ATTACHMENT 4

Tariff structures statement

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

Submission to the Australian Energy Regulator

February 2016

Contents

Glossary

There are terms used in this document which have a specific meaning. We have summarised these defined terms below for your reference:

Term	Description
2016-21 access arrangement period	means the period 1 July 2016 to 30 June 2021
2016-21 proposal	means our proposal for the 2016-21 access arrangement period
business customer	means a customer who does not use gas for personal, domestic or household use.
customer	means: • the person who purchases the gas supplied at a delivery point; or • a consumer of hot water in a residential unit where hot water is supplied through a centralised gas-fired hot water system and whose energy consumption is individually metered by ActewAGL Distribution to measure gas withdrawn at the relevant delivery point. This means that the customer will be the person that has the gas account with the retailer. A customer is not necessarily the end consumer if the gas is first sold to an intermediary.
delivery point	means a point at which gas is withdrawn from our network
end customer	refers to the end consumer of the gas or energy at a delivery point. The end customer is usually the same as the customer except where there is an intermediary that is supplying gas or energy to them at the delivery point (in that case the intermediary is the customer).
GJ	means gigajoules of gas
major customer	means a major commercial or industrial end customer such as a government office, hospital or university which is reasonably expected to use more than 10 TJ of gas per year.
pricing objectives	means the pricing objectives set out in section 5
residential customer	means a customer who uses gas for personal, domestic or household use.
regulator	means the Australian Energy Regulator
Rules	means the National Gas Rules
TJ	means terajoules of gas. 1 TJ equals 1,000 GJ of gas.

1 Introduction

ActewAGL Distribution owns, operates and maintains approximately 5,000 kilometres of pipelines that distribute natural gas to over 130,000 homes and businesses across the ACT, Queanbeyan and Palerang. We also read and maintain the meters that measure how much gas customers use. We charge retailers for the cost of providing these services, and retailers pass the costs onto customers in their gas bills.

Like most other energy distribution network businesses in Australia, our network tariffs are regulated by the Australian Energy Regulator (AER or 'regulator').[1] The regulator reviews our tariffs to:

a) confirm they comply with the requirements of the National Gas Law and National Gas Rules;

b) confirm they promote the long term interests of consumers;[2]

c) either approve our tariffs, or specify the changes we must make to satisfy paragraphs a) and b) above.

Once our tariffs are approved, our tariff schedule is published on our website.[3]

We have engaged with consumers, stakeholders and the community during the development of our tariffs for our gas distribution network for the 2016-21 access arrangement period (1 July 2016 to 30 June 2021) to better understand what they want and value, and to help us make decisions that reflect their priorities and long term interests. They told us they want information on our tariffs, how we set our tariffs, and how these tariffs may change over time to allow them to plan for their energy needs and costs, and choose the best tariff option.

In response to this feedback, we have prepared this tariff structure statement to provide clear and accessible information on our tariffs, how we set our tariffs, and how these may change in the future.

We invite our consumers, stakeholders and the community to get involved in our ongoing customer engagement process. If you would like to get involved, you can contact us at consumerfeedback@actewagl.com.au.

[1] The AER is an independent Commonwealth Government agency that regulates the prices we charge, and the services we offer, in the long term interests of customers.

[2] The National Gas Law contains the National Gas Objective which is to 'promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.'

[3] http://www.actewagl.com.au/About-us/The-ActewAGL-network/Natural-gas-network/About-ActewAGL-Distribution-Gas-Networks/Natural-gas-network-prices.aspx

2 Frequently asked questions

To help customers navigate this document, Table 1 provides short answers to some common questions about pricing and tariffs, and indicates where you can find more information.

Table 1: Frequently asked questions

Common questions	Short answer	Relevant section
What are network tariffs?	We provide an example to demonstrate the elements that make up a customer's network tariffs	Section 3—our network tariffs
How do we go about creating a tariff schedule?	We provide a high level overview of the process from establishing our costs to creating a tariff schedule	Section 4—how we set our tariff schedule
How are our costs established?	The regulator determines regulatory allowances following our consultation and our proposal to the regulator	Section 4—how we set our tariff schedule
What are our prices trying to achieve?	Our prices are the result of us balancing a number of set pricing objectives	Section 5—our pricing objectives
What external factors must we consider?	We consider how we should respond to a changing gas market	Section 6—managing market changes
How do we implement our pricing objectives?	We carefully construct our tariff schedule in accordance with our pricing objectives, and take into account the changing market environment and regulatory requirements	Section 7—our tariff schedule structure Section 8—tariff structures and levels
How do we check our prices are appropriate?	We undertake robust economic analysis to assess the cost reflectivity of our tariff classes and levels	Section 8— tariff structures and levels

Common questions	Short answer	Relevant section
How do we engage with consumers, stakeholders and the community for annual price changes?	We intend to consult on any changes to tariff structures or ancillary charges to ensure customers are informed of all tariff schedule changes	Section 9—updating our tariff classes, structures and levels
How do we adjust prices over time?	We have processes for setting an initial tariff schedule and seeking the regulator's approval to vary the schedule	Section 9—updating our tariff classes, structures and levels
How do new prices take effect?	We publish our final tariff schedule with enough time for retailers to incorporate these costs into their bills	Section 10—how a new tariff schedule takes effect
How might prices change?	We have estimated how we see prices trending until 2020/21	Section 11—indicative network tariff trends

3 Making sense of our network tariffs

Like most businesses, we need to recover the costs of providing our gas distribution network services from the customers who use the services. We do this by charging network tariffs which are set so they recover the costs of building and maintaining the network and transporting natural gas through our network to our customers' premises in a safe, reliable and responsive way. Our customers may not see their network tariff itemised on their gas bill as retailers generally consolidate our network tariffs into their charges.

Figure 1 shows the range of costs that comprise a typical residential gas bill at a national level, as estimated by the regulator.

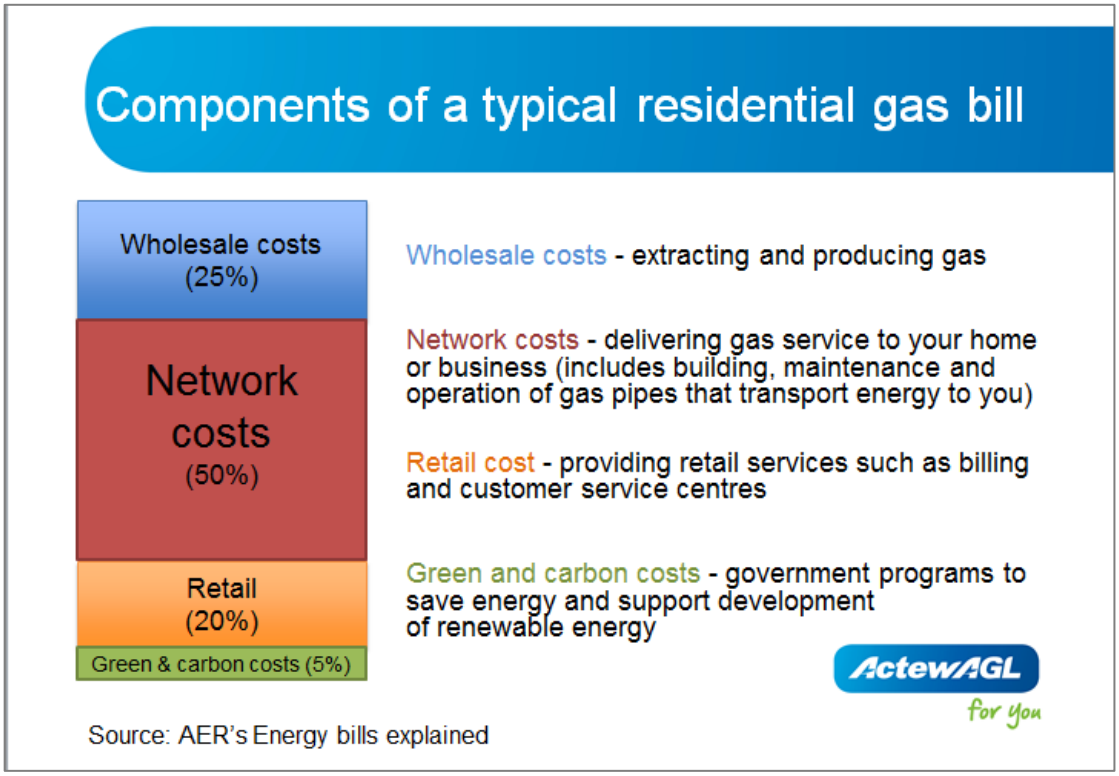
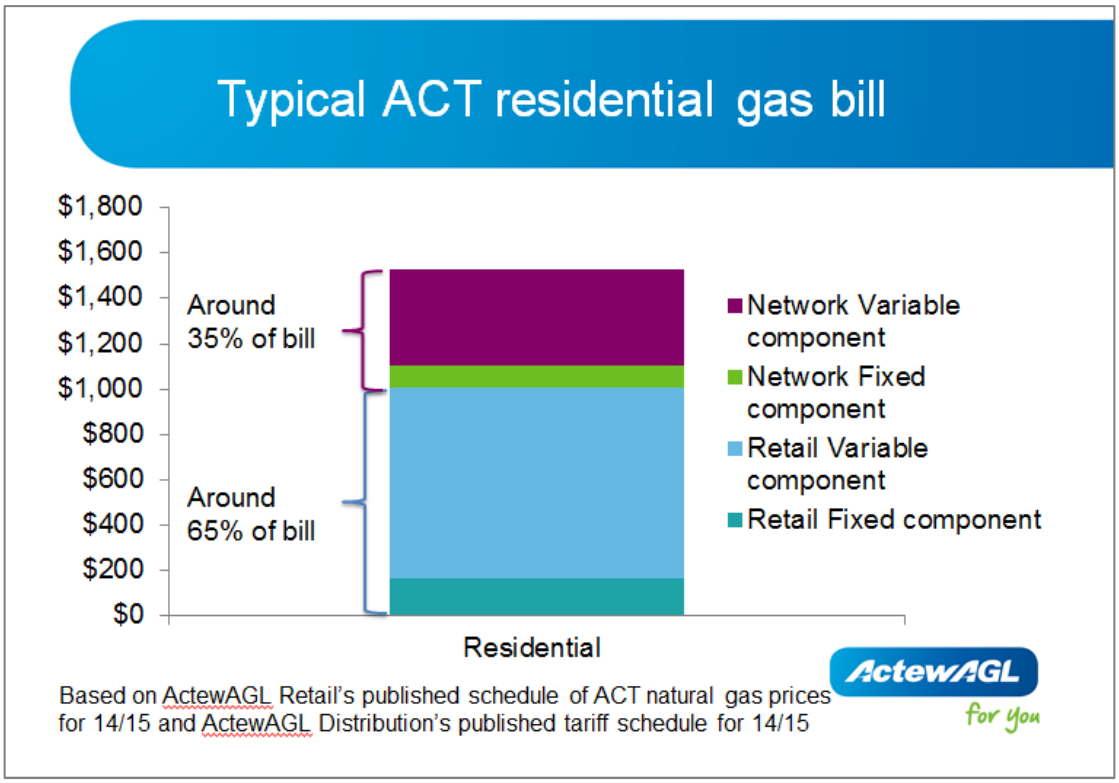


Figure 2 shows the fixed and variable costs of our network tariffs in a typical residential customer's gas bill in the ACT. While figure 1 suggests the network costs of a typical bill comprise 50% of the total bill, our network costs only comprise around 35% of a total bill. Furthermore, figure 2 highlights the fixed costs of our network tariffs comprise a small percentage of the total fixed costs of a typical bill in the ACT.



3.1 Charges included in our network tariffs

The network tariffs incorporated into your gas bill may comprise of several separate charges, including:

- a fixed charge—a supply charge that applies to each delivery point on our network ($ per annum)
- a variable charge—a usage charge that applies to the quantity of gas used at a delivery point ($ per gigajoule (GJ))
- ancillary charges—fees for certain activities[4] that only apply when a customer or their retailer requests those activities ($ per request and/or per hour)

Most of our customers pay the fixed and variable charges, with variations to the levels they pay to reflect their different energy and customer characteristics and the ways in which they use gas.

[4] See section 8.3 below

Some of our customers may also pay an ancillary charge if they or their retailer request those activities.

Our current network tariffs are set out in our tariff schedule, which is a price list that is assessed by the regulator as part of our 2016-21 access arrangement proposal (2016-21 proposal). Our tariff schedule is generally updated annually and applies from 1 July to 30 June.

3.2 Components that make up our tariff schedule

Our tariff schedule comprises various concepts to group our tariffs into different tariff categories. This section provides a brief explanation of those concepts and a simple example of how they fit together.

3.2.1 Customer groups

Our customers have different energy and customer characteristics and ways in which they use gas. We group customers with similar characteristics together so that similar customers pay similar prices that reflect the costs they impose on our network.

At the broadest level, we have grouped customers based on the customer's, or any other end customers' energy requirement characteristics at the delivery point.

We have differentiated between the demand customer group and the volume customer group.

3.2.1.1 Demand customer group

The demand customer group is available to:

- a single business end customer who is reasonably expected to use a large quantity of gas per year (equal to or more than 10 terajoules (TJ) of gas per year) at the delivery point;
- a customer operating a co-generation or tri-generation facility who is reasonably expected to use equal to or more than 10 TJ of gas per year, and who supplies energy to a group of substantially business end customers at the delivery point[5]; or
- a single customer operating a co-generation or tri-generation facility who is reasonably expected to use equal to or more than 10 TJ of gas per year, and who supplies energy to a single business end customer at the delivery point.

