Jemena Gas Networks (NSW) Ltd

Revised 2020-25 Access Arrangement Proposal

Attachment 11.1

Response to the AER's draft decision - Capital Expenditure Sharing Scheme

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Abbreviations

AA	Access Arrangement
AER	Australian Energy Regulator
Capex	Capital Expenditure
CESS	Capital Expenditure Sharing Scheme
CPF	Contingent Payment Factor

Overview

This document sets out our response to the Australian Energy Regulator's (**AER**'s) draft decision on our proposal to introduce a Capital Expenditure Sharing Scheme (**CESS**) for the 2020–25 Access Arrangement (**AA**) Period.

In its draft decision, the AER has:

- Accepted our proposal to introduce a CESS, including the contingent payment mechanism, but requires the following modifications:
  - Remove the fixed principle (in clause 13.2 of the AA).
  - Update the capital expenditure (**capex**) forecast in clause 13.1(h)(iv) to reflect the draft decision capex forecast for the 2020-25 AA Period.
  - Add a new clause 13.1(i)(iv) that clarifies the application of a discount rate for deferred capex projects.
  - Revise the proposed targets in Schedule 9 to remove outliers.
  - Revise the mathematical formulas in clause 13 to ensure that they operate as intended.
- Asked us to:
  - Review the proposed targets used internally.
  - Further justify using an 80–100 range for the contingent payment mechanism rather than 90–100.

Table OV–1 summarises the AER's draft decision on CESS and our response. Section 1 includes our full response to the AER's draft decision.

Table OV–1: Response to the AER's draft decision on CESS

	AER Draft Decision	JGN response
Application of CESS in 2020-25 AA period	The AER accepted the CESS, including JGN's proposal to exclude connections capex from the operation of the scheme.	We accept the AER's draft decision.
CESS formulae	The AER accepted the modifications to the CESS formulae to correct minor errors, and to exclude connections capex from the operation of the scheme. The AER also requested that we amend clause 13.1 to align with the CESS model and to insert a new clause on WACC.	We largely accepted the AER's draft decision. We have made changes to the formulae for greater consistency with the mechanics of the CESS model. These changes largely incorporate feedback provided by the AER on 10 December 2019.
Contingent payment mechanism	The AER accepted the mechanism, but asked for further rationale, including why the range for the contingent payment factor should not be 90–100.	We have retained the 80–100 range for the contingent payment factor because it is consistent with the historical volatility of actual performance.
Service performance KPIs	The AER accepted the service performance KPIs proposed by JGN.	We accept the AER's draft decision.
KPI targets	The AER asked JGN to revise the proposed KPI targets by removing outliers and reviewing them against internal targets.	We have accepted the removal of outliers; but do not consider internal target appropriate for this purpose. To ensure consistency, we also propose that outliers are removed from actual performance.

	AER Draft Decision	JGN response
KPI weightings	The AER accepted our proposed KPI weightings.	We accept the AER's draft decision.
Fixed principle	The AER rejected our proposed fixed principle on the basis that the CESS should not automatically apply for two AA periods.	We have varied our proposed fixed principle to make clear that it relates only to incorporating any CESS benefit or penalty from performance over the 2020–25 AA Period into subsequent allowed revenues.

Attachments

Table OV–2 lists the attachments to our Revised 2020-25 AA Proposal which provide further information on our response to the AER's draft decision and the CESS.

Table OV–2: Revised 2020 AA Proposal attachments on the CESS

Attachment	Name	Author
11.1	Response to the AER's draft decision - CESS	JGN
11.2	Illustrative CESS model	JGN

1. JGN's response to the draft decision

The AER largely accepted our proposed CESS, including the general design, proposed measures and their weightings—a decision we welcome. The AER also asked for specific changes or further support in relation to the targets, the contingent payment mechanism, and the AA drafting. We address each of these below.

1.1 Targets

In its draft decision, the AER recommended that we review our proposed targets against our internal targets for each measure and remove outliers.[1]

In response, we have:

- Removed the outlier that Zincara identified for unplanned SAIDI.
- Proposed a new paragraph to the AA that removes observations from the asset performance index that are materially affected by events outside of JGN's control.
- Compared our estimated targets against JGN's internal targets, where relevant—ultimately concluding that these are broadly consistent or not relevant.

Each item is discussed below.

1.1.1 Removing outliers

Based on advice from Zincara,[2] the AER recommended that we remove outliers from the performance targets. In its report, Zincara observed from the SAIDI performance for 2013-2018 that there was an outlier in 2013-14.

