



**DRAFT DECISION**  
**Australian Gas Networks**  
**Access Arrangement**  
**2016 to 2021**

**Attachment 10 – Reference**  
**tariff setting**

November 2015

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Inquiries about this publication should be addressed to:

Australian Energy Regulator  
GPO Box 520  
Melbourne Vic 3001

Tel: (03) 9290 1444

Fax: (03) 9290 1457

Email: [AERInquiry@aer.gov.au](mailto:AERInquiry@aer.gov.au)

## Note

This attachment forms part of the AER's draft decision on Australian Gas Networks' access arrangement for 2016–21. It should be read with all other parts of the draft decision.

The draft decision includes the following documents:

Overview

Attachment 1 - Services covered by the access arrangement

Attachment 2 - Capital base

Attachment 3 - Rate of return

Attachment 4 - Value of imputation credits

Attachment 5 - Regulatory depreciation

Attachment 6 - Capital expenditure

Attachment 7 - Operating expenditure

Attachment 8 - Corporate income tax

Attachment 9 - Efficiency carryover mechanism

Attachment 10 - Reference tariff setting

Attachment 11 - Reference tariff variation mechanism

Attachment 12 - Non-tariff components

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## Shortened forms

| Shortened form        | Extended form                             |
|-----------------------|---|
| AA                    | Access Arrangement                        |
| AAI                   | Access Arrangement Information            |
| AER                   | Australian Energy Regulator               |
| ATO                   | Australian Tax Office                     |
| capex                 | capital expenditure                       |
| CAPM                  | capital asset pricing model               |
| CCP                   | Consumer Challenge Panel                  |
| CESS                  | Capital Expenditure Sharing Scheme        |
| CPI                   | consumer price index                      |
| CSIS                  | Customer Service Incentive Scheme         |
| DRP                   | debt risk premium                         |
| EBSS                  | Efficiency Benefit Sharing Scheme         |
| ERP                   | equity risk premium                       |
| Expenditure Guideline | Expenditure Forecast Assessment Guideline |
| gamma                 | Value of Imputation Credits               |
| GSL                   | Guaranteed Service Level                  |
| MRP                   | market risk premium                       |
| NECF                  | National Energy Customer Framework        |
| NERL                  | National Energy Retail Law                |
| NERR                  | National Energy Retail Rules              |
| NGL                   | national gas law                          |
| NGO                   | national gas objective                    |
| NGR                   | national gas rules                        |
| NIS                   | Network Incentive Scheme                  |
| NPV                   | net present value                         |
| opex                  | operating expenditure                     |
| PFP                   | partial factor productivity               |
| PPI                   | partial performance indicators            |
| PTRM                  | post-tax revenue model                    |
| RBA                   | Reserve Bank of Australia                 |

| Shortened form | Extended form                               |
|----------------|---|
| RFM            | roll forward model                          |
| RIN            | regulatory information notice               |
| RoLR           | retailer of last resort                     |
| RPP            | revenue and pricing principles              |
| SLCAPM         | Sharpe-Lintner capital asset pricing model  |
| STPIS          | Service Target Performance Incentive Scheme |
| TAB            | Tax asset base                              |
| UAFG           | Unaccounted for gas                         |
| WACC           | weighted average cost of capital            |
| WPI            | Wage Price Index                            |

## 10 Reference tariff setting

This attachment outlines our assessment of the reference tariffs proposed by Australian Gas Networks (AGN) against the requirements of the National Gas Rules. Our assessment focuses on the structure of reference tariffs and takes into account the revenue and pricing principles.<sup>1</sup>

### 10.1 Draft decision

We accept AGN's proposed structure of reference tariffs for the 2016–21 access arrangement period. We are satisfied the proposed structure of the reference tariffs complies with the requirements of the NGR.<sup>2</sup>

Nevertheless, the quantum of the proposed reference tariffs must be amended to reflect the revised revenue allowance set out in this draft decision.

We also accept AGN's proposed prudent discounts.<sup>3</sup> We note these are consistent with the prudent discounts we approved for AGN's past two access arrangements.