3.2.1.2 Volume customer group

The volume customer group is available to a customer who does not satisfy the criteria for a demand customer group and who is:

- a single residential customer who uses gas at the delivery point;

[5] As a guide, we will consider a group of end customers to be substantially business end customers where less than 50% (by number of end customers) of the group use energy principally for personal, domestic or household purposes

- a single business customer who uses gas at the delivery point;
- a single customer who on-supplies gas to a group of end customers at the delivery point for gas appliances such as gas cooking and heating (but not gas hot water); or
- a customer operating a co-generation or tri-generation facility who supplies energy to a group of substantially residential end customers at the delivery point[6].

3.2.2 Tariff classes

We have then grouped customers based on the end customer's characteristics.

We have differentiated between the business tariff class and the residential tariff class.

3.2.2.1 Business tariff class

The business tariff class is available to customers where the gas or energy is used by a single business customer or a group of substantially business end customers at the delivery point.

3.2.2.2 Residential tariff class

The residential tariff class is available to customers who do not satisfy the criteria for a business tariff class.

3.2.3 Tariff categories

Lastly, we have grouped customers into different tariff categories as we recognise that:

- customers have different energy and customer characteristics and ways in which they use gas;
- we should encourage customers who use gas in a way that promotes the efficient use or growth of our network to continue using the gas in this way, and other customers to respond in a similar manner through our tariffs;
- we should encourage customers to connect to our network by aiming to charge for our services in a way that makes sense to customers; and
- we should encourage emerging markets with innovative uses of gas that promote the efficient use and growth of our network to connect to our network.

Encouraging more efficient use of the network, new customer connections and innovative uses of gas is in the long term interests of consumers as it puts downward pressure on network prices for all of our customers over time.

Different tariff categories apply in our tariff schedule for first time gas customers, small business gas customers, intermediaries who on-supply gas to end customers and major customers.

[6] As a guide, we will consider a group of end customers to be substantially residential end customers where more than 50% (by number of end customers) of the group use energy principally for personal, domestic or household purposes

Figure 3 shows a simple example of how the concepts described above fit together.

Customer Groups		
Volume (V)		Demand (D)
Tariff Classes		
Residential (R)	Business (B)	
Tariff Categories		
First time residential customer (VRI) Intermediary on-supplying gas to residential end customers (VRB)	Small business customer (VBS)	Major customer (DBC)

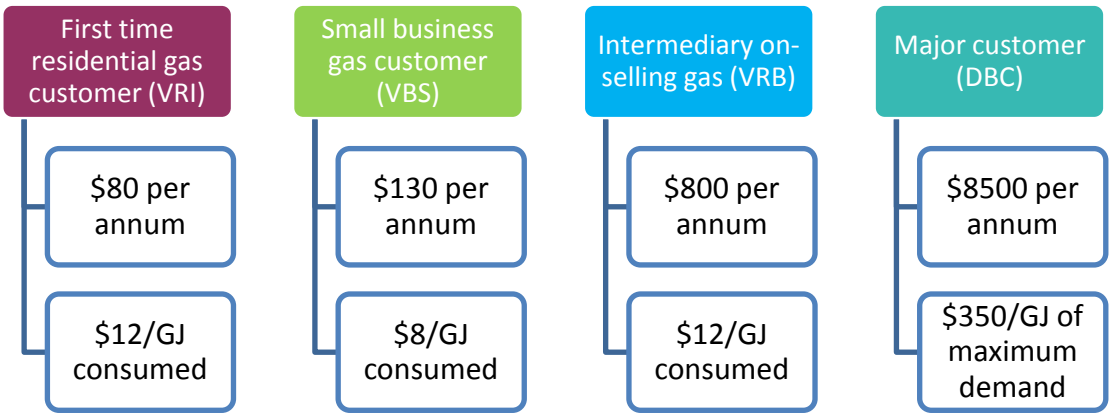
3.2.4 Tariff components and levels

Our tariff structure for each tariff category will include individual charges (for example, the fixed and variable charges discussed above) which are known as the tariff components.

Once we have decided on the tariff structure, we set the level of each tariff component (for example, the number of dollars per annum or the number of dollars per GJ).

Our overall objective is to set these levels so our overall revenues recover our forecast efficient costs for the 2016-21 review period. This is a complex process that involves considering a range of factors and meeting requirements set out in the National Gas Rules. Our 2016-21 proposal, which we will submit to the regulator for approval, sets out the details.

Figure 4 shows a simple example of how the concepts described above fit together.

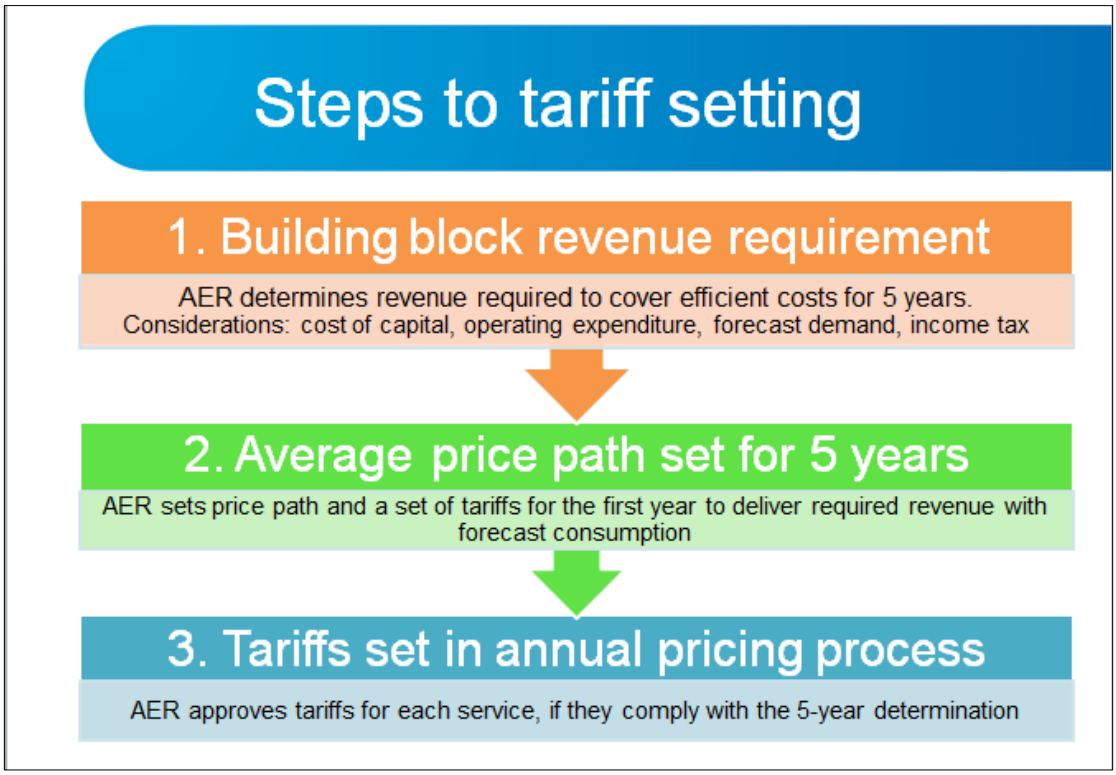


Please note this simplified example is an illustration only

Within this diagram:

- there are four **tariff categories** (residential, small business, intermediary and major customer)
- the **tariff structures** for the tariff categories are the same – they comprise of two **tariff components** (one fixed and one variable component)
- the variable components within the tariff structures differ – customers in the residential, small business and intermediary tariff category are charged based on their gigajoules (GJ) of gas consumed, and major customers (such as government offices, hospitals and universities) are charged on their maximum demand on each day.

4 How we set our tariff schedule



In general, the approach we use to set our tariff schedule involves three key stages:

- the first stage—**establishing our services and costs**: this involves making broad decisions about the safety and service levels we will provide over the 2016-21 access arrangement period, forecasting the efficient costs we will incur in doing so and the revenue we will need to recover;
- the second stage—**establishing the average price path**: this involves making decisions about the average price path required to allow us to recover our efficient costs over the 2016-21 access arrangement period; and
- the third stage—**setting our network tariffs to recover these costs**: this involves making more detailed decisions such as establishing our tariff criteria and deciding on the tariff categories, tariff structure and tariff levels.

We go through these stages thoroughly in developing our proposed tariff schedule for the first year of the 2016-21 access arrangement period. We can make adjustments to the tariff schedule in each of the remaining four years by revisiting the third stage (including necessary adjustments for changes in specified costs)subject to the regulator's approval. In general, we are most likely to propose adjustments to the tariff levels to reflect any material changes in costs (or cost

savings) beyond our control (for example, the introduction and subsequent repeal of the carbon tax).[7]

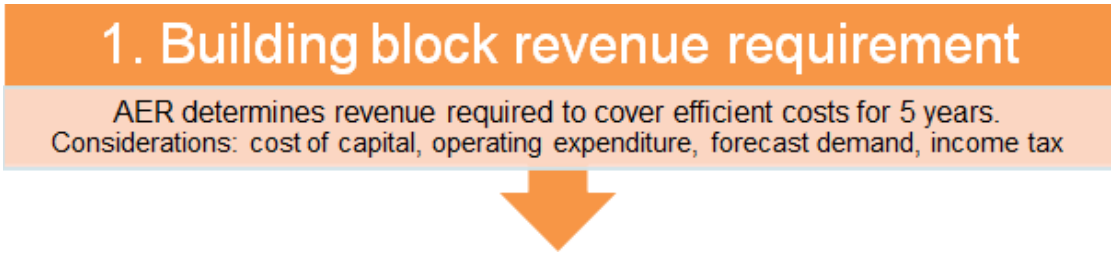
We have engaged with consumers, stakeholders and the community during these three stages for the development of our tariff schedule for the first year of the 2016-21 access arrangement period, and intend to engage on proposed annual adjustments to our tariff schedule in each of the remaining four years of the 2016-21 access arrangement period. This engagement helps to ensure that our decisions reflect our customers' priorities and promote their long term interests.

The sections below provide more information on the steps we take in these stages to develop our tariff schedule.

4.1 Establishing our services and costs

To establish our services and costs over the 2016-21 access arrangement period we:

1. considered the safety and service levels we should provide over this period (taking into account the legislation put in place by the ACT and NSW Government and our customers' expectations)
2. forecast the efficient level of costs required over this period and future periods to meet the safety and service levels, and to run our business effectively to promote our customers' long term interests
3. engaged with our consumers, stakeholders and the community to understand their preferences and concerns and to test whether our proposed safety and service levels and costs promote our consumers' long term interests.



4.2 Establishing the average price path

Once we have established our services and costs over the 2016-21 access arrangement period, we need to decide on the amount to recover on an annual basis over this period. This is known as the 'price path' and sets out the timing of recovering our costs. The key steps are:

1. considering our pricing objectives and regulatory requirements.

[7] Refer section 8.

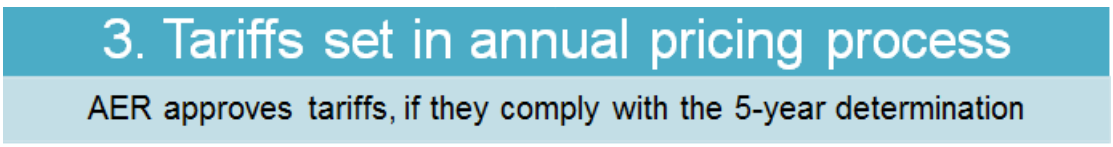
2. considering any emerging changes in the market and customer behaviour we should respond to.
3. developing a price path that meets those objectives and responds to those market changes and changes in customer behaviour.
4. engaging with consumers, stakeholders and the community on our proposed price path.
5. finalising and seeking the regulator's approval on the proposed price path (as part of our 2016-21 proposal).

4.3 Setting our network tariffs to recover these costs

Once we had made broad decisions on our safety and service levels, forecast costs, and our price path, we need to decide on how we set our network tariffs to recover these costs over 2016-21 access arrangement period. This is a complex and iterative process. The key steps are:

1. considering the pricing objectives and regulatory requirements.
2. considering any emerging changes in the market and customer behaviour we should respond to
3. assessing our proposed tariff schedule that meets those objectives and responds to those market changes and changes in customer behaviour, including the tariff classes, and the tariff categories, tariff structure and tariff levels for each tariff class
4. engaging with consumers, stakeholders and the community on our proposed tariff schedule
5. finalising and seeking the regulator's approval on the proposed tariff schedule (as part of our 2016-21 proposal)
6. implementing the approved tariff schedule.

We repeat these steps to update the tariff schedule during the 2016-21 access arrangement period.



5 Our pricing objectives

Our pricing objectives reflect the requirements of the National Gas Law, including the requirement that our 2016-21 proposal should 'promote the long term interests of consumers', and the National Gas Rules. Our objectives also reflect our understanding of our consumers' values and preferences, and our own commercial drivers.

