Attachment 7: Capital base

Access Arrangement Information for the 2016-21 ACT, Queanbeyan and Palerang Access Arrangement

Submission to the Australian Energy Regulator

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7 Capital base

Key points

- A capital base of $367.5 million at 1 July 2016 is obtained by rolling forward the capital base in the 2010-16 period and adding conforming capital expenditure (capex).
- The depreciation schedule is based on a straight-line depreciation method using the AER's method to determine the remaining lives at the commencement of the next access arrangement on 1 July 2016.
- ActewAGL Distribution proposes that forecast capex also be used at the next review in 2020-21 to roll forward the capital for the 2016-21 period.

Consumer benefits

- By establishing a correct capital base, only prudent and efficient capex will be recovered from consumers.

This attachment of the access arrangement information outlines the derivation of the opening capital base and the roll forward of the capital base for the 2016-21 period of the ActewAGL Distribution gas network from which a return on and of capital are calculated. The information included in the attachment and accompanying appendices also provide the information required in the Australian Energy Regulator (AER) Regulatory Information Notice.

7.1 Opening capital base for the access arrangement period

Rule 72(1)(b) of the National Gas Rules (Rules) requires access arrangement information to detail how the capital base is arrived at and how the capital base changed over the previous access arrangement period.

The procedure for rolling forward a capital base from one access arrangement period is laid down in Rule 77(2). This specifies that:

> *If an access arrangement period follows immediately on the conclusion of a preceding access arrangement period, the opening capital base for the later access arrangement period is to be:*
>
> *a) the opening capital base as at the commencement of the earlier access arrangement period adjusted for any difference between estimated and actual capital expenditure incurred in that opening capital base. This adjustment must also remove any benefit or penalty associated with any difference between the estimated and actual capital expenditure; plus*

b) *conforming capital expenditure made, or to be made, during the earlier access arrangement period; plus*
c) *any amounts to be added to the capital base under rule 82 [capital contributions], 84 [speculative capital expenditure account] or 86 [re-use of redundant assets]; less*
d) *depreciation over the earlier access arrangement period (to be calculated in accordance with any earlier provisions of the access arrangement governing the calculation of depreciation for the purpose of establishing the opening capital base); and*
e) *redundant assets identified during the course of the earlier access arrangement period; and*
f) *the value of pipeline assets disposed of during the earlier access arrangement period.*

This procedure, as relevant to the calculation of the opening capital base for ActewAGL Distribution's ACT, Queanbeyan and Palerang gas distribution network, is discussed in the following sections. Section 7.3 demonstrates the increase in the capital base over the earlier access arrangement period.

7.2 Opening capital base on 1 July 2009

The capital base approved by the AER for ActewAGL Distribution's gas network at 1 July 2010 was $278.1 million (nominal). This amount includes estimated net capital expenditure of $15.5 million for 2009/10. The actual net capital expenditure completed in 2009/10 was $10.2 million. Therefore, the capital base at 1 July 2010 requires adjustment for variations between the estimated capex for 2009/10 and the actual capex. The variation in capex in 2009/10 was -$5.3 million (nominal) from the forecast. This was primarily driven by lower expenditures due to the deferral and reprioritisation of projects, such as the Canberra Primary Scraper Stations ($1.2 m (nominal)). Further details on historical expenditure undertaken during the 2010-15 access arrangement period is provided in attachment 6.

The opening capital base on 1 July 2009 was $266.8 million, which was used by AER in its 2010 final decision Roll Forward Model (RFM). A breakdown of this opening capital base values by asset class is available in the RFM in appendix 7.01 and has been used to roll forward the capital using actual capex figures.

7.3 Opening capital base on 1 July 2016

Using the opening capital base on 1 July 2009, ActewAGL Distribution has adjusted its capital for the 2010-2016 period as follows:

Opening capital base, 1 July 2009

+ indexation of the capital base

+ conforming capital expenditure

- depreciation

- capital contributions

+ adjustments from 2009/10 actual capital expenditure versus forecast.

ActewAGL Distribution has not had any conforming assets from speculative investment, redundant assets, re-used redundant assets or asset disposals and has therefore not adjusted the capital base for these items.

ActewAGL Distribution has used the AER's RFM to roll forward the capital base. Below, ActewAGL Distribution addresses these steps.