### 10.2 AGN's proposal

Australian Gas Networks proposed reference tariffs for the 2016–21 access arrangement period are consistent with those in the current access arrangement. AGN stated that its stakeholder engagement indicated support for the continuation of the current access arrangement tariff structures but this should be continually reviewed.<sup>4</sup>

It proposed a change, to regional tariff D structures to be consistent with the tariff D structures in the Adelaide region.<sup>5</sup> AGN's proposal also included three additional ancillary reference services which have been requested by stakeholders through the retailer reference group.<sup>6</sup>

The reference tariffs proposed by AGN are outlined in Table 10.1. The ancillary reference tariffs proposed by AGN are outlined in Table 10.2.

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<sup>1</sup> NGL, ss. 24(2)–(7).

<sup>2</sup> NGR, rr. 93, 94.

<sup>3</sup> NGR, r. 96.

<sup>4</sup> AGN, *Access arrangement information*, July 2015, p. 246.

<sup>5</sup> AGN, *Access arrangement information*, July 2015, pp. 248–249.

<sup>6</sup> AGN, *Access arrangement information*, July 2015, p. 249.

**Table 10.1 AGN’s proposed initial tariff classes and tariff charge components**

| Customer category | Tariff class            | Tariff category                 | Charge components  |
|-------------------|-------------------------|---------------------------------|--|
| <b>Domestic</b>   | Tariff R – Residential  | Residential (excluding Tanunda) | One fixed charge<br>Three volume throughput block charges<br>Ancillary reference charges |
|                   | Tariff R – Residential  | Residential – Tanunda           | One fixed charge<br>Three volume throughput block charges<br>Ancillary reference charges |
| <b>Commercial</b> | Tariff C – Commercial   | Commercial (excluding Tanunda)  | One fixed charge<br>Four volume throughput block charges<br>Ancillary reference charges  |
|                   | Tariff C – Commercial   | Commercial – Tanunda            | One fixed charge<br>Four volume throughput block charges<br>Ancillary reference charges  |
| <b>Demand</b>     | Tariff D – Northern     | Tariff D                        | Five capacity throughput block charges<br>Ancillary reference charges                    |
|                   | Tariff D – Central      | Tariff D                        | Five capacity throughput block charges<br>Ancillary reference charges                    |
|                   | Tariff D – Southern     | Tariff D                        | Five capacity throughput block charges<br>Ancillary reference charges                    |
|                   | Tariff D – Peterborough | Tariff D                        | Five capacity throughput block charges<br>Ancillary reference charges                    |
|                   | Tariff D – Port Pirie   | Tariff D                        | Five capacity throughput block charges<br>Ancillary reference charges                    |
|                   | Tariff D – Riverland    | Tariff D                        | Five capacity throughput block charges<br>Ancillary reference charges                    |
|                   | Tariff D – South East   | Tariff D                        | Five capacity throughput block charges<br>Ancillary reference charges                    |
|                   | Tariff D – Whyalla      | Tariff D                        | Five capacity throughput block charges<br>Ancillary reference charges                    |

Source: AGN, *Access arrangement information*, July 2015, pp. 247–249.



**Table 10.2 AGN’s proposed ancillary reference services**

| Ancillary reference service                   |
|---|
| Special meter reading                         |
| Disconnection                                 |
| Reconnections                                 |
| Meter gas and installation test (new service) |
| Meter removal (new service)                   |
| Meter reinstallation (new service)            |

Source: AGN, *Access arrangement information*, July 2015, p. 249.

### 10.3 AER’s assessment approach

In a an access arrangement, a service provider is required to specify for each reference service the reference tariff and proposed approach to setting the reference tariffs.<sup>7</sup> This is done by:

- explaining how revenues and costs are allocated, including the relationship between costs and tariffs<sup>8</sup>
- define the tariff classes<sup>9</sup>
- comparing the revenue to be raised by each reference tariff with the cost of providing each individual reference service<sup>10</sup>
- explaining and describing any pricing principles it employed.<sup>11</sup>

We are required to assess AGN’s proposed reference tariffs.<sup>12</sup> Where we do not accept them, we must determine the initial (i.e. 2016) reference tariffs to apply for each reference service.