In developing our tariff schedule, we aimed to meet the following pricing objectives:

- **to recover our efficient costs —** we need to recover at least our efficient costs to continue providing safe and reliable network services to customers now and into the future;
- **to promote the efficient use and growth of the network –** set cost reflective tariffs to enable customers to respond to the tariffs and encourage the efficient use and growth of the network**;**
- **to treat customers equitably** — ensure similar customers are grouped together and pay prices that reflect the costs they impose on the network;
- **to keep gas competitive** — maintain and enhance the attractiveness and position of natural gas as a value for money fuel of choice, and promote competition with alternative energy sources;
- **to provide stability in network tariffs** — where possible, minimise any sudden changes in network tariffs; and
- **to provide simplicity and transparency in tariffs** — consider customer preferences and the transaction costs of providing customised tariffs, provide information on the tariffs and any tariff variations to help customers understand and be able to respond to the tariffs, and ensure customers, stakeholders and the community value and support changes made by us.

These are our long term objectives and as such, we aim to only review and revise our pricing objectives periodically. In some cases, these objectives conflict or compete with each other. Where this arises, we aim to set our tariffs in a way that appropriately balances the competing objectives.

Box 1 - We consider these pricing objectives promote the long term interests of our consumers as:

- our tariffs reflect the lowest sustainable cost of providing our services to meet the required safety and service levels
- we price our services to encourage the efficient use and growth of our network to lower our network charges for all of our customers over time

  For example, our tariffs encourage our customers to use gas throughout the year through price incentives. This is because most of our customers use gas during winter for heating with low gas usage, and therefore utilisation of our network, over the remainder of the year.
- we are responsive to innovative uses of gas and customer preferences, and seek to ensure gas remains a competitive fuel option over the long term

  For example, our tariffs encourage emerging markets such as co-generation and tri-generation facilities that promote the efficient use and growth of the network through price incentives.
- our combination of prices and service levels represent good value for money to encourage new customers to connect to our network and stay connected to our network, and existing customers to install multiple gas appliances or commercial gas appliances and applications at the delivery points.

  For example,
  - we have lowered our fixed charges for the first time gas customer tariff category to make it easier for these customers to connect to our network; and
  - we have lowered our usage charges for the other tariff categories to encourage existing customers to choose additional gas appliances or commercial gas applications for their energy needs compared to alternative energy sources to promote the use of gas throughout the year, rather than solely winter.

The sections below explain each of our pricing objectives in more detail, and highlight the engagement we have undertaken with our consumers, stakeholders and the community in relation to these objectives. The final section in this section explains how we try to balance competing objectives.

5.1 What are our pricing objectives?

5.1.1 Recovering our efficient costs

Like most businesses, we need to recover our efficient costs if we are to remain a sustainable business. Our customers, regulator and shareholders expect this of us.

The regulator intensively reviews our costs every five years to ensure we are not able to recover unnecessary or inefficient costs. Our tariffs are updated annually and sometimes, but rarely, within a year to reflect:

a) changes in our costs which are difficult to forecast in our 2016-21 proposal; or

b) costs (or cost savings) beyond our control (for example, the introduction and subsequent repeal of the carbon tax).

We need to ensure our tariffs provide adequate revenue to recover our efficient costs and allow us to continue to provide value for money gas services in the long term interests of our consumers.

The process for us to forecast the number of customers we are likely to have and the quantity of gas they are likely to use is complex, particularly as gas consumption is influenced by a number of factors including weather, changing customer gas consumption behaviour and changes to the efficiency of gas appliances. This makes it challenging for us to determine the levels at which to set our tariffs to recover our efficient costs, however, we consider it is practical for us to bear this risk rather than pass this risk onto our customers.

5.1.2 Promoting the efficient use and growth of our network

We are required to create our tariff schedule in accordance with the National Gas Law and Rules. The overarching objective is the national gas objective.

Box 2 - National gas objective

The objective of the National Gas Law is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.

We can promote the national gas objective by setting cost reflective tariffs and encouraging customers to respond to these tariffs to encourage the efficient use and growth of our network.

5.1.3 Treating customers equitably

Under the Rules, our tariff classes and tariff components must meet specific efficiency requirements that are consistent with the national gas objective. In general, they are designed to ensure that groups of customers—or tariff classes—don't pay more than they should[8] and pay for gas in a way that encourages the efficient use of the network.[9]

They are also designed to ensure that customers are grouped together in an efficient and cost reflective way.

[8] Often known as the 'standalone cost' and 'avoidable cost' tests

[9] The Rules requires us to consider the long run marginal cost (**LRMC**) of supplying gas when setting our network tariffs. The LRMC is the incremental cost associated with supplying additional volumes of gas to customers

5.1.4 Keeping gas competitive

Most customers on our network have a range of options to power their homes and businesses. This means natural gas is a fuel of choice rather than an essential service, and to keep gas competitive we need to be proactive to ensure it remains an attractive fuel option.

We can lower our network charges to our customers over the long term by continuing to promote new gas connections and emerging markets to our network, and the use of gas on our network, particularly, over the low gas usage periods – summer and spring.

This is because:

- most of our costs are fixed costs;
- most of the gas is consumed on our network over the winter period; and
- we primarily charge for our services based on our customers' gas consumption - the more customers consuming gas and the more gas consumed on our network (particularly throughout the year), the lower our tariffs need to be.

Box 3 - When is it efficient for us to grow our network to connect new customers?

During our consumer engagement sessions, consumers told us they were concerned existing customers on our network were cross-subsidising the costs of new customers connecting to our network.

Our plans to grow our network to connect new customers are set out in our 2016-21 proposal, and our costs (known as market expansion capital expenditure) are subject to the regulator's approval.

As growing our network involves additional costs, we will only grow our network where the additional revenue obtained from new customers exceeds the additional costs to extend our network to these customers. The revenue obtained from new customers may include an initial upfront payment, known as a capital contribution. The National Gas Rules prescribe the method for calculating any capital contributions from new customers. This ensures existing customers do not inefficiently subsidise the costs of connecting new customers.

5.1.5 Providing price stability in our network

Our network tariffs only comprise around 35% of a typical residential customer's gas bill.[10] However, our consumers have told us they value stability in our network tariffs, and we know that stable prices increase the attractiveness of gas to existing and potential customers.

[10] Based on ActewAGL Retail's published schedule of ACT natural gas prices for 2014/15 and ActewAGL Distribution's published tariff schedule for 2014/15

While we do not set retail gas prices, we will set our tariff levels to minimise the network price shocks.

5.1.6 Providing simplicity and transparency

We understand our network tariffs are complex, and complexity can be costly for us and stakeholders to administer.

5.2 How do we balance any competing pricing objectives?

In some cases, our pricing objectives conflict or compete with each other. Where this occurs, we aim to set tariffs in a way that balances the competing objectives in a transparent way that ultimately promotes the long term interests of our consumers.

For example, there are often trade-offs between:

- **recovering our costs and remaining competitive**—as the majority of our costs are fixed, it may make sense to set a relatively high fixed charge. This would reduce the risks of not recovering our costs in years with lower gas usage. However, this would not encourage new customers to connect to gas or encourage existing customers to manage their bills;
- **cost reflectivity and simplicity**—a purely cost reflective approach would have separate tariffs levels for each customer based on the costs that customer creates, such as the customer's location. However, such an approach could be confusing for customers and expensive to design and administer;
- **price stability and economic efficiency**—the energy market is dynamic meaning the cost of supplying customers can vary over time. Updating our network tariffs to ensure they are purely cost reflective might incorporate a degree of volatility inconsistent with the value customers' place on price stability and certainty. Price shocks are likely to lead to us losing customers.

6 Responding to market and customer consumption behaviour changes

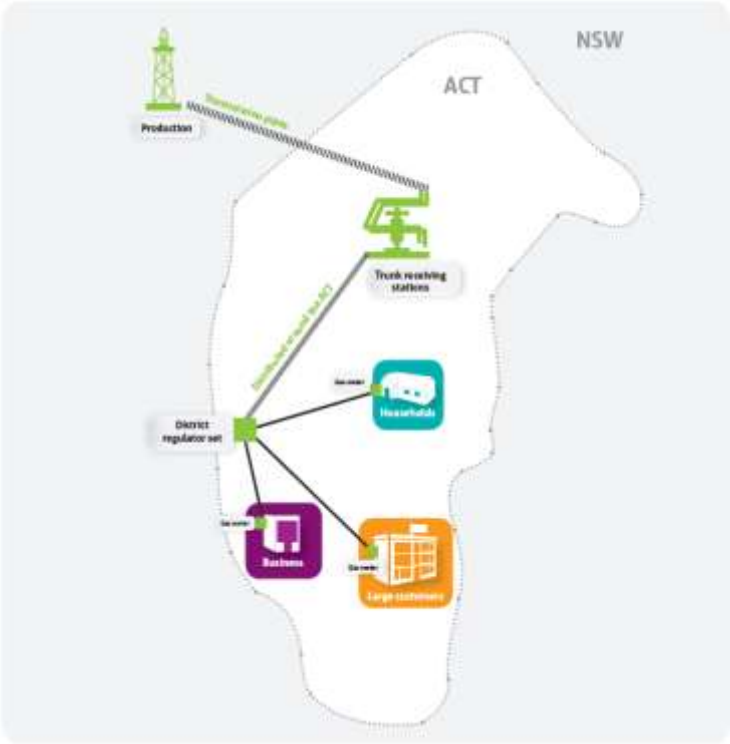
The ACT and NSW gas market is changing, and we have observed that gas consumption patterns are changing (for example, our customers are keen to use energy efficient appliances to reduce their energy consumption). How we respond to these changes influences how successful we are in meeting our pricing objectives.

Some of the key factors influencing the market and our customers' gas consumption behaviour include changes to supply and demand conditions in the wholesale gas market, technology, weather, government policy and economic conditions. While many of these factors are beyond our control, it is important for us to consider and respond to them where possible to promote the long term interests of our consumers.

6.1 Changes in the gas market and customer behaviour

6.1.1 Potential wholesale gas market changes

Domestic wholesale gas prices are forecast to rise due to demand in the international market for gas produced in the eastern Australian market. Rising gas prices would make gas less competitive and place us under increasing pressure to demonstrate to our customers that gas is an attractive, competitive and value for money fuel.



6.1.2 Technological changes

Improvements in appliance efficiency and the affordability of these appliances will continue to put downward pressure on gas demand in our network. While improved appliance efficiency increases the attractiveness of gas as a fuel for our existing and potential customers, increased efficiency of domestic appliances decreases the average customer usage, which will lead to less usage on our network over which to spread our fixed costs.

6.1.3 Policy and regulatory changes

The National Energy Customer Framework has introduced national regulation of the energy retailers' and distributors' relationship with customers, with the regulator overseeing compliance and enforcement. Consistent regulation across eastern state jurisdictions will promote standardisation and competition in customer services.

These policy and regulatory changes may require changes to the services we offer and the way we charge customers for using our services.

6.2 Our key responses to these changes

In response to the gas market and customer behaviour changes, we propose to:

- continue to keep our fixed supply charges low to encourage new customers to connect to gas;
- continue with our marketing campaigns to promote energy efficient gas appliances at our customers' premises;
- encourage gas consumption throughout the year through our tariffs to promote the efficient use and growth of our network;
- maintain price change stability for customers to enhance predictability and promote business confidence for business customers; and
- simplify our network tariffs and charges to improve our customers' understanding and participation in energy markets.

7 Our tariff schedule structure

In developing our proposed tariff schedule for the 2016-21 proposal, we aimed to meet the pricing objectives (discussed in section 5) and respond to the emerging market and customer consumption changes (discussed in section 6). We also ensured that our tariff schedule meets all the relevant Rules.

This section explains the tariff classes included in our tariff schedule for the 2016-21 access arrangement period, and how they reflect our pricing objectives.

7.1 Overview of customer groups, tariff classes and tariff categories

Figure 5 shows the high level components that make up our tariff schedule.

Customer Group	**Volume Customer Group**						**Demand Customer Group**		
Tariff Class	**Residential Tariff Class**				**Business Tariff Class**		**Business Tariff Class**		
Tariff categories	VRI	VRH	VRB	VRG	VBS	VBM	DBC	DBT	DBG

Our residential and business customers have a range of different characteristics and ways in which they use gas. We group customers that have similar characteristics together to ensure similar customers pay similar prices to minimise any inefficient cross-subsidies between customers and to reflect the costs they impose on our network.

At a broad level, we distinguish between two different customer groups:

- the demand customer group; and
- the volume customer group.

To achieve our pricing objectives, we further distinguish between customers in each of these groups based on their characteristics:

- the residential tariff class; and
- the business tariff class,

and then further based on the ways in which they use gas at the delivery point (the tariff categories).

We can best meet our pricing objectives to keep gas competitive and promote the efficient use and growth of the network through how we structure and set tariffs for each tariff category. We consider this approach strikes the right balance between efficiency, equity and simplicity.

7.2 Tariff categories

Table 2: ActewAGL Distribution's proposed tariff categories

Tariff category	Abbreviation	Type of customers	Why included
Volume Residential Individually metered	VRI	End customers who have individual gas meters, and are using gas for the first time, or use small quantities of gas at the delivery point.	This tariff category is available for end customers who do not request assignment to another tariff category through their retailer. This tariff category is similar to the tariffs for the Tariff Service under the 2010-15 access arrangement.
Volume Residential Individually metered (gas heating combined with other gas appliances)	VRH	End customers who have individual gas meters, and use gas heating and other gas appliances at the delivery point.	This tariff category aims to encourage end customers to install multiple gas appliances at the delivery point to encourage the use of gas throughout the year rather than solely for heating to promote the efficient use of the network.
Volume Residential Boundary metered	VRB	End customers in high-rise dwellings or commercial complexes such as shopping centres that are supplied gas for their gas appliances or applications (other than for gas hot water) by an energy intermediary that sits between the boundary meter and the end customer.	This tariff category aims to provide end customers who are affected by the legislative amendment preventing the internal installation of gas meters for cooking and heating in multi-storey complexes with the option to access gas through a boundary metered connection. This tariff category is not available for gas hot water boundary metered arrangements as the legislative amendment does not affect the installation of gas hot water meters. Any requests for a gas hot water boundary-metered arrangement will be considered as a request for a negotiated service under the 2016-21 access arrangement.