Indexation of the capital base

Consistent with the AER's RFM and the post-tax revenue model (PTRM), the capital base has been indexed using CPI. ActewAGL Distribution has used actual CPI between 2010 and 2014 and a forecast CPI of 2.52 per cent for 2015/16, which is consistent with the AER's determined forecast CPI in 2010.

Conforming capex during 2010-15 and the extension year (2015/16)

Conforming capex for the 2010-15 period is described and analysed in attachment 6 of this access arrangement information and is summarised in Table 7.1. As detailed in attachment 6, ActewAGL Distribution considers its capex in the earlier access arrangement period to be prudent and efficient. The AER's allowance for the earlier access arrangement period (2010-15) is expected to be underspent by $4.9 million ($2015/16) as a result of prudent deferrals of meter-replacement programs and of deferred capacity development projects owing to lower than anticipated demand.

During the extension year (2015/16), ActewAGL Distribution has forecast to incur $33.2 million in net capital expenditure. ActewAGL Distribution has included this prudent and efficient expenditure forecast in its opening capital base from 1 July 2016.

Table 7.1 Conforming capex 2010-15 and the extension year by asset class

$ million (nominal)	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Primary (HP) Mains	2.4	3.4	1.4	1.2	6.3	6.5	10.3
HP Services	-	-	-	-	-	-	-
MP Mains	3.2	3.6	4.0	3.6	3.3	2.7	5.6
MP Services	2.6	3.0	2.6	2.9	3.4	3.9	4.6
Regulators, Valves (TRS, SRS)	0.0	0.2	3.5	7.3	0.9	6.1	6.2
Contract meters	0.4	1.0	1.0	1.6	1.8	0.9	1.7
Tariff meters	1.0	1.3	1.5	2.7	2.3	3.7	5.0
Regulatory costs	0.6	-	-	-	-	-	-
IT System	0.3	0.3	0.2	0.1	-0.2	-	-

Depreciation

Rule 77(2)(d) includes that depreciation over the earlier access arrangement period is:

> *… to be calculated in accordance with any relevant provisions of the access arrangement governing the calculation of depreciation for the purpose of establishing the opening capital base.*

Depreciation has therefore been calculated according to the approach determined by the AER in its previous review. In its 2010 final decision, the AER determined that:

> *In calculating the Capital Base at that time [the commencement of the next access arrangement period], depreciation is to be based on forecast capital expenditure.*[1]

As a result of the depreciation used to roll forward the capital base being based on forecast capex, ActewAGL Distribution has amended the RFM to enable this.

For the extension year 2015/16, ActewAGL Distribution includes a forecast as part of this access arrangement proposal and proposes that this be used to roll forward the capital base to 1 July 2016. This has been estimated using the 2010 final decision's remaining and standard lives.

Depreciation by asset class, assigned standard life and remaining life are provided in the RFM, appendix 7.01 of this access arrangement information. All asset classes are consistent with the RFM used by the AER in its 2010 final decision.

Capital contribution

Rule 82 addresses the treatment of capital contributions by users in capex. The effect of this rule is that capex, to the extent contributed by users, is not eligible for inclusion in the capital base (unless a mechanism is proposed under sub-rule 82(3)) to prevent the service provider from raising increased revenue as a result of the inclusion.

Capital contributions incurred during the 2010-16 period are shown in appendix 7.01. ActewAGL Distribution has not, and does not, propose to roll into the capital base any capex funded by a capital contribution, which is consistent with how the AER's RFM operates.

Conforming assets from speculative investment

Rule 84(3) allows for a portion of a *speculative capital expenditure account*, created for non-conforming capex, to be withdrawn from the account and rolled into the capital base at the commencement of the next access arrangement period. ActewAGL Distribution does not have a speculative capex account and therefore the opening capital base on 1 July 2016 will not incorporate amounts from such an account.

Re-use of redundant assets

Rule 86 allows for the re-instatement to the capital base of assets previously identified as redundant, but which later contribute to the delivery of pipeline services. No ActewAGL Distribution gas network assets have been classed as redundant and therefore no addition to the capital base is possible for re-use of redundant assets.

Capital redundancy

Rule 85 states that a full access arrangement may include a mechanism to ensure that assets that cease to contribute in any way to the delivery of pipeline services are removed from the capital base.

ActewAGL Distribution considers that no assets need to be removed from the opening capital base under this provision.