In our assessment of the proposed reference tariff, we reviewed AGN’s:

- access arrangement information<sup>13</sup>
- access arrangement proposal<sup>14</sup>
- additional information provided in response to our information requests.<sup>15</sup>

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<sup>7</sup> NGR, rr. 48(1)(d)(i), 72(1)(j).

<sup>8</sup> NGR, rr. 72(1)(j)(i), 93(1)–(2).

<sup>9</sup> NGR, r. 94(1)–(2).

<sup>10</sup> NGR, r. 94(3).

<sup>11</sup> NGR, r. 72(1)(j)(ii).

<sup>12</sup> NGR, r. 97(4).

<sup>13</sup> AGN, *Access arrangement information*, July 2015, pp. 245–256.

<sup>14</sup> AGN, *Access arrangement for AGN’s South Australian Gas Distribution Network 1 July 2016 – 30 June 2021*, July 2015, cl. 2, 3 and 4; Annexure B. (AGN, *Access arrangement 2016–21*, July 2015.)

We also had regard to submissions received in the course of our consultation on the proposed access arrangement.<sup>16</sup>

## Identifying the reference service

Service providers are required by the NGR to specify a reference tariff for each reference service.<sup>17</sup> We first consider what is (or are) the reference service(s) for the purpose of the NGR when undertaking our review.<sup>18</sup> Our decision on what constitutes the reference service is set out in the services attachment—attachment 1.

## Assessing the tariff setting method for the reference service

The reference tariffs for a full access arrangement must be designed to meet the requirements of the NGR. Our discretion on tariff design is limited.<sup>19</sup>

Consequently, we consider how the service provider intends to charge for reference services by:

1. assessing how AGN intends to allocate costs and revenues between reference services and other services. It must demonstrate that total revenue is allocated between reference and other services in the ratio in which costs are allocated between reference services and other services. Costs must also be allocated to the reference service and other services to which the cost is directly attributable.<sup>20</sup>
2. assessing how AGN grouped its customers into tariff classes. AGN is required to group together customers for reference services on an economically efficient basis and to avoid unnecessary transaction costs.<sup>21</sup> We consider the nature of the reference service (e.g. volume and demand tariff classes) are consistent with the need to group customers for reference services together on an economically efficient basis and avoid unnecessary transaction costs.
3. assessing how:
  - (a) the expected average revenue of a tariff class compares with the stand alone cost and avoidable cost of providing the reference service to that tariff class
  - (b) whether the tariff takes into account transaction costs associated with developing and applying the tariff
  - (c) whether the tariffs take into account the long run marginal costs of providing reference services

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<sup>15</sup> AGN, *Response to AER's information request no. 25—Cost allocation method*, 30 September 2015.

<sup>16</sup> NGR, r. 59.

<sup>17</sup> NGR, r. 48(1)(d)(i).

<sup>18</sup> AGN, *Access arrangement 2016–21*, July 2015, sections 2 and 3.

<sup>19</sup> NGR, r. 94(6).

<sup>20</sup> NGR, r. 93(2).

<sup>21</sup> NGR, r. 94(2).

(d) whether customers belonging to the relevant tariff class are able, or likely, to respond to price signals.<sup>22</sup>

## Prudent discounts

We also assessed whether AGN's proposed prudent discounts were necessary to respond to competition from other providers of pipeline services or other sources of energy or to maintain efficient use of the pipeline.<sup>23</sup> This was provided to us by way of confidential mathematical calculations. And we also assessed whether the provision of the discount is likely to lead to lower reference tariffs than would otherwise be the case.<sup>24</sup>

## 10.4 Reasons for draft decision

We accept AGN's proposed reference tariffs structure because we are satisfied that it complies with the NGR requirements.<sup>25</sup>

The tariff structure is consistent with that applied in the current access arrangement and its continuation has the support of some stakeholders.<sup>26</sup> However, we consider the quantum of the proposed initial reference tariffs must be amended to reflect the draft decision forecast demand and revised revenue allowance.