Tariff category	Abbreviation	Type of customers	Why included
Volume Residential Large Scale Generation	VRG	Residential end customers supplied energy by an intermediary using a large scale generation unit in a residential precinct and who is reasonably expected to use equal to or more than 50 TJ of gas per year.	Recent technological, market and policy developments mean residential end customers in large precincts may be supplied electricity, heating or cooling from a gas fired plant (co-generation or tri-generation). ActewAGL Distribution encourages innovative, efficient and customer focused energy services, and promotes gas usage to lower average prices for all customers.
Volume Small Business individually metered	VBS	Business end customers who have individual gas meters, and use commercial gas appliances and applications at the delivery point.	This tariff category aims to encourage business end customers to install commercial gas appliances and applications (such as gas-powered commercial air-conditioners, washing machines and dryers) at the delivery point to encourage the use of gas throughout the year to promote the efficient use of the network. This tariff category also recognises that business customers are likely to use gas throughout the day, rather than solely during the morning and evening, as observed from the residential customers.
Volume Medium Business individually metered	VBM	Medium business end customers who have individual gas meters and are reasonably expected to use equal to or more than 8 TJ of gas per year.	This tariff category aims to encourage customers to install commercial and industrial gas applications at the delivery point to encourage the use of gas throughout the year to promote the efficient use of the network.

Tariff category	Abbreviation	Type of customers	Why included
Demand Business Capacity	DBC	Major customers who are reasonably expected to use equal to or more than 10 TJ of gas per year.	This tariff category is similar to the tariffs for the Capacity Reservation Service and Managed Capacity Service under the 2010-15 access arrangement.
Demand Business Throughput	DBT	Major customers who are reasonably expected to use equal to or more than 10 TJ of gas per year.	This tariff category is similar to the tariffs for the Throughput Service under the 2010-15 access arrangement.
Demand Business Large Scale Generation	DBG	Major customer or a group of substantially[11] business end customers occupying premises or nearby premises who are supplied electricity and co-generated thermal energy directly from a centralised gas-fired electricity generation plant or system and who is reasonably expected to use equal to or more than 10 TJ of gas per year.	Recent technological, market and policy developments mean a business end customer or a group of substantially non-residential end customers occupying premises or nearby premises may be supplied electricity, heating or cooling from a gas-fired plant (co-generation or tri-generation). ActewAGL Distribution encourages innovative, efficient and customer focused energy services, and promotes gas usage to lower average prices for all customers.

[11] As a guide, ActewAGL Distribution will consider a group of end customers to be substantially business end customers where less than 50% (by number of end customers) of the group use energy principally for personal, domestic or household purposes.

7.3 Individually metered, boundary metered and large scale generation tariff categories

We have divided our customers into tariff categories. These categories are differentiated by the energy and customer characteristics and ways in which customers use gas, including whether the customer is:

- individually metered;
- boundary metered; or
- supplied energy by a large scale generation facility

As a gas network service provider, we are responsible for providing a safe and reliable supply of gas through our network to our end customers, including:

- maintaining the network;
- connecting new customers to our network;
- responding to supply interruptions;
- providing metering services; and
- providing customer inquiry services to individual households and businesses.

To respond to the changes occurring in the gas market and customer consumption behaviour in a way that promotes our consumers' long term interests, we provide regulated services (known as reference services) to end customers who are:

- directly supplied gas by our network, and receive individual metering services from us (most of our customers)[12]; or
- supplied gas, hot water, and potentially electricity services through 'energy intermediaries', rather than taking gas directly from our network (these end customers may receive individual metering services from the intermediary).[13]

7.3.1 Individually metered tariff categories

ActewAGL Distribution proposes to introduce six tariff categories for individually metered end customers to differentiate between, and to recognise that:

- customers have different energy and customer characteristics and ways in which they use gas
- some uses of gas promote the efficient use of the network more than others

[12] These end customers are known as 'individually metered' end customers.

[13] These end customers receive energy services from an intermediary and are known as 'boundary metered' end customers (given they may not be individually metered by us), or cogeneration end customers. Under these arrangements many of the core responsibilities for supplying these residential and business end customers would rest with the intermediary, rather than with us. This is most likely in medium density and 'high rise' residential and commercial developments.

- we should provide price signals to encourage customers to use gas in a way which promotes the efficient use of the network.

Figure 6 shows the six individually metered tariff categories (circled in the below diagram)

Customer Group	Volume Customer Group						Demand Customer Group		
Tariff Class	Residential Tariff Class				Business Tariff Class		Business Tariff Class		
Tariff categories	VRI	VRH	VRB	VRG	VBS	VBM	DBC	DBT	DBG

Existing customers who are not major customers will be automatically assigned to the **VRI tariff category** (which is similar to their existing tariffs), unless they elect to be assigned, through their retailer, to the other tariff categories described in this section and are eligible for that tariff category. This follows feedback at our consumer engagement sessions that consumers prefer to be assigned to a tariff category which is similar to their existing tariffs.

To minimise the customer billing impact, the tariff structure for the VRI tariff category for 2016/17 has been designed to be similar to the existing tariffs for residential and business customers for 2015/16.

We propose to offer lower fixed charges for this tariff category (compared to the existing tariffs for these customers) as we consider it is in the long term interests of consumers to encourage new customers to connect to the network where it is economic to do so.[14] This is because most of our costs are fixed costs, and by growing the customer base, we can lower the network charges for all of our customers over the long term as the costs can be allocated across a larger customer base.

We propose to introduce the following other tariff categories for these individually metered end customers:

- **VRH tariff category** — available to customers with gas heating and other gas appliances at the delivery point. The rationale for this tariff category is to encourage customers to use gas throughout the year by installing multiple gas appliances at the delivery point, rather than solely gas heating.
- **VBS tariff category** — available to business customers. The rationale for this tariff category is to encourage business customers to choose to install gas appliances over alternative energy solutions at the delivery point to encourage the use of gas throughout

[14] See Box 3 in section 5 of this tariff structures statement for information on when it is economic for us to connect customers to the network.

the year, in particular, commercial gas appliances such as commercial gas cooking, gas-powered washing machines and dryers, and gas-powered air-conditioners.

- **VBM tariff category** — available to medium-sized business customers who are reasonably expected to use equal to or more than 8 TJ of gas per year at the delivery point. This tariff category has been introduced to reduce the price disparity for customers who use less than 10 TJ of gas per year compared to customers who use more than 10 TJ of gas per year.

We have introduced these categories and structures because we consider it is in the long term interests of consumers to encourage existing customers to use more gas throughout the year through the installation of multiple gas appliances or commercial appliances or applications at the delivery point as:

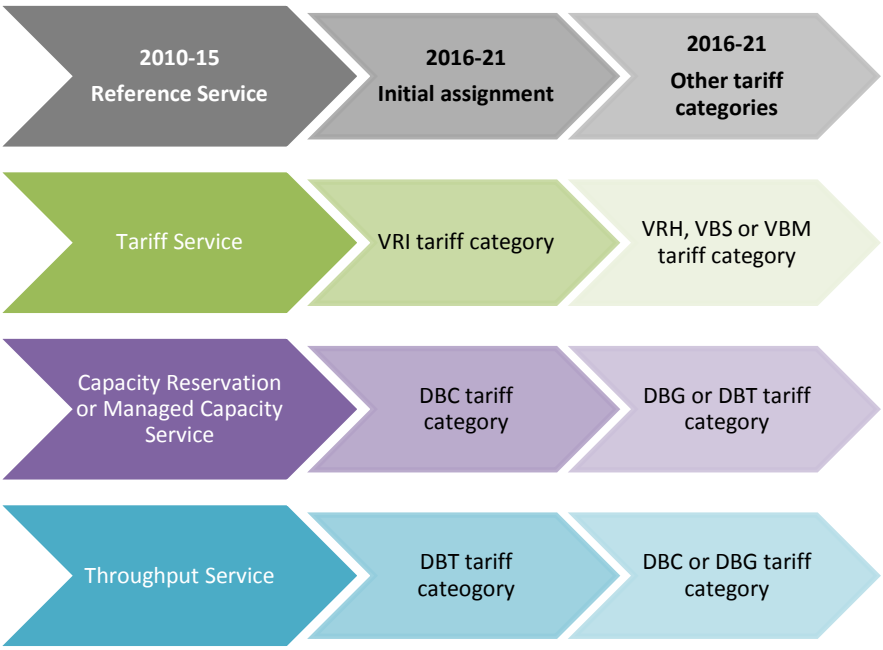
- currently, most of the gas is consumed on our network during the winter morning and afternoon peaks, predominantly for heating;
- the network can be better utilised if we can encourage our customers to use gas throughout the year rather than solely for heating[15]; and
- higher gas usage on the network throughout the year will allow us to recover our efficient costs and apply downward pressure on the network charges for all of our customers over the long term (as most of our efficient costs are recovered from our usage charges rather than high fixed charges).

During our engagement sessions with customers, they told us they are supportive of our proposal to promote the efficient use of the network by encouraging customers to use gas over the low gas usage period (spring and summer).

Major customers on a capacity-based tariff will be automatically assigned to the **DBC tariff category** (which is similar to the existing tariffs for these customers) and major customers on a throughout-based tariff will be automatically assigned to the **DBT tariff category** (which is similar to the existing tariffs for these customers), unless they elect to be assigned to another tariff category and are eligible for that tariff category.

[15] The network has been designed to deliver gas to meet the forecast peak daily and hourly gas consumption demands of customers to ensure ActewAGL Distribution can provide a reliable and safe gas transportation service to its customers. This means there is capacity on the network for customers to consume gas throughout the year, particularly, during the spring and summer period

Figure 7 sets out our initial tariff assignment process



7.3.2 Boundary metered and large scale generation tariff categories

ActewAGL Distribution is proposing to introduce three intermediary tariff categories:

- **VRB tariff category** — available to boundary meter arrangements where gas is sold to an intermediary such as an owners' corporation who then on-sells the gas to end customers at the delivery point;
- **DBG tariff category** — available to co-generation or tri-generation facilities where gas is sold to the facility operator who then on-sells energy to either a single business end customer or principally business end customers at the delivery point; and
- **VRG tariff category** — available to co-generation or tri-generation facilities where gas is sold to the facility operator who then on-sells energy principally to residential end customers at the delivery point.

Figure 8 shows the three boundary metered tariff categories (circled in the below diagram)

Customer Group	**Volume Customer Group**						**Demand Customer Group**		
Tariff Class	**Residential Tariff Class**				**Business Tariff Class**		**Business Tariff Class**		
Tariff categories	VRI	VRH	VRB	VRG	VBS	VBM	DBC	DBT	DBG

ActewAGL Distribution has proposed the **VRB tariff category** to respond to the concerns of our customers, including property developers and builders, regarding legislative changes which prohibit the internal installation of gas meters in high-rise dwellings and commercial complexes such as shopping centres. This is because they have told us that this legislative amendment has made it too costly to install gas piping inside the high-rise dwelling or commercial complex to enable us to install individual external gas meters to each end customer for their cooking and heating needs. As a result, this has effectively removed the option for these end customers to choose gas as an affordable energy source.

We have considered the potential effects of this legislative amendment on these end customers and consider there is benefit in introducing a tariff category to allow the installation of a single boundary meter (rather than individual external gas meter installations for each end customer) at the delivery point to provide an option for these end customers to have access to gas at high-rise dwellings and commercial complexes.

The effect of this boundary metered arrangement is to allow an intermediary, such as an owners' corporation to enter into a gas sales arrangement with an energy retailer and then on-sell the gas to end customers at the delivery point. This means the end customers at the delivery point will not have the option to choose their gas retailer or have access to individual metering or billing for their gas appliances (these end customers will still have retailer choice and individual metering and billing for their gas hot water needs as the legislative amendment does not affect gas hot water meter installations).

We recognise this boundary metered arrangement will limit access to individual metering and billing for these end customers' gas needs but consider the benefits to these customers from having a more practical choice in accessing gas, and more competition for their energy choices, outweighs the impact on these customers from a boundary metered arrangement.

To ensure we can continue supporting customers to have individual billing and metering, we will:

- continue engaging with customers, including property developers and builders on this issue; and
- consider withdrawing this tariff category from new customers, and grandfathering this tariff category for existing customers, if an alternative option can be considered.[16]

[16] If a tariff category is withdrawn from new customers, new customers will not be able to seek assignment to this tariff category. If a tariff category is grandfathered for existing customers, existing customers who were assigned to this tariff category before the tariff category was grandfathered, will continue to be assigned to this tariff during the 2016-21 access arrangement period until they seek assignment to another tariff category.

We have proposed the **DBG tariff category** to respond to feedback from our customers that they were keen to install co-generation or tri-generation facilities at their premises to provide for their energy needs.

We consider there are long term benefits to consumers from co-generation and tri-generation facilities which supply gas or energy to either a single business end customer or principally business end customers as these facilities are:

- reasonably expected to use gas throughout the day and the year, thereby promoting the efficient use of the network; and
- expected to pay for the cost of their own connection to the network, thereby promoting the efficient growth of the network.