[1] *Access arrangement for the ACT, Queanbeyan and Palerang gas distribution network, 1 July 2010 – 30 June 2015, Amended by order of the Australian Competition Tribunal made on 23 September 2010,* p. 21.

Asset disposal

ActewAGL Distribution did not forecast any asset disposals and has not incurred (or forecast) any disposals during the 2010-16 period.

Adjustment for actual capex in 2009/10 versus forecast

As noted above, ActewAGL Distribution's actual capex in 2009/10 was $5.3 million lower than the forecast at the time of the AER's final decision in 2010. Before determining the opening capital base on 1 July 2016, ActewAGL Distribution has made an adjustment for the actual capex in 2009/10, including a return on the difference for the period. This is consistent with the AER's RFM.

Opening capital base on 1 July 2016

Combining the elements above with an opening capital base value as at 1 July 2009 of $266.8 million, ActewAGL Distribution has rolled forward the capital base for the 2010-16 period using the AER's RFM. The demonstration of the increase in the ActewAGL Distribution gas network business capital base and rolled-forward value of the capital base to 30 June 2016 of $367.5 million is provided in Table 7.2. This excludes negative values for the asset class 'IT system' that, during the 2010-16 period, have been fully depreciated. The details of the calculations are included in appendix 7.01.

Table 7.2 Roll forward of the capital base 2010-16

$ million (nominal)	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Opening RAB	266.8	278.1	288.6	302.2	313.8	326.9	346.1
plus net capex	15.5	12.0	15.0	18.7	18.6	24.8	34.8
less regulatory depreciation	4.2	1.5	1.4	7.1	5.5	5.6	5.8
Closing RAB	278.1	288.6	302.2	313.8	326.9	346.1	375.1
Adjustment to opening value							-8.3
Exclusion of fully depreciated assets (with negative values on 30 June 2016)							+0.7
Opening RAB 1 July 2016							367.5

7.4 Projected capital base over the access arrangement period

The opening capital base for the access arrangement period is that derived in Table 7.2. ActewAGL Distribution has rolled forward the opening capital base for the 2016-21 period as follows:

- adding forecast efficient prudent capex (exclusive of contributed assets), derived in attachment 6 of this access arrangement proposal;
- deducting depreciation calculated as per the AER's PTRM; and
- indexing the annual closing capital base.

Consistent with the outcome during the 2010-15 period, ActewAGL Distribution does not forecast any cash disposals. The roll forward of the capital base is shown in Table 7.4

Capex
ActewAGL Distribution's forecast capex is discussed in attachment 6. ActewAGL Distribution has added the net (of capital contributions) capex proposed to the capital base. The detailed capex figures used to roll forward the capital base are included in the PTRM in appendix 11.01.

ActewAGL Distribution does not have a speculative capex fund (or a corresponding speculative investment account under the former Gas Code), nor does it intend to establish one during the 2016-21 period.

Depreciation
For the 2016-21 period, ActewAGL Distribution proposes to roll forward the capital base using the depreciation as calculated by the AER's PTRM and considers this to be consistent with Rule 77(1)(c)(ii) which requires that access arrangement information includes the projected capital base over the access arrangement period, including a forecast of depreciation for the period, including a demonstration of how the forecast is derived on the basis of the proposed depreciation method.

Before calculating depreciation, ActewAGL Distribution has reviewed the standard lives and remaining lives for the access arrangement commencing 1 July 2016 which underpin the calculation of depreciation.

ActewAGL Distribution has separated its regulatory assets into nine asset classes. Each asset category has been assigned a standard life. All assets apart from IT systems have been assigned a remaining life. The capital base for IT systems had been fully depreciated on 1 July 2016, which is why no remaining life has been assigned to this asset class. The assigned standard and remaining lives reflect the expected economic life of those assets. The standard life is consistent with what has been applied during the 2010-16 period.

In relation to remaining lives, ActewAGL Distribution has adopted the AER's approach to estimate remaining lives, included in its RFM. The starting point for this calculation is the AER's 2010 final decision remaining life estimate. This has been weighted by the forecast capex during the 2010-16 period to calculate a starting remaining life on 1 July 2016. Regulatory costs had been fully depreciated by 2016, but due to the adjustment mechanism for expenditure incurred in 2009/10 where ActewAGL Distribution incurred slightly more expenditure than forecast, Regulatory costs have an opening value of $0.16 million in 2016. Given that this value is 'outside' the roll forward model's remaining life calculation and the expenditure relates to an adjustment for 2009/10, ActewAGL Distribution considers that the value should be depreciated expediently as the standard life for regulatory costs is five years, and has assigned a remaining life of one year to fully depreciate this adjustment value in the first year of the 2016-21 access arrangement. Table 7.3 sets out the remaining asset lives of each asset categories.