We certainly understand the AER's recommendation and Zincara's observation. We are also mindful that there needs to be consistency between how the performance targets are set and how actual performance is measured. If outliers are removed when setting the performance targets, but not when assessing actual performance, then there is a risk that JGN may be unfairly penalised.

For instance, the higher unplanned SAIDI performance in 2013-14 was caused by the Blue Mountains bushfires in October 2013, which affected over 760 customers with over 160,000 customer hours off supply—an event that was outside of JGN's control. There is every chance that a similar event could occur in the future with a similar impact on SAIDI (or other performance measures). If the SAIDI performance target was set excluding the 2013-14 observation and such an event did occur during the 2020-25 AA Period (with a similar effect on SAIDI), then JGN's measured performance would likely be noticeably above the target even though performance may be entirely consistent with that used to set the target. Such an outcome would be inconsistent with the role of the contingent payment mechanism – being to ensure that there JGN is not rewarded for underspending its capex allowance when performance deteriorates.

To simplify the CESS design, our 2020-25 AA Proposal did not remove outliers nor adjust actual performance for such events. However, we see value in revising this position, provided it is done consistently (i.e. to both target setting and actual measurement).

Given this, we propose that:

- Outliers are removed when setting performance targets, and
- Material events outside of JGN's control are adjusted for when measuring actual performance.

[1] AER, *Draft decision – Jemena Gas Networks (NSW Ltd Access Arrangement 2020-25*, *Attachment 13: Capital expenditure sharing scheme*, 25 November 2019, page 10.

[2] Zincara, *Access Arrangement 2019*, *JGN Capital Expenditure Review*, 17 November 2019, page 123.

In terms of outliers, we have reviewed the historical data series used to calculate the performance targets. Just as Zincara did, we only identified one outlier, being the 2013-14 unplanned SAIDI observation. Removing this gives the updated target highlighted in Table 1–1.

Table 1–1: Performance targets adjusted for outliers

Measure	2020-25 AA Proposal	Outlier-adjusted target
Unplanned SAIFI	3.33	3.33
Unplanned SAIDI	40.95	13.07
Mains and services leaks	0.16	0.16
Meter leaks	8.15	8.15
Poor quality supply	0.92	0.92
Estimated meter reads	5.93%	5.93%

To ensure consistency, we propose adding paragraph (j) to Schedule 9 of the AA as follows:

> *The arithmetic average calculated in paragraph (b) will be adjusted to remove the impact of material events that are outside of JGN's control such as natural disasters (e.g. the October 2013 Blue Mountains bushfires, or major flooding) or third party damage to the pipeline (e.g. those that lead to 10,000 or more hours off supply). For instance, if an annual observation is so affected, then it will be adjusted to remove the reasonably estimated impact of such an event (i.e. specified in hours).*

Although similar adjustments could also reasonably be applied to the other measures in paragraphs (a), (c), (d), (e) and (f) of Schedule 9, we have opted to constrain this to just the unplanned SAIDI measure (in paragraph (b)) as it is the most likely to be affected by material events outside of JGN's control.

We look forward to engaging with the AER further on this proposal.

1.1.2 Comparing to internal targets

Also based on Zincara advice,[3] the AER recommended that we review our performance targets against any internal targets that we use.

Zincara explained that: [4]

> *where the actual performance targets are below the internal targets, a business will strive to achieve these internal targets which may result in additional expenditure. As such, it will be lowering the performance levels if we accept the actual performance without consideration to the internal targets. In addition, where the business has consistently performed above its internal targets, the new targets should be set at the actual performance as it would be expected that the expenditure incurred would have sustained the improvement.*

We have a different view. In essence, Zincara is saying that we will seek to achieve lower performance than we otherwise would if the CESS were introduced. There is no obvious reason for this to be the case.

If no CESS applied, then—as we do currently—we would seek to achieve our internal targets, which are often tied to both intrinsic and extrinsic rewards for employees. If the CESS was applied in the way we have proposed it, then all this would do is add an additional set of complementary targets. We would still have the same motivation to seek to achieve the internal targets; it is just that we would now also have motivation to achieve those embedded within the CESS. These CESS targets would complement the internal targets because in both cases we are seeking to maintain or improve performance. They would not be working against each other.

[3] Zincara, *Access Arrangement 2019*, *JGN Capital Expenditure Review*, 17 November 2019, page 123.

[4] Ibid, page 123.

Moreover, there is an obvious bias issue too. If the CESS targets were set by reference to internal targets, then a business would have the incentive to adjust those targets to improve its CESS outcomes. If this meant making the internal targets easier to achieve, then this could actually result in worse outcomes for customers (as we would no longer have to work as hard to achieve them). We do not consider the use of internal targets is consistent with the regulatory incentive framework.