While we have forecast that no customers will be in the **VRG tariff category** based on feedback from our customers, including property developers and builders, we have proposed this tariff category because we:

- have observed these arrangements in other jurisdictions within Australia and overseas; and
- consider there is merit in encouraging discussion with prospective customers on these arrangements by including it in our proposed tariff schedule to encourage these innovative uses of gas.

Intermediaries who will fall within the VRB, VRG or DBG tariff category include the following examples.

- A strata body corporate, owners' corporation or building owner who buys gas from an energy retailer to on-supply or on-sell the gas to the residents of the building can request to be on the VRB tariff category (this tariff category does not include the on-supply or on-selling of gas to residents of the building for gas hot water, including residents of hot water in a residential unit where hot water is supplied through a centralised gas-fired hot water system).
- An operator of a large scale gas-fired co-generation energy system who supplies electricity and thermal energy to principally residential buildings or precincts that uses more than 50 TJ of gas per year can request to be on the VRG tariff category. Operators of smaller scale systems consuming less than 50 TJ per year can request to be on the VRB tariff category but not the VRG tariff category.
- A gas-fired cogeneration owner and operator who supplies electricity and thermal energy to substantially commercial buildings or precincts that uses more than 10TJ of gas per year can request to be on the DBG tariff.

An example of an intermediary who will not fall within one of the VRG or DBG tariff categories is a gas-fired co-generation owner and operator who supplies electricity and thermal energy to principally commercial buildings or precincts that uses less than 10 TJ of gas per year. This customer can be assigned to a VRI, VRB, VBS or VBM tariff category.

8 Tariff structure and tariff levels

All of the nine tariff categories discussed in section 7 have a specific tariff structure that reflects our pricing objectives. This structure comprises a number of components, including fixed charges, variable usage charges and ancillary charges. The sections below outline the structure of each tariff category.

8.1 Volume customer group tariff categories

There are six tariff categories within the volume customer group as set out in the diagram below:

Customer Group	**Volume Customer Group**					
Tariff Class	**Residential Tariff Class**				**Business Tariff Class**	
Tariff categories	VRI	VRH	VRB	VRG	VBS	VBM

As the tariff structure for the VRG tariff category is different to the other tariff categories within the volume customer group, it will be separately discussed in section8.2.

The tariff structure for the remaining tariff categories within the volume customer group comprise:

- a fixed supply charge (in dollars per annum)
- banded usage charges – or 'blocks' (in dollars per GJ)
- ancillary activity charges (a charge per service as described in section 8.3).

8.1.1 Fixed supply charge

A fixed supply charge is an annual charge that applies to each delivery point.

Our approach to fixed supply charges for the volume customer group is to:

- merge the three existing fixed charges into a single fixed charge for each tariff category;
- minimise the VRI fixed charge compared to the VRH and VBS tariff categories; and
- set VRB and VBM fixed charges to reflect our higher infrastructure costs.

The new single fixed supply charge will continue to be an annual charge that applies to each delivery point. This supports our consumers' long term interests by giving them charging structures they can more readily understand when comparing retail market offers.

VRI tariff category

We propose to reduce the fixed charge for customers on the VRI tariff category (compared to the fixed charge for existing customers under the 2010-15 access arrangement) to encourage:

- new customers to choose gas as their fuel of choice and to install additional gas appliances at the delivery point to have access to the VRH tariff category, which provides for additional price incentives;
- customers who use a small quantity of gas to continue to choose gas as their fuel of choice and to install additional gas appliances at the delivery point to have access to the VRH tariff category, which provides for additional price incentives; and
- retailers to reduce their fixed charges to lower the barriers to access gas for consumers and create a better experience for consumers who choose gas.

This follows feedback at our consumer engagement sessions that consumers, particularly first time or small gas consumers, do not have a good experience with gas owing to the high fixed charges over periods in which they are consuming minimal quantities of gas (generally spring and summer). In response to the comments from consumers, ActewAGL Distribution explained that, ActewAGL Distribution's fixed charge for the tariff market customers only comprises around 35% or less of the total fixed charge on a typical residential customer's retail bill.[17]

We consider that offering a lower fixed charge for VRI customers will promote the long term interests of consumers by:

- keeping gas competitive (by encouraging retailers to also lower their fixed charges); and
- encouraging more customers to connect to the network and stay connected to the network.

This will reduce the network charges for all customers over the long term as our costs can be allocated across a larger customer base.

[17] Based on ActewAGL Distribution's reference tariff schedule in 2014/15 and a standard retail offer for residential customers in the ACT in 2014/15.

VRH and VBS tariff category

We propose to set a lower usage charge but a higher fixed charge (compared to the VRI tariff category) for customers on the VRH and VBS tariff categories to encourage these customers to:

- install additional gas appliances or commercial appliances or applications at the delivery point so that if customers use gas throughout the year, they can benefit from lower usage charges to offset the relatively higher fixed charge, and a lower winter bill; and
- choose additional gas appliances or commercial appliances or applications over alternative energy solutions so that we can increase the competitiveness of gas compared to alternative energy sources by offering to lower our usage charges to reduce our customers' total energy costs for each additional gas appliance installed at the delivery point.

We consider this approach will promote the long term interest of consumers by:

- keeping gas competitive; and
- encouraging more gas use throughout the year and therefore, the efficient use of the network.

This will lead to lower network charges for all customers over the long term as we recover most of our costs from usage charges.

VRB tariff category

In designing our new boundary metered tariff category, we have considered our pricing objective that similar customers should have similar tariffs, and these tariffs should signal the cost that this customer group imposes on the network. For this reason, the charge components of the VRB tariff category are similar to the charge components of the VRI tariff category. In particular we have taken account of:

- the fact that these customers may require less capital and operating expenditure 'behind' (downstream of) the boundary meter— this is primarily the operating and capital savings resulting from reduced demand for individual meters and the need for us to read those meters; and,
- the need to build and maintain the same network infrastructure up to the boundary meter to supply the same end customers, and the need for cost recovery equity between those end customers and other end customers on our network (minimising inefficient cross-subsidies between customers).

VBM tariff category

We have introduced the VBM tariff category as our historical tariff structures inadvertently established a perverse pricing incentive where some customers who increased their gas usage above 10 TJ of gas per year moved from one tariff class to another, and experienced a significant price reduction despite the increase in their gas capacity requirements.

This contradicts our pricing objective that similar customers should pay similar prices to reflect the costs they impose on our network.

To ensure we have a smooth transition in price between customers using less than or more than 10 TJ of gas per year, we have introduced a new tariff category to reduce the price disparity, and introduced new capacity blocks in the major customer capacity tariff category.[18]

The fixed charge for the VBM tariff category is higher (compared to the VRI, VRH and VBS tariff categories) to reflect the higher infrastructure costs, including metering for these customers.

General approach to fixed charges

As our fixed charge is not necessarily seeking to recover our fixed costs,[19] we have carefully considered the blocks in our usage charge to ensure the prices for each of our tariff categories appropriately reflect the costs they impose on our network. This is an example of how we balance between the pricing objectives considered in section 5.

We set our single fixed charge to encourage utilisation, but still signal to the customer:

- the fixed cost nature of natural gas distribution;
- there is the cost to connect customers to the network; and,
- the fixed nature of metering costs.

[18] For information on the major customer capacity tariff category, please refer to section 0.

[19] It is commonly thought that setting fixed charges equal to fixed costs promotes economic efficiency. This is true if customer numbers are fixed. However, growing the market lowers average fixed cost per customer which also promotes economic efficiency.

Table 3 provides our proposed fixed charges for the above tariff categories within the volume customer group

Table 3: Fixed supply charges for the tariff categories within the volume customer group

Tariff category	Proposed fixed charge ($ per annum, exc GST) for the period ending 30 June 2017
VRI	87.84
VRH	191.17
VRB	878.40
VBS	138.07
VBM	2,124.08

8.1.2 Banded usage charges

The banded usage charges comprise of four blocks for the VRI tariff category and three blocks for the other tariff categories.

The VRI tariff category will have four blocks to:

- align with the tariff structure for the existing customers under the 2010-15 access arrangement; and
- minimise the billing impacts for customers transitioning to the new tariffs in the 2016-21 access arrangement period.

There are lower prices for gas consumed in higher usage blocks.[20]

This reflects:

- the costs of providing additional capacity decreases with volume increases (consistent with our pricing objective to provide pricing signals that reflect our costs); and,
- there are benefits in 'growing the market' and encourage customers to use more gas, particularly over the spring and summer period (consistent with our pricing objective to promote efficient use of our network and lower network charges for customers over the long term).

[20] This is sometimes referred to as a 'declining block structure'.

Box 4 - Encouraging efficient gas consumption by promoting customers to use more gas

During our consumer engagement sessions, our consumers told us they were concerned our proposed tariff structure promoted inefficient gas consumption which could increase our costs to provide network services to our customers. This is because our usage charges for our tariff categories have multiple usage block sizes with lower prices for quantities of gas consumed in the higher blocks.

We consider our proposed tariff structure and marketing campaigns achieves the right balance between promoting the efficient use and growth of our network and our costs to provide network services to our customers as:

- the proposed tariff categories within our tariff structure differentiate between different customer segments;
- lower usage charges are proposed for the tariff categories which will promote the efficient use and growth of the network (for example, lower usage charges will be offered for customers who install multiple gas appliances or commercial gas applications at the delivery point);
- this will encourage better utilisation of the network as it will encourage customers to use gas throughout the year rather than solely for heating during the winter period;
- better utilisation of the network and more gas usage on our network will lead to lower network charges for our customers over the long term (as we recover most of our costs though usage charges rather than high fixed charges);
- lower prices for quantities of gas consumed in the higher usage blocks reflects our declining costs of meeting incremental demand and keeps gas competitive compared to alternative energy solutions – by offering lower prices in the higher usage blocks, we can lower the total energy costs for each additional gas appliance or application installed at the delivery point;
- while alternative tariff structures were considered (such as peak and off-peak tariffs and time-of-use tariffs), the cost to implement these tariffs would outweigh the benefit given more than 99% of our customers have basic metering equipment installed at their premises which are read quarterly or daily, and these alternative tariff structures would require more sophisticated (and costly) metering equipment such as daily meter reading equipment; and
- to reduce gas demand over winter, our marketing campaigns have promoted energy efficient gas heating appliances to our customers through incentives such as rebates.

From 1 July 2016, we propose to modify the block structure to better reflect the consumption for residential and small business customers based on the way in which they use gas at the delivery point, and to promote our pricing objectives (price signals that reflect costs and encourage the most efficient utilisation levels).

Table 4: VRI block sizes mapped to typical usage driver for small or first time gas consumers

Block	Size (GJ per annum)	Proposed volume throughput charge ($/GJ) (exc GST) for the period ending 30 June 2017	Typical usage driver
1	0 – 15	13.25	Residential and home business cooking and/or hot water
2	15 - 161.4	8.29	Residential and home business cooking and/or hot water and heating / Small business commercial gas appliance(s) or application(s)
3	161.4 - 543.6	7.85	Small business commercial gas appliances or applications
4	Above 543.6	7.69	Small business commercial gas appliances or applications / Medium business commercial and industrial gas appliances or applications

Table 5: VRH block sizes mapped to typical usage driver for gas consumers with gas heating and other gas appliances

Block	Size (GJ per annum)	Proposed volume throughput charge ($/GJ) (exc GST) for the period ending 30 June 2017	Typical usage driver
1	0 – 20.4	7.50	Residential and home business gas heating and hot water or cooking
2	20.4 - 74.4	7.15	Residential and home business gas heating, hot water and cooking
3	Above 74.4	7.10	Residential and home business whole-of-home gas heating, hot water, cooking and other gas appliances or applications

We need to provide different block sizes for the boundary metered tariff category (refer Table 6) because of the number of end customers who are on-sold or on-supplied the gas or the energy by a customer who is delivered gas by us to the delivery point (for example, the owners' corporation), and to ensure similar customers pay similar prices.

Table 6: VRB block sizes for boundary metered arrangements

Block	Size (GJ per annum)	Proposed volume throughput charge ($/GJ) (exc GST) for the period ending 30 June 2017
1	0 – 500	13.25
2	500 - 1000	8.29
3	Above 1000	7.85

Table 7: VBS block sizes mapped to typical usage driver for business gas consumers

Block	Size (GJ per annum)	Proposed volume throughput charge ($/GJ) (exc GST) for the period ending 30 June 2017	Typical usage driver
1	0 – 30	10.02	Home business gas heating, hot water and/or cooking/ Small business commercial gas appliance(s) or application(s) (e.g. commercial gas cooking)
2	30 - 1140	7.77	Small business commercial gas appliances or applications (e.g. commercial gas washing machines and dryers)
3	Above 1140	7.53	Small business commercial or industrial gas appliances or applications

Table 8: VBM block sizes mapped to typical usage driver for business gas consumers

Block	Size (GJ per annum)	Proposed volume throughput charge ($/GJ) (exc GST) for the period ending 30 June 2017	Typical usage driver
1	0 – 4200	7.30	Small business commercial or industrial gas appliances or applications / Medium business commercial or industrial gas appliance(s) or application(s)
2	4200 - 4800	6.04	Medium business commercial or industrial gas appliances or applications
3	Above 4800	5.54	Medium business commercial or industrial gas appliances or applications

8.2 *Demand customer group and residential large scale generation tariff categories*

Figure 9 shows the three tariff categories within the demand customer group and residential large scale generation tariff category (circled in the diagram below)

Customer Group	Volume Customer Group						Demand Customer Group		
Tariff Class	Residential Tariff Class				Business Tariff Class		Business Tariff Class		
Tariff categories	VRI	VRH	VRB	VRG	VBS	VBM	DBC	DBT	DBG

The tariff structures for these tariff categories include one or more of the following components:

- banded usage charges or capacity 'blocks' (in dollars per gigajoule of chargeable demand per annum)
- a demand throughput rate (in dollars per gigajoule)
- a single fixed charge known as the provision of basic metering equipment charge (in dollars per annum)
- ancillary activity charges (a charge per service as described in section 8.3).

