB at the start of the 2020-25 AA period calculating using the year on year tracking approach (discussed in Attachment 7.9)
- forecast capex over the 2020-25 AA period based on their standard asset lives (standard asset lives are discussed in Attachment 7.9 and 7.10).

The real straight-line depreciation profile produces a cost recovery path for new assets that is better aligned to expected market growth than alternatives such as historical cost straight-line or declining balance (rule 89(1)(a)). The profile does not "involve deferral of a substantial proportion of depreciation" as contemplated by rule 89(2).

The real straight-line depreciation schedule, with adjustment for inflation through indexation of the capital base, will result in the value of each asset being recovered once over the asset's economic life (rules 89(1)(b) and (d)). Our proposed depreciation schedule has been designed—in combination with other aspects of our 2020 Plan—to allow for our reasonable needs for cash flow to meet financing, non-capital and other costs (rule 89(1)(e)).

4.3 Indexation

The PTRM uses both a nominal WACC and an indexed RAB. Because inflation is applied to both these components, we would be compensated twice for inflation unless an offsetting adjustment is made for the indexation of the RAB.

We avoid double counting inflation through the rate of return and the RAB by deducting the forecast indexation on the RAB from the forecast straight-line depreciation to calculate the regulatory depreciation allowance.

Indexation is calculated by multiplying the opening value of the capital base each year by forecast inflation for the 2020-25 AA period, which is discussed further in Attachment 7.7. Indexation is calculated in Attachment 7.5, which is then used to both adjust the capital base and reduce the regulatory depreciation allowance.

4.4 Forecast regulatory depreciation

Table 4–2 sets out forecast regulatory depreciation for the 2020-25 AA period by capital base, calculated using the method set out above.

Table 4–2: Forecast regulatory depreciation by capital base over 2020-25 AA period ($2020, $M)

	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Wilton-Wollongong trunk	0.02	0.03	0.03	0.04	0.04	0.2
Wilton-Newcastle trunk	0.2	0.3	0.4	0.5	0.5	2
NSW distribution network	69	78	85	93	83	408
Total	**69**	**78**	**85**	**94**	**84**	**410**

JGN has deducted forecast depreciation in rolling forward the capital base over the 2015-20 AA period in accordance with clause 3.10(a) and (b) of the current 2015-20 AA.

As provided in rule 90(2), we elect in our 2020-25 AA Proposal for the 2020-25 AA period to use forecast depreciation, adjusted for the difference between forecast and actual Consumer Price Index (**CPI**), in rolling forward the capital base to the beginning of the AA period beginning on 1 July 2025. This is consistent with our proposal to adopt a Capital Expenditure Sharing Scheme (**CESS**) for the 2020-25 AA period, as detailed in Attachment 7.11.

4.5 2025-30 period

We will use the forecast depreciation approach to establish the RAB at the start of the 2025–30 period.[14] This is the same approach that will be used in the 2020-25 period.

[14] Rule 90 of the NGR.

5. Operating expenditure

5.1 Forecast requirement

Opex is a major component of network expenditure accounting for approximately 44% of JGN's total cost of service over the 2020-25 AA period. Our opex program delivers critical activities to support the operation and maintenance of our assets, and the continued efficient administration and management of Australia's largest gas distribution business.

We have used AER's approach to forecast opex over the 2020-25 AA period, which involves:

- *the base, step and trend approach*—applied to the overall opex amount within the adjusted base year (2018-19), net of opex cost categories that are subject to specific annual forecasts over the 2020-25 AA period.
- *specific annual forecasts*—for the remaining items where base year costs are not representative of future costs.

Forecast opex for the 2020-25 AA period is $1,046M ($2020). Our forecast is summarised in Table 5–1. Attachment 6.1 explains our opex forecast further, including why we consider it complies with rule 91. The forecast opex model used to develop the forecast is provided as Attachment 6.2.

Table 5–1: Opex forecast for 2020-25 AA period ($2020, $M)

	2020–21	2021–22	2022–23	2023–24	2024–25	Total
Base opex	164	164	164	164	164	822
Trend	2	5	7	9	11	34
Step changes	(8)	-	3	1	3	(1)
Specific forecasts (1)	38	38	38	38	38	191
Total forecast opex	**196**	**207**	**213**	**213**	**217**	**1,046**

(1) Includes debt raising costs

6. Corporate income tax

6.1 Forecast requirement

Company tax is a significant cost for all companies. Adequate compensation for the cost of taxis necessary to ensure that sufficient funds are available to meet the tax obligations of companies.

The NGR require that the cost of corporate tax is estimated as a separate building block. Apart from capex and opex, the principal inputs to that calculation are tax depreciation—which is a function of the value of the tax asset base (**TAB**)[15]—the statutory income tax rate, and the value of imputation credits (**gamma**).

Combining these inputs and incorporating the outcome from recent AER reviews, we estimate a tax building block of $16M over the 2020-25 AA period, as set out in Table 6–1.