Table 7.3 Remaining lives at 1 July 2016

Asset class	1 July 2016
Primary (HP) Mains	65.0
HP Services	26.5
MP Mains	27.3
MP Services	37.5
Regulators, Valves (TRS, SRS)	12.0
Contract meters	12.5
Tariff meters	11.5
Regulatory costs	1.0
IT System	n/a

The depreciation in the PTRM is based on straight-line depreciation. Straight-line depreciation ensures that an asset is only depreciated once and promotes the efficient growth in the market for gas distribution services in the ACT and surrounding regions. For the 2016-21 access arrangement, ActewAGL Distribution considers that straight-line depreciation provides sufficient cash flows for ActewAGL Distribution to meet its expected financing costs during the access arrangement period. ActewAGL Distribution's network is growing and it does not propose to defer any of its depreciation.

Indexation of the regulatory asset base (RAB)

ActewAGL Distribution has used the AER's PTRM to index the annual closing capital base with forecast inflation as set out in attachment 8.

Rolling forward the capital base 2016-21

Combining the elements from above, including the opening capital base value as at 1 July 2016 of $367.5 million, ActewAGL Distribution has rolled forward the capital base for the 2016-21 period using the AER's PTRM. This results in a capital base at 30 June 2021 of $466.5 million, as shown in Table 7.4. The details of these calculations are included in appendix 11.01.

Table 7.4 Projected capital base, 2016/17 to 2020/21

$ million (nominal)	2016/17	2017/18	2018/19	2019/20	2020/21
Opening capital base	367.5	386.9	410.7	432.2	452.9
plus Forecast capex	23.5	28.5	27.0	27.2	21.0
less regulatory depreciation	4.1	4.7	5.5	6.5	7.4
less Projected redundant assets					
less Forecast disposals					
Closing capital base	**386.9**	**410.7**	**432.2**	**452.9**	**466.5**

7.5 Provisions for calculating depreciation for the 2021 opening capital base

Rule 90 specifies that a full access arrangement must contain provisions governing the calculation of depreciation for establishing the opening capital base for the next access arrangement period after the one to which the access arrangement currently relates.

For establishing the opening capital base for the access arrangement commencing on 1 July 2021, ActewAGL Distribution proposes to adopt a depreciation schedule that has been calculated using *forecast* capex for rolling forward the capital base from 1 July 2016 to 30 June 2021. This is consistent with how the capital base has been rolled forward during the 2010-16 period. As provided by Rule 90(2), ActewAGL Distribution elects in this access arrangement proposal (for the next access arrangement commencing on 1 July 2021) to use forecast depreciation in rolling forward the capital base. ActewAGL Distribution also notes that this is consistent with AER's 2015 final decision for Jemena Gas Network's NSW access arrangement and with the AER's previous Access Arrangement Guideline that was used during the 2010 access arrangement review.

In relation to the 2015/16 year, ActewAGL Distribution also proposes that forecast depreciation be adopted when establishing the opening capital base in 2021. In effect, this should result in a very close match between the actual and forecast depreciation amount given that the AER's final decision in 2016 will rely on partly actual expenditure incurred for that year. This will result in a consistent treatment of depreciation throughout the entire 2015-21 period.

7.6 Capital redundancy mechanism

Rule 85 provides that the service provider may include a mechanism to ensure that assets that cease to contribute in any way to the delivery of pipeline services are removed from the capital base. Before requiring a capital redundancy mechanism, the AER must take account of the uncertainty such a mechanism would cause and the effect of such uncertainty on the service provider, users and prospective users. For the reasons set out in the explanation of the changes to the access arrangement, ActewAGL Distribution does not consider that a capital redundancy mechanism is needed for the 2016-21 period.

Abbreviations used in this document

Abbreviation	Full term
ACT	Australian Capital Territory
AER	Australian Energy Regulator
capex	capital expenditure
CPI	Consumer Price Index
PTRM	post-tax revenue model
RAB	regulatory asset base
RFM	roll-forward model
Rules, the	National Gas Rules