Table 9 outlines the components relevant to each tariff category and sets out where we have banded these into blocks. Our tariff schedule details our fixed charges and block sizes for these tariff categories.

Table 9 – Tariff categories within the demand customer group and the VRG tariff category

Tariff category	Capacity blocks	Demand Throughput rate	A single fixed charge	Ancillary charge
VRG	3 declining blocks		☑	☑
DBC	3 declining blocks		☑	☑
DBT		1 block	☑	☑
DBG	3 declining blocks		☑	☑

8.2.1 Modifications we have applied for these tariff categories

8.2.1.1 Chargeable demand

We have proposed a chargeable demand-based charge to simplify the three charge components for a customer's capacity requirements. The chargeable demand will be adjusted on a forward-looking basis, and determined as the greater of:

a) the contracted maximum daily quantity;

b) 10 times the contracted maximum hourly quantity; and

c) the ninth-highest daily gas consumption at the customer's delivery point in a rolling 12 month period.

We consider a chargeable demand-based charge achieves the right balance between:

- streamlining the process for our customers to seek additional capacity;
- providing appropriate price signals to customers to respond by ensuring these customers appropriately pay for the capacity they use on our network; and
- ensuring these customers are not immediately charged for consuming gas in excess of their contracted capacity entitlements at the delivery point.

8.2.1.2 Introducing additional capacity blocks

As mentioned above, there is a perverse pricing incentive for customers who use slightly more and less than 10 TJ of gas per year. To address this incentive, we are modifying our capacity block structure by adding two new blocks. This allows us to set effective prices for similar customers and ensures that customers moving from the VBM tariff category to DBC or DBT tariff categories continue to be charged prices that reflect the costs these customers impose on our network.

8.2.1.3 Single fixed charge

We have introduced a single fixed charge that applies to each delivery station installed at the delivery point to simplify the three existing fixed charge components. This charge will be based on the customer's contracted maximum hourly gas requirements rather than the meter set type installed at the delivery point to:

- simplify the fixed charges for customers (customers are more likely to know their contracted maximum hourly requirements rather than the meter type installed at the delivery point);
- provide better pricing signals to customers on the costs for us to provide basic metering equipment and other services relating to the infrastructure at the delivery point, particularly major customers with higher contracted maximum hourly quantity requirements; and

- provide more flexibility for us to consider a suite of basic metering equipment options for major customers rather than the meter types set out in the reference tariff schedule.

8.3 Ancillary charges

The tariff schedule includes network user-requested ancillary charges as shown in Table 10. We are proposing to change the ancillary charges by:

- setting the ancillary charges to recover the costs of providing the relevant activities – this minimises the risk that other customers are inefficiently cross-subsidising the costs of these network user-initiated activities. These ancillary charges have been determined based on our incremental cost.
- introducing a new ancillary charge for decommissioning and meter removals to recognise that this activity is more costly than a disconnection
- setting different ancillary charges for customers with less than and greater than 6m3/hour meter sets installed at the delivery point to recognise the higher cost of performing ancillary activities for customers with the larger meters.

Table 10: Ancillary activities and charges

Requested ancillary activity	Description	Proposed charges for the period ending 30 June 2017
Hourly Charge – non-standard User-initiated requests and queries	The assessment of a user's (such as a retailer) or prospective user's requirements, collation of information and provision of a response to a user or prospective user in relation to non-standard requests and queries. Examples include, but are not limited to: • large customer connection or upgrade inquiries requiring our additional investigation due to the nature of the request; and • requests for measurement data additional to data provided in standard reports. This charge does not apply to processing connections and alterations requests under Part 12A of the National Gas Rules.	$109.80, plus $109.80 per hour after the first hour

Requested ancillary activity	Description	Proposed charges for the period ending 30 June 2017
Disconnection	Disconnection of supply to a single delivery point at the request of the user or customer in circumstances where the user or customer requests that the meter is not to be moved or removed.	Charges apply per meter set: (i) meter set with a capacity of less than or equal to 6m^3/hr: $160.60 (ii) meter set with a capacity of greater than 6m^3/hr: $214.14
Reconnection	The subsequent reconnection where the gas equipment are still installed at the delivery point and can be re-energised without alteration or replacement. Reconnection in circumstances other than as described above and for customers within the demand customer group would require a new connection and a new request for service to be made.	Charges apply per meter set: (i) meter set with a capacity of less than or equal to 6m^3/hr: $53.54 (ii) meter set with a capacity of greater than 6m^3/hr: $64.24
Decommissioning and meter removal	Permanent decommissioning of a delivery point including the removal of the meter. Subsequent reconnection of the delivery point is not included. Reconnection would require a new connection and a new request for service to be made.	Charges apply per meter set: (i) meter set with a capacity of less than or equal to 6m^3/hr: $856.56 (ii) meter set with a capacity of greater than 6m^3/hr: $1,466.85
Special Meter Reads	For meter reading requested by a user for a delivery point that is in addition to the scheduled ordinary meter reading (for instance, when the meter reader makes a special visit to read a particular meter out of the usual meter reading route or schedule).	$21.41 per meter read

8.4 Testing the efficiency of our tariff levels

We have prepared this tariff structure statement to provide clear and accessible information on how we set our network tariffs and how we have arrived at specific tariff levels. This section provides a description of the efficient pricing requirements in the Rules, and how we use the requirements under the Rules and our pricing objectives to guide our decisions on our tariff levels.

8.4.1 Efficient pricing requirements in the Rules

We have made sure that our tariffs levels meet the efficient pricing requirements within the Rules.

This includes:

- ensuring the revenue for each tariff class sits between the avoidable and standalone cost of supplying these customers (refer to Box 5); and
- taking into account an estimate of the long run marginal cost (LRMC) for each of our tariff components (refer to Box 6).

These tests ensure that there are no inefficient cross-subsidies between customers from different tariff classes.

The Rules also require us to have regard to:

- the transaction costs when developing our tariff classes and tariff components (refer to Box 6 and 8);and
- whether customers within a tariff class are able or likely to respond to price signals (refer to Box 6).

We have explained each of these requirements in the sections below.

Box 5: Rule 94 (3) of the National Gas Rules

For each tariff class, the revenue expected to be recovered should lie on or between:

- an upper bound representing the standalone cost of providing the reference service to customers who belong to that class; and
- a lower bound representing the avoidable cost of not providing the reference service to those customers.

8.4.1.1 Standalone and avoidable cost efficiency test

These tests are designed to ensure our customers 'pay their way' without 'paying too much'.

The avoidable costs represent those costs that would be avoided by a network business if it no longer supplied a customer or group of customers. This is often a relatively low value as it would generally only include assets specifically dedicated to those customers and a portion of operating expenses reflecting the incremental costs of supplying each customer.

Requiring that revenue from a tariff class is above avoidable cost ensures our customers 'pay their way'. This makes sense because if the revenue from these customers was less, then revenues from customers in other tariff classes would be 'too high', meaning other customers may be inefficiently cross-subsidising that tariff class.

Standalone costs represent the estimated costs to replicate or bypass the network for the provision of network services to a group of customers. This is often relatively high as there are no economies of scale from using shared assets to supply multiple tariff classes.

Requiring revenue from a tariff class is below standalone cost ensures customers don't 'pay too much'. This makes sense as we don't want to incentivise inefficient behaviour by encouraging customers to duplicate our assets and build their own network as this would mean these customers would not be able to share any of the efficiency benefits from using a shared network.

Table 11 shows that we expect all our revenue from each tariff class in 2016/17 to fall between the standalone and avoidable cost estimates.

Table 11: Efficient bounds for expected revenues ($/GJ) (in nominal terms)

Tariff class	Avoidable cost ($/GJ)	Revenue ($/GJ)	Standalone cost ($/GJ)	Compliance check
Residential	4.20	11.93	13.16	Compliant
Business	1.19	6.31	17.14	Compliant

Our access arrangement information, published on the regulator's website, provides details of our standalone and avoidable cost calculations.

8.4.1.2 Estimating long run marginal cost (LRMC)

Box 6: Rule 94 (4) of the National Gas Rules

A tariff, and if it consists of 2 or more charging parameters, each charging parameter for a tariff class:

a) must take into account the long run marginal cost for the reference service or, in the case of a charging parameter, for the element of the service to which the charging parameter relates;

b) must be determined having regard to:

i. transaction costs associated with the tariff or each charging parameter; and

ii. whether customers belonging to the relevant tariff class are able or likely to respond to price signals.

The Rules require us to take into account LRMC when setting tariff levels. LRMC measures how long run operating and capital costs change as a result on an 'incremental' change in demand.

Our network capacity needs are likely to be driven by a number of factors including:

- forecast gas consumption on the network;
- forecast customer numbers on the network; and
- forecast peak demand on the network.

The purpose of requiring tariffs levels to take LRMC into account reflects the economic principle that prices should reflect the forward-looking costs of providing the service. As consumption increases the required capacity of the network, augmentation is required to accommodate the additional demand. Therefore, in order for consumption decisions to take into account these increased costs, current prices need to reflect the expected additional costs arising from additional consumption. Prices set on the basis of marginal costs also provide a signalling function to encourage customers to make efficient consumption decisions.

We have estimated LRMC for each tariff class using an approach known as the average incremental approach. Like any approach to estimating LRMC, the outputs of this method are subject to:

- the assumptions made; and
- the quality and availability of the data inputs.

We take these considerations into account when relating our LRMC estimates to our tariff levels.

Table 12 details our estimated LRMC values for our tariff components.

Table 12: LRMC by tariff component

Cost	Annual Cost
LRMC Energy Consumption ($/GJ)	Undefined
LRMC residential tariff class ($/connection/annum)	459.79
LRMC business tariff class ($/connection/annum)	460.59

The LRMC driven by forecast gas consumption of the network is undefined as gas consumption is forecast to decline over the foreseeable future, and the LRMC associated with forecast growth in customer numbers and forecast peak demand on the network has been estimated based on the $/connection/annum.

While the LRMC per connection is expressed as an upper bound that might apply to a new customer's fixed charge, as this LRMC includes network capacity development for existing and new customers to meet forecast peak demand on the network, part of the LRMC could be apportioned to a capacity-based charge. A capacity-based charge might be more appropriate to provide customers with price signals on the costs to provide network services during peak gas usage on the network. However, given customers' usage is not recorded in time increments (as most of our customers have basic metering equipment installed at their premises which are read quarterly or monthly), the LRMC per connection could instead be appropriately apportioned to customers' usage charges as a proxy for peak demand

8.4.1.3 From LRMC to tariff level

Our tariff levels have a primary function of recovering our costs as determined by the regulator every five years (refer to Box 7). This is why tariff levels are unlikely to ever be equal to LRMC values. Our costs are made up of more than just expenditure to accommodate growth. It includes our funding costs on our previous investments, tax and reinforcement and renewal expenditure as well as fixed overhead costs.

Box 7: Rule 94 (5) of the National Gas Rules

If, however, as a result of the operation of subrule (4) [94(4) – refer Box 6], the service provider may not recover the expected revenue, the tariffs must be adjusted to ensure recovery of expected revenue with minimum distortion to efficient patterns of consumption.

[Addition in brackets added for clarification]

Recognising both the benefits and limitations of LRMC, the Rules require that we must take into account our LRMC estimates in setting our tariff levels.

As we have capacity to provide additional network services to our customers, particularly over the summer and spring period where there is currently low gas consumption on our network, we are not subject to the same incentives to price our usage or fixed charges at the LRMC.

Instead, we can better promote the national gas objectives by setting our tariffs to be more cost reflective and by enabling customers to respond to these tariffs to encourage the efficient use and growth of our network, which is in the long term interests of consumers. This approach is also consistent with our pricing objectives.

We have demonstrated this by taking into account our customer preferences for:

- lower usage charges in the VRH, VBS and VBM tariff categories to encourage gas consumption throughout the year through the uptake of multiple gas appliances and commercial gas appliances and application at a delivery point, rather than solely for heating; and
- lower fixed charges in the VRI tariff category to encourage customers to connect to gas and stay connected to gas as their fuel of choice.

In balancing these principles, we engaged with our consumers, stakeholders and the community to understand their preferences and scanned the external environment (including the pricing of gas and other fuels in other jurisdictions).

8.4.1.4 Transaction costs

Box 8: Rule 94(2)(b) of the National Gas Rules

A tariff class must be constituted with regard to:

a) the need to group customers for reference services together on an economically efficient basis; and

b) the need to avoid unnecessary transaction costs.

We have considered transaction costs such as metering charges and administrative costs when determining our tariff classes and tariff components. This includes establishing an appropriate balance of transaction costs that supports our pricing objectives and is consistent with the Rules.