Finally, Zincara's logic would undermine the AER's approach to setting the STPIS targets for regulated electricity businesses or the CESS targets for the Victorian gas distribution businesses. In both cases, the AER relies on targets calculated using historical performance. There are no adjustments to reflect the internal targets of the businesses that they apply to, in which case doing so for us would introduce an (as yet) unjustified inconsistency into the AER's practice.

The CESS we proposed was intended to incentivise us to find efficient capex savings without harming service performance, and to provide a balance between opex and capex incentives. We still consider this is the appropriate objective.

Nevertheless, for completeness and as recommended by the AER, we have compared the CESS performance targets (updated to remove outliers) against internal targets where available. In several cases internal targets were not directly comparable or did not exist. That comparison is shown in Table 1–2.

For those measures where we have comparable internal targets, one (poor quality supply) is above the historical average and two (unplanned SAIDI and meter reading) are below. However, for the reasons noted above, it would be inappropriate to replace the historical average with internal target.

- The internal unplanned SAIDI target reflects our internal ambition to improve upon past experience—we are not sure we will achieve this outcome.
- Similarly, our internal estimated meter reading target reflects our desire to improve on past performance—our recent experience suggests that the target may need to be revised because changes to systems and meter reading technology, along with other factors, makes it hard to predict what performance we can realistically achieve.

Our internal target is reviewed each year and is not the target for the 2020-25 period and therefore will not provide a reasonable basis for use. As such, we propose not to amend the historical averages to reflect our internal targets.

Table 1–2: Performance targets compared to internal targets

Measure	Outlier-adjusted target (from Table 1–1)	Internal target (where available)	Commentary
Unplanned SAIFI	3.33	N/A	We do not have a comparable internal target.
Unplanned SAIDI	13.07	11.3	Our internal target is lower than that estimated using historical data in large part because our internal target reflects ambition at one point at time.
Mains and services leaks	0.16	N/A	We do not have a comparable internal target.
Meter leaks	8.15	N/A	We do not have a comparable internal target.
Poor quality supply	0.92	1.40	Our internal target is higher than that estimated using historical data.

Measure	Outlier-adjusted target (from Table 1–1)	Internal target (where available)	Commentary
Estimated meter reads	5.93%	5.00%	Our internal target is lower than that estimated using historical data; recent experience raises doubts about its attainability.

1.2 Contingent payment mechanism

Following Zincara's suggestion,[5] the AER asked us to consider and provide further rational for our proposed range for the contingent payment factor (**CPF**) of 80–100, including as to why it should not be 90–100.

The rationale for using a sliding scale for the CPF was to recognise that there can be natural variation in measured performance due to factors outside of our control. Weather, third party damage, and a raft of other issues can lead to leaks, outages, poor quality, or meter reading estimates. Given that it is not possible to adjust the measured performance to remove the impact of those factors, it would be unfair to penalise us (i.e. by not allowing us to recover all or any of the CESS benefit) just because measured performance dropped.

The sliding scale, therefore, acts as a continuum. Small reductions in performance, which *may* be caused by factors outside of our control, only penalise a little. More significant reductions (up to 20% under our proposal) that could indicate noticeable deterioration in performance can lead to most if not all of any CESS benefit being removed.

Our proposed range should be assessed with the above genesis in mind. Our proposed range was developed to be consistent with both:

- the CESS approved for the Victorian gas distribution businesses, and
- historical performance (i.e. taking into account the historical volatility of the measures).

We discuss each of these items below.

1.2.1 Victorian CESS

Precedent and consistency are both important to economic regulation. Although it should not bind AER practice, it should act as a starting point for decisions unless there is good reason to vary.

Our CPF range is based on the Victorian CESS which was designed after extensive consultation and AER consideration. Ultimately the AER accepted the 80–100 after the Victorian gas distribution businesses revised the range (from 60–80) to better reflect the historical variation.

We used this as the starting point for our proposed CESS, including for stakeholder engagement. We do not see any compelling reason to use a different range to Victorian businesses.

1.2.2 Historical volatility

Zincara offers one potential reason to change; namely that a visual inspection of five observations for five of the six measures suggests that actual performance has been relatively constant. This is not a particularly scientific approach to assessing stability, nor does it lend support to a lower bound of 90 instead of the 80 we proposed.

However, using statistics to measure historical volatility *does* provide some useful insight. Table 1–3 shows the five-year average of historical data used to calculate the performance targets included in our 2020–25 AA Proposal. It then compares this to the sample standard deviation from the same data, which is a measure of the

[5] Zincara, *Access Arrangement 2019*, *JGN Capital Expenditure Review*, 17 November 2019, pages 124–125.

average variation from those targets. Finally, the righthand column then takes the ratio of the sample standard deviation to the target to give the average variation in percentage terms.