We also note the Government of South Australia raised concerns regarding the impact that declining total consumption may have on tariffs.<sup>27</sup> It suggested that consideration should be given to a change in tariff structure to potentially provide a way to alleviate issues associated with the declining trend in total gas consumption. However, it did not offer an alternative tariff structure to address this potential issue. We note our discretion on tariff design is limited.<sup>28</sup> Also we have found no compelling reason to depart from the tariff structure AGN has proposed. Nonetheless, if stakeholders can provide to us compelling reasons to apply an alternative tariff structure we may review our draft decision position when making the final determination.

The remainder of this section sets out the reasons for our draft decision under the following headings:

- the allocation of revenues and costs to reference tariffs
- the establishment of tariff classes

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<sup>22</sup> NGR, r. 94(3)–(4).

<sup>23</sup> NGR, r. 96(2)(a).

<sup>24</sup> NGR, r. 96(2)(b).

<sup>25</sup> NGR, rr. 94(6).

<sup>26</sup> Origin Energy, *Submission on Australian Gas Networks (South Australia) Access Arrangement Proposal 2016–21*, 10 August 2015.

<sup>27</sup> Government of South Australia, *Submission on Australian Gas Networks SA Access Arrangement Proposal 2016–2021*, 21 August 2015, p. 7.

<sup>28</sup> NGR, rr. 93, 94.

- tariff classes and revenue limits.

#### 10.4.1 Allocation of revenues and costs to reference tariffs

We are satisfied AGN's approach to allocating revenue and costs between reference services and non-reference services comply with the NGR<sup>29</sup> for the following reasons:

- We are satisfied AGN's proposed costs relating to its reference services do not include costs incurred (and recovered) from the provision of its non-reference services.
- AGN has not allocated the non-reference service revenue to a reference service because the underlying costs have not been included in AGN's building block revenues.
- AGN's proposal included information outlining its stand-alone costs, long run marginal costs and incremental costs which we have no objection to.<sup>30</sup>

#### 10.4.2 Establishment of tariff classes

AGN groups its customers by the nature of the haulage reference service (residential, commercial or demand tariff categories) and classifies them by their location on the distribution network. We consider that these characteristics are likely to be the driver of costs within AGN's gas distribution network. Therefore, using them to group customers into tariff class is appropriate. We note AGN's proposed tariff classes are consistent with the tariff classes in the current access arrangement.

Based on the above reasons, we are satisfied that the proposed tariff classes are consistent with the requirements of the NGR.<sup>31</sup>

#### 10.4.3 Tariff classes and revenue limits

We have assessed AGN's tariff classes and revenue limits against the following NGR considerations:<sup>32</sup>

- (a) the expected average revenue of a tariff class compares with the stand-alone cost and avoidable cost of providing the reference service to that tariff class
- (b) whether the tariff takes into account transaction costs associated with developing and applying the tariff
- (c) whether the tariffs take into account the long run marginal costs of reference services

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<sup>29</sup> NGR, rr. 93(1), (2).

<sup>30</sup> AGN, *Access arrangement information*, July 2015, pp. 250–253.

<sup>31</sup> NGR, rr. 94(1), (2).

<sup>32</sup> NGR, r. 94.

(d) whether customers belonging to the relevant tariff class are able, or likely, to respond to price signals.

## Stand-alone and avoidable costs

We are satisfied that AGN's proposed reference tariffs are consistent with the NGR requirements<sup>33</sup> because the expected revenue to be recovered lie on or between:

- an upper bound representing the stand-alone cost of providing the reference service to customers who belong to that tariff class
- a lower bound representing the avoidable cost of not providing the reference service to those customers.<sup>34</sup>

We had regard to the quantitative material AGN submitted to us which indicated the above criteria were met.<sup>35</sup> We observe that the methodology for calculating these metrics is identical to that undertaken in the past.

It follows that we consider AGN's definitions of avoidable and stand-alone costs for the tariff classes are acceptable for assessing compliance with the NGR.<sup>36</sup> We have also reviewed the methodology applied by AGN to demonstrate that for each tariff, the expected tariff revenue lies on or between the avoidable and standalone costs.<sup>37</sup> Again, this is comparable to the analysis we have undertaken for other energy businesses over a number of years, and the outcome is consistent.

## Transaction costs

We are satisfied that AGN's proposed reference tariffs have taken into account transaction costs associated with the tariff and the need to avoid them where possible.<sup>38</sup> We consider the continuation of the current access arrangement tariff classes and tariff structures will minimise any additional transaction costs across access arrangement periods and thereby avoiding their unnecessary imposition.