We consider the decision to move to a tariff structure that targets different customer segments is economically efficient for a number of reasons. For example, it would be inefficient to charge individually metered customers consuming less than 10 TJ a year on a capacity-based charge as this would require more sophisticated daily metering and data handling. Such metering costs are avoided by charging these customers on usage, using basic metering equipment.

We also believe the one-off administrative cost to change the tariff structure (by changing the tariff classes and introducing new tariff categories) is justified on the basis that it will encourage new connections and consumption decisions which will promote the efficient use and growth of our network and will lead to lower network charges for all of our customers over the long term.

This is because our tariff schedule has been designed to encourage, through appropriate price incentives:

- new customers to connect to our network and stay connected to our network, which will lead to lower network charges for all of our customers over the long term as our costs (which are mainly fixed costs) can be allocated across a larger customer base;
- existing customers to use gas throughout the year by encouraging these customers to install multiple gas appliances or commercial gas appliances and applications, rather than solely gas heating at the delivery point, which will lead to lower network charges for all of our customers over the long term (as we recover most of our costs through our usage charges), and will promote the efficient use of our network (as most of the gas is currently consumed on our network during winter); and
- emerging markets, particularly base load gas users to connect to our network, which will lead to lower network charges for all of our customers over the long term as our costs can be allocated across a larger customer base, and will promote the efficient use and growth of our network (as these customers generally have a flat consumption profile and will pay for their own connection to our network).

To ensure the implementation of these changes does not cause retailers unreasonable administrative burden and costs, which may be passed onto customers, and to reduce any administrative burden and costs currently experienced by retailers, we have:

- consulted early and extensively with retailers on the tariff structure and transitional arrangements from the 2010-15 access arrangement to the 2016-21 proposal; and
- streamlined the process for major customers to seek additional gas capacity on our network.

We consider that our proposed tariffs and tariff classes for the 2016-2021 access arrangement period provide the appropriate balance between minimising transaction costs and ensuring that customers have incentives to respond to pricing signals.

8.4.1.5 Response to price signals

We consider that we have structured our tariffs and charging components to allow customers and end customers to respond to price signals.

Our proposed approach to lower the usage charges for the VRH, VBS and VBM tariff categories will encourage customers to respond to the tariffs through reduced total energy costs for each additional gas appliances or commercial gas appliance or application installed at the delivery point.

This is because:

- these customers can benefit from lower usage charges to offset the relatively higher fixed charge, and a lower winter bill; and
- we can increase our competitiveness compared to alternative energy sources, by offering to lower our usage charges to help reduce a customer's total energy costs for each additional gas appliance installed at the delivery point.

We consider that this is an appropriate price signal for customers where the marginal costs of supplying additional units is materially lower than the average costs, encouraging increased network utilisation.

Our proposed approach to lower the fixed charge for the VRI tariff category will encourage customers to connect to our network and stay connected to our network by keeping gas competitive compared to alternative energy sources.

9 Updating our tariff classes, structures and levels

As discussed in section 4, following the first year of the 2016-21 access arrangement period, we may make adjustments to the tariff schedule for the remaining 4 years, subject to the regulator's approval.

In each of these four years, we will submit a document known as the annual tariff variation notice to the regulator for assessment and approval.

This tariff variation notice explains how we propose to vary tariffs structures and levels from the start of the next financial year (1 July).

The sections below provide more detail on:

- the annual process for updating the tariff schedule following the first year of the 2016-21 access arrangement period; and
- making changes outside of these annual adjustments.

9.1 Annual changes to the tariff schedule

Like most businesses operating in a competitive environment, we update our tariffs and charges each year. This enables us to respond to changing market conditions and recover our costs in a way that continues to be consistent with our long term objectives.

We intend to engage with our customers and stakeholders on these annual changes, including through the Energy Customer Reference Council (ECRC). The ECRC is a council established for our consumer engagement on the 2016-21 proposal. The ECRC currently comprises members from the ACT Council of Social Service (ACTCOSS), SEE-Change Inc, representatives of the community councils, the Master Builders Association, the Property Council of the ACT, the Canberra Business Chamber and Engineers Australia.

The process for annual changes to our network tariffs, which take effect from 1 July each year, is contained in clause 3 of our access arrangement and outlined in Table 13.

We want to ensure that customers are encouraged to participate in the energy market and we have responded to consumer and stakeholder preferences to have earlier sight of our price changes. We will submit our annual tariff variation notice that contains our proposed prices and any tariff structure changes a month earlier on 15 March each year.[21] This will provide more time for the retailers to prepare their market offers, regulators to approve the retailer's tariffs and customers to assess these market offers prior to the 1 July price change.

[21] The prices for the initial year of an access arrangement are approved by the regulator in its determination on our access arrangement. This means that prices for 2016/17 will be approved by the regulator in its final determination.

Table 13: Our annual tariff variation process timing

Proposed timing	Process
End-January	December quarter CPI data available—we have to use December quarter CPI in our variation formula.
January—March	We will prepare our tariff variation notice
15 March	We will submit our tariff variation notice to the regulator and publish our proposed prices on our website
15 March + 30 business days	The regulator approves our tariff variation notice. If the regulator needs more time to obtain more information from us, it can extend the 30 business days to a maximum of 50 business days (provided it makes the extension within the 30 business days)
50 business days prior to 1 July	We provide the regulator with notification of our averaging period for the purposes of calculating the cost of debt element of the return on capital for the year beginning 1 July[22]
1 July[23]	New tariffs and any new tariff structures to take effect

The annual tariff variation notice will contain a description of all the elements that makes up the change including:

a) the inflation[24] figures

b) the X-factor[25] approved in our 2016-21 proposal

c) all annual adjustments for specific costs[26] where actual costs have been different to those allowed by the AER

d) adjustment and proposed pass through amounts[27] approved by the regulator which have a significant positive or negative impact on costs

[22] The cost of debt averaging period affects the X-factor used in the price path (refer section 10).

[23] For the 2016-21 review period, prices for 2016/17 are set by the regulator's final decision on our 2016 proposal. The tariff variation process will occur from 2017/18 to 2020/21.

[24] We use the Australian Consumer Price Index (CPI) as the measure of inflation

[25] The X factor is a nominal price change. The distribution X factors form part of the regulator's determination of our 2016-21 proposal, and drive annual price increases or decreases.

[26] Annual true ups can only occur in relation to licence fees, a change in tax, carbon, unaccounted for gas and cost of debt.

[27] Adjustment amounts can include licence fees, a change in tax, carbon and unaccounted for gas. Pass through events are for specific unforseen events including a regulatory change event, service standard event, short term trading market event, supply curtailment event, general pass through event, insurance cap event, insurer credit

4. any relevant outcomes from our consumer engagement.

9.2 Changes outside the annual process

We can propose to amend our tariff schedule within a regulatory year (that is, outside the annual process) by providing the regulator with a variation notice at least 50 business days prior to the proposed commencement date of the tariff variation. Within-year variation proposals are also subject to the regulator's verification.

We avoid making within-year tariff variations due to the administrative and transaction costs involved. However, we will occasionally vary tariffs within a financial year in the interests of consumers. An example of this is the repeal of the carbon tax which occurred just after the start of 2014/15 (on 17 July). On 1 September 2014, we reduced our tariffs for the remainder of 2014/15 to remove the carbon costs for that period and to return any carbon costs charged over 1 July 2014 to 31 August 2014.

risk event, terrorism event, natural disaster event and/or network user failure event. These are defined in our 2016-21 proposal and include materiality thresholds.

10 How a new tariff schedule takes effect

Section 9 outlined that a new tariff schedule will take effect annually (as at 1 July) and in some limited instances, outside the annual process.

This section outlines:

- how our tariff schedule updates make their way into customer bills; and
- our engagement with retailers on our proposed tariff structure.

10.1 Annual tariff schedule takes effect from 1 July

Customers receive their gas bills from their gas retailer. Following the regulator's approval of our network tariffs in late April or early May, retailers need time to incorporate our network tariffs, and estimates of their other costs, into their retail prices.

Retail gas prices are not regulated in the ACT, and are regulated in NSW.

As our network covers the ACT, Queanbeyan and Palerang regions, the Queanbeyan and Palerang regions, which are located in NSW, will have regulated retail prices.

10.2 Our engagement with retailers on the new tariff structure

We have consulted early and extensively with retailers on:

- our new tariff schedule to ensure the process to implement and administer the new tariff structure would not impose unreasonable burden and costs on retailers, which may be passed onto customers; and
- whether retail offers can be packaged with regard to our network tariffs to make it easier for customers to choose the best tariff option for them and to promote retail competition and the competitiveness of gas compared to other fuel options.

Consumers and the community at our engagement sessions supported our engagement with the retailers, including our discussion with retailers on how they can package their retail offers with regard to our network tariffs.

11 Indicative network tariff trends

The gas market is dynamic, making it difficult to forecast movements in individual tariff components. However, our customers have told us they value certainty and predictability around movements in their network tariffs.

We recognise that our customers have different energy and customer characteristics and ways in which they use gas. This section provides guidance on the current forecasts of expected changes in network charges for various customers on our network.

We have provided estimated forecasts of expected changes in network charges for:

- a residential customer who uses gas for heating only, and is reasonably expected to use 25 GJ of gas per year;
- a residential customer who uses gas for heating and cooking and/or hot water, and is reasonably expected to use 45 GJ of gas per year;
- a residential customer who uses gas for whole-of-home heating, cooking and hot water, and is reasonably expected to use 90 GJ of gas per year;
- a business customer who uses gas for commercial applications, and is reasonably expected to use 480 GJ of gas per year;
- a business customer who use gas for commercial applications, and is reasonably expected to use 1000 GJ of gas per year; and
- a business customer who uses gas for commercial or industrial applications, and is reasonably expected to use 15 TJ of gas per year and a maximum daily quantity of 75GJ.

Tariff levels for each tariff component can change each year for three key reasons:

a) to better meet our pricing objectives, including to recover our allowed revenue set by the regulator;

b) to adjust for inflation; and

c) to adjust for changes in specified uncontrollable costs or pass through events approved by the regulator.

The analysis in this section only covers paragraphs a) and b) above as the aspects relating to paragraph c) are unpredictable and can be infrequent.

11.1 Average price changes and customer impacts

Table 14 provides the average changes in tariffs and charges for the 2016-21 review period (the proposed price path).[28]

Table 14: Average changes in tariffs over the 2016-21 access arrangement period

	2016/17	2017/18	2018/19	2019/20	2020/21
Real price change	+3.78%	0%	0%	0%	0%
Forecast inflation	+2.19%	+2.19%	+2.19%	+2.19%	+2.19%
Total price change	+6.04%	+2.19%	+2.19%	+2.19%	+2.19%

(1) Total price change (C) for any year equals (1 + A) x (1+ B) – 1
(2) The real price change is usually expressed as an X factor in regulatory documents and formulas, with a negative X factor meaning a real price increase, and a positive X factor meaning a price decrease. Thus a real price change increase of +3.78% would be expressed as an X factor of -3.78% in the AER's determination.

Prior to 2015/16, our tariffs were set based on a fixed price schedule. This meant that our network tariffs were fixed for the whole of the review period (1 July 2010 to 30 June 2016) and only adjusted each year for inflation and any cost pass throughs approved by the regulator.

For the 2016-21 access arrangement period, we are proposing to operate under a weighted average price cap (**WAPC**) form of price control, which means the regulator will cap the amount that our volume weighted average prices can move compared to the levels above.

Moving to a WAPC form of price control means our network tariffs will not be fixed for the whole of the 2016-21 access arrangement period. However, it also means that we, and not our customers, will carry the risk that demand is different to what we have forecast (and therefore revenue is different to expectations) over this period. It provides us some flexibility[29] to adjust individual prices outside the range in Table 16 to ensure our tariffs are consistent with our pricing objectives and any market changes.

Figure 10 below illustrates the estimates of expected price impacts over 5 year period by the typical customer type.

[28] These will be replaced with the values approved by the regulatory once it is available.

[29] Our flexibility is limited by a 10% 'side constraint' on the movement of expected revenues that would be obtained from changing prices within any tariff class.

Figure 10 – Indicative estimates price change over the 5 years by typical customer type

A key objective for our tariff strategy is to maintain and grow utilisation of the shared gas network, because this will put downward pressure on average prices over time. We have also listened to our customers, who have expressed a preference for stable bills.

As a result, for small, medium and large (without heating) residential customers, the bill impacts are broadly in line with the overall weighted average price path – upfront bill increases (in real terms) in 2016/17, followed by stable bills (in real terms) in the subsequent years.

Key markets are our large residential customers with gas heating appliances, and business customers. For these groups, in real terms, we plan to keep bills effectively unchanged in 2016/17, followed by bill decreases in each of the final four years of the period. This strategy will support gas usage and new gas appliance installation, which is consistent with our objective of growing network utilisation to lower average prices.

Our major customers have told us that they value price stability. This helps them plan their investments and operations. We have proposed stable real price increases of 2.7 per cent for the final four years of the next period. We have balanced this approach against the need to recover a fair share of our total revenue requirement from this market segment. Taking this need into account, we have proposed a real price increase in 2016/17 for our major customers.