Table 6–1: Tax building block for 2020-25 AA period ($2020, $M)

	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Taxable income	21	25	29	33	21	129
Corporate income tax	6	8	9	10	6	39
Less value of imputation credits	(4)	(4)	(5)	(6)	(4)	(23)
Tax building block	**3**	**3**	**4**	**4**	**3**	**16**

(1) Taxable income = revenue requirement plus contributions less opex less interest expense less tax depreciation, as per PTRM (included as Attachment 7.2)

(2) Tax building block is equal to taxable income x benchmark tax rate x (1 – benchmark imputation credits)

The tax building block is calculated in the PTRM consistent with the 2018 Rate of Return Instrument and AER's recommendations in its recent tax review. The calculation for the 2020-25 AA period is detailed in Attachment 7.2 and is consistent with the formula set out in rule 87A.

6.2 Recent developments

The AER completed two key reviews in December 2018 that affect how the cost of corporate income tax is calculated.

- **First**, the AER developed a Rate of Return Binding Instrument that sets out how the allowed rate of return should be estimated.[16] More importantly for present purposes, it also sets the gamma parameter to 0.585.
- **Second**, the AER completed its review of how corporate income tax should be estimated.[17] Three key recommendations were to:
  - use the diminishing value method to depreciate the TAB
  - cap the tax life of certain pipeline assets to 20 years, consistent with guidance from the Australian Tax Office
  - recognise any capex that is immediately expensed for tax purposes in the tax building block calculation consistent with businesses' actual practice.

We have incorporated the outcomes from both reviews in our calculation of the corporate income tax building block.

[15] JGN's RAB and TAB roll forward model is included at Attachment 7.3

[16] AER, *Rate of return instrument*, 17 December 2018.

[17] AER, *Review of regulatory tax approach: Final Report*, 17 December 2018.

7. Revenue adjustments

7.1 Summary

Revenue adjustments are made to building block costs to deal with incentive schemes and other adjustments needed to give effect to the rule requirements.

We are proposing two adjustments for the 2020-25 AA period:

- positive carryover amounts that we have earned through the ECM, and
- a handback to our customers of revenue earned over the 2015-20 AA period confirmed after the AER's final determination for that period.

7.2 Incentive schemes

Our opex is currently subject to an ECM—which ensures that we are incentivised to reduce our operating costs over time by penalising us for increases and rewarding us for decreases.

The AER approved introducing an ECM for the 2015-20 AA period after strong support from our Customer Council and other stakeholders. The AER has since agreed to some minor updates to how that scheme works to align it with the latest version of the scheme that applies to other regulated gas and electricity networks.[18] We have included the one-off transformation costs that are excluded from base year opex forecasts consistent with the approved ECM.

We are forecasting a positive carryover amount of $62M when applying the ECM—that amount is added to required revenue over the 2020-25 AA period, as summarised in Table 7–1. The calculation of this carryover amount is detailed in Attachment 7.6.

Table 7–1: ECM carryover amounts ($2020, $M)

	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Carryover amount	8.9	6.8	19.7	13.3	13.1	61.8

(1) The carryover amounts were calculated in Attachment 7.6, including by giving effect to the minor updates approved by the AER.

As discussed in Attachment 7.11, we propose retaining the ECM for the 2020-25 AA period. This will further motivate us to continue seeking efficiency improvements over time—benefiting both us and our customers.

We are also proposing that a CESS apply in the 2020-25 AA period. This is further explained in Attachments 7.11 and 7.12. The introduction of this scheme does not impact 2020-25 AA period revenues.

7.3 Revenue handback

As outlined in section 7.7 of our 2020 Plan, our revenue forecast includes an adjustment to return to our customers $169M of revenue earnt over the 2015-20 AA period. [19]

This handback was confirmed in the AER's recently remade determination for the 2015-20 AA period and adjustment determination.[20]

[18] See: AER, *Re: Application to revise Jemena Gas Networks' (JGN's) 2015-20 Access Arrangement*, 8 April 2019.

[19] Last year the Australian Energy Market Commission (**AEMC**) amended the NGR to allow this handback to be smoothed into the 2020-25 AA period. See: AEMC, *National Gas Amendment (Cross period revenue smoothing) Rule 2018 No. 2*, 30 August 2018.

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

8. Total revenues and X factors

8.1 Total revenues

Table 8–1 details our unsmoothed and smoothed revenue requirement for the 2020-25 AA period for the Reference Service. We have prepared this forecast using the AER's PTRM in accordance with rule 76,[21] and in developing these forecasts, the total revenue requirement represents only costs which are attributable to the Reference Service in accordance with the JGN Cost Allocation Methodology (**CAM**) (provided in Attachment 6.5) and rule 93.

For completeness, Table 8–1 also shows JGN's forecast non-reference service revenues and total pipeline services revenues.