## Long run marginal cost

AGN noted it used the Average Incremental Cost approach to calculate the long run marginal cost (LRMC) by tariff class.<sup>39</sup> However, AGN considered that given data limitations it is not possible to obtain reasonable LRMC outcomes at the tariff class level, by geographical region or even at a whole-of-network level.<sup>40</sup>

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<sup>33</sup> NGR, r. 94(3).

<sup>34</sup> AGN, *Access arrangement information*, July 2015, pp. 250–251; AGN, *Access arrangement information*, July 2015, Attachment 15.1.

<sup>35</sup> Provided on a confidential basis.

<sup>36</sup> NGR, r. 94(3).

<sup>37</sup> AGN, *Access arrangement information*, July 2015, Attachment 15.1.

<sup>38</sup> NGR, rr. 94(2), 94(4).

<sup>39</sup> AGN, *Access arrangement information*, July 2015, pp. 251–252.

<sup>40</sup> AGN, *Access arrangement information*, July 2015, p. 253.

We note our discretion under the NGR on LMRC is limited.<sup>41</sup> However, we consider the approach taken by AGN is generally consistent with that applied by other gas distribution networks and has historical precedent in past access arrangements. At any rate we observe that the calculated values of LMRC are sensitive to the assumptions made around a number of different variables. As such, these should only be used as a guide when assessing price levels and structures, rather than be considered definitive.

## Response to price signals

We are satisfied AGN's proposed reference tariffs have been determined having regard to whether customers are able, or likely, to respond to price signals.<sup>42</sup> We consider the existing structure of tariffs is well known to AGN's customers and allows them to respond to the prices within each block (or band) by adjusting their consumption.

As noted above, the Government of South Australia suggested that consideration should be given to a change in tariff structure to potentially provide a way to alleviate issues associated with the declining trend in total gas consumption.<sup>43</sup> Although we have found no compelling reason to depart from the tariff structure AGN has proposed, we consider if stakeholders can provide to us compelling reasons for a change we may review our draft decision position when making the final determination.

### 10.4.4 Prudent discounts

We consider that the prudent discounts<sup>44</sup> AGN proposed to offer is necessary to respond to competition from other providers of pipeline services or alternative energy sources and to ensure the ongoing efficient use of its pipeline. Further, AGN has demonstrated that the negotiated revenue from each prudent discount service exceeds the estimate of the avoidable costs.<sup>45</sup> Without a prudent discount a customer may bypass the network with the consequence that tariffs would be higher for all remaining users. We note AGN's proposal is entirely consistent with the prudent discounts' methodology we have approved for it previously.<sup>46</sup>

The proposed prudent discounts will be offered to the same four demand customers who have received these discounts during the past two access arrangements.<sup>47</sup> For each current prudent discount, AGN provided justification that the provision of the discount is likely to lead to lower reference tariffs than otherwise would have been the

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<sup>41</sup> NGR, r. 94(6).

<sup>42</sup> NGR, r. 94(4)(b)(ii).

<sup>43</sup> Government of South Australia, *Submission on Australian Gas Networks SA Access Arrangement Proposal 2016–2021*, 21 August 2015, p. 7.

<sup>44</sup> Service providers offer prudent discount to users in order to respond to competition from other providers of pipeline services or other services of energy. Alternatively, the service provider may offer prudent discounts in order to maintain the efficient use of the pipeline. Statistical data is provided on a confidential basis to the AER.

<sup>45</sup> AGN, *Access arrangement information: Attachment 13.1 (confidential)*, July 2015.

<sup>46</sup> AER, *Final decision: Envestra Ltd Access arrangement proposal for the SA gas network*, June 2011, p. 114.

<sup>47</sup> AGN, *Access arrangement information: Attachment 13.1 (confidential)*, July 2015.

case.<sup>48</sup> Therefore we are satisfied that the proposed prudent discounts are consistent with the NGR and are thus approved.<sup>49</sup>

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<sup>48</sup> NGR, r. 96(2)(b).

<sup>49</sup> NGR, r. 96(2).