Table 15: Customer network bill impacts ($real 2015/16), 2015/16-2020/21

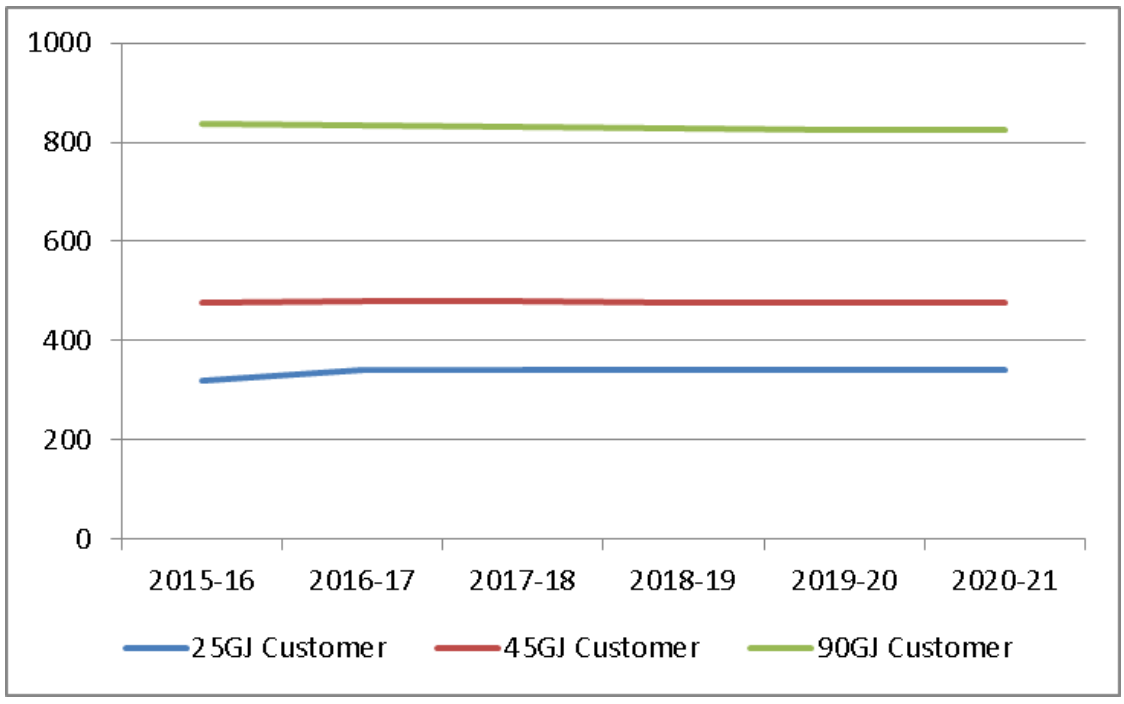
Customer type	Average consumption and tariff type	2015/16 current bill	Anticipated distribution bill change $ real				
			2016/17	2017/18	2018/19	2019/20	2020/21
Small Residential	15GJ VRI	$239	$18	$0	$0	$0	$0
Medium Residential	25GJ VRI	$319	$24	$0	$0	$0	$0
Large Residential without Heating	45GJ VRI	$478	$36	$0	$0	$0	$0
Large Residential with Heating	45GJ VRH	$478	$2	-$1	-$1	-$1	-$1
Very Large Residential with Heating	90GJ VRH	$836	-$2	-$3	-$3	-$3	-$3
Small Business	200GJ VBS	$1,732	-$18	-$6	-$7	-$6	-$6
Small Business	2,000GJ VBS	$15,926	-$225	-$62	-$65	-$62	-$63
Medium Business	8,000GJ VBM	$55,208	-$698	-$208	-$219	-$210	-$211
Small Major Customer	10,000GJ DBC	$73,775	$14,374	$2,424	$2,491	$2,559	$2,629

11.2 Indicative estimates of expected changes in network charges for various residential customers

Figure 11 illustrates the estimates of expected changes in network charges (excluding forecast inflation) over the 2016-21 access arrangement period for the following residential customers:

- a residential customer who uses gas for heating only, and is reasonably expected to use 25 GJ of gas per year;
- a residential customer who uses gas for heating and cooking and/or hot water, and is reasonably expected to use 45 GJ of gas per year; and
- a residential customer who uses gas for whole-of-home heating, cooking and hot water, and is reasonably expected to use 90 GJ of gas per year.

Figure 11 – Indicative estimates of expected changes in network charges for various residential customers ($, 2015/16, real)



This figure shows that, consistent with our pricing objectives, we have set our tariffs for 2016/17 to be more cost reflective to enable our residential customers to respond to these tariffs and encourage:

- customers to use gas in a way which promotes the efficient use of our network;

  For example, residential customers with whole-of-home gas heating, cooking and hot water, and who are reasonably expected to use 90 GJ of gas per year **are likely to see a reduction in their network charge from 2016/17** from using gas throughout the year rather than just for heating; and

- new residential customers to:
    - connect to our network, which will promote the efficient growth of our network; and
    - subsequently install additional gas appliances at their premises to have access to the VRH tariff category, which provides for additional price incentives and will promote the efficient use of the network.

For example, residential customers with gas heating only, and who are reasonably expected to use 25 GJ of gas per year **are likely to see slightly higher network charges from using gas during the peak gas usage period**. These customers can access the benefit of reduced total energy costs for each additional gas appliance installed at their premises by moving to the VRH tariff category and deriving the benefit of the lower usage charges for the VRH tariff category.

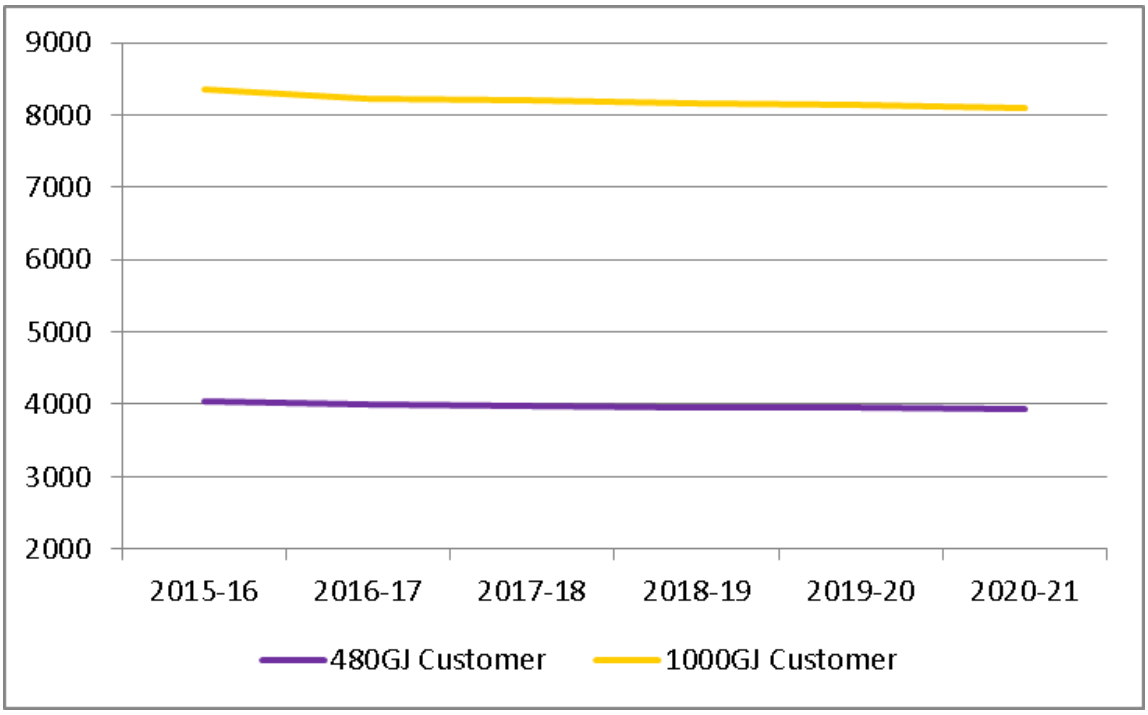
We have forecast the expected changes in network charges for these residential customers over the remainder of the 2016-21 access arrangement period to remain relatively flat, consistent with our average changes in tariffs set out in Table 14 and our pricing objectives to, where possible, minimise any sudden changes in network tariffs.

11.3 Indicative estimates of expected changes in network charges for various business customers

Figure 12 illustrates the estimated forecasts of expected changes in network charges (excluding forecast inflation) over the 2016-21 access arrangement period for the following business customers:

- a business customer who uses gas for commercial applications, and is reasonably expected to use 480 GJ of gas per year; and
- a business customer who use gas for commercial applications, and is reasonably expected to use 1000 GJ of gas per year.

Figure 12 – Indicative estimates of expected changes in network charges for various business customers

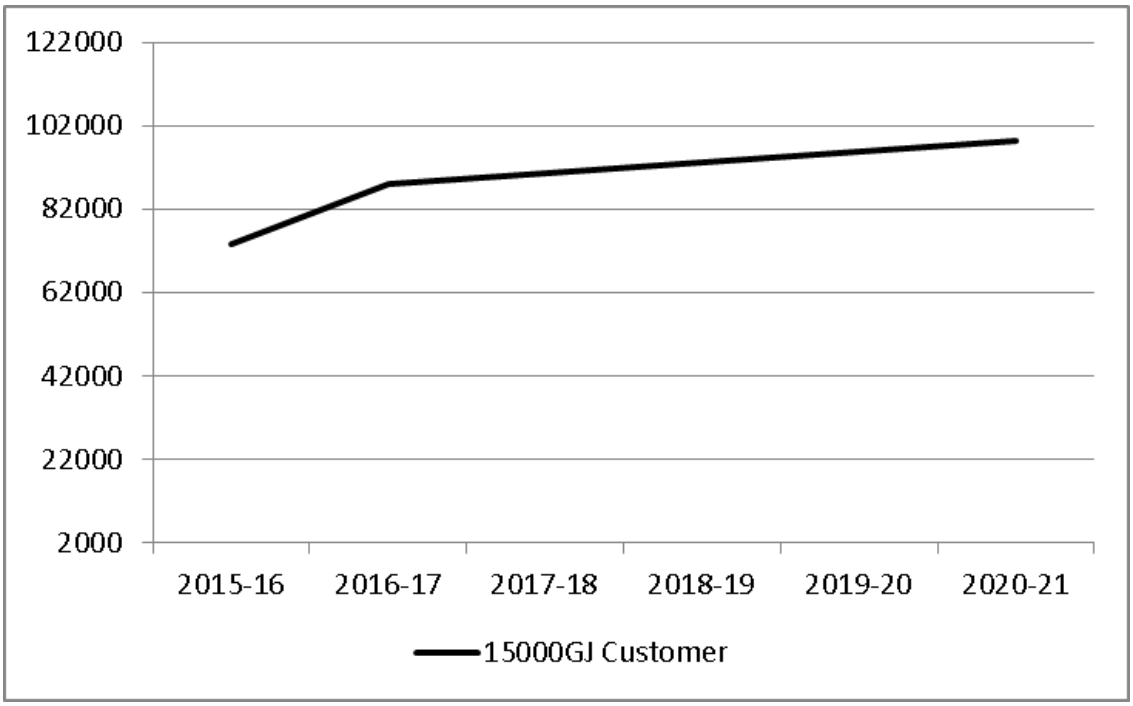


This figure shows that consistent with our pricing objectives, we have set our tariffs for 2016/17 to be more cost reflective to enable our business customers to respond to these tariffs and encourage these customers to install commercial gas appliances or applications at their premises compared to an alternative energy source.

We have forecast the expected changes in network charges for these business customers over the remainder of the 2016-21 access arrangement period to remain relatively flat, consistent with our average changes in tariffs set out in Table 14 and our pricing objectives to, where possible, minimise any sudden changes in network tariffs.

Figure 13 illustrates the forecast of expected changes in network charges (excluding forecast inflation) for a business customer who uses gas for commercial or industrial applications, and is reasonably expected to use 15 TJ of gas per year and a maximum daily quantity of 75GJ

Figure 13 – Indicative estimates of expected changes in network charges for business customer using 15TJ of gas per year



Our observations are:

- there are only a few business customers on our network who are reasonably expected to use equal to or more than 10 TJ of gas per year (major customers) ;
- there are even fewer large commercial or industrial customers on our network who are reasonably expected to have a flat gas usage profile;
- there is a price disparity between customers who use slightly less than 10 TJ of gas per year and more than 10 TJ of gas per year; and
- some major customers on our network use gas mainly for heating.

For these reasons, consistent with our pricing objectives, we have:

- set our tariffs for 2016/17 to be more cost reflective; and
- forecast the expected changes in network charges for these business customers to increase by around 2.5% (excluding forecast inflation) in each year from 2016/17 to provide price certainty for these customers and to promote business confidence.

To minimise any sudden changes in network tariffs arising from the proposed tariff structure and the proposed chargeable-demand based charge for these customers, which is proposed to commence from 2016/17, we propose to offer these customers a one-off automatic reduction in their maximum daily quantity at their delivery point to match the ninth-highest daily gas

consumption at that delivery point over 1 July 2015 to 30 June 2016, subject to certain conditions.[30]

11.4 Ancillary charges

Our user-requested ancillary charges are set to recover our costs to undertake the required activity.

We expect charges for user-requested ancillary activities to change by the same percentage as VRI charges.

It is possible in some limited circumstances that our underlying costs to provide these activities may materially change. If so, prior to proposing changes to these charges we would provide the proposed charges to the regulator for review and approval.

[30] The customer, through their retailer may elect not to have the automatic reduction, in which case the maximum daily quantity will not be reduced. Also, this automatic reduction will not apply where there is a commercial arrangement between the customer's retailer and us for a minimum maximum daily quantity over a specified term.