The results are instructive. Three of the six measures have sample standard deviations greater than 20% of the targets, meaning that average historical variation has been more than 20% from the performance target. Another is very close (at 19.17%). The weighted average ratio is 33.65% or 23.07% if the unplanned SAIDI outlier is removed.

An expected weighted average variation from the targets of at least 20% is consistent with a lower bound for the CPF of 80. At that bound, we would receive no CESS benefit even if we underspent our capex allowance. Given that actual performance can be affected by a range of factors—including many that are outside of our control—it is entirely consistent with the rationale for including a sliding scale to set it by reference to the average variation from the target.

Table 1–3: Historical volatility of the measures

Measure	Five-year average	Standard deviation	Coefficient of variation[1]
Unplanned SAIFI	3.33	0.36	10.83%
Unplanned SAIDI (bracketed value is if outlier removed)	40.95 (13.07)	62.56 (6.14)	152.77% (46.99%)
Mains and services leaks	0.16	0.01	9.06%
Meter leaks	8.15	1.55	19.17%
Poor quality supply	0.92	1.25	27.24%
Estimated meter reads	5.93%	2.66%	44.83%
Weighted average			**33.65% (23.07%)**

(1) Calculated as the standard deviation divided by the five year average

1.3 Access Arrangement drafting

The AER's draft decision requests several changes to the AA, including:

- Remove the fixed principle (in clause 13.2 of the AA).
- Update the capex forecast in clause 13.1(h)(iv) to reflect the draft decision capex forecast for the 2020-25 AA Period.
- Add a new clause 13.1(i)(iv) that clarifies the treatment of the discount rate.
- Revise the proposed targets in Schedule 9 to remove outliers.
- Revise the mathematical formulas in clause 13 to ensure that they operate as intended.

Our responses to these requests are summarised in Table 1–4. We elaborate on the fixed principle (section 1.3.1) and formula (section 1.3.2) changes below. We also propose a slight change to the capex description in clause 13.1(b)(v)(A) to make clear the intent, which we discuss below (section 1.3.3).

Table 1–4: AA amendments

Requested amendment	Changes made	Explanation
Remove fixed principle	Retained fixed principle in clause 13.1, but revise it to make clear that it only applies to the penalties and benefits that result from applying the CESS over the 2020–25 AA Period: *The principle in section 13 is a fixed principle (as provided for in Rule 99 of the National Gas Rules) only to the extent to enable rewards or penalties arising from the application of the CESS in this Access Arrangement Period (being the access arrangement period commencing 1 July 2020) to be realised in a subsequent access arrangement period as contemplated by clauses 13.1(k)(iii) and 13.1(l). This fixed principle remains in force for the Access Arrangement Period covered by this Access Arrangement. The principle is also fixed for the next two access arrangement periods.*	The final CESS benefits and penalties will only be known *after* the AA decision for the 2025–30 AA period (as actual 2024-25 capex will not be known) and so they can only be fully accounted for in the 2030–35 AA period. A fixed principle is therefore needed to ensure that this happens, consistent with that applying to the EBSS in clause 12.2.
Update the capex forecast	Update the forecast capex in clause 13.1(h)(iv) to reflect our revised proposal capex included in Attachment 4.2.	Although we agree that the CESS capex forecasts should reflect those approved by the AER, we have proposed changes to the AER's draft decision capex forecasts and so have adopted those.
Add a new discount rate clause	We have not added the recommended new clause 13(i)(iv) as the same clause is contained in clause 13.1(b)(vi). *A discount rate will be applied to account for the time value of money. This adjustment will also be required for the penultimate year of the Access Arrangement where finalised actual capex figures are not available before finalising the regulatory determination.*	Unnecessary to duplicate the clause.
Revise the propose targets	Target for unplanned SAIDI revised to 13.07 (down from 40.95) in paragraph (g) of schedule 9. Added a new paragraph (j) to schedule 9 to ensure that material events outside of JGN's control are removed from measured unplanned SAIDI: *The arithmetic average calculated in paragraph (b) will be adjusted to remove the impact of material events that are outside of JGN's control such as natural disasters (e.g. the October 2013 Blue Mountains bushfires, or major flooding) or third party damage to the pipeline (e.g. those that lead to 10,000 or more hours off supply). For instance, if an annual observation is so affected, then it will be adjusted to remove the reasonably estimated impact of such an event (i.e. specified in hours).*	As discussed in section 1.1.1 above, there is a case for removing outliers from the data used to calculate the targets. However, any such adjustment should be symmetrical. We have therefore also proposed adding a clause that ensures that events that are outside of JGN's control and have a material effect on measured unplanned SAIDI are adjusted.