Table 8–1: Revenue and price build up from building block elements ($2020, $M)

	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Reference service						
Return on capital	162	165	166	167	166	826
Regulatory depreciation	69	78	85	94	84	410
Opex	196	207	213	213	217	1,046
Net tax allowance	3	3	4	4	3	16
Incentive scheme adjustment	9	7	20	13	13	62
Building block revenue requirement (excluding revenue handback)	439	460	487	491	483	2,360
Revenue handback (repayment of over-recovered revenue in RY16-20)	(169)	-	-	-	-	(169)
Total reference service revenue requirement (including revenue handback) – unsmoothed	270	460	487	491	483	2,191
X factors[22]	13.28%	5.00%	5.00%	-3.35%	-3.35%	
Total reference service revenue requirement – smoothed	452	433	415	431	449	2,180
Non-reference service						
Total revenue requirement[23]	[redacted]					
Total pipeline services revenues - smoothed						

8.2 Price path

We have considered our price path in depth following significant customer feedback on this topic, as outlined in Chapter 4 of the 2020 Plan. We heard a strong preference for steady retail bills (residential customers) and steady network bills (large business customers). As discussed in Chapter 4 of our 2020 Plan, we have chosen a price path to, on its own, best meet residential customer preferences, but use our side constraint to best deliver large business preferences.

21 JGN's PTRM is included as Attachment 7.2.

22 A negative number corresponds to a price decrease and vice versa.

23 Non-reference service revenue is reported in Table F3.4 of the forecast AA RIN template.

We consider this price path meets our customer preferences for:

- Affordability—by delivering an initial price decrease of 13.3% in 2021
- Steady retail bills—via a price path that we consider most likely to minimise residential customer retail price volatility. In particular, we have aimed to strike the right balance between:
- Minimising the difference between expected network bills for a typical customer in 2021 and 2025 (excluding the impact of inflation)
- The need to dip and return prices between 2022 and 2025—this is an essential feature to enable us to reduce the risk—and size—of a potential price increase in 2026 that could occur if our revenues and costs become misaligned.

In choosing this price path, we note that the Australian Energy Market Operator's 2019 Gas Statement of Opportunities indicates wholesale gas prices in Sydney are forecast to increase from 2021 to 2023, drop in 2024 and then increase again in 2025 (but to a lesser extent than they were in 2023). We consider our price path works to mitigate these annual price changes and smooth customer's retail bills, while maintaining other regulatory requirements and preferences.

In particular, our price path leaves a gap of -7.1% between smoothed and unsmoothed revenue in 2025. However, when our one-off transformation costs in 2025 are excluded from our unsmoothed revenues, this gap falls to -4.5%. We are aware the AER generally prefers a maximum gap of 3%, although there is precedent for larger gaps when there is strong customer support.[24]

We consider that the ability to smooth revenue requirements across the 2025-30 period, in combination with a gap of -4.5% not being excessively above 3% would enable us to mitigate the effect on customer's retail bills in 2026. We note that the alternative, to bring the gap closer to 3%, would be greater network bill increases than we have proposed over 2024 and 2025.

Our proposed price path is set out in Table 8–2. The table also shows that forecast smoothed and unsmoothed reference service revenue over the 2020-25 AA period has the same net present value (**NPV**), consistent with rule 92(2).

Table 8–2: Proposed reference service revenue and price path ($2020, $M)

	2020-21	2021-22	2022-23	2023-24	2024-25	NPV
Total building block revenue - unsmoothed	270	460	487	491	483	2,027
Total building block revenue - smoothed	452	433	415	431	449	2,027
Real price change (A)	-13.28%	-5.00%	-5.00%	3.35%	3.35%	N/A
Inflation (B)	2.42%	2.42%	2.42%	2.42%	2.42%	N/A
Nominal price change (C)	**-11.18%**	**-2.70%**	**-2.70%**	**5.86%**	**5.86%**	**N/A**

(1) Nominal price change (C) for any year equals (1 + A) x (1+ B) – 1.

8.3 Revenue per dwelling

The affordability of gas services is particularly important to our customers. On this basis, we monitor and report reference service revenue per dwelling over current and future AA periods.

, and is significantly lower that the $514 revenue per dwelling in 2014-15.

[24] In its final decision for JGN's 2015-20 AA, the AER aligned final year unsmoothed and smoothed revenues to within 10%. See '*AER, Final Decision Jemena Gas Networks (NSW) Ltd, Access Arrangement 2015-20, Overview, June 2015.*' page 23.,

Table 8–3 shows that our proposed revenue will lead to sizeable reductions in revenue per dwelling over the period, and is significantly lower that the $514 revenue per dwelling in 2014-15.

Table 8–3: Reference service revenue per dwelling ($2020)[25]

	2020-21	2021-22	2022-23	2023-24	2024-25
Revenue per dwelling ($) – smoothed	299	280	263	267	272
Annual change	N/A	-6.33%	-6.34%	1.81%	1.76%

[25] From 1 July 2020, we are proposing that newly constructed apartment buildings with a centralised hot water system will only be able to connect through a single boundary meter. This means a single connection will supply on average about 88 units. This significantly reduces how many connections we make for each high-rise dwelling. To present data on a consistent basis over the 2011-25 period, we have used a revenue per dwelling rather than revenue per customer metric.