Requested amendment	Changes made	Explanation
Revise mathematical formulas	Incorporated the edits provided by the AER on 10 December 2019, with some minor amendments to improve clarity and consistency in terminology.	The formula updates help align the AA clause with the calculations reflected in the illustrative CESS model that we provided.

1.3.1 Fixed principle

Our proposal included a fixed principle (clause 13.2 of the AA) that the CESS clause would remain in effect for two AA periods after 2020–25 AA Period. The intent was to ensure that any CESS rewards and penalties that result from that period are reflected in allowed revenues.

Specifically, rewards or penalties from actual capex in:

- the first four years of the 2020–25 AA Period will be reflected in the revenue requirement for the 2025–30 AA Period, and
- the final year of the 2020–25 AA Period—which will not be known by the time the revenue requirement for the 2025–30 AA Period is known—will be reflected in the revenue requirement for the 2030–35 AA Period.

We considered it necessary for a fixed principle to embed this into the AA, consistent with the equivalent fixed principle adopted for the EBSS (in clause 12.2 of the AA).

The AER did not agree. After observing that it will: [6]

> *continue to consult on its operation, monitor the outcomes and address any issues that may arise at the time of the next access arrangement review*

and concluding that: [7]

> *we do not approve JGN's proposal to apply a fixed principle for 10 years in relation to the CESS. Consistent with our Victorian considerations, it is premature to specify the funds that the CESS will apply too.*

For the reasons noted above, a fixed principle is needed to ensure that any CESS rewards or penalties resulting from performance over the 2020–25 AA Period are reflected in the revenue requirement over the subsequent two AA periods. In doing so, there is no need to specify that the CESS will apply to capex incurred after the 2020–25 AA Period.

To ensure that the fixed principle (in clause 13.2) accurately reflects our intent, we propose updating it to:

> *The principle in section 13 is a fixed principle (as provided for in Rule 99 of the National Gas Rules) only to the extent to enable rewards or penalties arising from the application of the CESS in this Access Arrangement Period (being the access arrangement period commencing 1 July 2020) to be realised in a subsequent access arrangement period as contemplated by clauses 13.1(k)(iii) and 13.1(l). This fixed principle remains in forecast for the Access Arrangement Period covered by this Access Arrangement. The principle is also fixed for the next two access arrangement periods.*

We look forward to engaging further with the AER on this.

6 AER, *Draft decision – Jemena Gas Networks (NSW Ltd Access Arrangement 2020-25, Attachment 13: Capital expenditure sharing scheme*, 25 November 2019, page 11.

7 AER, *Draft decision – Jemena Gas Networks (NSW Ltd Access Arrangement 2020-25, Attachment 13: Capital expenditure sharing scheme*, 25 November 2019, page 12.

1.3.2 Formula changes

Clause 13.1 of the proposed AA contains formulas and descriptions that detail how the CESS should apply. In its draft decision, the AER proposed: [8]

> *changes to the mathematical notation in clause 13 of the JGN 2020–25 access arrangement undertaking to make it mathematically consistent with JGN's illustrative CESS, that we consider is applying the CESS as intended. We will work with JGN in finalising the drafting of the 2020–25 access arrangement to ensure the CESS mathematical notation is clear and operates as intended.*

We have engaged with the AER since its draft decision, including on proposed updates to the formulas and descriptions.

We have incorporated these into our proposed amendments to clause 13.1, with some minor amendments, and look forward to engaging with the AER further on these, if required.

1.3.3 Description of capital expenditure

Clause 13.1(b)(v) defines what is meant by 'capital expenditure'. Our original intent was for this to exclude capex that related to connections, consistent with the feedback we received from stakeholders. Sub-paragraph (A) attempted to make this clear.

However, we realise that this may not have been as clear, and therefore have updated the drafting in clause 13.1(b)(v)(A) to tie the concept of connections capex with that which is required to be incurred under the National Gas Rules. The drafting now reads as follows:

> *exclude expenditure related to connecting customers (i.e. connections capex under Chapter 12A of the National Gas Rules);*

This has the effect of cross-referencing an existing definition contained within the National Gas Rules.

[8] AER, *Draft decision – Jemena Gas Networks (NSW LTd Access Arrangement 2020-25*, *Attachment 13: Capital expenditure sharing scheme*, 25 November 2019, page 12.